

**City of Oakley
Community Development Department**



**Burroughs Project
Initial Study/Mitigated Negative Declaration**

April 2021

Prepared by



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Table of Contents

A.	BACKGROUND	1
B.	SOURCES	3
C.	ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED	5
D.	DETERMINATION.....	6
E.	BACKGROUND AND INTRODUCTION	7
F.	PROJECT DESCRIPTION	7
G.	ENVIRONMENTAL CHECKLIST	19
<i>I.</i>	<i>AESTHETICS.....</i>	<i>21</i>
<i>II.</i>	<i>AGRICULTURE AND FOREST RESOURCES.....</i>	<i>23</i>
<i>III.</i>	<i>AIR QUALITY.....</i>	<i>25</i>
<i>IV.</i>	<i>BIOLOGICAL RESOURCES.....</i>	<i>35</i>
<i>V.</i>	<i>CULTURAL RESOURCES.....</i>	<i>48</i>
<i>VI.</i>	<i>ENERGY.....</i>	<i>50</i>
<i>VII.</i>	<i>GEOLOGY AND SOILS.....</i>	<i>53</i>
<i>VIII.</i>	<i>GREENHOUSE GAS EMISSIONS.....</i>	<i>58</i>
<i>IX.</i>	<i>HAZARDS AND HAZARDOUS MATERIALS.....</i>	<i>69</i>
<i>X.</i>	<i>HYDROLOGY AND WATER QUALITY.....</i>	<i>74</i>
<i>XI.</i>	<i>LAND USE AND PLANNING.....</i>	<i>79</i>
<i>XII.</i>	<i>MINERAL RESOURCES.....</i>	<i>80</i>
<i>XIII.</i>	<i>NOISE.....</i>	<i>81</i>
<i>XIV.</i>	<i>POPULATION AND HOUSING.....</i>	<i>88</i>
<i>XV.</i>	<i>PUBLIC SERVICES.....</i>	<i>89</i>
<i>XVI.</i>	<i>RECREATION.....</i>	<i>91</i>
<i>XVII.</i>	<i>TRANSPORTATION.....</i>	<i>92</i>
<i>XVIII.</i>	<i>TRIBAL CULTURAL RESOURCES.....</i>	<i>104</i>
<i>XIX.</i>	<i>UTILITIES AND SERVICE SYSTEMS.....</i>	<i>105</i>
<i>XX.</i>	<i>WILDFIRE.....</i>	<i>108</i>
<i>XXII.</i>	<i>MANDATORY FINDINGS OF SIGNIFICANCE.....</i>	<i>109</i>

Appendices

Appendix A: CalEEMod Modeling Results;
Appendix B: Jurisdictional Delineation Report;
Appendix C: Application and Planning Survey Report;
Appendix D: Preliminary Geotechnical Exploration;
Appendix E: Phase I ESA for the Oakley Property;
Appendix F: Phase I ESA for the Burroughs;
Appendix G: Phase II ESA for the Oakley Property;
Appendix H: Phase II ESA for the Burroughs Property;
Appendix I: Noise and Vibration Assessment; and
Appendix J: Traffic Impact Study.

INITIAL STUDY

A. BACKGROUND

1. Project Title: Burroughs Project
2. Lead Agency Name and Address: City of Oakley
Community Development Department
3231 Main Street
Oakley, CA 94561
3. Contact Person and Phone Number: Joshua McMurray
Planning Manager
(925) 625-7000
4. Project Location: Northeast of the intersection of E. Cypress Road and Knightsen Avenue
Oakley, CA 94561
Assessor's Parcel Numbers (APNs): 032-081-025 (City of Oakley) and
032-081-026 (Burroughs)
5. Project Sponsor: Westgate Ventures
Real Estate Services
2551 San Ramon Valley Blvd, Suite 224
San Ramon, CA 94583

The City of Oakley
Community Development Department
3231 Main Street
Oakley, CA 94561
6. Existing General Plan: Single-Family High (SH)
7. Existing Zoning: Heavy Agriculture (A-3)
8. Proposed Zoning: Planned Development (P-1)
9. Required Approvals from Other Public Agencies: California Department of Fish
and Wildlife
Bay Area Air Quality Management District
Contra Costa County Conservancy
San Francisco Regional Water Quality Control Board
U.S Army Corp of Engineers

10. Project Description Summary:

The Burroughs Project (proposed project) is located on approximately 43.24 acres of land on the eastern side of the City of Oakley. Development would consist of 208 single-family residential units, seven new public roads (A – G Street), widening of East Cypress Road (E. Cypress Road), establishment of a 75-foot stream setback, and a public trail characterized by trees, shrubs, groundcover, and bike racks. Primary access to the project site would be at the intersection of E. Cypress Road and A Street. The single-family residential lots would range in size from 3,150 square feet (sf) to 18,130 sf. The project site is currently designated Single-Family High (SH) under the General Plan Land Use Map in the City of Oakley. The proposed project would require approval of a Rezone of the project site from Heavy Agriculture (A-3) to Planned Development (P-1) and a Vesting Tentative Map (VTM).

12. Surrounding Land Uses and Setting:

The 43.24-acre site is triangular-shaped and consists of annual grasslands that are currently being used to support grazing cattle. Surrounding existing land uses include agricultural land to the north, southeast, and directly east, Gilbert residential development to the west, recently undergrounded Contra Costa Canal to the north, and rural commercial, single-family residences, and the City limits to the south.

13. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), project notification letters were distributed to Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Tule River Indian Tribe, Wilton Rancheria, Muwekma Ohlone Indian Tribe of the SF Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, the Ohlone Indian Tribe, and the Confederated Villages of Lisjan. Letters requesting consultation were not received by the City within the AB 52 30-day response period.

B. SOURCES

All technical reports and modeling results prepared for the project analysis are available at: <https://www.ci.oakley.ca.us/ceqa-documents/>. The following documents are referenced information sources utilized by this analysis:

1. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
2. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. May 2017.
4. California Air Pollution Control Officers Association. *CalEEMod User's Guide Version 2016.3.2 Appendix A: Calculation Details for CalEEMod* [pg. 14]. October 2017
5. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.
6. California Building Standards Commission. *California Green Building Standards Code*. 2019.
7. California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed February 2021.
8. California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. June 12, 2018.
9. California Department of Resources Recycling and Recovery (CalRecycle). *SWIS Facility/Site Summary Details: Potrero Hill Landfill (48-AA-0075)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591>. Accessed March 2021.
10. California Department of Resources Recycling and Recovery (CalRecycle). *SWIS Facility/Site Summary Details: Potrero Hill Landfill (48-AA-0075)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591>. Accessed March 2021.
11. California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983>. Accessed February 2021.
12. California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
13. California State Geoportal. *California Fire Hazard Severity Zone*. January 13 2020. Available at: <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed February 2021.
14. City of Oakley Police Department. *2017 Annual Report*. Available at: <https://www.ci.oakley.ca.us/wp-content/uploads/2018/04/Annual-Report-2017-2-2.pdf>. Accessed March 2021.
15. Department of Toxic Substances Control. *EnviroStor*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed February 2021.
16. Diablo Water District. *2015 Urban Water Management Plan*. June 2016.
17. ENGEO Incorporated. *Burroughs Property Preliminary Geotechnical Exploration*. January 7, 2020.

18. ENGEO Incorporation. *Phase I Environmental Site Assessment for the Burroughs Property*. December 23, 2019.
19. ENGEO Incorporated. *Phase I Environmental Site Assessment for City of Oakley Property*. December 24, 2019.
20. ENGEO Incorporated. *Phase II Environmental Site Assessment for the Burroughs Property*. December 7, 2020.
21. ENGEO Incorporated. *Phase II Environmental Site Assessment for the City of Oakley Property*. December 7, 2020
22. FEMA. FEMA Flood Map Service. Available at: <https://msc.fema.gov/portal/search?AddressQuery=East%20Cypress%20Road%2C%20Oakley%2C%20California#searchresultsanchor>. Accessed February 2021.
23. Flores, Areana, Bay Area Air Quality Management District. Personal communication [phone], Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning & Management. September 17, 2019.
24. Illingworth and Rodkin, Inc. Burroughs Property Noise and Vibration Assessment. January 20, 2021.
25. Northwest Information Center. Re: Record search results for the proposed Burroughs project. February 25, 2021.
26. South Coast Air Quality Management District. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. Available at: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf). Accessed October 2020.
27. TJKM. *Burroughs Residential Development Draft Traffic Impact Analysis*. March 31, 2021.
28. Zentner Planning and Ecology. *Application and Planning Survey Report for the Burroughs and City of Oakley Residential Development*. 2020.
29. Zentner Planning and Ecology. *Burroughs Property Residential Development Project Section 404 Jurisdictional Delineation Report*. May, 2020.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology and Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Wildfire | <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

D. DETERMINATION

On the basis of this Initial Study:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Joshua McMurray
Printed Name

Date

City of Oakley
For

E. BACKGROUND AND INTRODUCTION

This Initial Study (IS) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. The applicant has submitted this application to the City of Oakley, which is the Lead Agency for the purposes of CEQA review. The IS contains an analysis of the environmental effects of construction and operation of the proposed project.

In December 2002, the City of Oakley adopted the Oakley General Plan and the Oakley General Plan Environmental Impact Report (EIR). The General Plan EIR was a program-level EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the Oakley General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan. Pursuant to CEQA Guidelines Section 15150(a), the City of Oakley General Plan and General Plan EIR are incorporated by reference. Due to the current public health emergency, the Community Development Department is closed to the public until further notice. Both documents are available online at:

<https://www.ci.oakley.ca.us/departments/planning-zoning/reference-documents/>

The impact discussions for each section of this IS have been largely based on information in the Oakley General Plan and the Oakley General Plan EIR.

The mitigation measures prescribed for environmental effects described in this IS would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, findings and a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

The Burroughs family and the City of Oakley own the two parcels comprising the project site. The project site was previously utilized as irrigated pasture land with two residences, one modular, and associated buildings in the south-central part of the property. The former residences were constructed on top of a former sand dune. However, the sand was mined and removed from the property prior to construction of the residences because sand in the region was highly valued for agricultural purposes. The two residences and buildings have been since removed and only two small concrete foundations remain as well as several ornamental trees.

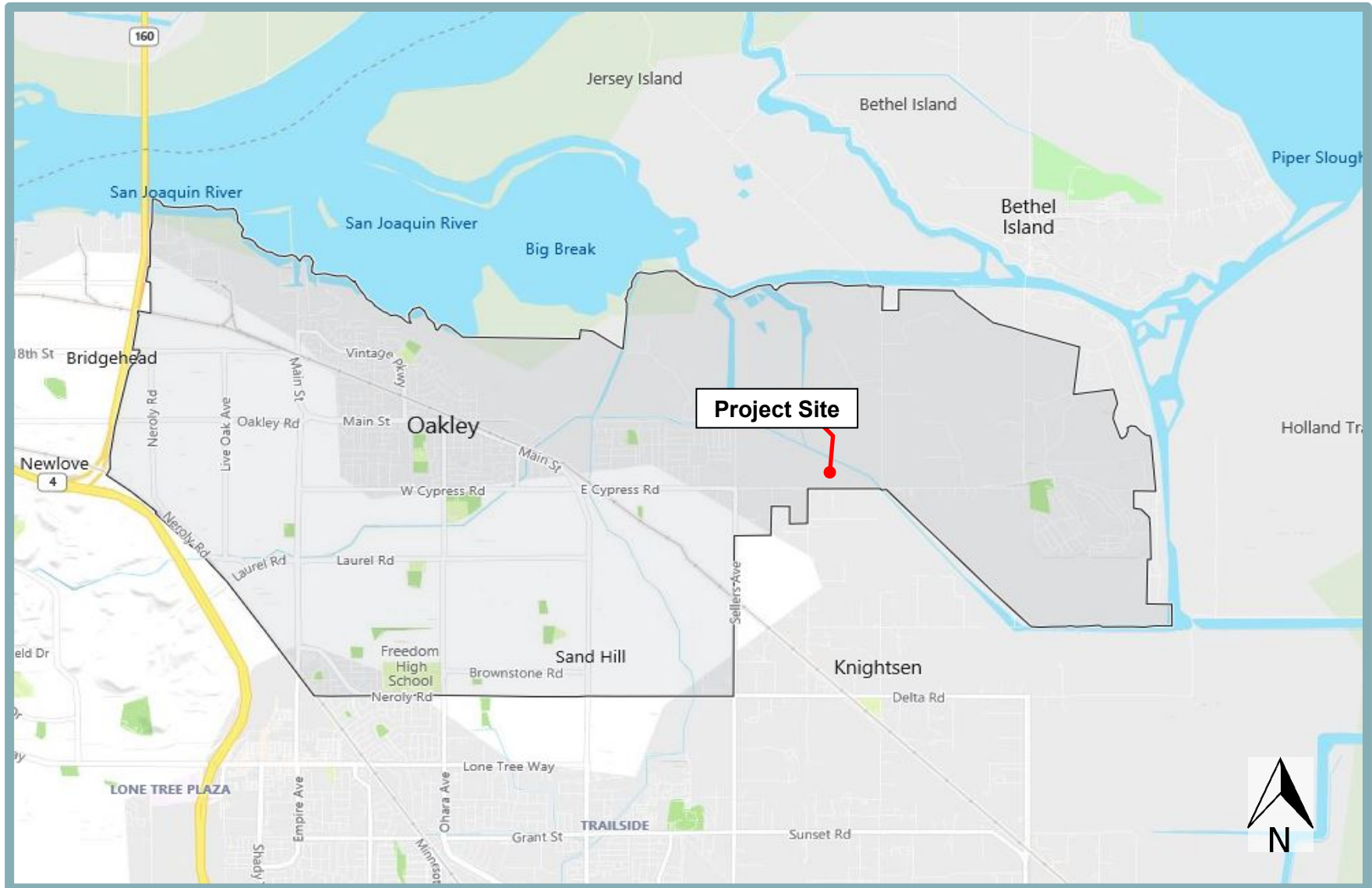
F. PROJECT DESCRIPTION

The following section includes a description of the proposed project site location and setting, as well as the project components and the discretionary actions required for the proposed project.

Project Location and Setting

The project site parcels total approximately 43.24 acres, located northeast of the intersection of E. Cypress Road and Knightsen Avenue in the City of Oakley, California (see Figure 1). The site is located approximately 1.5 miles east on Cypress Road from State Route (SR) 4 in the northeastern region of Contra Costa County. The project site is identified by Assessor's Parcel Numbers (APN) 032-081-025 and 032-081-026. APN 032-081-025 is owned by the City of Oakley while APN 032-081-026 is privately owned by the Burroughs family. Per the City's General Plan, the project site is designated SH and the site is zoned A-3.

Figure 1
Regional Project Location



Currently, the project site is undeveloped and consists of vacant land with annual grasslands and ruderal vegetation. The project site is currently being used to support a small number of grazing cattle. The entire project site has been subject to high levels of disturbance from grazing and agricultural uses over the past couple of years. The project site was previously used as an irrigated pasture with multiple structures in the south-central part of the property. The structures have been removed, but two concrete slabs, one with a water trough on top, remain within the project site. Former drainage ditches surround the project site on the northern, western, and parts of the southern property edge. The former drainage ditches were constructed as part of the prior irrigation infrastructure that was abandoned prior to 2005. In addition, sand in the project site was mined and removed because sand in the region was highly valued for agricultural purposes. The overall topography of the project site is level and heavily vegetated with irrigation ditches and remnants of a sand dune in the south-central part of the site. Surrounding existing land uses include agricultural land to the north, southeast, and directly east, Gilbert residential development to the west, recently undergrounded Contra Costa Canal to the north, and rural commercial, single-family residences, and the City limits to the south (see Figure 2).

Project Components

The proposed project would include a residential community of 208 single-family residential units, a public trail, established 75-foot stream setback, widening of E. Cypress Road, and seven new public roads (A-G Street). The proposed public roads would serve as internal circulation through the residential community. In addition, the proposed project requires a rezone from A-3 to P-1. The following sections describe soil import/grading, the VTM, Central Valley Project Inclusion, utilities, and discretionary actions associated with the proposed project.

Soil Import and Grading

The proposed project is anticipated to begin construction in July 2022 and continue in one single phase through April 2025. The entire project site is currently located within a 100-year flood plain zone. Therefore, import of 170,000 cubic yards of fill would be required to raise the overall elevation of the project site approximately five feet above the current elevation for flood protection. In addition, all trees would be removed on the project site. Tree removal would comply with the Oakley zoning code. Proposed slopes within the project site would consist of a 3:1 slope from the proposed lot towards the pedestrian trail and eventually E. Cypress Road. The 3:1 slope would exist along both sides of the pedestrian trail, bordering both the lot line and Little Dutch Slough as well as E. Cypress Road. All street grades within the project would have a 0.75 percent minimum grade.

Vesting Tentative Map

The VTM includes 208 single-family lots ranging in size from 3,150 sf to 18,130 sf. The VTM includes parcels A, B, C, and D as well as the widening of E. Cypress Road. Parcel A includes the proposed 75-foot stream setback and the proposed public trail. Parcel B includes the proposed public trail in the southeastern portion of the project site as well as an Emergency Vehicle Access (EVA) by way of E Street and E. Cypress Road. Parcel C is located on the western boundary of the project site, and includes an easement for the water, sanitary sewer, and a storm drain pipes that would connect to the Gilbert property to the west. Parcel D provides the proposed subdivision access to the trail. In addition, the frontage improvements associated with the widening of E. Cypress Road is located along the southern border of the site (see Figure 3).

Figure 2
Project Site Boundaries

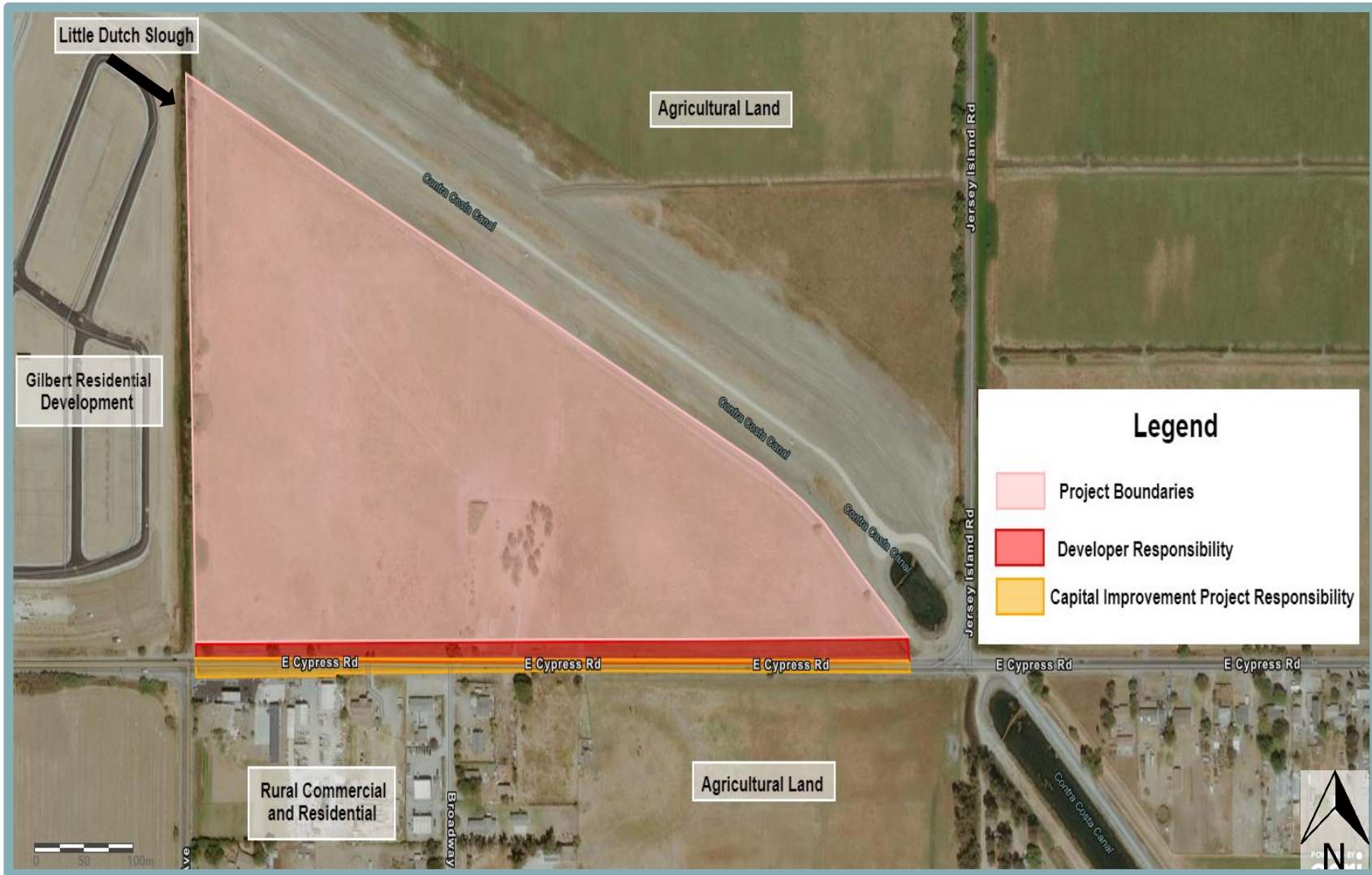
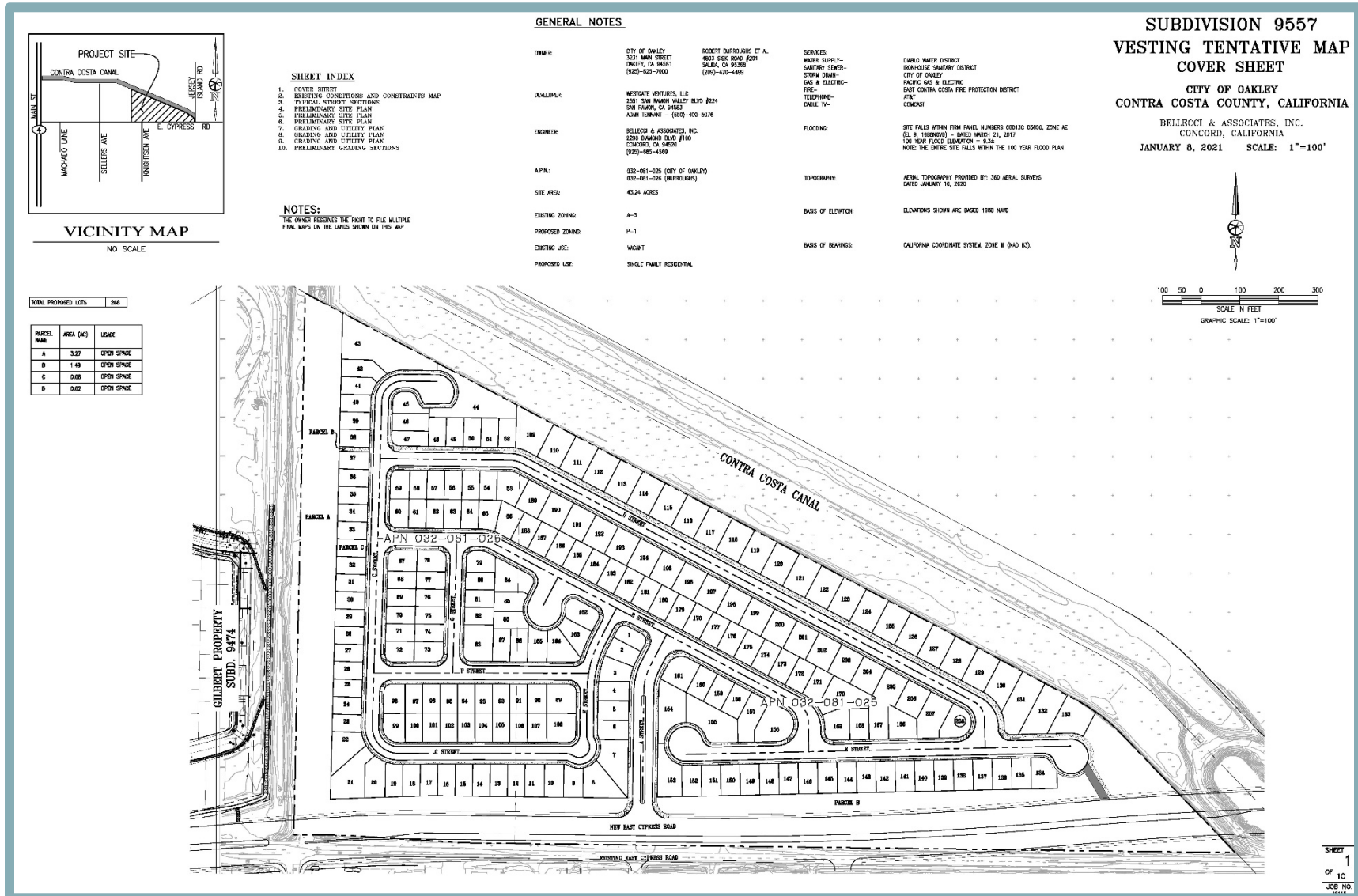


Figure 3
Vesting Tentative Map



A portion of the Burroughs property hereby referred to as “the Oakley portion of the Burroughs property”, that is owned by the City of Oakley consists of 27 acres and is identified as APN 032-081-025. The balance of the Burroughs property, approximately 18 acres, APN 032-081-026 is under an option agreement between the Burroughs and Westgate Ventures (WGV).

In 2005 the City of Oakley and other property owners entered into a Memorandum of Agreement (MOA) with the Contra Costa Water District (CCWD) to contribute towards converting the adjacent unlined Canal into a pipeline. In 2021 the City/WGV and CCWD are in the process of amending the 2005 MOA to clarify how Canal fees will be paid as new homes are constructed. Once the City of Oakley approves the IS/MND and the tentative map then the City is bound to approve the Abstract of MOA that will bind its portion of the Burroughs development to the Canal fees. WGV will be required to sign and record the Abstract of MOA on its portion of the Burroughs development once it purchases the property.

Roadway Improvements and Project Access

Roadway infrastructure would be constructed to meet the standards of a single-family residential development and provide access to the project site. The proposed project would include seven new internal roads within the project site as well as widening the existing E. Cypress Road per City of Oakley approved “East Cypress Road Precise Plan.” The new public roads would allow for internal circulation within the residential community and connect to E. Cypress Road by way of A Street as well as E Street. The intersection of E. Cypress Road and A Street would provide the main entrance to the proposed project. E Street would provide an EVA connecting to E. Cypress Road. Each of the residential homes would have parking on the new public roads as well as parking within their own driveway and garage.

Frontage improvements of E. Cypress Road would include a median, three new lanes, a bike path, a pedestrian trail, and landscaping improvements (see Figure 4). The widening of E. Cypress Road would include one 14-foot-wide lane and two 12-foot-wide lanes. The proposed eight-foot bicycle lane would be adjacent and parallel to E. Cypress Road. Additionally, the proposed eight-foot pedestrian trail would run parallel to the proposed bicycle lane. Landscaping improvements would include nine-feet of landscaping between the southern boundary of the project site and the pedestrian trail as well as five feet of landscaping between the pedestrian trail and bike lane. The frontage improvements would be designed and constructed as part of the City of Oakley Capital Improvement Program (CIP) project. As the City owns approximately 27-acres of the approximately 43.24-acres of the project site, the CIP project would include construction of the improvements with a requirement for reimbursement for the areas now owned by the City. The CIP project would include improvements within the City of Oakley Right-of Way and would not infringe on CCWD or Bureau of Reclamation (Bureau) land.

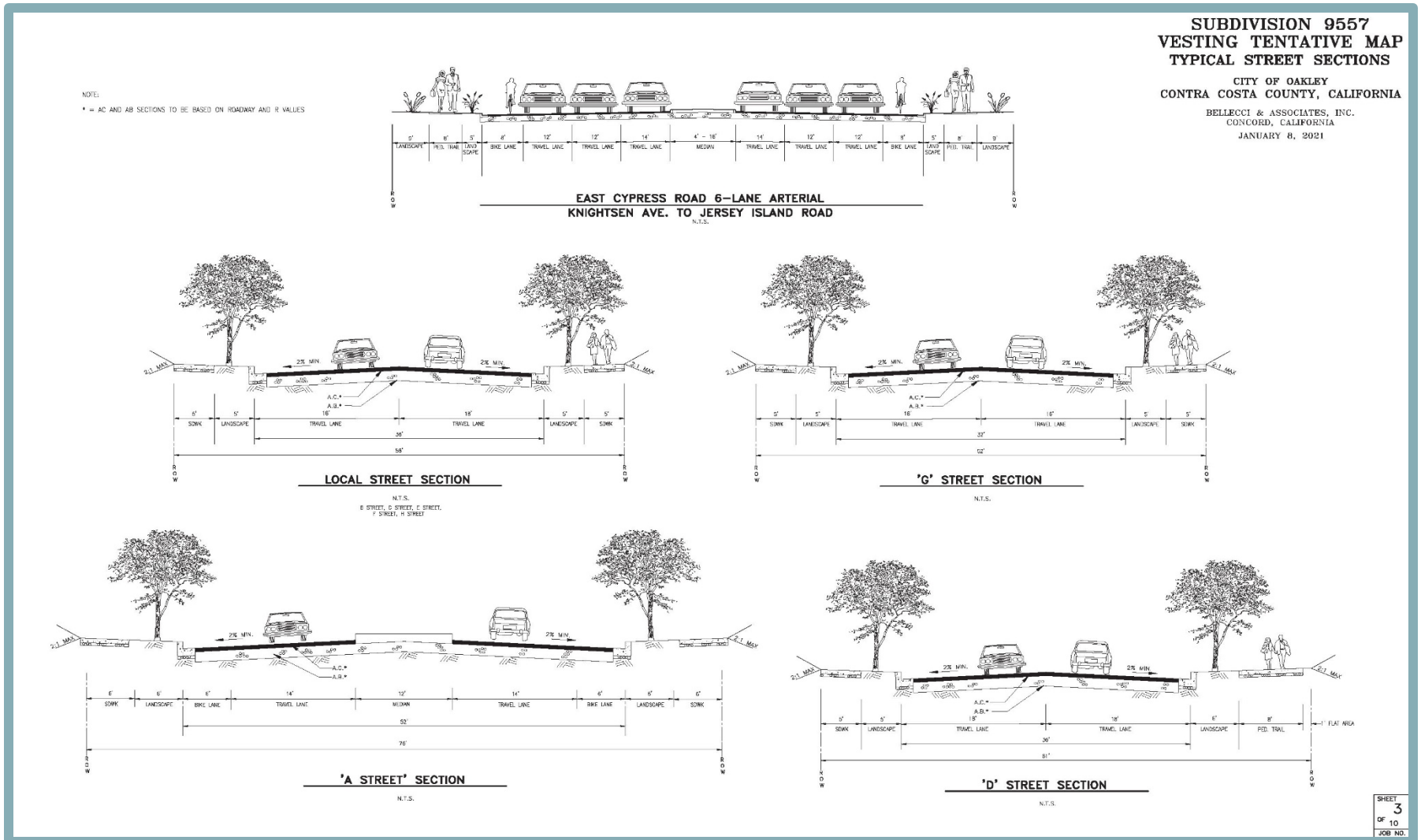
Stream Setback

The proposed project would establish a 75-foot stream setback from Little Dutch Slough from the top of bank to the west of the project site. The stream setback would be permanently protected by a deed restriction.

Public Trail

A public trail would provide recreational use for the future residences. The public trail would outline the perimeter of the residential units along the southern and western portion of the project site. The public trail adjacent to the western portion of the project site would be established within the 75-foot stream setback. Along the western portion of the project site, the public trail would run parallel to Little Dutch Slough.

Figure 4
Typical Street Sections



Along the southern portion of the project site, the public trail would be adjacent to E. Cypress Road. The public trail would have various trees, shrubs, vines, groundcover, benches, and bike racks along the path (see Figure 5).

Central Valley Project Inclusion

Water is provided to the project site by the DWD, and untreated water is provided to Diablo Water District (DWD) by the CCWD. Per CCWD's 2015 Urban Water Management Plan (UWMP), DWD's primary water supply for its distribution system is treated surface water from the United States Bureau of Reclamation's Central Valley Project (CVP) purchased from the CCWD.

The proposed project site would need to obtain water inclusion into the CVP through CCWD and the Bureau. The application would be submitted through CCWD and would be processed by the Bureau. The proposed six-lane Cypress Road in this location would continue through the Burroughs Project and would be considered as part of the Bureau's CVP Inclusion Review. In addition, ground disturbance on the Burroughs property would not take place until such time as the CVP Inclusion review is completed.

As noted above, the proposed project and the project specific roadway improvements to E. Cypress Road would not infringe upon any CCWD or Bureau land. An exhibit has been prepared to show the improvements that need to be constructed and how the improvements are solely within the City of Oakley right-of-way (see Figure 6). Roadway improvements are necessary for the Cypress Preserve project to the east of the Burroughs project site.

The roadway improvements do take place on CCWD/Bureau land and that project has already received inclusion into the CVP and all associated environmental permits that allow for that road construction have been obtained.

Utilities

The following is a discussion of the planned utility services of the proposed project. The discussion is primarily based on the Iron House Sanitary Sewer Master Plan, the Diablo Water District 2020 Facilities Master Plan, and the Grading and Utility Plan for the proposed project (see Figure 7 and Figure 8). As noted in the Grading and Utility Plan, water, sewer and storm drain pipes would be extended below Little Dutch Slough to connect to the existing utility lines at the Gilbert property.

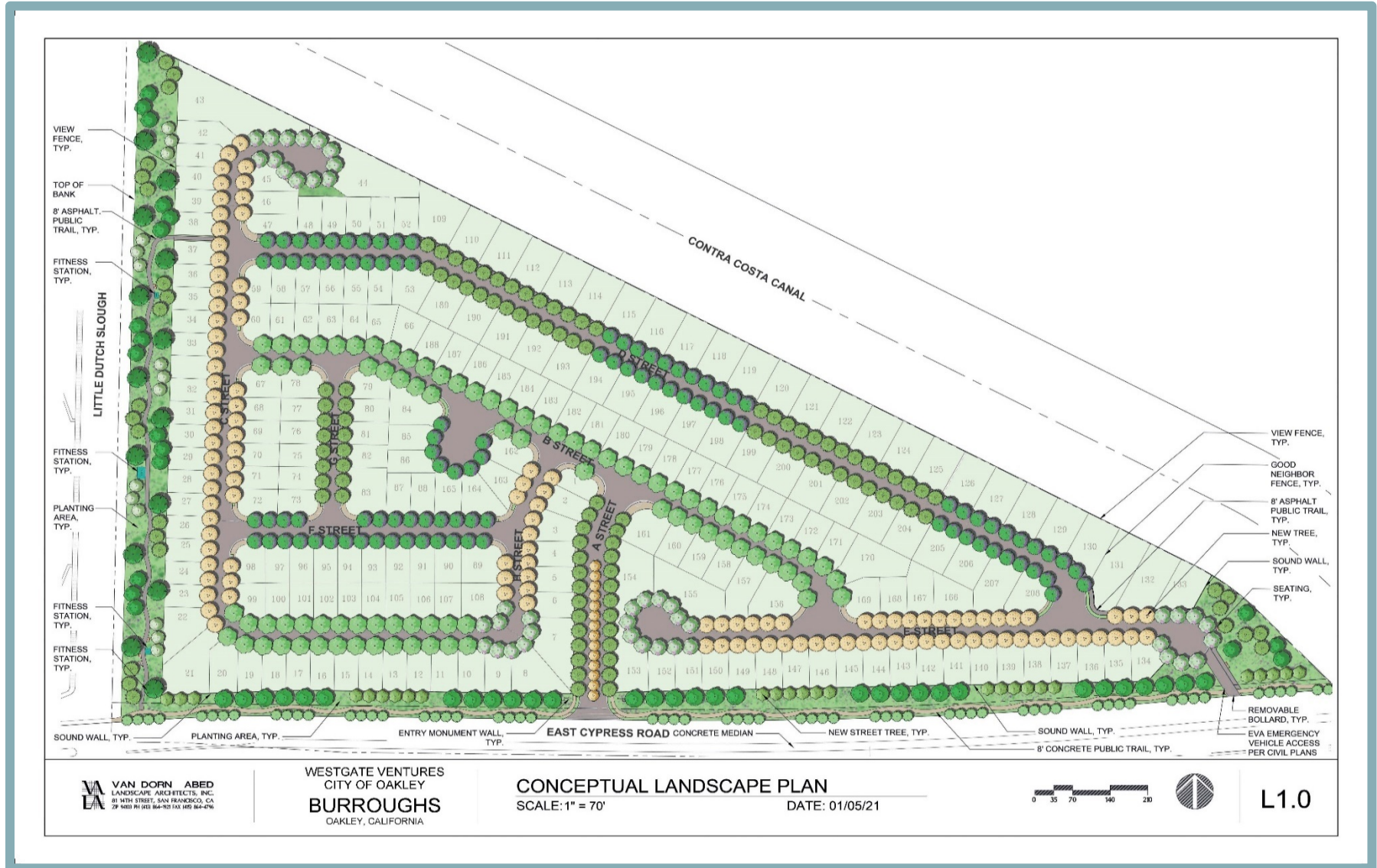
Water

CCWD, a public water agency, delivers water to 450,000 people in central and eastern Contra Costa County through the Contra Costa Canal, including the project site. The project site is within the treated water service area of the DWD, which receives untreated water from CCWD. DWD provides potable water service and would be able to supply adequate water to the proposed project (CCWD, 2015). Within the proposed residential community, the proposed project would install water lines throughout each new public road (A - G street) to serve the future residents

Sewer

The Iron House Sanitary District (ISD) would provide wastewater services to the future residents of the proposed project. Sewer infrastructure exists along E. Cypress Road as well as the single-family residential development to the west of the proposed project. The proposed project would place sanitary sewer pipes and sanitary sewer manholes throughout the single-family residential community to serve the future residents.

**Figure 5
Landscape Plan**



VAN DORN ABED
LANDSCAPE ARCHITECTS, INC.
81 14TH STREET, SAN FRANCISCO, CA
77 5600 PM (415) 644-702 FAX (415) 644-676

WESTGATE VENTURES
CITY OF OAKLEY
BURROUGHS
OAKLEY, CALIFORNIA

CONCEPTUAL LANDSCAPE PLAN
SCALE: 1" = 70'

DATE: 01/05/21



L1.0

Figure 6
Developer and Capital Improvement Project Cost Sharing Exhibit

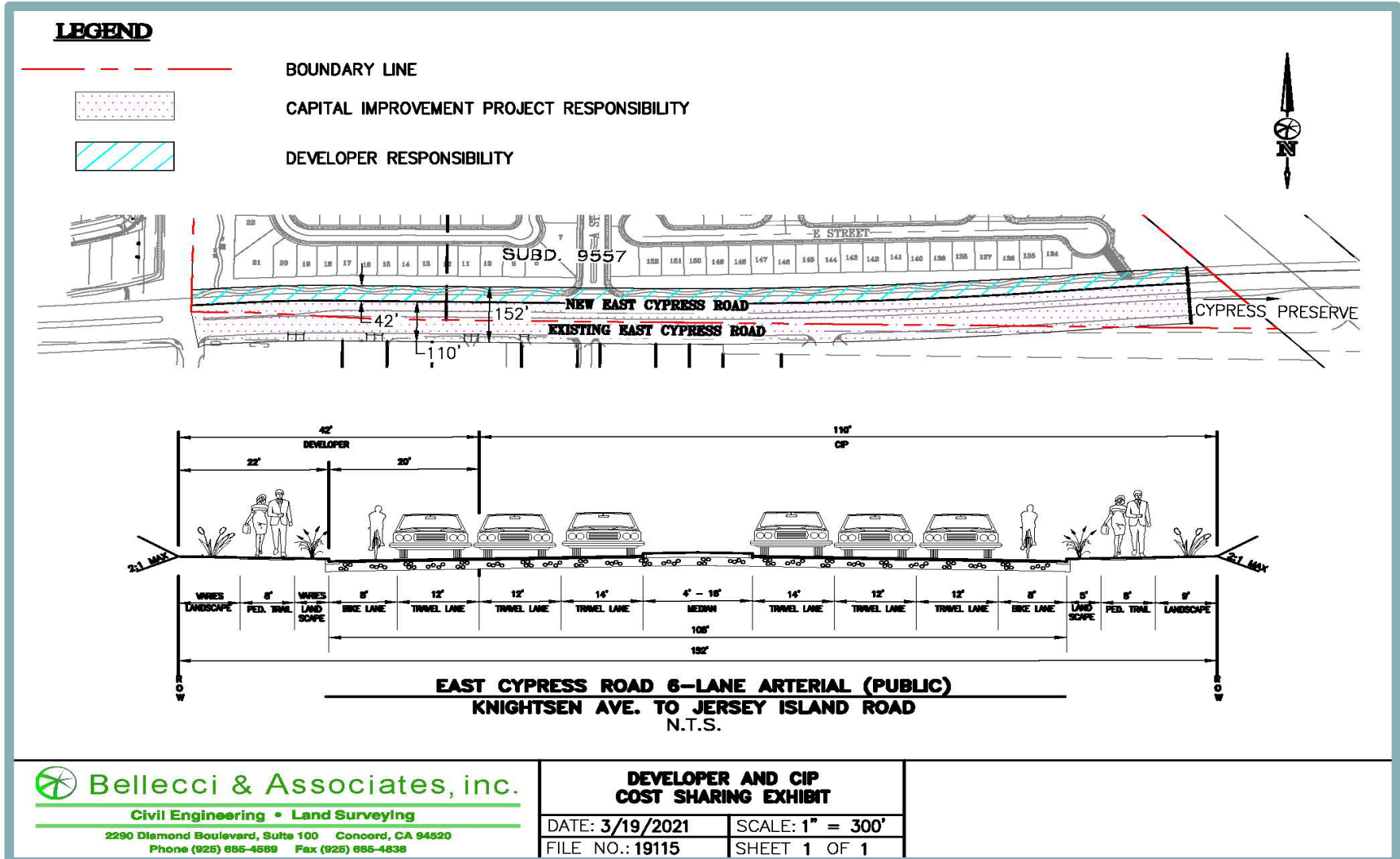


Figure 7
Grading and Utility Plan

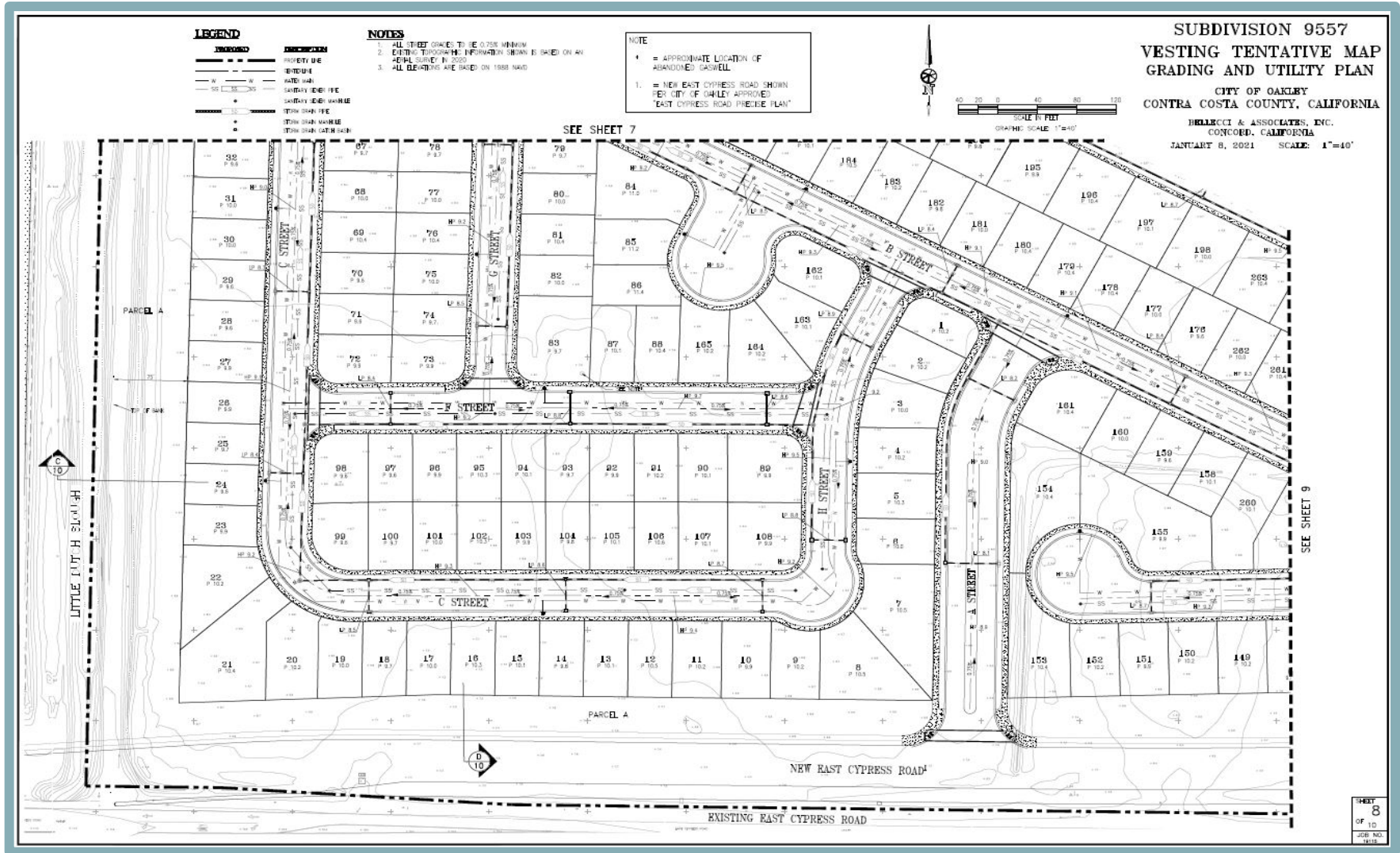
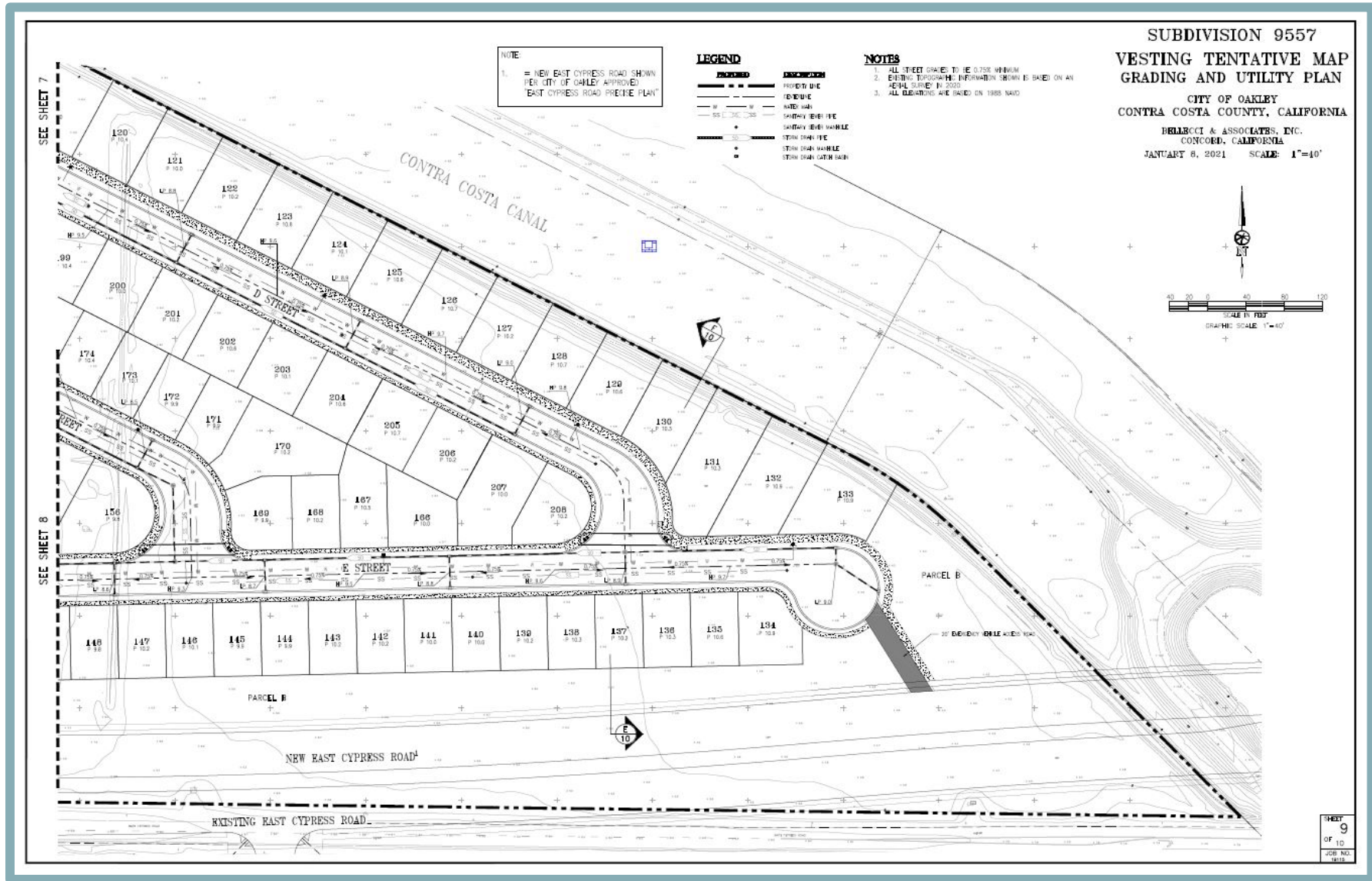


Figure 8
Grading and Utility Plan



Storm Drainage

Collected storm water would be directed to the adjacent Gilbert property where it would then be directed into the existing Gilbert stormwater treatment facilities. Stormwater facilities include large diameter pipelines, a detention lake that provides capacity of storms up to the 100-year storm event and provides stormwater quality treatment, a storm drain pump station, and a discharge force main pipeline that discharges the excess storm flows to Emerson Slough. The stormwater facilities have been constructed on the Gilbert property, west of the proposed project, and were appropriately sized to treat storm water runoff for the proposed project site.

Discretionary Actions

Implementation of the proposed project would require the following discretionary actions by the City of Oakley:

- Adoption of the Initial Study/Mitigated Negative Declaration;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Rezoning from Heavy Agriculture A-3 to Planned Development (P-1);
- Approval of a VTM;
- Enter into an amended MOA with CCWD regarding Contra Costa Canal Replacement Project fees; and
- At time of VTM approval, sign and record the Abstract of MOA related to APN 032-081-025.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue area identified in the checklist. Included in each discussion are project-specific mitigation measures required, where necessary, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which mitigation has not been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant With Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	✘	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project’s impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. A scenic vista includes any such areas designated by a federal, state, or local agency. Scenic resources in Oakley, as defined in the City’s General Plan, include predominant natural landscape features such as the Delta Waterway, Marsh Creek, and views of Mount Diablo to the west. The City of Oakley does not specifically identify scenic vistas within the City’s planning area, but the conclusion could be drawn that any development which would impact views of any of the aforementioned landscape features from public viewpoints would result in an impact to scenic vistas. The nearest location where public views of the Delta are afforded is SR 160, which is a raised highway. The proposed project is approximately five miles east of SR 160 and approximately four miles north east of SR 4. In addition, the zoning requirements for the proposed residences allow a maximum height of 35 feet. Considering the limited height of the proposed homes and the existing height and distance SR 160, the proposed project would not be built too high to obstruct potential views of the Delta from the public roadway. Furthermore, the project site is not located in close proximity to other existing scenic resources. Because the proposed project is not in an area designated as a scenic vista by the City of Oakley and would not adversely affect a scenic vista, the project would result in a **less-than-significant** impact.
- b. According to the California Scenic Highway Mapping System, administered by Caltrans, the eastern portion of SR 4 and the southern portion of SR 160 are eligible for State Scenic Highway designation.¹ As noted above, the proposed project is approximately five miles east of SR 160 and approximately four miles north east of SR 4 within the section of the roadway eligible for state designation. Therefore, the proposed project is removed from SR 160 and

¹ California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983>. Accessed February 2021.

SR 4 that visibility from the highway is not possible. Because the proposed project is not visible from both SRs, the proposed project would not damage scenic resources, including trees, rock, outcroppings, canal, and historic buildings, within a State Scenic Highway and would result in a ***less-than-significant*** impact.

- c. Currently, the character of Oakley is that of a primarily low-density residential community, with a downtown area. The proposed project includes a planned single-family residential community. The development of the proposed project would contribute to the low-density residential character through development of single-family homes; thus, contributing to the small-town rural community of Oakley. Furthermore, the proposed project is consistent with the City's single-family residential development directly west of the proposed project. While development of the project site would alter the existing setting, vacant land, to a residential community, the residential community would maintain open space elements within the proposed Little Dutch Slough setback. The proposed setback area would include native trees, plants, groundcover, and shrubs. As such, the setback area would preserve certain open space elements, such as the aforementioned native vegetation. As a result, the proposed project would be consistent with the single-family residential character of the City and would preserve open space elements consistent with the existing aesthetics of the region. As viewed from E. Cypress Road and the unincorporated area of the County to the south, the proposed project would be consistent with the existing development to the west.

Because the proposed project would include single-family residential homes consistent with the General Plan and surrounding development, the proposed project would not substantially degrade the existing visual character or quality of public views of the site. Therefore, the proposed project would result in a ***less-than-significant*** impact.

- d. Currently, the project site is undeveloped and consists of vacant land with annual grasslands and ruderal vegetation. The project site does not contain any structures and, thus, does not currently emit any sources of light and glare. Development of the proposed residences would add new sources of light and glare to the site, where none exists. The project site is located near existing development including similar land uses. Light and glare associated with the proposed project would be expected to be similar to that of the surrounding area and shall be directed away from adjacent properties per the stipulations of Section 9.1.1604, Design Review, of the Oakley Municipal Code.

The proposed project would be subject to the rules and regulations within the Oakley Municipal Code. However, the project site currently does not have any sources of light and glare. Because the proposed project would create sources of light and glare where none currently exist, which could affect nearby land uses, impacts from light and glare associated with the proposed project could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a ***less-than-significant*** level.

- I-1. *Prior to issuance of building permits, the applicant shall prepare and submit a detailed lighting plan for review and approval by the Community Development Department. The plan shall show conformance with City performance standards for street lighting and glare, including shielding of all on-site lighting so that light is directed within the project site and does not illuminate adjacent properties, and indicate the location and design of proposed lighting and lighted signs. The applicant shall implement the final plan as approved by the City.*

II. AGRICULTURE AND FOREST RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a,e. Currently, the project site is undeveloped and consists of vacant land with ruderal vegetation. The project site is currently used for cattle grazing. Per the Department of Conservation Farmland Mapping and Monitoring Program, the entire project site consists of Farmland of Local Importance.² Farmland of Local Importance is land important to the local agricultural economy as determined by the City. In addition, as noted above, the project site is currently used for cattle grazing; however, the City’s General Plan designates this site as SH. Considering the existing land use designation for the project site, the City anticipated that the project site would be developed for urban uses, and did not anticipate on-going grazing activity to occur on the site.

The 2020 Oakley General Plan EIR evaluated the impacts of Prime Farmland conversion that would result from buildout of the General Plan and determined that potential impacts would be reduced to less-than-significant with implementation of General Plan goals and policies aimed at preserving agricultural lands. Given the fact that the 2020 General Plan designated the proposed project site for development, the conversion of Prime Farmland and Farmland of Statewide Importance was already evaluated and considered in the General Plan EIR analysis. Furthermore, the project site is not Prime Farmland, Unique Farmland, or Farmland of Statewide importance and is currently not farmed.

Because the project would not convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or forest land as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, is

² California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed February 2021.

consistent with the conclusions in the General Plan EIR, and is currently not farmed, the project's impact would be ***less-than-significant***.

- b. Currently, the project site is designated as SH per the City's General Plan and the site is currently zoned A-3. The project site is not under a Williamson Act Contract.

The proposed project includes rezoning the project site from A-3 to P-1. P-1 zoning allows diversification in the relationship of various uses, buildings, structures, lot sizes, open spaces and ensures compatibility with surrounding land uses and compliance with the General Plan and Municipal Code. Considering the existing General Plan designation for the project site, the City anticipated that the project site would be developed for urban uses, and did not anticipate agricultural activity to occur within the site. In addition, according to the Oakley General Plan EIR, the entire Planning Area falls within the County Urban Limit Line (ULL) and was, therefore, designated generally for urban development. The rezoning of the site ensures consistency with the General Plan land use designation. The buildout of the project site was anticipated within the General Plan; therefore, the Oakley General Plan EIR anticipated the conversion of agricultural uses to urban development within the project site. In addition, implementation of General Plan policies and goals reduces the conversion of agricultural land to urban uses to as less-than-significant impact. As a result, the proposed project would result in a ***less-than-significant*** impact related to conflicting with existing zoning for agricultural use or a Williamson Act Contract.

- c,d. The project area is not considered forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 45256), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. The City of Oakley is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter (PM_{2.5}), and State respirable particulate matter 10 microns in diameter (PM₁₀) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour PM_{2.5} federal AAQS. Nonetheless, the Bay Area must continue to be designated as non-attainment for the federal PM_{2.5} AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM₁₀ standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD’s current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as

well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD’s established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM₁₀ and PM_{2.5}, expressed in pounds per day (lbs./day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD’s mass emission thresholds for ROG, NO_x, PM₁₀, or PM_{2.5}, a project would be considered to conflict with or obstruct implementation of the BAAQMD’s air quality planning efforts.

Table 1 BAAQMD Thresholds of Significance			
Pollutant	Construction	Operational	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (tons/yr)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

Particulate matter can be split into two categories: fugitive and exhaust. The BAAQMD thresholds of significance for exhaust are presented in Table 1. It should be noted that BAAQMD does not maintain quantitative thresholds for fugitive emissions of PM₁₀ or PM_{2.5}, rather, BAAQMD requires all projects within the district’s jurisdiction to implement Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project’s construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, compliance with the 2016 California Building Standards Code (CBSC), etc. To reflect compliance with the 2019 CBSC, the model is adjusted to incorporate a Title 24 exceedance. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project’s modeling assumes the following project and/or site-specific information:

- Construction would begin in July 2022 and occur over approximately three years;
- Operational trip generation rates were updated to 9.44 vehicle trips per unit, consistent with the project-specific Traffic Impact Analysis;
- Natural gas fireplaces would be included in all of the units;
- The project site is located within 1.5 miles of the nearest transit stop; and
- The project would comply with the Model Water Efficient Landscape Ordinance (MWELO) and the 2019 CALGreen Code;
- The project would comply with all applicable provisions of the 2019 California CBSC, including meeting 100 percent of electricity demand through on-site renewable energy generation; and
- Approximately 170,000 cubic yards of fill would be imported to the project site.

As noted above, during site grading, approximately 170,000 cubic yards of fill would be imported. In order to present the most accurate analysis of emissions associated with soil hauling, emissions were calculated using haul truck emission factors for the Contra Costa County region for year 2022 as reported by the CARB’s EMFAC2017 Web Database v1.0.2 tool for EMFAC2011 vehicle categories. Emission factors for Heavy-Heavy Duty Diesel Single Unit Construction Trucks, or T7 single construction trucks, were used as a conservative estimate to represent the type of haul trucks that would travel to and from the project site during the hauling period. Consistent with industry standard assumptions, the off-model calculations assumed that each haul truck can accommodate 16 cubic yards of fill, and that each haul trip would be 20 miles in length on average.³

The proposed project’s estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project’s contribution to cumulative air quality conditions is provided below as well. All CalEEMod modeling results are included as Appendix A to this IS/MND.

Construction Emissions

According to the CalEEMod modeling results, buildout of the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2.

Table 2					
Maximum Unmitigated Construction Emissions (lbs./day)					
Pollutant	On-Site Construction Emissions¹	Haul Truck Emissions²	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	11.05	0.92	11.97	54	NO
NO _x	38.89	46.64	85.53	54	YES
PM ₁₀ *	1.64	0.63	2.27	82	NO
PM _{2.5} *	1.51	0.60	2.11	54	NO
Notes:					
* Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions.					
¹ Emissions calculated on-model using CalEEMod 2016.3.2.					
² Emissions calculated off-model using haul truck emission factors from EMFAC2017 v1.0.2.					
Sources: CalEEMod, March 2021, and EMFAC2017 (see Appendix A)					

As shown in the table, the proposed project’s construction emissions would be below the applicable thresholds of significance for ROG, PM₁₀, and PM_{2.5}. However, construction of the proposed project would exceed the applicable threshold for NO_x.

All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD’s Basic Construction Mitigation Measures, which would be required by the City as conditions of approval:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

³ California Air Pollution Control Officers Association. *CalEEMod User’s Guide Version 2016.3.2 Appendix A: Calculation Details for CalEEMod* [pg. 14]. October 2017.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above for the project's construction activities, would help to minimize construction-related emissions.

Nevertheless, because construction of the proposed project would exceed the applicable threshold of significance for NO_x, project construction could result in a potentially significant impact.

Operational Emissions

According to the CalEEMod results, buildout of the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3.

Table 3 Maximum Unmitigated Operational Emissions					
Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs./day	tons/yr.	lbs./day	tons/yr.	
ROG	13.11	2.20	54	10	NO
NO _x	15.59	2.13	54	10	NO
PM ₁₀ *	0.61	0.05	82	15	NO
PM _{2.5} *	0.61	0.04	54	10	NO
Note: * Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions.					
Source: CalEEMod, March 2021 (see Appendix A).					

As shown in the table, operations of the proposed project would be below the applicable thresholds of significance. Thus, operations of the project would not be considered to conflict with air quality plans during project operations.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in operational emissions below the applicable thresholds of significance, operations of the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions. However, as noted above, construction of the project would exceed the applicable thresholds of significance. As such, construction of the proposed project could result in a short-term cumulatively considerable contribution to regional air quality conditions.

Conclusion

According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because construction of the proposed project could result in emissions that exceed the applicable thresholds of significance, the project could conflict with or obstruct implementation of regional air quality plans.

Based on the above, operations of the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant. However, construction of the proposed project could exceed the applicable threshold of significance for NO_x and, therefore, impacts would be considered ***potentially significant***.

Mitigation Measure(s)

The most effective way to reduce construction-related NO_x emissions is by improving the engine tier/engine efficiency of construction equipment. Off-road diesel engines that are used in construction equipment fall into efficiency tiers, with the most efficient being the Tier 4 emission standards. Engine Tiers 3 through 1 are regressively less efficient. Based on modeling conducted, as shown in Table 4, use of Tier 4 construction equipment for all on-site construction activities would be sufficient to reduce the project's overall construction-related emissions of NO_x to below the applicable threshold of significance. Therefore, implementation of the following mitigation measure would reduce the construction-related emissions of NO_x to below the applicable threshold of significance, and would reduce the above potential impact to a *less-than-significant* level.

Table 4 Maximum Mitigated Construction Emissions (lbs./day)					
Pollutant	On-Site Construction Emissions¹	Haul Truck Emissions²	Total Construction Emissions	Threshold of Significance	Exceeds Threshold?
ROG	9.50	0.92	10.42	54	NO
NO _x	4.72	46.64	51.36	54	NO
PM ₁₀ *	0.10	0.63	0.73	82	NO
PM _{2.5} *	0.10	0.60	0.70	54	NO
Notes: * Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions. ¹ Emissions calculated on-model using CalEEMod 2016.3.2. ² Emissions calculated off-model using haul truck emission factors from EMFAC2017 v1.0.2.					
Sources: CalEEMod, March 2021, and EMFAC2017 (see Appendix A)					

III-1. Prior to approval of any grading plans, the project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used during construction activities associated with the project, including owned, leased, and subcontractor vehicles, shall be California Air Resources Board (CARB) Tier 4 Final.

In addition, all off-road equipment operating at the project site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to five minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site.

Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB.

Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Oakley Community Development Department.

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. Existing sensitive receptors in the project area include the single-family residences to the south and west, with the nearest located approximately 175 feet south of the project site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, TAC, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

To provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

According to the Traffic Impact Analysis prepared for the proposed project by TJKM, the proposed project is expected to generate 1,794 daily vehicle trips, 154 of which would be during the AM peak hour, and 206 during the PM peak hour.⁴ As indicated in Figure 5, Existing Peak Hour Traffic Volumes, of the Traffic Impact Analysis, the nearby study intersections experience between one and 1,381 vehicles during the peak hour. Therefore, the addition of 360 total peak hour trips per day generated by the proposed project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpass, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screen criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and

⁴ TJKM. *Burroughs Residential Development Draft Traffic Impact Analysis*. January 13, 2021.

constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, as discussed above, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would likely be limited to approximately three years. All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time. Furthermore, any one nearby sensitive receptor would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere. Thus, emissions at the project site would be substantially dispersed at the nearest sensitive receptors, and the concentration of DPM at the nearest sensitive receptors would be lower than the concentration of DPM at the source of emissions.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the distance of the nearest sensitive receptor from the project site, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time, during development the project, would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the National Ambient Air Quality

Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), and are designed to aid the district in achieving attainment of the NAAQS and CAAQS,⁵ for which the SFBAAB is in nonattainment, but the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Rather, the thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS. Considering that, following implementation of Mitigation Measure III-1, the proposed project would not result in short-term construction-related or long-term operational emissions of criteria pollutants that would exceed BAAQMD standards, the proposed project would not inhibit attainment of regional NAAQS and CAAQS.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of pollutants, including localized CO, TACs, or criteria pollutants, during construction or operation. Therefore, the proposed project would result in a **less-than-significant** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

- d. Emissions of principal concern include emissions leading to odors, emission that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections “a” through “c” above. Therefore, the following discussion focuses on emissions of odors and dust.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.⁶ Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and hours of operation for construction equipment would be restricted to the hours of 7:30 AM to 7:00 PM on weekdays and 9:00 AM to 7:00 PM on weekends and holidays per Section 4.2.208 of the City of Oakley Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

⁵ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

⁶ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects are minimized or eliminated.

With respect to dust, as noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's Basic Construction Mitigation Measures. Such measures would act to reduce construction-related dust by ensuring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within project site, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Although the project would require soil hauling, all haul trucks would be covered to minimize emissions of fugitive dust during transport. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

For these reason, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would occur.

IV. BIOLOGICAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The following discussion is based primarily on a Jurisdictional Delineation Report⁷ (Appendix B) and an Application and Planning Survey Report (Appendix C) prepared by Zentner Planning & Ecology.

- a. The project site is undeveloped and consists of vacant land with annual grasslands and limited trees. The project site is currently used for cattle grazing. The entire project site has been subject to high levels of disturbance from past agricultural activities, sand mining, and previous irrigation. Currently, the project site is adjacent to Little Dutch Slough and Contra Costa Canal. Little Dutch Slough parallels the western border of the project site while the recently undergrounded Contra Costa Canal outlines the properties northeastern border. The overall topography of the project site is relatively level with the exception of Little Dutch Slough, the lowest part of the site at approximately sea level, and the levelled dune, the highest part of the project site.

Former residences and outbuildings have been removed from the property; however, two concrete foundations and ornamental trees remain within the project site. The project site

⁷ Zentner Planning and Ecology. *Burroughs Property Residential Development Project Section 404 Jurisdictional Delineation Report*. May, 2020.

also contains water troughs, a number of barbed wire fences, and irrigation ditches that are no longer in use.

Special-status species include plants, fish, and wildlife species that may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for species differ under ESA and CESA, and a species' designation under one law does not automatically provide protection under the other. In addition, California Department of Fish and Wildlife (CDFW) has developed a list of special species as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDDB) is interested in tracking, regardless of their legal or protection Status." The list includes the inventory developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and United States Fish and Wildlife Services Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the local area (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive.

Fully protected and designated rare plant species include specific plant and wildlife species that are designated in California Fish and Game Code (CFGC) as protected even if not listed under CESA or the ESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a natural conservation community plan. In addition to regulations for special-status species, most native birds in the United States, including non-status species, have baseline legal protections under the Migratory Bird Treaty Act (MBTA) of 1918 and CFGC, i.e., Sections 3503, 3503.5 and 3513. Under the MBTA and CFGC laws/codes, the intentional harm or collection of adult birds, as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and bats with a high or medium-high priority are typically given special consideration under CEQA.

The proposed project is within the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP). The ECCC HCP/NCCP was approved in August 2007 and the City of Oakley approved the implementing ordinance on November 13, 2007. The ECCC HCP/NCCP establishes mitigation required in order to avoid direct impacts on fully protected wildlife species, covered migratory birds, wetlands, and hydrologic conditions. The ECCC HCP/NCCP authorizes take coverage pursuant to FESA and CESA and provides compensatory mitigation for 28 special-status plant and animal species. The project includes a covered activity under the ECCC HCP/NCCP as residential development "activity within Urban Develop Area" as defined by the Habitat Conservation Plan (HCP) (Section 2.3, HCP/NCCP).

Zentner Planning & Ecology visited the project site to map vegetation, aquatic communities, unvegetated land cover types, document plant and wildlife species present, and evaluate habitat on-site for the potential to support special-status species as defined by CEQA. Based on the site visit, Zentner Planning & Ecology, concluded that the habitat types present within

the project site include annual grassland, ruderal, developed, seasonal wetland, and slough. Most of the site is annual grassland that has been historically disturbed by previous agricultural activities. The site's annual grassland is dominated by common, non-native grassland species such as Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Lolium multiflorum*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and tall fescue (*Festuca arundinacea*).⁸

The potential for special-status species to occur on the project site is discussed in further detail below.

Special Status Plants

Special-status plants generally occur in relatively undisturbed areas within vegetation communities such as vernal pools, marshes and swamps, chenopod scrub, seasonal wetlands, riparian scrub, chaparral, alkali playa, dunes, and areas with unusual soil characteristics. Experienced biologists completed thorough reconnaissance surveys of the property to assess the sites likelihood of supporting rare plants. The project biologists completed a series of three special status plant survey to capture the bloom season of all rare plants with a potential to occur on site. The botanical field surveys were completed in accordance with CDFW and USFWS protocols for special status plant species and sensitive natural communities that have a potential to occur on site. According to the Application and Planning Survey Report, suitable land is present for various covered or no-take species. For example, the project site contains suitable habitat for the Contra Costa goldfields (*Lastehnia conjugens*), a no-take species. However, during site surveys, rare plants were not identified on the site and the biologists determined that the disturbed and heavily modified condition of the site as well as the current grazing practices would make it highly unlikely that a rare plant would occur on site.

Due to the absence of special-status plants, construction activities associated with the proposed project would not result in adverse effects to special-status plant species.

Special-Status Wildlife

According to the ECCC HCP/NCCP Application and Planning Survey Report conducted by Zentner Planning and Ecology, seven special-status animals covered under the ECCC HCP/NCCP have the potential to occur on the project site: Western burrowing owl (WBO), Swainson's Hawk, Golden Eagle, and the Giant Garter Snake (GGS). The following discussion provides additional details on each of these species.

Western Burrowing Owl

The WBO occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat includes annual or perennial grassland, although human-modified areas, such as agricultural lands and airports are also used. Breeding typically takes place from March to July. 42.36 acres of the 43.24-acre site consists of annual grassland habitat providing potentially suitable breeding habitat for the WBO. A number of ground squirrel burrow were identified on the project site, though no WBO or signs of WBO have been observed near these burrow openings. As well, grassland habitat on neighboring properties (within 500 feet of the project site) could support breeding WBO. In addition, the WBO is known to occur in the region as there are a number of CNDDDB records of WBO within the region. Though WBO were not observed on the project site or in the surrounding 500-foot buffer, a pre-construction survey

⁸ Zentner Planning and Ecology. Application and *Planning Survey Report for the Burroughs*. July 2015.

of this area should be completed prior to beginning project work to ensure the species is not impacted by the project.

Swainson's Hawk

Swainson's hawk is a summer resident and migrant in California's Central Valley and scattered portions of the southern California interior. Areas typically used for nesting include the edge of narrow bands of riparian vegetation, isolated patches of oak woodland, lone trees, and also planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including grasslands, open woodlands, and agricultural areas. The project plans on removing all trees within the project site. According to the Application and Planning Survey Report, all trees within 1,000 feet of the project site that have the potential to support nesting Swainson's hawks have been mapped. Nesting Swainson's hawks within this area during project planning were not identified. However, the CNDDDB has two records of Swainson's hawks nesting within 0.5 miles of the project site, though one of these records describes a nest in a tree that has been removed and the other record indicates that the nest is not active. Potential nesting trees would be removed as part of the proposed project. However, a pre-construction survey would be completed prior to the start of construction to ensure that nesting Swainson's hawks are not impacted by the project.

Golden Eagle

Golden eagles are fairly adaptable in habitat but often reside in areas with few shared ecological characteristics. In addition, golden eagles tend to avoid developed areas. Golden eagles were not observed during the project planning surveys and due to the habitats on and in the area around the project site, nesting golden eagles are highly unlikely to be found in this area. The closest record of a nesting golden eagle is over 10 miles away from the project site. For these reasons, a golden eagle is unlikely to occur on the project site. However, a pre-construction survey should be conducted prior to project implementation to ensure golden eagles are not impacted by the project.

Giant Garter Snake

The GGS is found in Central California, and historically ranges through much of Central California's Sacramento and San Joaquin Valleys. The GGS inhabits agricultural wetlands and other waterways such as irrigation and drainage canals. The site contains 0.3 acres of Little Dutch Slough, which runs along the project site's western border and provides potentially suitable habitat for the GGS. Little Dutch Slough connects directly to the Sacramento/San Joaquin Bay Delta System where the GGS is known to occur. However, the closest CNDDDB record of the GGS is almost four miles away from the project site and the GGS is most commonly observed along watercourses and drainages in the central valley with few as far down in the watershed as the project site. However, to ensure the species is not impacted by the proposed project, a pre-construction survey would be completed, clearing for construction within 200 feet of the Slough's edge would be minimized, and all personnel working in this area would receive mandatory training regarding the species.

Conclusion

Based on the above, the proposed project would not result in impacts to special-status plant species. Although the field survey did not identify any special-status wildlife species within the project site, implementation of the proposed project could potentially result in adverse effects to WBO, Swainson's hawk, golden eagle, and GGS. Thus, the proposed project could have an adverse effect, either direct or through habitat modification, on species identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS, and a **potentially significant** impact could result.

Mitigation Measure(s)

The proposed project's participation in the ECCC HCP/NCCP would provide a mechanism to adequately mitigate impacts to special-status species within the project site included in the ECCC HCP/NCCP Permit Area. Moreover, the ECCC HCP/NCCP includes minimization, avoidance, and mitigation measures intended to reduce potential impacts to covered species. The following mitigation measures have been designed to fulfill the requirements of the ECCC HCP/NCCP, including requirements related to minimization, avoidance, and mitigation measures. Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Western Burrowing Owl

IV-1. Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a qualified biologist shall conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place not more than 30 days prior to construction. During the breeding season (February 1–August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

IV-2. Avoidance and Minimization and Construction Monitoring

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which construction activities cannot occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. The doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Swainson's Hawk

IV-3. Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15 – September 15), a qualified biologist shall conduct a preconstruction survey not more than one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

IV-4. Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15 – September 15), covered activities within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. The waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent according to the requirements of Mitigation Measure IV-5.

IV-5. *Mitigation for Loss of Nest Trees*

Should the proposed project result in the loss of non-riparian Swainson's hawk nest trees, the proposed applicant shall implement the following measures:

- *If determined feasible by the City of Oakley Planning Division, the project applicant shall provide for the planting of 15 saplings for every tree lost with the objective of having at least five mature trees established for every tree lost according to the requirements listed below; and either of the following:*
 1. *Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the ECCC HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR*
 2. *The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.*

The following requirements will be met for all planting options:

- *Tree survival shall be monitored at least annually for five years, then every other year until year 12. All trees lost during the first five years will be replaced. Success will be reached at the end of 12 years if at least five trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.*
- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*
- *Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (five-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.*
- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*
- *Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*

Prior to the issuance of tree removal permits for the project site, the City of Oakley Planning Division shall be notified whether the proposed project would include removal of nesting trees. Such removal be required for implementation of the proposed project, the Contra Costa County Conservancy shall be notified and the foregoing measures shall be implemented as applicable, through the tree removal permit granted by the City of Oakley.

Golden Eagle

IV-6. Preconstruction Survey

Prior to implementation of covered activities, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, Planning Surveys). If nests are occupied, minimization requirements and construction monitoring shall be required.

IV-7. Avoidance and Minimization

Covered activities shall be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

IV-8. Construction Monitoring

Construction monitoring shall focus on ensuring that covered activities do not occur within the buffer zone established around an active nest. Although golden eagle nest sites do not occur within or near the Urban Limit Line (ULL), covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring shall ensure that direct effects to golden eagles are minimized.

Giant Garter Snake

IV-9. Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a qualified biologist shall conduct a preconstruction survey in areas identified in the planning surveys as having suitable GGS habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys shall delineate suitable habitat and document any sightings of GGS.

IV-10. *Avoidance and Minimization Requirements*

To the maximum extent practicable, impacts on GGS habitat as a result of covered activities shall be avoided. If feasible, in areas near construction activities, a buffer of 200 feet from suitable habitat shall be delineated within which vegetation disturbance or use of heavy equipment is prohibited.

If impacts on GGS habitat as a result of covered activities are not avoided, the following measures shall be implemented. The measures are based on USFWS's Standard Avoidance and Minimization Measures during Construction Activities in GGS Habitat (U.S. Fish and Wildlife Service 1999).

- *Limit construction activity that disturbs habitat to the period between May 1 and September 30. May 1 through September 30 is the active period for GGS, and direct mortality is minimized because snakes are more likely to independently move away from disturbed area. If activities are necessary in GGS habitat between October 1 and April 30, the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.*
- *In areas where construction is to take place, dewater all irrigation ditches, canals or other aquatic habitat between April 15 and September 30 to remove habitat of GGS. Dewatered areas must remain dry, without puddled water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.*

IV-11. *Construction Monitoring*

If suitable habitat for GGS cannot be avoided between October 1 and April 30 the USFWS Sacramento Field Office shall be contacted to determine if additional measures beyond those described below are necessary, and the following actions shall be performed. A USFWS-approved biologist shall conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on site during construction activities in potential aquatic and upland habitat to ensure that individuals of giant garter snake encountered during construction will be avoided. The biologist shall provide USFWS with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. The monitor shall be available thereafter. If a snake is encountered during construction activities, the monitor shall have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. GGS encountered during construction activities should be allowed to move away from the construction area on their own. Only personnel with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate GGS that are encountered in the construction area. The project area will be reinspected whenever a lapse in construction activity of two weeks or more has occurred.

To ensure that construction equipment and personnel do not affect nearby aquatic habitat for GGS outside construction areas, silt fencing shall be erected to clearly define the aquatic habitat to be avoided; restrict working

areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction runoff into wetland areas through the use of fiber bales, filter fences, vegetation buffer strips, or other appropriate methods.

Fill or construction debris may be used by GGS as over-wintering sites. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.

Construction personnel shall be trained to avoid harming GGS. A qualified biologist approved by USFWS shall inform all construction personnel about the life history of GGS; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to giant garter snakes; and the terms and conditions of the Plan related to avoiding and minimizing impacts on giant garter snake.

- b.c. According to the Application and Planning Survey Report, the site contains annual grassland, ruderal, developed, seasonal wetland, and slough. The seasonal wetland (located in the northwestern portion of the site near Little Dutch Slough) is grass dominated and does not pond or hold water at the surface, but becomes saturated by winter and spring rains for sufficient time to sustain hydrophytic vegetation. Though the wetland contains hydrophytic vegetation, the wetland also contains a prominence of non-hydrophytes, which suggests occasional winter and spring dry-down during periods between storms due to slow but steady percolation. Vegetation within the seasonal wetland is dominated by Mexican rush (*Juncus mexicanus*) and tall fescue. Also present are meadow barley (*Hordeum brachyantherum*), Italian rye grass (*Festuca perennis*), wild geranium (*Geranium dissectum*), and white clover (*trifolium repens*).

According to the Jurisdictional Delineation Report, the small seasonal wetland meets the wetland soils and hydrology wetland criteria, but narrowly fails to meet the wetland vegetation criteria. However, given the close proximity to meeting the wetland vegetation criteria and provided that the seasonal wetland has wetland soils and hydrology indicator, the small seasonal wetland is considered to meet the wetland criteria. As part of the proposed project, the seasonal wetland would be filled to construct single-family residential homes. Such development would fill wetlands or other waters of the U.S. or state regulated by the United States Army Corp of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and/or the CDFW. As a result, the proposed project could create an adverse impact on federally protected wetlands, riparian habitats, or sensitive natural communities.

The ECCC HCP/NCCP provides for compensatory wetland habitat within dedicated preserve areas. The payment of ECCC HCP/NCCP fees as a result of the project would be used for restoration/creation of wetlands, which would represent compensatory wetlands for those impacted by the project.

Based on the above, implementation of the proposed project could have a substantial adverse effect on sensitive natural communities and/or have a substantial adverse effect on State or Federally protected aquatic resources (including, but not limited to, marsh,

vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means. Thus, a significant impact could occur.

Mitigation Measure(s)

The proposed project's participation in the ECCC HCP/NCCP would provide a mechanism to adequately mitigate impacts to wetland habitat within the project site included in the ECCC HCP/NCCP Permit Area. Moreover, the ECCC HCP/NCCP includes minimization, avoidance, and mitigation measures intended to reduce potential impacts to wetlands. The following mitigation measures have been designed to fulfill the requirements of the ECCC HCP/NCCP, including requirements related to minimization, avoidance, and mitigation measures. Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-12. Prior to the issuance of grading or construction permits for development of the project, the applicant shall pay the applicable ECCC HCP/NCCP per-acre Wetland Mitigation Fee in compliance with Article 7, Habitat Conservation Plan/Natural Community Conservation Plan Implementing Program, of the Oakley Municipal Code. Payment of the Wetland Mitigation Fee would address the loss of wetland habitat within the project site covered by the ECCC HCP/NCCP. The fees would be used in part to restore or create compensatory wetlands.

Alternately, the project applicant may, in accordance with the terms of Oakley Municipal Code Article 7, create and restore wetlands in lieu of some or all of the mitigation fees. All applicable mitigation fees shall be paid, or an "in-lieu-of fee" agreement executed, prior to the issuance of a grading permit for the project.

The Oakley Planning Division and the Contra Costa County Conservancy shall approve the final method of compliance with the ECCC HCP/NCCP provisions.

IV-13. Prior to the issuance of grading and construction permits, the project applicant shall obtain a CWA Section 404 permit, CWA Section 401 Water Quality Certification permit, and a Lake and Streambed Alteration Agreement from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and the California Department of Fish and Wildlife.

- d. The project site is located in a relatively urbanized area and is bordered by new single-family residential development to the west, rural commercial and single-family development to the south, across E. Cypress Road. Such development acts as a barrier for wildlife species with limited crossing opportunities. According to the Application and Planning Survey Report, common wildlife species may likely use the site to some degree for local movements. For example, wildlife species may utilize the 75-foot setback along Little Dutch Slough. However, due to adjacent urban development, the site does not provide connectivity to any significant habitat areas and is not a designated wildlife corridor. Because the site does not provide connectivity between significant habitat areas, the loss of the project site as open space would not constitute a loss of a migration corridor on a regional scale. As a result, the proposed project would not interfere substantially with

the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

Based on the above, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and a ***less-than-significant*** impact would occur.

- e. The proposed project would remove all trees within the project site. However, within the 75-foot established stream setback, all land that is disturbed by grading and trail construction would be seeded with native grasses and forbs. The area would be restored to a vegetated condition similar to, or with increased native plant diversity and cover, as compared to pre-construction. The goal of the restoration is to create habitat that has a greater ecological value than the disturbed habitat by increasing native plant cover and diversity.

As noted in Section 9.1.1112 of the City's Municipal Code, heritage and protected trees may only be destroyed or removed when a permit for such actions has been granted or such activities are found to be exempt per the stipulations of Section 9.1.1112. Permit applications must be submitted to the Oakley Community Development Department and must show any trees to be removed or protected. The applicant shall contain the location, number, species, and size of the protect tree to be destroyed cut down, or removed and a statement of reasons for the proposed action, together with such information as may be required by the Community Development Department, including an arborist report.

All trees on the project site would be removed during construction; thus, the project applicant would be required to submit proposed methods of compensation or replacement. In compliance with the City's Municipal Code, removed trees may be replaced through planting of compensatory trees. Additionally, the project applicant may elect to pay in-lieu fees or provide a combination of on-site replacement tree planting with in-lieu fee payment to the satisfaction of the Director of the Community Development or Planning Commission.

The proposed project would include submittal of a tree removal permit application to the City for the proposed on-site improvements as part of the overall project approval. However, without compliance with applicable standards included in Section 9.1.1112 of the City's Municipal Code, the proposed project could result in conflicts with the City of Oakley's regulations regarding Heritage and Protected Tree preservation, which would be considered a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a ***less-than-significant*** level.

- IV-14. Prior to project-related tree removal, the project applicant shall be required to comply with the standards included in Section 9.1.1112 of the City's Municipal Code by implementing one of the options provided in Section 9.1.1112(g)(11)(a), to the satisfaction of the Director of the Community Development Department or the Planning Commission, as applicable.*

- f. The project site is a covered activity under the ECCC HCP/NCCP as residential development “activity within Urban Development Area” as defined by the HCP (Section 2.3, HCP/NCCP). The proposed project would comply with conservation and mitigation measures set forth for coverage under the under the ECCC HCP/NCCP. The project applicant must set forth Best Management Practices (BMPs) defined by the ECCC HCP/NCCP. For example, the applicant shall allow any wildlife encountered during the course of construction to leave the construction area unharmed as required by the ECCC HCP/NCCP. The applicant has prepared an Application and Planning Survey Report that would need to be reviewed and approved by Contra Costa Conservancy. Compliance with the ECCC HCP/NCCP, would result in a ***less-than-significant*** impact in regards to conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a-c. Historical resources are typically features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yield, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. According to the City’s General Plan EIR, listed State and federal inventories are not within the Planning Area or the Oakley City limits. The largest concentration of historic resources is located in the City’s “old town.” However, the proposed project is 2.7 miles west and would not impact old town structures downtown.

To identify any known resources at the project site, a search of the California Historical Resources Information System (CHRIS) was conducted for the project site, which included review of the cultural resources files at the Northwest Information System at California State University, Sonoma State. According to the records search, the project site does not contain recorded archaeological resources. The State Office of Historic Preservation Built Environment Resources Directory (OHPBERD), which includes listings of the California register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, does not list recorded buildings or structures within or immediately adjacent to the proposed project site. In addition, the NWIC base maps show the proposed project to be within the boundary of Dutch Slough Rural Historic Landscape District, described as rural open space and a ranch or farm.

Currently, the project site is undeveloped and consists of vacant land with annual grasslands and limited trees. The project site is currently being used to support a small number of grazing cattle. The entire project site has been subject to high levels of disturbance from grazing and agricultural uses over previous years. The project site was previously used as an irrigated pasture land with multiple structures in the south-central part of the property. The structures have been since removed, but two concrete slabs, one with a water trough on top, remain within the project site. Former drainage ditches surround the project site on the northern, western, and parts of the southern property edge. However, the site does not contain any permanent structures which could be considered historical resources pursuant to Section 15064.5 of the CEQA Guidelines.

According to the CHRIS search, with respect to tribal cultural resources, a moderate potential of identifying unrecorded Native American Archaeological resources exists within the project area. In addition, a review of historical literature and maps indicate the possibility of historic-period activity within the project area. As a result, a moderate to high potential exists for unrecorded historic-period archaeological resources to be found within the proposed project. Finally, a 1928 Brentwood USGS 7.5-minute topographic quadrangle depicts two gas wells within the project area that may meet the Office of Historic Preservation's minim age standard that buildings, structure, and objects 45 years or older may be of historic value.⁹ Thus, while unlikely, the potential exists for subsurface, unrecorded archaeological resources to be encountered on the project site during grading and other ground-disturbing activities associated with the proposed project.

Based on the above, the possibility exists that previously undiscovered historical or archaeological resources, including human remains, could be uncovered during ground-disturbing activities associated with construction of the proposed project. Therefore, the project could result in a potentially significant impact with respect to causing a substantial adverse change in the significance of a unique historical or archaeological resource pursuant to Section 15064.5 and/or disturbing human remains.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

- V-1. *If buried archaeological, paleontological, and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the discovery and the developer shall immediately notify the City of Oakley Planning Division of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery, as appropriate. The archaeologist shall be required to submit to the City of Oakley Planning Division for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*
- V-2. *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place within 100 feet of the find until the identified appropriate actions have been implemented.*

⁹ Northwest Information Center. Re: Record search results for the proposed Burroughs project. February 25, 2021.

VI. ENERGY.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project’s potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11) is a portion of the CBSC, which became effective on January 1, 2020.¹⁰ The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources’ MWEL0, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- For some single-family and low-rise residential structures developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, such as developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, may be exempt from the foregoing requirement on a case-by-case basis.

¹⁰ California Building Standards Commission. *California Green Building Standards Code*. 2019.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations, including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls. For residential buildings, compliance with the 2019 standards would use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards.¹¹ The Building Energy Efficiency Standards require residential buildings that are three stories or less to include solar photovoltaic systems. Once solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of each project parcel would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would therefore help to improve fuel efficiency for equipment used in construction of the proposed project. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction.

The CARB prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),¹² which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather

¹¹ California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.

¹² California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for heating, ventilation, and air conditioning (HVAC), interior and exterior building lighting, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. As noted above, the project would be required to include a solar photovoltaic system in accordance with the Building Energy Efficiency Standards. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential development.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CALGreen Code and the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this IS/MND, the proposed project is not anticipated to increase VMT.

Conclusion

Based on the above, construction and operations of the proposed residences, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. GEOLOGY AND SOILS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

ai.-ii. The project site has been subject to a geological hazards and preliminary geotechnical report prepared by ENGEO Incorporated (ENGEO) for the proposed project (Appendix D).¹³ Based on the findings of the geotechnical report, ENGEO determined that active faults do not cross the site and the site is not located within an Alquist-Priolo Earthquake Zone; however, five nearby active faults are capable of producing significant ground shaking at the site. The active faults nearby include the Greenville Connected Fault (12 miles from the project site), the Mount Diablo Thrust Fault (19.5 miles from the project site), Calaveras Fault (22.5 miles from the project site), Hayward-Rodgers Creek Fault (31 miles from the project site), and the San Andres Fault (50 miles from the project site). Furthermore, the project site is located within the Great Valley Geomorphic Province of California, characterized as an area of moderate seismicity. Further seismic activity and ground shaking can be expected to occur in this area; therefore, development of the

¹³ ENGEO Incorporated. *Burroughs Property Preliminary Geotechnical Exploration*. January 7, 2020.

proposed project should be designed to accommodate for strong earthquake ground shaking.

An earthquake of moderate to high magnitude generated by the above faults could cause seismic ground shaking at the site. Proper engineering of the proposed buildings in compliance with the existing standards of the CBSC would ensure that the proposed project would not be subject to substantial risks related to seismic ground shaking. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is enforced through building plan review and approval by the City. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure would not collapse or cause loss of life in a major earthquake. However, the potential still exists for seismic related ground rupture to occur on the project site. Therefore, a **potentially significant** impact could occur related to seismic surface rupture.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

VII-1. *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report prepared for the proposed project by ENGEO are properly incorporated and utilized in the project design.*

a.iii,iv,

c. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below

Liquefaction and Settlement

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Additionally, loose unsaturated sandy soils have the potential to settle during strong seismic shaking. Liquefaction can often result in subsidence or settlement.

According to the geotechnical report, the soil within the project site is characterized by relative thickness of non-liquifiable surface soil and potentially liquefiable soil; therefore, the risk of surface disruption is low to moderate from most of the site, but may be moderate to high in the eastern portion of the site. Results from a liquefaction analysis, within the geotechnical report, indicate the relatively continuous sand layer between the surficial clay sand approximately 20 feet below the ground surface may be potentially liquefiable.

ENGEO estimates up to approximately four inches of total settlement from liquefaction during a design-level seismic event. In addition, undocumented fill was identified within the vicinity of the abandoned residence foundation during ENGEO's field exploration. Additionally, undocumented fill may be found within the vicinity of the abandoned gas well and the adjacent drainage ditches. Undocumented fills can undergo excessive settlement, especially under new fill or building loads. ENGEO recommends complete removal of this material to competent native soils.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. However, the topography of the site is relatively level; therefore, the risk of a landslide is very low. Therefore, the proposed project would not be subject to landslide risks and would not expose people or structures to potential risk of loss, injury, or death involving landslides.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. According to the geotechnical report, given the depth of the potentially liquefiable soils, and the fact that the proposed project is inland of the existing river channel, and will not be exposed to a nearby free face, the potential for significant lateral spreading is low. Therefore, the proposed project would not be subject to risks associated with lateral spreading.

Conclusion

Although the proposed project would not be exposed to hazards related to landslides, the proposed project could be subject to substantial risks related to liquefaction, settlement, and lateral spreading. Therefore, these risks could present a ***potentially significant*** hazard within the project site.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

VII-2. Implement Mitigation Measure VII-1.

- b. The proposed project would include grading of the project site prior to construction of the proposed residences. During construction activities, topsoil would be moved and graded, leading to disturbed soils. In addition, soil would be imported onto the project site to remove to the site from the flood zone. The new importation of soil would result in the raising of the Burroughs Project site by approximately five feet in all areas of the site. Such disturbed soils could suffer from wind and water erosion while the topsoil is exposed. Following development of the site, all exposed soils would be covered with impervious surfaces or landscaping, thus, long-term erosion would not occur.

The proposed project would be designed to minimize the potential for future erosion. Nonetheless, due to the potential for exposure of topsoil on the proposed project site during construction activities, implementation of the proposed project could result in

substantial erosion or the loss of topsoil. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

VII-3. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the Community Development Department, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to, the following:*

- *Placement of new fill during the dry season, April 15 to October 15;*
- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with “filter fabric”;*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle “wash-out” location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

- d. Expansive soils can undergo significant volume changes with changes in moisture content. Specifically, such soils shrink and harden when dried and expanded and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil. According to the geotechnical report, subsurface exploration indicates that portions of the existing surface soil likely have a high shrink/swell potential with variations in moisture content. Expansive soils can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Successful performance of structures on expansive soil requires special attention during construction. Because the project site could be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property, a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

VII-4. *Implement Mitigation Measure VII-1.*

- e. The proposed project would connect to existing City sewer services, thus, the construction or use of septic tanks or other alternative wastewater disposal system is not included within the project. Therefore, **no impact** would occur regarding the use of soils to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

- f. According to the Oakley General Plan Draft EIR, few archeological or paleontological finds have occurred in the City. However, given the rich history of the Planning Area, the City requires site evaluation prior to development of undeveloped areas, as well as required procedures if artifacts are unearthed during construction. Historically, the site has been heavily disturbed with current cattle grazing and past irrigated pasture land. However, the potential exists for previously unknown paleontological resources to occur within the project site. Ground-disturbing activity such as grading, trenching, or excavating associated with implementation of the proposed project would have the potential to disturb or destroy such resources if present. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of Mitigation Measures V-1 and V-2 would reduce the potential impact to a *less-than-significant* level.

VII-5. Implement Mitigation Measures V-1 and V-2.

VIII. GREENHOUSE GAS EMISSIONS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project’s GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO₂e/yr).

The BAAQMD developed a threshold of significance for project-level GHG emissions in 2009. The District’s approach to developing the threshold was to identify a threshold level of GHG emissions for which a project would not be expected to substantially conflict with existing California legislation. At the time that the thresholds were developed, the foremost legislation regarding GHG emissions was AB 32, which established an emissions reduction goal of reducing statewide emissions to 1990 levels by 2020.¹⁴ The GHG emissions threshold of significance recommended by BAAQMD to determine compliance with AB 32 is 1,100 MTCO₂e/yr or 4.6 MTCO₂e per service population per year (MTCO₂e/SP/yr). If a project generates GHG emissions above the BAAQMD’s adopted threshold level, the project is considered to generate significant GHG emissions and conflict with AB 32. It is noted that the goal year for AB 32 (2020) has elapsed. Nonetheless, the aforementioned thresholds are still applicable in determining the significance of project-related GHG emissions under CEQA, and represent the BAAQMD’s only adopted GHG thresholds at the time of analysis.

¹⁴ Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. May 2017.

The foregoing threshold is intended for use in assessing operational GHG emissions only. Construction of a proposed project would result in GHG emissions over a short-period of time in comparison to the operational lifetime of the project. To capture the construction-related GHG emissions due to buildout of the proposed project, such emissions are amortized over the anticipated project lifetime and added to the operational GHG emissions. Given that construction-related GHG emissions would not occur concurrently with operational emissions and would cease upon completion of construction activities, combining the two emissions sources represents a conservative estimate of total project GHG emissions.

Since the adoption of BAAQMD's GHG thresholds of significance, the State legislature has passed AB 197 and Senate Bill (SB) 32, which builds off of AB 32 and establishes a statewide GHG reduction target of 40 percent below 1990 levels by 2030. Considering the legislative progress that has occurred regarding statewide reduction goals since the adoption of BAAQMD's standards, the emissions thresholds presented above would determine whether a proposed project would be in compliance with the 2020 emissions reductions goals of AB 32, but would not demonstrate whether a project would be in compliance with SB 32. In accordance with the changing legislative environment, the BAAQMD has begun the process of updating the District's CEQA Guidelines; however, updated thresholds of significance have not yet been adopted. In the absence of BAAQMD-adopted thresholds to assess a project's compliance with SB 32, the City has chosen to consider additional GHG emissions thresholds.

The BAAQMD has determined that projects with operational emissions equal to or less than 1,100 MTCO₂e/yr or 4.6 MTCO₂e/SP/yr would comply with the emission reductions target of 1990 levels by 2020 set forth by AB 32. SB 32 requires that by 2030 statewide emissions be reduced by 40 percent beyond the 2020 reduction target set by AB 32; therefore, in the absence of specific guidance from BAAQMD or the CARB, the City assumes that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from current BAAQMD targets, adjusted for the projected population, a proposed project would be in compliance with SB 32 if the project's emissions did not exceed 660 MTCO₂e/yr or 2.6 MTCO₂e/SP/yr.

In addition to the quantitative thresholds described above, the City has also determined that a qualitative analysis assessing the project's compliance with the CARB's *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan) is warranted. The CARB's 2017 Scoping Plan establishes a strategy to meet California's 2030 GHG targets; accordingly, should the project be shown to comply with the 2017 Scoping Plan, the proposed project would be considered consistent with Statewide reduction targets for the year 2030. Based on recommendations from BAAQMD, a project's compliance with the local actions contained in Appendix B of the 2017 Scoping Plan may be used to assess a project's compliance with the 2017 Scoping Plan and, thus, consistency with SB 32.¹⁵

By using the BAAQMD thresholds of significance for GHG, the updated SB 32 thresholds discussed above, and evaluating the project's consistency with applicable plans, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that

¹⁵ Flores, Areana, Bay Area Air Quality Management District. Personal communication [phone], Jacob Byrne, Senior Associate/Air Quality Technician, Raney Planning & Management. September 17, 2019.

lead agencies consider the extent that the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions.

GHG Emissions Thresholds

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project’s construction GHG emissions, as well as operational emissions, have been estimated using CalEEMod and EMFAC2017 under the same assumptions discussed in Section III, Air Quality, of this IS/MND (see Appendix A).

The emissions estimates prepared for the proposed project determined that unmitigated construction of the project would result in total GHG emissions of 1,881.86 MTCO₂e over the entire construction period. In the analyses below, the construction GHG emissions are amortized over the anticipated 30-year lifetime of the proposed project.¹⁶

Compliance with AB 32

As shown in Table 5, the project’s total unmitigated annual GHG emissions in the first year of project operation, 2025, including amortized construction-related emissions, were estimated to be approximately 2,146.43 MTCO₂e/yr, which would exceed BAAQMD’s 1,100 MTCO₂e/yr threshold of significance for GHG emissions. However, the proposed project is expected to generate approximately 678 residents. Thus, the project annual GHG emissions per capita would be 3.16 MTCO₂e/SP/yr, which falls below the BAAQMD’s 4.6 MTCO₂e/SP/yr threshold of significance for GHG emissions. Therefore, the proposed project would not conflict with the emissions reduction targets of AB 32.

Table 5 Unmitigated Annual Project GHG Emissions (2022)	
Source	Annual GHG Emissions (MTCO₂e/yr)
Operational GHG Emissions:	2,083.70
<i>Area</i>	28.70
<i>Energy</i>	304.28
<i>Mobile</i>	1,601.42
<i>Waste</i>	125.68
<i>Water</i>	23.62
Amortized Construction GHG Emissions:	62.73
Total Annual GHG Emissions	2,146.43
Total Annual GHG Emissions per Capita	3.16 MTCO₂e/SP/yr
BAAQMD AB 32 Threshold	1,100 MTCO₂e/yr or 4.6 MTCO₂e/SP/yr
Exceeds Thresholds?	YES
Note: 208 units x 3.26 persons per dwelling unit = 678 residents	
<i>Source: CalEEMod, March 2021 (see Appendix A).</i>	

¹⁶ South Coast Air Quality Management District. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. Available at: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf). Accessed October 2020.

Compliance with SB 32

As shown in Table 6, the project’s total unmitigated annual GHG emissions in the year 2030, including amortized construction-related emissions, were estimated to be approximately 1,973.43 MTCO₂e/year and 2.91 MTCO₂e/SP/year. Thus, implementation of the proposed would result in emissions that exceed the threshold used for this analysis for GHG emissions in the year 2030. Thus, the proposed project could conflict with the emissions reduction targets of SB 32.

Table 6	
Unmitigated Annual Project GHG Emissions (2030)	
Source	Annual GHG Emissions (MTCO₂e/yr)
Operational GHG Emissions:	1,910.70
Area	28.70
Energy	304.28
Mobile	1,430.63
Waste	125.68
Water	21.41
Construction-Related GHG Emissions:	62.73
Total Annual GHG Emissions	1,973.43
Total Annual GHG Emissions per Capita	2.91 MTCO₂e/SP/yr
SB 32 Threshold	660 MTCO₂e/yr or 2.6 MTCO₂e/SP/yr
Exceeds Thresholds?	YES
<i>Source: CalEEMod, March 2021 (see Appendix A).</i>	

Consistency with 2017 Scoping Plan

Appendix B to the CARB’s 2017 Scoping Plan provides examples of potentially feasible mitigation measures that could be considered to assess a project’s compliance with the State’s 2030 GHG emissions reductions goals. Thus, general compliance with the Local Actions within the 2017 Scoping Plan could be considered to demonstrate the project’s compliance with SB 32. The project’s consistency with the applicable Local Actions within the 2017 Scoping Plan is assessed in Table 7 below.

Table 7	
Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
Construction	
Enforce idling time restrictions for construction vehicles.	CARB’s In-Use Off-Road Vehicle Regulations include restrictions that limit idling time to five minutes under most situations. Construction fleets and all equipment operated as part of on-site construction activities would be subject to CARB’s idling restrictions. As such, the proposed project would be required to comply with this measure.
Require construction vehicles to operate with the highest tier engines commercially available.	In compliance with Mitigation Measure III-1, the project applicant would be required to use construction equipment that complies with the highest tier engines commercially available. As such, the proposed project would comply with this measure.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a	The CALGreen Code requires the diversion of construction and demolition waste, and the proposed project would be required to comply with the most up-to-date CALGreen Code. The project applicant has not

Table 7 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
high recycled material content to the greatest extent feasible.	committed to using locally-sourced building materials or materials with a high recycled content, and, thus, compliance with this portion of the suggested measure is uncertain at this time.
Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance.	Any tree removal associated with the proposed project would be subject to the regulations set forth in Section 9.1.1112 of the City's Municipal Code. As noted therein, any protected trees that are to be removed shall be replaced. As such, the project would mitigate for losses in sequestration and would be considered to generally comply with the suggested measure.
Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators.	The contractor would use existing grid electricity to the extent feasible. However, the possibility exists that temporary generators will be used for electricity in instances where grid electricity is not accessible. Overall, the project would be considered to generally comply with the suggested measure.
Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available.	The project applicant has not committed to the use of alternatively fueled construction equipment. Furthermore, the commercial availability of renewable diesel in the project area is currently unknown. Consequently, compliance with this suggested measure is uncertain at this time.
Require diesel equipment fleets to be lower emitting than any current emission standard.	In compliance with Mitigation Measure III-1, the project applicant would be required to use Tier 4 construction equipment. Such engines are considered lower emitting than any current emission standard. As such, the proposed project would comply with this measure.
Operations	
Comply with lead agency's standards for mitigating transportation impacts under SB 743.	As noted in Section XVII, Transportation, of this IS/MND, implementation of the project would result in a less-than-significant impact to VMT. As such, the proposed project would comply with this measure.
Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals.	Per the 2019 CALGreen Code, residential projects are required to install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each unit, which would be suitable for EV charging. Compliance with the 2019 CALGreen Code would ensure that the proposed project provides sufficient EV charging infrastructure to comply with this suggested measure.
Dedicate on-site parking for shared vehicles.	This measure relates to multi-family residences and commercial land uses where separated parking areas are typically provided that would allow for the designation of preferential parking spaces. As such, the measure is not applicable to the proposed project, and the project is considered consistent with the measure.
Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential projects.	The proposed project is a single-family residential development. Therefore, this measure does not apply.

Table 7 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan.	The proposed project would provide on-site pedestrian infrastructure as well as off-site pedestrian improvements along the project frontage with a connection to the proposed pedestrian trail sidewalk on E. Cypress Road. Additionally, pedestrian infrastructure would be constructed along Little Dutch Slough. Considering the project would provide pedestrian and bicycle facility improvements, the proposed project would be generally consistent with the suggested measure.
Require on-site renewable energy generation.	The 2019 CBSC requires that residential structures that are three-stories or less in height be constructed with renewable energy systems sufficient to provide 100 percent of the electricity required for the residence. The proposed single-family residences would be subject to such requirements. Due to the CBSC's requirements regarding renewable energy systems for residential land uses, the proposed project would include on-site renewable energy generation and would comply with this measure.
Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size development.	The proposed project would not include wood-burning fireplaces. Thus, the proposed project would comply with the suggested measure.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	The 2019 CBSC contains requirements for the thermal emittance, three-year aged reflectance, and Solar Reflectance Index (SRI) of roofing materials used in new construction and re-roofing projects. Such standards, with which the project would be required to comply, would help to reduce heating and cooling costs associated with the proposed project. In addition, the proposed project would include 208 garages, which reduces the amount of exposed pavement surfaces. Therefore, surface lot heat effects would be reduced compared to provision of all necessary parking spaces in uncovered surface lots. Therefore, the proposed project would generally comply with the suggested measure.
Require solar-ready roofs.	The 2019 CBSC requires that new residential structures under three stories generate 100 percent of electricity needs from on-site solar. Therefore, the proposed project would comply with this suggested measure.
Require organic collection in new developments.	Per Chapter 20, Solid Waste Collection and Regulations, of the Municipal Code, the proposed project would be required to subscribe to a solid waste collection service. In addition, the City's garbage provider offers green waste collection services. As such, future residents would have access to the organic collection service. Thus, the proposed project would include organic collection and the project would comply with the suggested measure.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model	Landscaping within the project site would be required to comply with the CALGreen code and all water efficiency measures therein, including the MWELo regulations

Table 7 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
Water Efficient Landscape Ordinance [MWELo], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	adopted by the City of Oakley. Accordingly, the proposed project is anticipated to comply with this measure.
Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code.	Through the CBSC requirements, the proposed single-family residences are anticipated to achieve Zero Net Energy. Therefore, the proposed project is anticipated to comply with this measure.
Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge.	The project applicant has not committed to achieving third-party green building certification. Consequently, compliance with this suggested measure is uncertain at this time.
Require the design of bike lanes to connect to the regional bicycle network.	Marked bike lanes exist in the project vicinity. Bicycle lanes and bike parking would be located within the proposed pedestrian trail. As noted in the Traffic Impact Study prepared for the proposed project, the proposed project would not conflict with existing or planned pedestrian, bicycle, or transit facilities as per the Contra Costa Countywide Bicycle and Pedestrian Plan (2018) and the City of Oakley 2020 General Plan. Considering the above, the proposed project would comply with the general intent of the suggested measure.
Expand urban forestry and green infrastructure in new land development.	Landscaping improvements would be included throughout the project site. A variety of trees, shrubs, vines, and ground cover would be provided along the project drive aisles and trail, as well as along the perimeter of the proposed units within the project site. As such, the development would expand upon urban forestry and green infrastructure, and would comply with this measure.
Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use.	The measure relates to multi-family residential development and commercial land uses, and the proposed project includes only single-family development. As a result, the measure does not apply to the proposed project.
Develop a rideshare program targeting commuters to major employment centers.	The project site would be developed with residences and therefore, would not be considered a major employment center. Consequently, the measure does not apply to the proposed project.
Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available.	The project applicant has not committed to providing natural gas service for outdoor cooking appliances. Accordingly, compliance with this measure is uncertain at this time.
Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric	Pursuant to California Electrical Code, Article 210.52(E), the project would be required to include at least one electrical outlet to be located in the perimeter of a balcony, desk, or porch. The project applicant has not committed to

Table 7 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
landscape maintenance equipment. ²	providing additional exterior electrical outlets to promote the use of electric landscape maintenance equipment. Consequently, the project would partially comply with the suggested measure.
Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage.	The CBSC requires that new residential unit garages be designed with wiring sufficient to provide future installation of electric vehicle charging infrastructure. Therefore, the proposed project would be required to comply with this measure.
Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands.	The project applicant has not committed to providing electrical outlets in the private parks or landscaping areas proposed for the project site. Compliance with this measure is uncertain at this time.
Require each residential unit to be "solar ready," including installing the appropriate hardware and proper structural engineering.	The CBSC requires all residences three-stories or less in height to include renewable energy systems. The proposed residences would be three-stories or less in height, and would thereby be required to generate 100 percent of project electricity needs from on-site solar. Thus, the proposed project would comply with this measure.
Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans.	The proposed project would be required to comply with the CBSC, which includes standards related to installation of energy-efficient appliances and building features such as water heaters and ventilation systems. Thus, the project would generally comply with the suggested measure.
Require each residential and commercial building equip buildings [sic] with energy efficient AC units and heating systems with programmable thermostats/timers.	The proposed project would be required to comply with the CBSC, which includes standards related to energy-efficient heating and cooling systems. Thus, the project would generally comply with the suggested measure.
Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use.	The project applicant has not committed to reporting energy use or setting specific energy use targets. Accordingly, compliance with this suggested measure is uncertain at this time.
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3).	The proposed project would be required to comply with the residential water efficiency regulations within CALGreen. Thus, the proposed project would comply with this suggested measure.
Require the use of energy-efficient lighting for all street, parking, and area lighting.	All proposed exterior lighting would be LED type, consistent with the 2019 Building Energy Efficiency Standards. Thus, the proposed project would comply with the suggested measure.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch.	The preliminary landscaping plans include tree, shrub, ground cover, and vine planting throughout the proposed project site and parking lots. Thus, the proposed project would comply with the suggested measure.

Table 7 Project Consistency with the 2017 Scoping Plan	
Suggested Measure	Consistency Discussion
Incorporate water retention in the design of parking lots and landscaping, including using compost/mulch.	Parking areas are not proposed as part of the project. In addition, the proposed project would include the use of mulch on all exposed soil surfaces in landscaped areas and would include several bioretention basins to treat runoff from each drainage management area. Accordingly, water retention features are incorporated into the overall project design, and the proposed project would comply with the suggested measure.
Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district. The project may alternatively purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district.	<p>The suggested mitigation measures included in the 2017 Scoping Plan are not considered to be requirements for local projects under CEQA, but instead represent options for projects to demonstrate compliance with the 2017 Scoping Plan. The inclusion of GHG off-set mitigation projects or the purchase of carbon credits is typically dependent on a project's exceedance of the previously identified quantitative GHG thresholds. However, neither BAAQMD nor the City have identified quantitative thresholds that could be used to determine that the project's anticipated emissions would be such that an off-site mitigation project or purchase of GHG reduction credits would be required in order to comply with SB 32.</p> <p>Considering that the project has been shown to be generally consistent with the foregoing measures, the City, in its discretion as lead agency, has chosen not to require the project to implement an off-site mitigation project or purchase GHG reduction credits.</p>
<p>Source: California Air Resources Board. AB 32 Scoping Plan [Appendix B]. Accessible at: https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed March 2021.</p>	

As shown in Table 7, the proposed project would comply with the majority of the suggested measures and, thus, the proposed project would be considered generally consistent with the 2017 Scoping Plan. Because the 2017 Scoping Plan is the CARB's strategy for meeting the State's 2030 emissions goals established by SB 32, the project would be considered to comply with the goals of SB 32.

Consistency with Plan Bay Area 2040

The San Francisco Bay Area's Plan Bay Area 2040 has been prepared jointly by the San Francisco Bay Area Metropolitan Transportation Commission (MTC) and the ABAG. Plan Bay Area 2040 is a regional plan intended to provide a strategy for the reduction of GHG emissions and air pollutants within the San Francisco Bay Area. The Plan Bay Area 2040 is a long-range plan that serves as a Regional Transportation Plan and Sustainable Communities Strategy (SCS). As an SCS, the Plan Bay Area 2040 is required to comply with regional targets for reducing GHG emissions through the integration of transportation and land use planning. ABAG has not provided a specified means of identifying an individual development project's compliance with the Plan Bay Area 2040. For the purposes of this analysis, the proposed project is compared to the overall goal of the Plan

Bay Area 2040, which is to reduce regional GHG emissions through the reduction of transportation-related emissions.

The proposed project would include pedestrian infrastructure on-site as well as off-site pedestrian facility improvements. The project would include construction of a new asphalt sidewalk and bike trail along the southern and western frontages of the project site. The public trail would connect pedestrian and bike paths to the internal public roads. Furthermore, as discussed in further detail in Section XVII, Transportation, the proposed project is not anticipated to contribute to a Citywide increase in VMT.

Because the project would substantially contribute to an increase in regional VMT, the proposed project would be considered consistent with the Plan Bay Area 2040, and would not conflict with the regional GHG reduction targets included therein.

Conclusion

Based on the above, project emissions would be below the BAAQMD's threshold of significance and would not be considered to conflict with the emissions reductions required by AB 32. In addition, the project would be generally consistent with the 2017 Scoping Plan. However, project emissions in the year 2030 would not achieve the emissions reductions required by SB 32. Therefore, the proposed project would be considered to conflict with the goals of SB 32, and could result in a **potentially significant** impact related to GHG emissions.

VIII-1 Prior to the issuance of building permits, the applicant shall prepare and submit to the City a GHG Reduction Plan to quantifiably reduce GHG emissions such that the project, by the year 2030, would result in an efficiency ratio of 2.6 MTCO₂e/SP/yr either through the implementation of the following on-site measures, through off-site measures such as purchasing carbon offsets that use CARB-consistent protocols or through other off-site mitigation measures as described in this mitigation measure, or a combination of on-site, carbon offsets, and other off-site mitigation measures. Proof of implementation of the GHG Reduction Plan shall be submitted to the City of Oakley Community Development Department.

Examples of measures that may be used to reduce GHG emissions include, but are not limited to, the following:

- *Orient buildings to maximize passive solar heating;*
- *Use renewable diesel to fuel construction fleets;*
- *Provide fully operational charging stations and preferential parking spots for electric vehicles;*
- *Install energy star or equivalent appliances in all residences;*
- *Limit installation of natural gas fueled appliances;*
- *Install solar water heating;*
- *Provide outdoor electrical outlets to allow for use of electrically-powered landscaping equipment at all residences within the project site;*
- *Construct on-site or fund off-site carbon sequestration projects (such as tree plantings or reforestation projects); and*

- *Purchase carbon credits to offset project annual emissions. Off-site credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in California Health and Safety Code Section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations. Such credits must be purchased through one of the following:*
 - (i) A California Air Resources Board (CARB)-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard;*
 - (ii) Any registry approved by CARB to act as a registry under the California Cap and Trade program; or*
 - (iii) Through the California Air Pollution Control Officers Association (CAPCOA) GHG Rx and the Bay Area Air Quality Management District (BAAQMD);*
 - (iv) In the event that no credits meeting these criteria are available within California, the applicant may purchase credits elsewhere so long as: (a) the Governor or the Governor's designee has made the findings set forth in Government Code Section 12894; (b) and these findings have been submitted to the Legislature; and (c) California has accepted the credits as meeting the linkage standards contained in Government Code Section 12894 or its successor statute.*

If off-site mitigation measures are proposed, the applicant must be able to show that the emission reductions from identified projects are real, permanent through the duration of the project, enforceable, and are equal to the pollutant type and amount of the project impact being offset. In addition, any off-site measures shall be subject to review and approval by the City of Oakley Community Development Department. BAAQMD recommends that off-site mitigation projects occur within the nine-county Bay Area in order to reduce localized impacts and capture potential co-benefits. If BAAQMD has established an off-site mitigation program at the time a development application is submitted, as an off-site mitigation measure, the applicant may choose to enter into an agreement with BAAQMD and pay into the established off-site mitigation program fund, where BAAQMD would commit to reducing the type and amount of emissions identified in the agreement.

IX. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. Residential uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The use of chemicals required for construction activities would be required to comply with all relevant California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Additionally, on-site operational maintenance may involve the use of common household cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the small amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a **less-than-significant** impact would occur.

- b. Two Phase I Environmental Site Assessments (ESAs) were prepared for APN 032-081-025 (City of Oakley Property)¹⁷ and APN 032-081-025 (Burroughs Property)¹⁸ (Appendices E and F). In addition, two Phase II ESAs were prepared for the City of Oakley Property¹⁹ and the Burroughs Property²⁰ (Appendix G and H). Both Phase I and Phase II ESAs are discussed below.

The Phase I ESA included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the project site to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials; and interview with persons knowledgeable about current and past site use.

As discussed previously, the project site is undeveloped and consists of vacant land with annual grasslands and ruderal vegetation; with the exception of perimeter fencing, overhead electric transmission lines along the northern perimeter, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. Historically, the project site has been used for cattle grazing and gas production, the latter of which has since been abandoned. In addition, structures are currently not located on the project site.

Review of historic aerial photographs and topographic maps indicate that a residential structure existed near the southern perimeter of the project site from at least 1914 to sometime prior to 1968. The residence was demolished and removed from the project site by 1968. By 1981, a modular home was placed on the project site near the location of the remaining concrete foundations. The modular home was removed prior to 1999. One abandoned gas well is located within the project site. In addition, a Valero gas station was observed at the southeast corner intersection of Knightsen Avenue and E. Cypress Road.

The project site was reviewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The project site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that three tests were conducted within the project zip code, with tests not exceeding the current EPA action level of 4 picocuries per liter (pCi/L₁).

The Phase I ESA did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use of the project site. In addition, a review of regulatory databases maintained by county, state, and federal agencies did not find

¹⁷ ENGEO Incorporated. *Phase I Environmental Site Assessment for City of Oakley Property*. December 24, 2019.

¹⁸ ENGEO Incorporated. *Phase I Environmental Site Assessment for the Burroughs Property*. December 23, 2019.

¹⁹ ENGEO Incorporated. *Phase II Environmental Site Assessment for the City of Oakley Property*. December 7, 2020

²⁰ ENGEO Incorporated. *Phase II Environmental Site Assessment for the Burroughs Property*. December 7, 2020.

documentation hazardous materials violations or discharge on the project site. Furthermore, a review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would be expected to impact the Property. Based on the findings of this assessment, Recognized Environmental Conditions (RECs), historical RECs, and controlled RECs were not identified for the Property.

However, the Phase I ESA accounts for features of potential environmental concern that were contained in the databases or observed on the property. The features include a former dry gas well as well as former residences.

One abandoned dry gas production well is located near the western perimeter of the project site. The dry gas well is a 7,700-foot deep well installed in 1964 and ceased production prior to 1985. The well was abandoned and received clearance from the Division of Oil/Gas (DOGGR) in 2004. Although the gas well has no record of a release, subsurface impacts associated with the historic gas production may have occurred.

Based on the Phase I ESA, it is possible that a septic system was installed to support the historic residences that existed on the project site. Given the age of the structures, a potential exists for near-surface soil impacts due to past pesticide applications and lead-based paint. Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with County and State regulations prior to the development of the proposed project.

Based on the finding of the Phase I ESA, the report recommends a limited subsurface assessment to be undertaken to determine if the former gas well operations have impacted site soil, soil gas, and/or groundwater. In addition, near-surface soil sampling should be performed within the area of the former structures to address potential impacts due to pesticides and lead-based paints. The Phase II ESA includes a soil, soil gas, and groundwater analysis, to evaluate potential impacts associated with the former dry gas production well and former residences.

The abandoned gas well does not pose an environmental concern, provided that utilities do not overlie the well. However, to evaluate potential hazardous impacts, the ESA report collected soil, groundwater, and soil gas samples. Because the former structures would be located within the widening of E. Cypress Road, the soil results were compared to corresponding San Francisco Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for commercial use. Within the Burroughs Property, in regards to the abandoned gas wells proximity to surrounding residential lots, the soil gas laboratory results were compared to the SFRWQCB ESLs for residential land use.

The on-site soil sampling results found detectable concentrations of arsenic, lead, and 4,4'-DDT. The reported arsenic concentrations are within typical background concentrations. In addition, the reported concentrations for lead and 4,4'-DDT are below the applicable SFRWQCB ESLs for commercial soil. The review of soil gas laboratory test results found detectable concentrations of total petroleum hydrocarbons (TPH)-Gasoline, oxygen, and several Volatile Organic Compounds (VOCs). The TPH-Gasoline and the VOCs were below the respective SFRWQCB ESLs. The benzene was reported above the RWQCB ESLs; however, benzene concentrations remain below the Department of Toxic

Substances Control (DTSC) Vapor Intrusion Guidance Levels reflection new residential construction.

Groundwater sampling results found detectable concentrations of barium, chromium, and molybdenum below the applicable California Maximum Contaminant Levels (CA MCL). The other groundwater analytes, VOC analytes, TPH-Gasoline, TPH-Diesel, and TPH-Motor Oil, were reported at non-detectable concentrations.

Conclusion

Based on the above, the proposed project site does not represent a significant health risk for future residential land uses and further environmental studies were not recommended. Therefore, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials from the former dry gas well. However, the project applicant shall show the location of the future inhabited structures in proximity to the abandoned gas well to ensure the future residences are not in proximity to the well. Therefore, a **potentially significant** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

- IX-.1. *Prior to final map approval, the project applicant shall submit to the City of Oakley Engineering Department, for review and approval, plans which show that future inhabited structures will not be located over the abandoned gas well. The plans should be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems. Prior to construction, the specific location of the former dry gas well should be determined and surveyed in the field.*
 - IX-2. *Prior to construction, because grading is proposed proximate to the abandoned well location, DOGGR should be consulted to determine if the wells would require modification in casing height.*
 - IX-3. *Prior to the issuance of grading permit, the existing septic systems and domestic/irrigation wells shall be removed/abandoned in accordance with County and State regulations.*
- c. The nearest school is the Delta Vista Middle School approximately 1.2 miles west of the proposed project. As a result, the proposed project is not within one-quarter mile of an existing or proposed school. Therefore, the project would have not impact related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and a **less-than-significant** impact would occur.

- d. The project site is not located on or near a site that is included in a list of hazardous materials site compiled pursuant to Government Code Section 65962.5.²¹ Therefore, the proposed project would have **no impact** with respect to being located on a hazardous materials site.
- e. The two airports closest to the proposed project are the Buchanan Field Airport and Rio Vista Airport. The Buchanan Field Airport is approximately 21 miles west of the project and the Rio Vista Airport is approximately 11 miles north of the project site. Therefore, the proposed project site is not located within two from the project site. As such, the proposed project site is not located within two miles of any public airports and does not fall within an airport land use plan area. Therefore, **no impact** related to a safety hazard for people residing or working in the project area would occur.
- f. During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. In addition, the proposed project would include the construction of a new EVA road between E. Cypress Road and E Street. Construction of an EVA road within the project site would ensure that multiple routes of access exist between the project site, which would improve emergency vehicle circulation within the site. In addition, the widening of E. Cypress Road would significantly improve emergency vehicle access to the project site by providing more road space. As a result, the proposed project would have a **less-than-significant** impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.
- g. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the proposed project site is not located within a Very High Fire Hazard Severity Zone.²² In addition, the proposed project is adjacent to single-family residential development to the west and E. Cypress Road to the south of the project site. As such, the project site would not be subject to wildland fires. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a **less-than-significant** impact would occur.

²¹ Department of Toxic Substances Control. EnviroStor. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed February 2021.

²² California State Geoportal. *California Fire Hazard Severity Zone*. January 13 2020. Available at: <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed February 2021.

X. HYDROLOGY AND WATER QUALITY.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a, ci-iii. The following discussion provides a summary of the proposed project’s potential to violate water quality standards/waste discharge requirement, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation.

Potential Water Quality Violations During Construction

The following discussion provides a summary of the proposed project’s potential to violate water quality standards during construction activities.

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. In addition, shallow groundwater was encountered beneath the surface of the project site. Dewatering wells may be needed during grading activities. Discharge of groundwater may result in potential water quality violations during construction. Discharges into water from fixed points, known as point sources, can affect

surface and groundwater, as well as enter the storm drain system. At no time would stormwater be directed to Bureau lands at the adjacent Contra Costa Canal.

As part of the project, soil import would be included that could potentially cause substantial sediment pollutants. After grading and prior to overlaying the ground with impervious surfaces, structures, or landscaping, the potential exists for wind and water to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

Water quality degradation is regulated by the federal National Pollutant Discharge Elimination System (NPDES) Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the State Water Resources Control Board through nine RWQCBs. The project site is located within the jurisdiction of the SFBRWQCB. Projects that disturb one or more acres of soil, or disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). A Notice of Intent must be filed with the RWQCB and the General Permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared. Because the project site disturbs more than one acre, the project would be subject to the aforementioned State NPDES General Permit conditions. Preparation of an SWPPP would ensure that any adverse construction-related impacts to water quality degradation would be prevented by the inclusion of BMPs for erosion and pollution prevention. Per Chapter 6.11.212 of the Oakley Municipal Code, all construction should conform to the requirements of the California Stormwater Quality Association BMPs Handbook for Construction Activities and New Development and Redevelopment, the ABAG Manual of Standards for Erosion & Sediment Control Measures, the City's grading and erosion control ordinance and other generally accepted engineering practices for erosion control as required by the Community Development Director when undertaking construction activities.

Consistent with State guidelines and Section 6.11 of the Municipal Code, the proposed project would be required to implement BMPs, including erosion and sediment control BMPs and non-stormwater management and materials management BMPs. Erosion controls include practices to stabilize soil, to protect the soil in its existing location, and to prevent soil particles from migrating. Examples of erosion control BMPs include preserving existing vegetation, mulching, and hydroseeding. Sediment controls include practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs include street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps, and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off-site via vehicles leaving the site to the extent practicable. Tracking controls could include a stabilized construction entrance, which would not only limit the access points to the construction site, but also function to partially remove sediment from vehicles prior to leaving the site.

While the final materials management BMPs to be used during construction of the proposed project are currently unknown, the project would likely include a combination of the BMP examples listed above. Final BMPs for the proposed project construction would be chosen in consultation with the applicable California Stormwater Quality Association

Stormwater BMP Handbooks and implemented by the project contractor. Prior to development, the proposed project would be required to create a SWPPP to mitigate any potential runoff from the project site. However, should the SWPPP not be reviewed and approved, the proposed project could violate water quality standards and/or waste discharge requirements, and a significant impact could occur related to violation of any federal, State, or County potable water quality standards, create or contribute runoff, or otherwise substantially degrade surface or ground water quality during construction of the proposed project.

Potential Water Quality Violations During Operation

The proposed project would include the construction of residential development and associated improvements. As such, the project site would be covered in mostly impervious surfaces. During operations, the proposed project would generate multiple vehicle and truck trips to and from the project site. Vehicles and other urban activities release contaminants onto the impervious surfaces. Anticipated runoff contaminants associated with the proposed project include sediments, pesticides, oil and grease, nutrients, metals, bacteria, and trash.

To reduce stormwater pollution, all incorporated Cities and the Contra Costa County Flood Control and Water Conservation District joined together to form the Contra Costa Clean Water Program (CCCWP). The CCCWP obtained a Joint Municipal NPDES Permit from the San Francisco Bay Central Valley RWQCBs in September 1993 and January 1994, respectively. CCCWP staff monitors the NPDES permit program and Stormwater Utility areas. The CCCWP develops and implements specific programs to meet NPDES requirements.

The proposed project would utilize stormwater detention basins that have been constructed within the adjacent Gilbert property and would be graded in such a way to ensure that stormwater flows towards these basins from all areas of the project site. The stormwater detention basins were recently constructed and have been sized appropriately to accommodate and treat runoff from the Burroughs Project in accordance with the criteria provided in the applicable Provision C.3 Amendments of the CCCWP's amended NPDES Permit. The storm drain improvements have been sized to accommodate the approved Gilbert property development as well as the proposed development. The storm drain improvements include large diameter pipelines extended to the southern and eastern limits of the Gilbert project, a detention lake that provides capacity of storms up to the 100-year event as well as stormwater quality treatment, a storm drain pump stations, and a discharge force main pipeline that discharges the excess storm flows to the Emerson Slough.

Following completion of project buildout, the site would be largely covered with impervious surfaces and landscaping areas, and topsoil would no longer be exposed. In addition, the stormwater detention basins were sized appropriately to treat runoff in accordance with the criteria provided in the applicable Provision C.3 Amendments of the CCCWP's amended NPDES Permit. As such, the potential for erosion and associated impacts to water quality would be reduced. As a result, the proposed project would result in a less-than-significant impact because the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations of the proposed project.

Conclusion

Based on the above, the proposed project would not result in potential water quality violations during operation. However, prior to construction and grading, should the SWPPP not be reviewed and approved, the proposed project could violate water quality standard and/or waste discharge requirements, and a **potentially significant** impact could occur related to violation of any federal, State, or County potable water quality standards, create or contribute runoff, or otherwise substantially degrade surface or ground water quality during construction.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the impact to *less-than-significant*.

X-1. *Prior to any grading activities, the applicant shall provide a Stormwater Pollution Prevention Plan (SWPPP) for the entire project site which shall include construction and post construction BMPs (including both physical and programs BMPs) to the satisfaction of the City Engineer. The SWPPP shall include the following:*

- *Utilize on-site sediment control BMPs to retain sediment on the project site, such as: straw wattle; silt fences, storm drain inlet protection, erosion control blankets, and concrete washouts;*
- *Stabilized construction entrances and/or Wheel washing racks;*
- *Cover soil, equipment and supplies that could contribute pollution prior to rainfall events or monitoring runoff;*
- *Perform monitoring of discharges to the stormwater system;*
and
- *Provide permanent cover to stabilize the disturbed surfaces after construction has been completed, as the project is a phased development.*

b,e. Water would be provided to the project site through new connections to the existing water infrastructure surrounding the site. The DWD provides water service to Oakley and surrounding areas within its Diablo Water District Sphere of Influence (DWD SOI). DWDs water supply comes from a commitment of 30 million gallons per day (MGD) from the CCWD, a public water agency, which delivers water to 450,000 people in central and eastern Contra Costa County through the Contra Costa Canal. Currently, all of DWD District's raw water supply is from surface water from the Contra Costa Canal which obtains water from the Sacramento-San Joaquin Delta at the Rock Slough intake. Groundwater is used in the City for emergency purposes only due to deteriorating water quality. In addition, an ultimate network of major distribution system pipelines was identified for service to future development within the DWDSOI and to Bethel Island. Therefore, the proposed project would not rely on groundwater as a source of water supply, and the proposed project would not contribute to the depletion of groundwater.

The project's drainage system would include connection to the adjacent Gilbert stormwater detention basin that would manage runoff from all on-site impervious areas. Therefore, the proposed project would result in a **less-than-significant** impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

- civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the project site, the project site is located within an Area of Special Flood Hazard (Zone AE).²³ Therefore, the project site is located within a 100-year flood plain. In addition, according to the Oakley General Plan, substantial areas within the City are subject to flooding, especially areas along the coast and northeast of the Contra Costa Canal. However, the proposed project includes importing soil to raise the elevation of the site by five feet to protect the development from flood hazards. Therefore, the proposed project would not expose future residents and structures to hazards related to flooding and a **less-than-significant** impact would occur.
- d. As discussed under question civ, the project site is located within a flood hazard zone. However, as noted above, the import of soil would reduce the risk of flooding to the project site. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to a large closed body of water. The project site is approximately 2 miles south of the San Joaquin River; however, this river is not a closed body of water and would not result in hazards related to seiches. Based on the above, the proposed project would not pose a risk related to release of pollutants due to project inundation flooding, tsunami, or seiche, and **no impact** would occur

²³ FEMA. FEMA Flood Map Service. Available at: <https://msc.fema.gov/portal/search?AddressQuery=East%20Cypress%20Road%2C%20Oakley%2C%20California#searchresultsanchor>. Accessed February 2021.

XI. LAND USE AND PLANNING.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. A project risks dividing an established community if the project introduces infrastructure, alters land use conditions in the surrounding community, or isolates an existing land use. Currently, the project site is undeveloped and consists of vacant land with annual grasslands and limited trees; therefore, the proposed project involves construction on a vacant site. As a result, the proposed project would not physically divide an established community. Surrounding development in the project vicinity includes rural commercial and single-family residential to the west and south of the project site. The proposed residences would be compatible with the existing development in the project area. In addition, the site is in an area planned for single-family residential development per the Oakley General Plan. Furthermore, the proposed E. Cypress Road widening would improve connectivity between the proposed residences and surrounding uses in the project area, which include schools, parks, and commercial uses. As such, the proposed project would not physically divide an established community and a **less-than-significant** impact would occur.

- b. The proposed project is consistent with the General Plan; therefore, single-family residential development has been anticipated at project site. The proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, because the project would introduce new residents and increase the demand for recreational facilities, the project applicant would be required to pay the City’s parks and recreation impact fees or donate parkland and/or improvements to the City. In addition, in compliance with the Section 9.1.1112 of the City’s Municipal Code, the proposed project would be required to include replacement trees for any that are removed within the project site. Furthermore, compliance with the ECCC HCP/NCCP would mitigate and minimize significant impacts to special-status plants, wildlife, and wetlands. Implementation of the mitigation measures included within this IS/MND would ensure all environmental impacts of the proposed project have been reduced to a **less-than-significant** level.

XII. MINERAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

a,b. The City of Oakley General Plan Background Report states that the only viable mineral resource currently mined in the City of Oakley is sand. Currently, the mining of sand does not occur at the project site and much of the adjacent land is developed for residential and commercial uses. The site previously included valuable sand resources; however, the site has been previously mined and would no longer have valuable sand resources. As a result of previous sand mining, the project site is highly disturbed. Due to the previously disturbed nature of the project site, the area would likely not be a source of minerals. Additionally, the nearest active mine in California is the Kennedy Mine, located approximately 57 miles from the project site. Thus, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site; therefore, the proposed project would have **no impact** to mineral resources.

XIII. NOISE.

Would the project result in:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

The following discussion is based primarily on a Noise and Vibration Assessment prepared by Illingworth and Rodkin, Inc (Appendix I).²⁴

- a. The following sections present information regarding sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:
- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.
 - Average, or equivalent, sound level (L_{eq}): The L_{eq} corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour).
 - Day-Night Average Level (L_{dn}): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

²⁴ Illingworth and Rodkin, Inc. Burroughs Property Noise and Vibration Assessment. January 20, 2021.

Existing Noise Environment

The project site is located northeast of the intersection of Knightsen Avenue and E. Cypress Road in the City. The existing noise in the project area is primarily defined by vehicular traffic along E. Cypress Road. In October 2020, Ilingtown Worth & Rodkin, Inc., collected noise data at the project site and in the site vicinity for the Woodbury at Emerson Residential Project located approximately one half of one mile west of the site, north of E. Cypress Road and west of Sellers Avenue. The noise data is applicable to the existing noise environment of the project site and will be used for the purpose of this analysis to the existing noise environment of the project site. The noise monitoring survey included two long-term (LT) measurements and four short term (ST) measurements. Long-term measure (LT-1) was made along E. Cypress Road and the two short-term measurements were made at the Burroughs site.

Exterior Noise Environment

It should be noted that recent rulings by the California Supreme Court have clarified that environmental analyses prepared under CEQA are intended to analyze a project's impact on the environment, rather than the potential impact of the environment on the project (Ballona Wetlands Land Trust v. City of Los Angeles, (2011) 201 Cal.App.4th 455, 473 [Ballona]). Therefore, the discussion below is based on the project's impact to the environment, and not the potential impact of the environment on the project. As a result, traffic noise impacts on the project will not be discussed.

Standards of Significance

The City of Oakley establishes an exterior noise level criterion of 65 dB L_{dn} or less within outdoor activity areas of residential land uses. Additionally, the City requires that cumulative noise exposure from exterior noise sources within noise-sensitive dwellings not exceed 45 dB L_{dn} .

The Oakley Municipal Code establishes maximum noise limits for construction activities. Specifically, Section 4.2.0 208 prohibits construction activities at the site or in areas adjacent to the site to the hours between 7:30 AM and 7:00 PM, Monday through Friday and 9:00 AM to 7:00 PM on Saturday, Sunday, State, and Federal or Local Holidays.

Construction Noise

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distances between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive areas times of the day (e.g., early morning, evening, or nighttime hours), if the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities would include excavation, site preparation, grading, building construction, paving, and architectural coating. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. In addition, the hauling of excavated materials and construction materials would generate truck trips on local roadways.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. Table 8 lists typical ranges of construction

noise levels at a distance of 50 feet. Typical hourly average construction-generated noise levels from domestic housing projects are about 81 to 89 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods when all pertinent equipment is present at the site. When the minimum required equipment is present at the site, noise levels produced by domestic housing projects are about 65 to 83 dBA L_{eq} .

TABLE 8 CONSTRUCTION EQUIPMENT NOISE	
Type of Equipment	Maximum Level, dB at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85
Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.	

All construction throughout the site would occur simultaneously through one phase. The center of the project site would be approximately 500 feet from the nearest residences to the south, opposite of E. Cypress Road, and approximately 1,000 feet from the nearest residential property line shared with the existing development to the west.

Average noise levels produced by residential housing construction activities would range from 45 to 68 dBA L_{eq} at 500 feet and from 39 to 62 dBA L_{eq} at 1,000 feet. In addition, long periods of construction occurring along the project site's southern and western property lines may generate noise levels that would exceed ambient conditions up to 10 dBA. Therefore, construction activities must implement standard construction noise BMPs to reduce noise and limit annoyance at nearby receptors.

However, implementation of construction BMPs would reduce construction noise and minimize annoyance at the nearest residents to a less-than-significant level. BMPs include, but are not limited to, the following:

- Pursuant to the City of Oakley Municipal Code Section 4.2.208, prohibit construction activities at the site or in areas adjacent to the site to the hours between 7:30 AM and 7:00 PM., Monday through Friday and 9:00 AM to 7:00 PM on Saturday, Sunday, and State, Federal or Local Holidays;
- Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;

- Acoustically shield stationary equipment located near residential receivers with temporary noise barriers;
- Locate staging areas and construction material areas as far away as possible from adjacent land uses;
- Prohibit all unnecessary idling of internal combustion engines;
- Route all construction traffic to and from the project site via designated truck routes and prohibit construction related heavy truck traffic in residential areas where feasible;
- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented; and
- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

Operational Noise

Operational noise associated with the proposed residential project would include heating, ventilation, and air condition equipment which would be present at each proposed residence. Noise levels produced by a typical residential heat pump are approximately 56 dBA at three feet during operation. Noise levels produced by a typical residential air conditioning condenser are approximately 66 dBA at three feet during operation. The nearest noise-sensitive uses would be located approximately 175 feet south of the residential property line where HVAC equipment may be located. At this distance, noise generated by mechanical equipment would reach 21 to 31 dBA. Operation and use of the proposed residences is expected to result in noises typically associated with residential development such as voices of the new residents, home maintenance activities, barking dogs, and children. The mentioned sources would not be expected to generate substantial noise-offsite. Therefore, operational noise levels would not exceed the General Plan standards and a less-than-significant impact would occur.

Traffic Noise Increases

As further discussed in Section XVII, Transportation/Traffic, of the IS/MND, the proposed project would increase vehicle trips and noise on local roadways. The Oakley General Plan Policy 9.16 establishes significant criteria for traffic noise increases due to roadway improvement projects. The criteria within Policy 9.16 may be reasonably applied to traffic noise increases resulting from the proposed project. Within the criteria, it states that where traffic noise levels are greater than 65 dBA L_{dn} at outdoor activity areas of noise-sensitive uses, a 1.5 dBA increase in noise levels would be considered significant.

Traffic data provided by TJKM was reviewed to calculate future traffic noise increases resulting from the proposed project. Through a comparison of future 2040 traffic volumes with and without the project, the proposed project would result in a 0 to 1 dBA increase on all-roadway segments analyzed in the traffic study. Therefore, the traffic noise increase generated from the proposed project would not exceed General Plan criteria.

Conclusion

Based on the above, operation and construction of the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in

excess of standards established in the City's General Plan and the Municipal Code. Therefore, a **less-than-significant** impact would occur.

- b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 9, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

TABLE 9 EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS			
PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

Construction of the project may temporarily generate perceptible vibration when heavy equipment or impact tools are used near the boundary of the site. Proposed construction includes demolition, site preparation, grading, trenching/foundation, paving, and new building

framing and finishing. In addition, the proposed project would not require pile driving, which would cause excessive vibration. Table 10 shows the typical vibration levels produced by construction equipment at various distances.

TABLE 10 VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT		
Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/Drill Rigs	0.089	0.031
Jackhammer	0.035	0.012
Vibratory Hammer	0.070	0.025
Vibratory Compactor/roller	0.210 (less than 0.20 at 26 feet)	0.074
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.		

The City of Oakley does not specify a construction vibration limit. For structural damage, Caltrans recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings. The 0.3 in/sec PPV vibration limit would be applicable to properties in the vicinity of the project site.

Table 11 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet and summarizes the vibration levels at the minimum distance of 130 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Heavy vibration generating construction equipment, such as vibratory rollers or the dropping of heavy equipment (e.g., clam shovel drops), would have the potential to produce vibration levels of 0.3 in/sec PPV or more at buildings of normal conventional construction located within approximately 20 feet of the project site.

At 130 feet, vibration levels are calculated to reach a maximum of 0.034 in/sec PPV, which would not exceed the 0.3 in/sec PPV threshold for residential buildings. Cosmetic damage (e.g., hairline cracks in plaster, opening of old cracks, etc.) would not be expected at sensitive buildings located 20 feet or further from the project site. Construction vibration may still be perceptible at times, but with any type of construction, this would be anticipated and would not be considered significant, given the intermittent and short duration of the phases that have the highest potential of producing vibrations. Therefore, vibration impacts from the project would be considered less-than-significant.

Conclusion

Based on the above, construction and operation of the proposed project would not result in a substantial permanent increase in ground borne vibration or ground borne noise levels in the vicinity of the project in excess of standards established in the City’s General Plan and the Municipal Code. Therefore, a **less-than-significant** impact could occur.

TABLE 11		
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT		
Equipment	Source PPV (in/sec) 25 ft.	PPV at 130 ft (Nearest Residential Building)
Cal Shovel Drop	0.202	0.033
Hydromill (slurry wall)	In soil	0.008
	In rock	0.017
Vibratory Roller	0.210	0.034
Hoe Ram	0.089	0.015
Large bulldozer	0.089	0.015
Caisson drilling	0.089	0.015
Loaded trucks	0.076	0.012
Jackhammer	0.035	0.006
Small bulldozer	0.003	0.000
Source: Transit Noise and Vibration Impact Assessment Manual, U.S. Department of Transportation Federal Transit Administration, September 2018 as modified by Illingworth & Rodkin, Inc., January 2021.		

- c. The proposed project is not located within two miles of a public airport or private airstrip. Most aircraft activities associated with public airports or private airstrips are concentrated in the immediate environ, therefore, noise levels resulting from intermittent aircraft overflights would be less than 65dBA CNEL and compatible with the proposed land use. As a result, **a less-than-significant** impact would occur.

XIV. POPULATION AND HOUSING.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. Population growth itself does not constitute an environmental impact; rather, increased demands on the physical environment resulting from population increases are considered environmental impacts. The physical environmental effects associated with development of the proposed project are evaluated throughout this IS/MND.

The proposed project would include the development of 208 single-family residential units. Using the General Plan’s average of 3.26 persons per household, the proposed project would add 678 residents to the City’s population. Based on the 2020 population estimate of 43,387, the project would constitute a 1.6 percent increase in population within the City. The General Plan previously anticipated single-family residential development on the project site, and associated population growth was analyzed in the General Plan EIR. The proposed project would not result in substantially more intensive population growth beyond what has been anticipated by the City. Furthermore, the project site is located within an urbanized area of the City and is adjacent to existing residential development to the west. Therefore, development of the proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly, and a ***less-than-significant*** impact would occur.

- b. The proposed project would be developed on vacant land currently used for small scale cattle grazing. Currently, the project site is undeveloped and consists of vacant land with annual grasslands and limited trees. Therefore, the project would not displace substantial numbers of existing housing or people, and a ***less-than-significant*** impact would occur.

XV. PUBLIC SERVICES.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

Discussion

- a. Fire protection is currently provided to the City of Oakley by the East Contra Costa Fire Protection District. A new fire station was built to accommodate increased demand, staffing and equipment in 2010. With the completion of the new fire station the City of Oakley General Plan anticipates fire service to be adequate for buildout of the City. Station 93 is located 2.5 miles northwest of the project site. The proposed project would be subject to the fire facilities impact fees set forth in the City of Oakley Municipal Code Section 9.2.504. Payment of the required impact fee would mitigate any potential impacts caused by increased demands on fire services that may result from the proposed project, as well as ensure that the project conforms with the City of Oakley’s General Plan Policy 4.4.2. Additionally, the proposed project does not include any alterations to the circulation system of the surrounding area, which could conflict with the City of Oakley’s General Plan Policy 4.4.4, or lead to a degradation in response times. Given the payment of fees in accordance with City of Oakley Municipal Code, the proposed project is not expected to cause significant degradation to response times or service ratios, which would induce the need for physically altered or expanded governmental facilities, the construction of which could cause significant environmental impacts, and the project would, therefore, result in a **less-than-significant** impact.

- b. Police protection is currently provided to the City of Oakley by the Oakley Police Department and the Contra Costa County Sheriff’s Office. The Oakley Police Department currently employs 43 persons, including the Chief of Police, the Lieutenant, six Sergeants, five Detectives, 21 Police Officers, and nine Police Services Assistants.²⁵ As previously discussed, the proposed project would include construction of 208 single-family residential units. An increase in demand for police services would occur because residences typically generate a higher demand for police services. Nevertheless, police service demand from residential development at the project site have been included in City of Oakley’s demand predictions based on anticipated General Plan buildout. In addition, development fees would be applied to the proposed project, as well as a Police Services levy. Based on the above, the proposed project would create a demand that was anticipated for the site and would not induce the need for physically altered or expanded governmental facilities, the

²⁵ City of Oakley Police Department. 2017 Annual Report. Available at: <https://www.ci.oakley.ca.us/wp-content/uploads/2018/04/Annual-Report-2017-2-2.pdf>. Accessed March 2021.

construction of which could cause significant environmental impacts. Therefore, the proposed project would result in a **less-than-significant** impact.

- c. For elementary schools, the City is primarily served by the Oakley Union Elementary School District. High schools in the City are within the Liberty Union High School District. The Oakley General Plan has goals and policies set forth to ensure adequate primary and secondary schools in response to population growth. The City expects the General Plan to assist in the goal of providing an efficient and complete educational system for the citizens of Oakley. For example, Policy 4.65 set forth in the General Plan, ensures that school facility impacts fees are collected and shall work with developers and school districts to establish mitigation measures to ensure the availability of adequate school facilities. The proposed project would be subject to school facility impact fees. Payment of applicable development fees would be sufficient in reducing the impacts associated with an increase in students from the project. Therefore, the proposed project would result in a **less-than-significant** impact regarding an increase in demand for schools the construction of which could cause a significant impact.

- d. The proposed project would result in development of 208 single-family residences. The City of Oakley Municipal Code 9.2.2.08 requires five acres of parkland per 1,000 residents. Based on the rate of 3.26 residents per single-family dwelling unit, the maximum buildout of the proposed project site would result in an increase of 678 new residents to the City. As a result, 3.39 acres of parkland would be required ($0.005 \times 678 = 3.39$). Oakley resolution 19-03 requires subdividers of land within the City to dedicate land and/or pay fees in lieu of the dedication for the neighborhood and community parks and recreation programs.

The proposed project does not include any on-site parks; thus, the project would be subject to payment of in-lieu park fees. Therefore, given that the proposed project would be required to pay the applicable park in-lieu fee, the project would result in a **less-than-significant** impact on recreation.

XVI. RECREATION.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. The City of Oakley provides and maintains the parks and recreational opportunities within the City. Within Oakley, recreational opportunities range from traditional active recreation, such as organized sports, to passive recreation of nature observation and bird watching. In Oakley, the predominant parks are neighborhood and community parks. Neighborhood parks generally abut residential areas and have amenities such as play areas, picnic areas, gathering areas, and open turf. Community parks are designed to serve the needs of several neighborhoods up to the whole community. According to the City’s General Plan EIR, parks in Oakley are mostly located on school properties, flood control properties, or other joint-use sites.

The proposed project would develop 208 single-family residential units, and therefore result in the addition of residents to the City and a potential increase in the use of the existing parks and/or the demand for new neighborhood or community parks and recreation facilities in the area. However, the proposed project would include an on-site public trail that would outline the western and southern perimeter of the proposed project. In addition, each residence within the proposed project would have a front and backyard.

The public trail would be characterized by various vegetative ground cover, shrubs, and trees. Throughout the trail, recreational facilities would be located periodically containing bike paths, bike racks, benches, etc. Therefore, the addition of the public trail would diversify recreational facilities throughout the City.

In addition, the proposed project would pay a park impact fee to pay for park and recreational facilities as required by Section 9.2.104 of the City’s Municipal Code or dedicate park land. Therefore, the proposed project would result in a **less-than-significant impact** on recreation.

- b. The proposed project includes the construction of an impervious pedestrian trail adjacent to the western and southern border of the proposed residential lots. The impervious pedestrian trail would be constructed within the 75-foot stream setback from Little Dutch Slough. All land within the setback that is disturbed by grading and trail construction would be seeded with native grasses and forbs. Therefore, the area disturbed would be restored to a vegetated condition similar to, or with increased native plant diversity, as compared to the pre-construction conditions. As a result, the proposed project would have a **less-than-significant impact** on the physical environment from the construction or expansion of recreational facilities.

XVII. TRANSPORTATION.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. The following discussion is based primarily on a Traffic Impact Analysis (TIA) prepared for the proposed project by TJKM (Appendix J).²⁶ As a result of SB 743, discussed further below, local jurisdictions may not rely on vehicle Level of Service (LOS) and similar measures related to delay as the sole basis for determining the significance of transportation impacts under CEQA. However, existing LOS at the study roadway facilities is presented herein to comply with General Plan LOS policies.

Study Intersection

As part of the TIA, TJKM evaluated transportation conditions at the following 10 intersections (Figure 9):

1. Jersey Island Road / E. Cypress Road
2. Knightsen Avenue / E. Cypress Road
3. Sellers Avenue / E. Cypress Road
4. Machado Lane / E. Cypress Road
5. Picasso Drive / E. Cypress Road
6. Main Street / E. Cypress Road
7. Main Street / Laurel Road
8. Main Street / Delta Road
9. Delta Road / Sellers Avenue²⁷
10. E. Cypress Road / Project Entrance²⁸
11. Sellers Avenue / Laurel Road

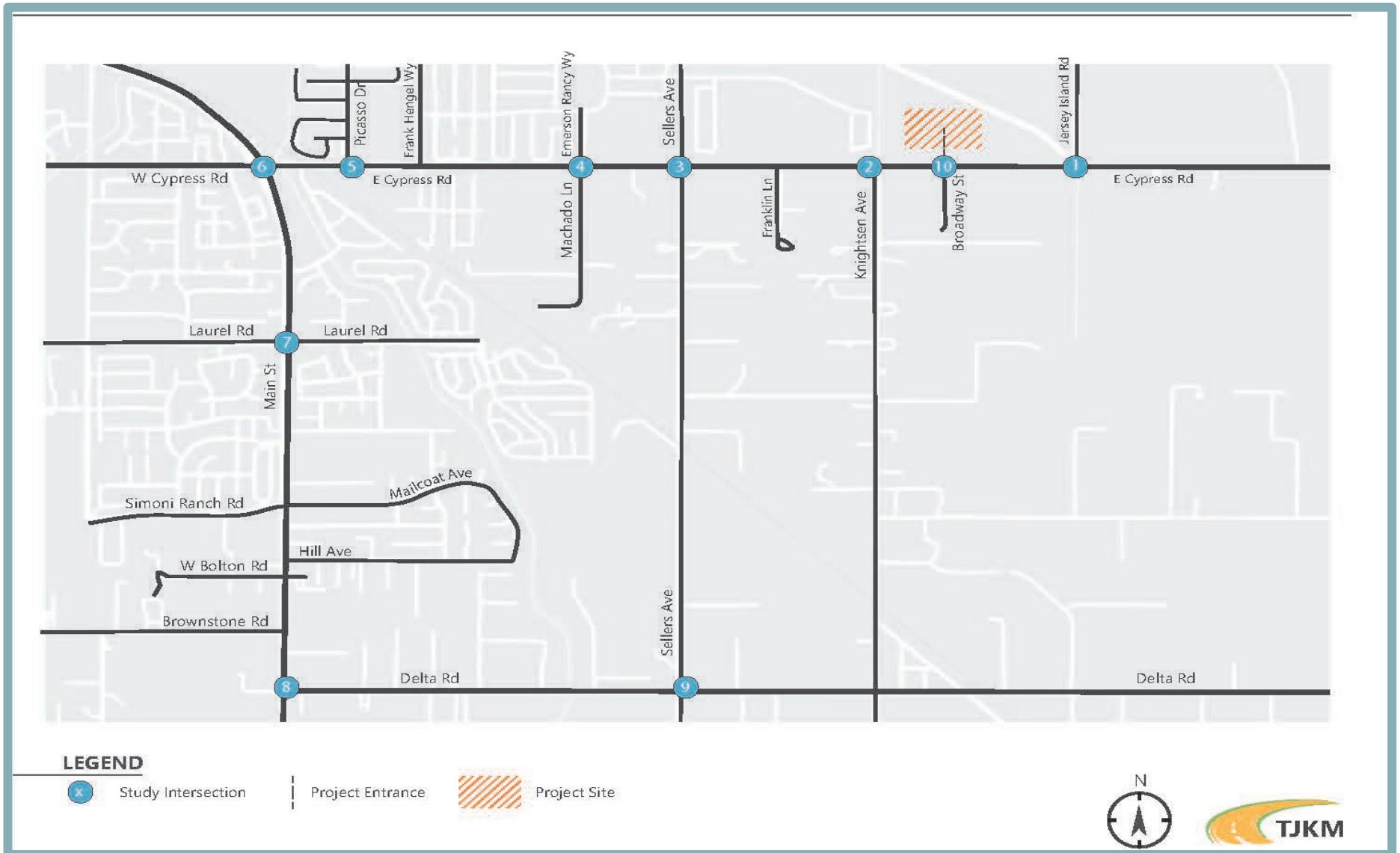
All intersections were evaluated based on conditions provided from the Citywide Traffic Model for the AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods for a typical weekday, except for the intersection at Delta Road/Sellers Avenue (Intersection #9) where the data was collected more recently.

²⁶ TJKM. *Draft Traffic Impact Analysis for the Burroughs Project*. March 31, 2021.

²⁷ Indicates new location included in the Citywide Traffic Model to evaluate Level of Service.

²⁸ Indicates intersection would be evaluated under “plus Project” scenarios only.

Figure 9
Study Intersection Location



Source: TJKM, 2021

Study Scenarios

Conditions at each intersection were analyzed under the following scenarios.

- **Existing Conditions** – Provides an evaluation of current operations based on the current roadway and sidewalk network characteristics, transit service, and the existing Oakley Citywide Traffic Model;
- **Existing plus Project Conditions** – Similar to Existing Conditions, but with the addition of net new trips that would be generated by the project;
- **Background Conditions** – Provides an evaluation of project peak hour traffic operations based on the net change to travel patterns anticipated from approved (but not yet constructed) or fully/partially occupied developments in the City at the time of the Existing Conditions assessment. The analysis includes additional trips that would be generated if the approved developments were to operate at full occupancy. The conditions in this analysis were developed using the Updated Citywide Vistro Model; and
- **Background plus Project Conditions** – Similar to Background Conditions, but with the inclusion of vehicle trips that would be generated by the project. Includes an analysis that provides an assessment of project impacts that take into account other projects that would be completed within a similar timeframe as the project.

LOS Standards

Operations at each study intersection were evaluated based on LOS, a qualitative measure that describes operational conditions related to traffic stream and perceptions by motorists and passengers. The LOS generally describes conditions in terms of speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Operational levels of service are given letter designations from A to F, with A representing the best operating conditions and F representing the worst conditions.

Per the City of Oakley General Plan, LOS D or a volume-to-capacity (V/C) ratio of 0.90 are the thresholds of acceptability for signalized intersections. Any signalized intersection operating worse than LOS D would be considered inconsistent with this standard. The intersection of Main Street and E. Cypress Road, which is a Congestion Management Program (CMP) intersection and the intersections along Main Street at Laurel Road and Delta Road, which are within Priority Development Areas (PDA) have standards of LOS E or better.

For this study, the study intersections were analyzed using Highway Capacity Manual (HCM) 6th Edition Methodology as per the City's guidance. Average control delay is reported in seconds per vehicle for signalized and all-way-stop-control intersections and critical delay for minor approaches is reported for two-way-stop-control intersections. Intersections operating worse than LOS D are considered inconsistent with the City's standard except for PDAs where the minimum acceptable operational standard is LOS E.

Project Trip Generation

The project vehicle trip generation rates were obtained from the reference *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers (ITE). Based on the applicable rates for Single-Family Detached Housing (ITE Code 210), the proposed project is forecasted to generate 1,964 daily vehicle trips, including 154 AM peak hour and 206 PM

peak hour vehicle trips, as summarized in Table 12.

TABLE 12 PROJECT VEHICLE TRIP GENERATION														
Land Use (ITE Code)	Size¹	Daily			AM Peak²					PM Peak²				
		Rate	Trips	Rate	In:Out	In	Out	Rate	Total	In:Out	In	Out	Total	
Single Family Detached Housing	208 DU	9.44	1,964	0.74	25:75	39	115	0.99	154	63:37	130	76	206	
Net New Trips		1,964			39		115		154		130		76 206	
Notes:														
Source: Institute of Transportation Engineers Trip Generation Manual, 10 th Edition														
¹ DU- Dwelling Units														
² AM Peak - morning peak period (7:00 AM - 9:00 AM); PM Peak – evening peak period (4:00 PM-6:00 PM)														

Existing Conditions Traffic LOS Analysis

Under Existing Conditions, intersections were analyzed based on lane geometries and traffic controls provided by the Existing Conditions scenario of the Citywide Traffic Model. Each of the study intersections operate at an acceptable LOS D or better under Existing Conditions, except the intersections of Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) which operate at LOS E or F during one or both peaks (see Table 13).

Existing Plus Project Conditions Traffic Analysis

Under the Plus Project Condition, intersection peak hour LOS at the study intersections were analyzed based on the addition of project trips to each intersection section studied. Table 14 summarizes the peak hour LOS at each section. As shown, all study intersections operate at acceptable LOS under Existing Plus Project Conditions, except the intersections Knightsen Avenue/E. Cypress Road (Intersection #2), Main Street/E. Cypress Road (Intersection #6), and Main Street/Delta Road (Intersection #8) which operates at LOS F during the AM peak.

Background plus Project Conditions Traffic Analysis

Under the Background plus Project Conditions analysis, additional traffic projected to be generated from approved development was forecasted for Background Conditions. The Background Conditions scenario includes additional traffic that would be generated by various specific plans and approved projects within the City of Oakley. The most notable project is the completion of the Laurel Road extension between Main Street and Sellers Avenue. The extension includes a railroad grade separation and widening/construction of Laurel Road to four lanes. In addition, Sellers Avenue is planned to be widened to four lanes between Laurel Road and E. Cypress Road. Cypress Road is planned to be fully improved to six lanes east of Sellers Avenue and to four lanes west of Sellers Avenue. The Background Conditions scenario includes additional traffic that would be generated by various approved projects completed within the City and redistribution of traffic due to the Laurel Road extension.

TABLE 13
EXISTING CONDITIONS INTERSECTION LOS

Intersection	Peak Hour	Control Delay	Existing Conditions	
			Delay ¹	LOS ²
1. Jersey Island Road / E. Cypress Road	AM	One-way Stop	16.2	C
	PM		11.3	B
2. Knighsen Avenue / E. Cypress Road .	AM	Signalized	37.3	E
	PM		21.6	C
3. Sellers Avenue / E. Cypress Road	AM	Signalized	18.4	B
	PM		17.2	B
4. Machado Lane / E. Cypress Road	AM	Signalized	12.8	B
	PM		11.2	B
5. Picasso Drive / E. Cypress Road*	AM	Signalized	32.8	C
	PM		8.9	A
6. Main Street / E. Cypress Road*	AM	Signalized	>80	F
	PM		27.9	C
7. Main Street / Laurel Road*	AM	Signalized	46.2	D
	PM		37.0	D
8. Main Street / Delta Road*	AM	One-Way Stop	>50	F
	PM		40.5	E
9. Delta Road / Sellers Avenue	AM	All-Way Stop	9.3	A
	PM		13.0	B

Notes: **Bold** text indicates unacceptable intersection operations
1 Delay: Average control delay in seconds per vehicle. Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*
2 LOS: Level of Service
* Indicates intersection is located in a PDA and has standard of LOS E.

Source: TJKM, 2021.

TABLE 14
EXISTING PLUS PROJECT CONDITIONS INTERSECTION LOS

Intersection	Peak Hour	Control Delay	Existing Conditions		Existing plus Project Conditions		
			Average Delay ¹	LOS ²	Average Delay ¹	LOS ²	Potential Significant LOS Impact?
1. Jersey Island Road / E. Cypress Road	AM	One-way Stop	16.2	C	16.2	C	No
	PM		11.3	B	11.3	B	No
2. Knightsen Avenue / E. Cypress Road .	AM	Signalized	37.3	E	>50	F	Yes
	PM		21.6	C	33.2	D	No
3. Sellers Avenue / E. Cypress Road	AM	Signalized	18.4	B	19.6	B	No
	PM		17.2	B	18.3	B	No
4. Machado Lane / E. Cypress Road	AM	Signalized	12.8	B	13.3	B	No
	PM		11.2	B	12.0	B	No
5. Picasso Drive / E. Cypress Road	AM	Signalized	32.8	C	40.4	D	No
	PM		8.9	A	8.9	A	No
6. Main Street / E. Cypress Road*	AM	Signalized	>80	F	>80	F	Yes
	PM		27.9	C	39.4	D	No
7. Main Street / Laurel Road*	AM	Signalized	46.2	D	49.7	D	No
	PM		37.0	D	50.4	D	No
8. Main Street / Delta Road*	AM	One-Way Stop	>50	F	>50	F	Yes
	PM		40.5	E	44.2	E	No
9. Delta Road / Sellers Avenue	AM	All-Way Stop	9.3	A	9.3	A	No
	PM		13.0	B	13.0	B	No
10. Project Driveway / E. Cypress Road	AM	Two-Way Stop	N/A	N/A	13.7	B	No
	PM		10.3	B	No		

Notes: **Bold** text indicates unacceptable intersection operations

1 Delay: Average control delay in seconds per vehicle. Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

2 LOS: Level of Service

* Indicates intersection is located in a PDA and has standard of LOS E.

Source: TJKM, 2021.

Existing plus Project Traffic Impact

The proposed project impact to the intersection of Knightsen Avenue/E. Cypress Road (Intersection #2), Main Street/E. Cypress Road (Intersection #6), and Main Street/Delta Road (Intersection #8) adds five or more seconds of delay in the AM peak period. In addition, peak hour signal warrants were evaluated for the Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) intersections based on the *California Manual on Uniform Traffic Control Devices* (CA MUTD) guidelines for traffic signal warrant 3, which evaluates traffic signal installation for peak hour traffic. At the intersection of Knightsen Avenue/E. Cypress Road (Intersection #2) the peak hour signal warrant is met during both peak hours without the proposed project, based on the eastbound and westbound one-lane approach volumes on E. Cypress Road, and northbound one-lane approach on Knightsen Avenue, to 70 percent of the peak hour warrant thresholds. Thus, the warrant is satisfied because the major street, E. Cypress Road, has a posted speed limit exceeding 40 mph.

At the intersection of Main Street/Delta Road (Intersection #8) the peak hour signal warrant is met during both peak hours without the proposed project, based on the westbound approach volumes on Delta Road, and northbound and southbound approach volumes on Main Street, which satisfy the peak hour warrant thresholds. The intersections at Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) both operate at acceptable LOS D or better during the AM and PM peak hours with the implementation of traffic signals. The signalized intersection of Main Street/E. Cypress Road (Study Intersection #6) operates at unacceptable LOS F during the AM peak hour under Existing Conditions without and with the proposed project, due to lack of acceptable signal service to the westbound left-turn movement. Intersection operations improve to acceptable LOS D at this location by increasing phase splits at the eastbound and westbound left-turn approaches and providing a northbound right-turn overlap phase.

With the installation of signal control at Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) and signal timing improvements at Main Street/E. Cypress Road (Intersection #6) the impacts of the proposed project would not be substantial. Above mentioned intersections are included in the list of planned intersection improvements by the City's Traffic Impact Fee (TIF) program, including the signalization of the Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) intersections. With the installation of signal control at Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) and signal timing improvements at Main Street/E. Cypress Road (Intersection #6); the impacts of the proposed project would not be substantial. The abovementioned intersections are included in the list of planned intersection improvements by the City's TIF program, including the signalization of the Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road intersections (Intersection #8). The City currently has Capital Improvement Projects (CIP) for improvements at the intersections of Knightsen Avenue/E. Cypress Road and (Intersection #2) Main Street/E. Cypress Road (Intersection #8). Additionally, the City has made efforts and is exploring options to improve traffic conditions at Main Street/Delta Road (Intersection #8).

Background plus Project Conditions Traffic Impacts

Under Background plus Project Conditions Traffic Analysis, all study intersections operate at acceptable LOS D or better. Table 15 below summarizes the peak hour LOS at the study intersections under Background plus Project Conditions, with Background Condition results included for comparison purposes.

Future Impact Findings

The project slightly increases delay at several study intersections. The intersections were evaluated under the conditions in which the Oakley TIF is planned to improve many of the study intersections. The project contribution to future impacts would not be considered substantial with planned improvements, since the project would contribute a TIF payment to the City that would constitute the project's "fair share" contribution towards the funding of future improvements at the impacted locations, based on the City's adopted TIF program.

Project Driveway/E. Cypress Road (Intersection #10) is forecasted to operate at unacceptable LOS F during the AM and PM peak hours. Project Driveway/E. Cypress Road (Intersection #10) is not included in the Oakley TIF program. The impact due to the proposed project would be substantial, as it causes the project driveway to operate at unacceptable conditions. However, with signalization, the intersection operates at acceptable LOS D or better during both peaks. Therefore, the project would need to contribute to the entire cost of new traffic signals at Project Driveway/E. Cypress Road (Intersection #10). The project would contribute to the entire costs of new traffic signals at Project Driveway/E. Cypress Road (Intersection #10), therefore, reducing the overall impacts to the intersection.

Pedestrian, Bicycle, and Transit Facilities

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

Pedestrian Facilities

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities. Sidewalks are not provided in the immediate vicinity of the project. The closest sidewalk network on E. Cypress Road begins approximately 0.24 miles west of the intersection of E. Cypress Road and Machado Lane. Sidewalks are also provided on local collectors and arterials such as Picasso Drive, Main Street and Laurel Road. Sidewalks are not located on the side streets of Jersey Island Road, Knightsen Avenue, Sellers Avenue, Machado Lane and Delta Road, West Bolton Road, Brownstone Road, Monte Linda Road and Delta Road. Sidewalks would be added along the project frontage on E. Cypress Road. The new sidewalks would provide pedestrian access to two schools to the west of the development.

Bicycle Facilities

The City of Oakley 2020 General Plan (September 2002), City of Oakley Parks, Recreation, and Trails Master Plan 2020 (Summer 2007), and the Contra Costa County Bicycle and Pedestrian Plan (October 2009) propose that several new bicycle facilities be constructed in the future which includes trunk line bikeway network passing through Main Street and Laurel Road and a local multi-use trail on E. Cypress Road and Sellers Avenue in the vicinity of the project area.

TABLE 15
INTERSECTION TRAFFIC LEVEL OF SERVICE – BACKGROUND PLUS PROJECT CONDITIONS

ID	Intersection	Control	Peak Hour	Background Conditions		Background plus Project Conditions	
				Average ¹ Delay	LOS ²	Average ¹ Delay	LOS ²
1	Jersey Island Road/E. Cypress Road	Signalized	AM	5.0	A	5.0	A
			PM	5.2	A	5.2	A
2	Knightsen Avenue/E. Cypress Road	Signalized	AM	7.0	A	7.0	A
			PM	7.8	A	9.0	A
3	Sellers Avenue/E. Cypress Road	Signalized	AM	20.3	C	21.3	C
			PM	32.0	C	36.7	D
4	Machado Lane/E. Cypress Road	Signalized	AM	17.0	B	17.0	B
			PM	16.1	B	16.3	B
5	Picasso Drive/E. Cypress Road	Signalized	AM	14.3	B	14.4	B
			PM	8.4	A	8.4	A
6	Main Street/E. Cypress Road*	Signalized	AM	54.4	D	54.3	D
			PM	54.5	D	55.1	E
7	Main Street/Laurel Road*	Signalized	AM	39.5	D	40.6	D
			PM	50.3	D	53.5	D
8	Main Street/Delta Road*	Signalized	AM	5.7	A	5.7	A
			PM	5.9	A	5.9	A
9	Delta Road/Sellers Avenue	All-Way Stop	AM	9.6	A	9.6	A
			PM	13.4	B	13.4	B
10	Project Driveway/E. Cypress Road	One-Way Stop	AM	-	-	117.2	F
			PM	-	-	107.6	F
10	Project Driveway/E. Cypress Road	Mitigated	AM	4.5	A	27.1	D
		Signalized	PM	9.2	A	16.1	C
11	Sellers Road/Laurel Road	Signalized	AM	5.0	A	4.5	A
			PM	5.2	A	24.8	C

Notes: Bold text indicates unacceptable intersection operations.

* Indicates intersection is located in a Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

¹ Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop control intersections; and critical minor approaches for two-way-stop control intersections

Source: TJKM, 2021.

The existing bicycle facilities are at the following locations:

- Main Street- Class II bicycle facilities are provided between Cypress Road and Simoni Ranch Road on both sides;
- Laurel Road- Class II bicycle facilities are provided between Harvest Drive and Main Street on both sides;
- Marsh Creek Regional Trail- Class I bicycle facility provided along Marsh Creek which can be accessed through Delta road approximately 1.5 miles west of the project site; and
- Via Delta de Anza Trail- Class I bicycle facility provided along Contra Costa Canal which can be accessed through Cypress Road and O' Hara Avenue approximately two miles west of the project site.

Bicycle facilities, such as Class II Bicycle lanes would be constructed. Bicycle access along the project frontage would increase connectivity with the surrounding area.

Transit Facilities

Tri-Delta Transit provides transit services in the City of Oakley, with three lines connecting Brentwood and the Pittsburg/Bay Point Bay Area Rapid Transit (BART) station. Due to COVID-19 conditions, some of the routes and schedules may not currently be in full operation.

- *Route 300*, the Pittsburg BART/Brentwood Park & Ride route, is a weekday express route connecting Brentwood to the Pittsburg/Bay Point BART station via Oakley and Antioch. The bus travels along Main Street, operating from 4:15 AM to approximately 10:00 PM with 15 to 30-minute headways.
- *Route 383*, the Oakley/Antioch/Freedom High School route, connects Oakley to Antioch and Freedom High School in Oakley. The route, in both clockwise and counterclockwise directions, provides only weekday service. The counterclockwise route runs with approximate one-hour headways, and the clockwise route runs twice during the AM peak hour period only.
- *Route 391*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekday service to most East County Cities. The route operates from 4:00 AM to 1:15 AM with 30 to 60-minute headways.
- *Route 393*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekend service to Route 391. The route operates from 5:20 AM to 2:00 AM with approximately 60-minute headways.

At the project site, the nearest bus stops are located at the intersections of West Cypress Road/Fall Lane (1.7 miles west of the project site), and Main Street/Laurel Road (2.1 miles northeast of the project site) served by Routes 383, 391, and 393.

According to the TIA, the proposed project is not anticipated to have adverse impacts to existing or planned pedestrian, bicycle, or transit facilities as per the Contra Costa Countywide Bicycle and Pedestrian Plan (2018) and the City of Oakley 2020 General Plan.

Conclusion

The proposed project would not meet the City's acceptable LOS standards, as the project would result in increased delay at several study intersections forecasted to operate unacceptably due to future traffic growth generated by background growth and the proposed project. However, the City will require the project to pay the TIF that would constitute the project's "fair share" contribution towards the funding of future improvements, based on the

City's TIF program. Additionally, the proposed project would contribute to the entire cost of new traffic signals at the intersection of Project Driveway/E. Cypress Road (Intersection #10). Therefore, the proposed project would be considered to have a **less-than-significant** impact related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. A lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. The following analysis is based on the report prepared by TJKM, which evaluated the project's potential VMT impact qualitatively.

TJKM conducted VMT analysis for the project in compliance with SB 743 through the Contra Costa Transportation Authority's (CCTA) recommended VMT analysis methodology. CCTA considers residential projects to have a significant impact on VMT if the project generated home-based VMT per resident is higher than the less stringent of the following:

- 85 percent of the home-based VMT per resident in the municipality; or
- 85 percent of the existing County-wide average home-based VMT per resident.

TJKM performed VMT analysis for the project with the CCTA Model. Two full model runs were performed in accordance with the CCTA VMT methodology to compare VMT under Baseline and Baseline plus Project Conditions. The first model run is for Baseline Conditions, which represent the Year 2020 traffic conditions for the City of Oakley. The second model run is for Baseline plus Project Conditions, which represent the Year 2020 plus project traffic conditions for the City of Oakley.

Under Baseline Conditions, the home based VMT per capita for the City of Oakley is 36.06. For the project to have a less-than-significant impact, the project must produce VMT within the 85 percent threshold, which equates to 30.65 (0.85×36.06). The 30.65 value is the less stringent home-based VMT per capita number as mentioned in the CCTA VMT methodology guidelines above.

Under Baseline plus Project Conditions, the project adds 208 Single Family Dwelling Units into Travel Analysis Zone (TAZ) #30302. The VMT per capita for the project TAZ is 28.80. The project generated VMT falls under the 85 percent threshold established above, thus, the proposed project has a less-than-significant impact on the City of Oakley VMT.

Furthermore, development of the proposed project would increase connectivity to the nearby neighborhoods by constructing new sidewalks along the project site frontage. By providing pedestrian and bicycle connectivity between the proposed residential units and the surrounding neighborhoods, VMT associated with the proposed project would be expected to be below the average VMT per capita. As a result, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a **less-than-significant** impact would occur.

- c,d. Access to the proposed project site is proposed from two new connections to E. Cypress Road, one at the intersection of E. Cypress Road and A Street, and the other at the

intersection of E. Cypress Road and E Street. Secondary access to the development would connect E. Cypress Road to E Street along an EVA road on the southeast portion of the property. As per the site plan, the project entrance would be 76 feet wide, and each minor street within would be 56 feet wide. The roadway widths are expected to accommodate on-street parking and truck access as well as EVA. The EVA is a 20-foot wide access road. In addition, E. Cypress Road would be widened during construction. The upgraded E. Cypress Road would be designed and constructed to meet currently applicable codes and requirements and to ensure that the roadway would not result in any increased hazards.

All interior drive aisles and parking stalls would comply with City design standards, and, thus, on-site circulation would be expected to function acceptably for emergency response vehicles. As such, the new street connections would improve emergency access and response times to the project site.

Conclusion

Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

XVIII. TRIBAL CULTURAL RESOURCES.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, a records search of the CHRIS was performed of February 25, 2020 by the NWIC for cultural resource site records and survey reports within the project area. The CHRIS search indicated a moderate potential of identifying Native American archaeological resources and a moderate to high potential of identifying historic-period archaeological resources in the project area.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the chairpersons of the Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Tule River Indian Tribe, Wilton Rancheria, Muwekma Ohlone Indian Tribe of the SF Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, the Ohlone Indian Tribe, and the Confederated Villages of Lisjan. Letters requesting consultation were not received by the City within the AB 52 30-day response period.

Based on previous disturbance of the project site and the lack of identified tribal cultural resources, tribal cultural resources are not expected to occur on-site. Nevertheless, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a **potentially significant** impact to tribal cultural resources could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

XVIII-1. *Implement Mitigation Measures V-1 and V-2.*

XIX. UTILITIES AND SERVICE SYSTEMS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. The Gilbert property included utility sizing and stubbed improvements to accommodate the future development of the proposed project. For example, the stormwater improvements within the Gilbert property include large diameter pipelines extended to the southeastern limits of the Gilbert property, a detention lake that provides capacity for storms up to the 100-year storm event, a storm drain pump station, and a discharge force main pipeline that discharges the excess storm flows to the Emerson Slough. The proposed project would construct water, sewer and storm drainage infrastructure beneath Little Dutch Slough west of the proposed project to connect to the utilities stubbed within the Gilbert property.

Therefore, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities that would cause significant environmental effects and a **less-than-significant** impact would occur.

b. Water is provided to the project site by the DWD, and untreated water is provided to DWD by CCWD. Per CCWD's 2015 UWMP, DWD's primary water supply for its distribution system is treated surface water from the United States Bureau of Reclamation's CVP purchased from the CCWD. CVP water is conveyed through the Contra Costa Canal and Los Vaqueros system, and treated at the Randall-Bold Water Treatment Plant (WTP) in Oakley, which is jointly owned by DWD and CCWD.²⁹

²⁹ Diablo Water District. 2015 Urban Water Management Plan. June 2016.

In addition, DWD has developed its own groundwater supply system to provide additional supply reliability. When fully implemented, groundwater may comprise up to 20 percent of DWD’s total supply. Table 16 summarizes the current and projected available water supply from DWD’s sources, presented in millions of gallons (MG).

Table 16 Current and Projected Available Water Supplies (MG)						
Water Supply Source	2015	2020	2025	2030	2035	2040
Surface Water Purchased from CCWD	2,738	4,563	4,563	5,475	5,475	5,475
DWD Groundwater	672	924	924	1,176	1,176	1,176
Total Supply	3,410	5,487	5,487	6,651	6,651	6,651
<i>Source: Diablo Water District, 2016.</i>						

Table 17 shows a comparison of projected water supply and demand during normal, single-dry, and multiple-dry years, as adapted from the 2015 UWMP. Results of the comparison show surpluses of water supply compared with demand of all conditions. As shown in the table, DWD has adequate supply sources to meet future needs under all conditions.

Furthermore, the proposed project is consistent with land use anticipated in the Oakley General Plan. As stated within, implementation of General Plan water supply policies and programs reduces impacts associated with buildout of the General Plan to a less-than-significant level. As a result, the proposed project would result in a **less-than-significant** impact related to having sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

- c. The ISD provides wastewater service to the City and the unincorporated County areas. The Planning Area of the City is entirely within ISD’s boundary. Wastewater services include the transmission of wastewater primarily from residential and some from commercial and light industry to a treatment facility, treatment, and then disposal of the wastewater and residual waste solids. Within the General Plan, policies and programs are presented to ensure an effective wastewater disposal system that would be provided to the citizens of Oakley. Implementation of the wastewater policies and programs, pursuant to buildout of the General Plan, reduces wastewater service impacts to a less-than-significant impact. For example, Program 4.9.A set forth in the General Plan requires new development to pay its fair share of the cost of on-and off-site wastewater infrastructure.

Due to the project consistency with the type and intensity of land use planned for at buildout, project implementation has been analyzed in the Oakley General Plan EIR. As noted therein, buildout of the General Plan, would result in a less-than-significant impact related to wastewater services with implementation of general plan policy and programs. In addition, the proposed development would pay its fair share of fees for on-site and off-site wastewater infrastructure.

Table 17
Summary of Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years (MG)

		2020	2025	2030	2035	2040
Normal Year						
Total Water Supply		5,487	5,487	6,651	6,651	6,651
Total Water Demand		2,263	3,036	3,509	3,986	4,462
Surplus/Deficit		+3,224	+3,224	+3,142	+2,665	+2,189
Single Dry Year						
Total Surface Water Supply		5,487	5,487	6,651	6,651	6,651
Total Water Demand		2,263	3,036	3,805	4,578	5,349
Surplus/Deficit		+3,224	+3,224	+3,142	+2,665	+2,189
Multiple Dry Years						
First Year	Total Water Supply	5,487	5,487	6,651	6,651	6,651
	Total Water Demand	2,263	3,036	3,509	3,986	4,462
	Surplus/Deficit	+3,224	+3,224	+3,142	+2,665	+2,189
Second Year	Total Water Supply	5,487	5,487	6,651	6,542	6,323
	Total Water Demand	2,263	3,036	3,509	3,986	4,462
	Surplus/Deficit	+3,224	+3,224	+3,142	+2,555	+1,860
Third Year	Total Water Supply	5,030	5,030	6,104	5,994	5,830
	Total Water Demand	2,263	3,036	3,509	3,686	4,462
	Surplus/Deficit	+2,767	+1,994	+2,594	+2,008	+1,368

Note: Projected water demands for each hydrologic condition account for demand reductions needed to maintain an urban water use target of 163 gpd after 2020. The required reductions for are as follows: 296 MG for 2030; 592 MG for 2035, and 887 MG for 2040.

Source: *Diablo Water District, 2016.*

Therefore, the proposed project would result in a **less-than-significant** impact related to adequate capacity to serve the project’s projected wastewater services demand.

- d,e. Solid waste, recyclable materials, and compostable material collection within the City of Oakley is hauled to Potrero Hills Landfill located in Solano County to the north. The site has a maximum permitted through put of 4,330 tons per day. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Potrero Hills Landfill has a remaining capacity of 13,872,000 cubic yards out of a total permitted capacity of 83,100,000, or 83 percent remaining capacity.³⁰ Due to the substantial amount of available capacity remaining at Potrero Hills Landfill, sufficient capacity would be available to accommodate the project’s solid waste disposal needs. Therefore, a **less-than-significant** impact related to solid waste would occur as a result of the proposed project.

³⁰ California Department of Resources Recycling and Recovery (CalRecycle). *SWIS Facility/Site Summary Details: Potrero Hill Landfill (48-AA-0075)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591>. Accessed March 2021.

XX. WILDFIRE.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a-d. As noted in Section IX, Hazards and Hazardous Materials, according to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High Fire Hazard Severity Zone.³¹ In addition, the site is located on relatively flat topography adjacent to agricultural uses and single-family development. Due to the relative flat topography, people or structures would not be exposed to downslope, downstream flooding, or landslides from post-fire slope instability. Thus, the proposed project would not experience result in substantial risk or hazards related to wildfires, and a **less-than-significant** impact would occur.

³¹ California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. June 12, 2018.

XXII. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. As discussed in Section IV, Biological Resources, of this IS/MND, while a limited potential exists for Swainson’s hawk, Burrowing Owl, Golden Eagle, GGS, and common nesting birds to occur on-site, Mitigation Measures IV-1 through IV-10 would ensure that any impacts related to special-status species would be reduced to a less-than-significant level.

The project site does not contain any on-site structures or known historic or prehistoric resources. Implementation of the proposed project is not anticipated to have the potential to result in impacts related to historic or prehistoric resources. Mitigation Measures V-1 and V-2 would ensure that in the event that prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

The proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a **less-than-significant** impact would occur.

- b. The proposed project, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts, and the project's incremental contribution to cumulative impacts would be ***less than significant***.

- c. As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section III Air Quality, Section IV, Biological Resources, Section V, Cultural Resources, Section VII, Geology and Soils, Section IX, Hazards and Hazardous Materials, Section X, Hydrology and Water Quality, Section XIII, Noise, and Section XVII, Transportation, Section XVII, Tribal and Cultural Resources of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to hazardous materials and noise. For example, Mitigation Measure IV-1 would require preconstruction surveys to minimize impacts to special status species. Therefore, the proposed project would result in a ***less-than-significant*** impact.

Appendix A

CalEEMod Modeling Results

Burroughs Project - Bay Area AQMD Air District, Annual

Burroughs Project
Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Annual

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2590	1.6826	1.4897	3.0200e-003	0.2800	0.0740	0.3540	0.1132	0.0684	0.1816	0.0000	265.2999	265.2999	0.0754	0.0000	267.1839
2023	1.4091	2.2775	2.6318	5.4300e-003	0.1112	0.1010	0.2122	0.0300	0.0956	0.1256	0.0000	478.3314	478.3314	0.0781	0.0000	480.2826
2024	1.4032	2.1563	2.6229	5.4400e-003	0.1121	0.0891	0.2012	0.0303	0.0843	0.1146	0.0000	478.6958	478.6958	0.0779	0.0000	480.6437
2025	0.2937	0.3673	0.4758	9.9000e-004	0.0207	0.0140	0.0347	5.5800e-003	0.0133	0.0189	0.0000	86.9983	86.9983	0.0139	0.0000	87.3467
Maximum	1.4091	2.2775	2.6318	5.4400e-003	0.2800	0.1010	0.3540	0.1132	0.0956	0.1816	0.0000	478.6958	478.6958	0.0781	0.0000	480.6437

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2590	1.6826	1.4897	3.0200e-003	0.2800	0.0740	0.3540	0.1132	0.0684	0.1816	0.0000	265.2996	265.2996	0.0754	0.0000	267.1836
2023	1.4091	2.2775	2.6318	5.4300e-003	0.1112	0.1010	0.2122	0.0300	0.0956	0.1256	0.0000	478.3310	478.3310	0.0781	0.0000	480.2822
2024	1.4032	2.1563	2.6229	5.4400e-003	0.1121	0.0891	0.2012	0.0303	0.0843	0.1146	0.0000	478.6954	478.6954	0.0779	0.0000	480.6433
2025	0.2937	0.3673	0.4758	9.9000e-004	0.0207	0.0140	0.0347	5.5800e-003	0.0133	0.0189	0.0000	86.9982	86.9982	0.0139	0.0000	87.3467
Maximum	1.4091	2.2775	2.6318	5.4400e-003	0.2800	0.1010	0.3540	0.1132	0.0956	0.1816	0.0000	478.6954	478.6954	0.0781	0.0000	480.6433

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.3120	1.3120
2	10-1-2022	12-31-2022	0.6368	0.6368
3	1-1-2023	3-31-2023	0.9128	0.9128
4	4-1-2023	6-30-2023	0.9210	0.9210
5	7-1-2023	9-30-2023	0.9311	0.9311
6	10-1-2023	12-31-2023	0.9331	0.9331
7	1-1-2024	3-31-2024	0.8843	0.8843
8	4-1-2024	6-30-2024	0.8824	0.8824

Burroughs Project - Bay Area AQMD Air District, Annual

9	7-1-2024	9-30-2024	0.8921	0.8921
10	10-1-2024	12-31-2024	0.8940	0.8940
11	1-1-2025	3-31-2025	0.6544	0.6544
		Highest	1.3120	1.3120

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6091
Energy	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	501.2763	501.2763	0.0283	0.0105	505.1116
Mobile	0.3974	1.8500	4.4577	0.0177	1.6873	0.0144	1.7017	0.4528	0.0135	0.4662	0.0000	1,630.139 1	1,630.139 1	0.0547	0.0000	1,631.507 2
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	4.2994	10.9600	15.2595	0.4430	0.0107	29.5242
Total	2.2585	2.1767	6.6167	0.0213	1.6873	0.1269	1.8142	0.4528	0.1260	0.5787	65.6861	2,170.864 7	2,236.550 9	3.5766	0.0217	2,332.427 2

Burroughs Project - Bay Area AQMD Air District, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9100e-003	4.8000e-004	28.7041
Energy	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Mobile	0.3945	1.8330	4.3917	0.0174	1.6535	0.0142	1.6677	0.4437	0.0132	0.4569	0.0000	1,600.0703	1,600.0703	0.0539	0.0000	1,601.4185
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	3.4396	8.7680	12.2076	0.3544	8.5700e-003	23.6194
Total	2.1998	2.1344	6.0553	0.0193	1.6535	0.0457	1.6992	0.4437	0.0447	0.4884	54.1670	1,939.8091	1,993.9761	3.4149	0.0146	2,083.6959

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.60	1.95	8.48	9.53	2.00	64.02	6.34	2.00	64.51	15.60	17.54	10.64	10.85	4.52	32.66	10.66

3.0 Construction Detail

Construction Phase

Burroughs Project - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8713	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266
Total	0.1087	1.1653	0.8713	1.8600e-003	0.2602	0.0491	0.3093	0.1079	0.0451	0.1530	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8712	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264
Total	0.1087	1.1653	0.8712	1.8600e-003	0.2602	0.0491	0.3093	0.1079	0.0451	0.1530	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214
Total	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213
Total	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0944	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0944	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1670	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1670	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1745	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1745	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8700e-003	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2553	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8700e-003	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2553	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3945	1.8330	4.3917	0.0174	1.6535	0.0142	1.6677	0.4437	0.0132	0.4569	0.0000	1,600.0703	1,600.0703	0.0539	0.0000	1,601.4185
Unmitigated	0.3974	1.8500	4.4577	0.0177	1.6873	0.0144	1.7017	0.4528	0.0135	0.4662	0.0000	1,630.1391	1,630.1391	0.0547	0.0000	1,631.5072

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	178.6633	178.6633	0.0221	4.5800e-003	180.5816
NaturalGas Mitigated	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
NaturalGas Unmitigated	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	6.04554e+006	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301
Total		0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	5.66829e+006	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Total		0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.68284e+006	178.6633	0.0221	4.5800e-003	180.5816
Total		178.6633	0.0221	4.5800e-003	180.5816

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9100e-003	4.8000e-004	28.7041
Unmitigated	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6091

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.0304	0.4975	1.7400e-003		0.0814	0.0814		0.0814	0.0814	10.6593	25.9666	36.6258	0.0503	4.8000e-004	38.0259
Landscaping	0.0463	0.0178	1.5430	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4200e-003	0.0000	2.5832
Total	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0528	4.8000e-004	40.6091

Burroughs Project - Bay Area AQMD Air District, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.6200e-003	0.0224	9.5400e-003	1.4000e-004		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	25.9666	25.9666	5.0000e-004	4.8000e-004	26.1209
Landscaping	0.0463	0.0178	1.5430	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4200e-003	0.0000	2.5832
Total	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9200e-003	4.8000e-004	28.7041

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Burroughs Project - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.2076	0.3544	8.5700e-003	23.6194
Unmitigated	15.2595	0.4430	0.0107	29.5242

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	13.552 / 8.54368	15.2595	0.4430	0.0107	29.5242
Total		15.2595	0.4430	0.0107	29.5242

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	10.8416 / 6.83494	12.2076	0.3544	8.5700e-003	23.6194
Total		12.2076	0.3544	8.5700e-003	23.6194

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.7274	2.9979	0.0000	125.6751
Unmitigated	50.7274	2.9979	0.0000	125.6751

Burroughs Project - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Burroughs Project - Bay Area AQMD Air District, Summer

Burroughs Project
Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Summer

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744
2023	10.8487	17.4894	20.3877	0.0423	0.8883	0.7769	1.6652	0.2390	0.7352	0.9741	0.0000	4,108.7507	4,108.7507	0.6619	0.0000	4,125.2985
2024	10.7195	16.4325	20.1581	0.0420	0.8883	0.6805	1.5687	0.2390	0.6436	0.8826	0.0000	4,078.9021	4,078.9021	0.6557	0.0000	4,095.2943
2025	10.5909	15.3547	19.9361	0.0417	0.8883	0.5852	1.4735	0.2390	0.5535	0.7925	0.0000	4,049.8263	4,049.8263	0.6503	0.0000	4,066.0828
Maximum	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744

Burroughs Project - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744
2023	10.8487	17.4894	20.3877	0.0423	0.8883	0.7769	1.6652	0.2390	0.7352	0.9741	0.0000	4,108.7507	4,108.7507	0.6619	0.0000	4,125.2985
2024	10.7195	16.4325	20.1581	0.0420	0.8883	0.6805	1.5687	0.2390	0.6436	0.8826	0.0000	4,078.9021	4,078.9021	0.6557	0.0000	4,095.2943
2025	10.5909	15.3547	19.9361	0.0417	0.8883	0.5852	1.4735	0.2390	0.5535	0.7925	0.0000	4,049.8263	4,049.8263	0.6503	0.0000	4,066.0828
Maximum	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Burroughs Project - Bay Area AQMD Air District, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493
Energy	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Mobile	2.5174	9.8881	25.5424	0.1029	9.6316	0.0792	9.7108	2.5763	0.0738	2.6501		10,432.0250	10,432.0250	0.3328		10,440.3452
Total	18.2411	16.3934	91.3911	0.2904	9.6316	8.1831	17.8147	2.5763	8.1777	10.7540	1,115.8414	17,550.3497	18,666.1912	5.7146	0.1299	18,847.7764

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Energy	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Mobile	2.5014	9.8004	25.1342	0.1010	9.4390	0.0778	9.5168	2.5247	0.0726	2.5973		10,239.3583	10,239.3583	0.3278		10,247.5532
Total	13.1110	15.4544	44.6002	0.1367	9.4390	0.6141	10.0531	2.5247	0.6089	3.1336	0.0000	17,236.0873	17,236.0873	0.4909	0.1277	17,286.4164

Burroughs Project - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	28.12	5.73	51.20	52.92	2.00	92.50	43.57	2.00	92.55	70.86	100.00	1.79	7.66	91.41	1.71	8.28

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Burroughs Project - Bay Area AQMD Air District, Summer

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586

Burroughs Project - Bay Area AQMD Air District, Summer

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586

Burroughs Project - Bay Area AQMD Air District, Summer

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	2.1547	0.5042	5.9400e-003	0.1489	4.2700e-003	0.1532	0.0429	4.0800e-003	0.0470		629.5179	629.5179	0.0285		630.2311
Worker	0.2245	0.1264	1.6975	5.7400e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		572.1715	572.1715	0.0119		572.4696
Total	0.2881	2.2811	2.2017	0.0117	0.7650	8.0600e-003	0.7731	0.2063	7.5700e-003	0.2139		1,201.6894	1,201.6894	0.0405		1,202.7007

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	2.1547	0.5042	5.9400e-003	0.1489	4.2700e-003	0.1532	0.0429	4.0800e-003	0.0470		629.5179	629.5179	0.0285		630.2311
Worker	0.2245	0.1264	1.6975	5.7400e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		572.1715	572.1715	0.0119		572.4696
Total	0.2881	2.2811	2.2017	0.0117	0.7650	8.0600e-003	0.7731	0.2063	7.5700e-003	0.2139		1,201.6894	1,201.6894	0.0405		1,202.7007

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0477	1.6651	0.4539	5.7700e-003	0.1489	1.8900e-003	0.1508	0.0429	1.8100e-003	0.0447		611.8088	611.8088	0.0244		612.4184
Worker	0.2095	0.1137	1.5656	5.5200e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		550.2366	550.2366	0.0107		550.5042
Total	0.2572	1.7788	2.0195	0.0113	0.7650	5.6000e-003	0.7707	0.2063	5.2200e-003	0.2115		1,162.0454	1,162.0454	0.0351		1,162.9226

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0477	1.6651	0.4539	5.7700e-003	0.1489	1.8900e-003	0.1508	0.0429	1.8100e-003	0.0447		611.8088	611.8088	0.0244		612.4184
Worker	0.2095	0.1137	1.5656	5.5200e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		550.2366	550.2366	0.0107		550.5042
Total	0.2572	1.7788	2.0195	0.0113	0.7650	5.6000e-003	0.7707	0.2063	5.2200e-003	0.2115		1,162.0454	1,162.0454	0.0351		1,162.9226

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0461	1.6467	0.4373	5.7200e-003	0.1489	1.8600e-003	0.1508	0.0429	1.7800e-003	0.0447		607.6296	607.6296	0.0239		608.2272
Worker	0.1966	0.1027	1.4532	5.3000e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		528.4380	528.4380	9.6500e-003		528.6793
Total	0.2427	1.7494	1.8905	0.0110	0.7650	5.5000e-003	0.7706	0.2063	5.1300e-003	0.2114		1,136.0676	1,136.0676	0.0336		1,136.9066

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0461	1.6467	0.4373	5.7200e-003	0.1489	1.8600e-003	0.1508	0.0429	1.7800e-003	0.0447		607.6296	607.6296	0.0239		608.2272
Worker	0.1966	0.1027	1.4532	5.3000e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		528.4380	528.4380	9.6500e-003		528.6793
Total	0.2427	1.7494	1.8905	0.0110	0.7650	5.5000e-003	0.7706	0.2063	5.1300e-003	0.2114		1,136.0676	1,136.0676	0.0336		1,136.9066

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0448	1.6274	0.4247	5.6800e-003	0.1489	1.8300e-003	0.1508	0.0429	1.7500e-003	0.0446		603.6157	603.6157	0.0235		604.2020
Worker	0.1855	0.0934	1.3480	5.0800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		506.9068	506.9068	8.7600e-003		507.1257
Total	0.2303	1.7208	1.7727	0.0108	0.7651	5.4200e-003	0.7705	0.2063	5.0500e-003	0.2114		1,110.522 5	1,110.522 5	0.0322		1,111.327 7

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0448	1.6274	0.4247	5.6800e-003	0.1489	1.8300e-003	0.1508	0.0429	1.7500e-003	0.0446		603.6157	603.6157	0.0235		604.2020
Worker	0.1855	0.0934	1.3480	5.0800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		506.9068	506.9068	8.7600e-003		507.1257
Total	0.2303	1.7208	1.7727	0.0108	0.7651	5.4200e-003	0.7705	0.2063	5.0500e-003	0.2114		1,110.522 5	1,110.522 5	0.0322		1,111.327 7

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009
Total	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009
Total	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359
Total	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359
Total	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251
Total	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251
Total	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Summer

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5014	9.8004	25.1342	0.1010	9.4390	0.0778	9.5168	2.5247	0.0726	2.5973		10,239.3583	10,239.3583	0.3278		10,247.5532
Unmitigated	2.5174	9.8881	25.5424	0.1029	9.6316	0.0792	9.7108	2.5763	0.0738	2.6501		10,432.0250	10,432.0250	0.3328		10,440.3452

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Burroughs Project - Bay Area AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
NaturalGas Unmitigated	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Burroughs Project - Bay Area AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	16563.1	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Total		0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	15.5296	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Total		0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635

6.0 Area Detail

6.1 Mitigation Measures Area

Burroughs Project - Bay Area AQMD Air District, Summer

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Unmitigated	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.5740	4.7814	48.0551	0.1769		7.8854	7.8854		7.8854	7.8854	1,115.8414	5,138.8235	6,254.6650	5.3148	0.0942	6,415.6107
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

Burroughs Project - Bay Area AQMD Air District, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4711	4.0254	1.7129	0.0257		0.3255	0.3255		0.3255	0.3255	0.0000	5,138.8235	5,138.8235	0.0985	0.0942	5,169.3610
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	10.4421	4.2229	18.8569	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Burroughs Project - Bay Area AQMD Air District, Winter

Burroughs Project
Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Winter

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWEL0.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481
2023	10.8683	17.5295	20.3127	0.0416	0.8883	0.7770	1.6652	0.2390	0.7352	0.9742	0.0000	4,041.2936	4,041.2936	0.6628	0.0000	4,057.8627
2024	10.7389	16.4692	20.0848	0.0414	0.8883	0.6805	1.5688	0.2390	0.6437	0.8827	0.0000	4,013.7535	4,013.7535	0.6565	0.0000	4,030.1669
2025	10.6101	15.3884	19.8667	0.0411	0.8883	0.5853	1.4735	0.2390	0.5535	0.7925	0.0000	3,986.9382	3,986.9382	0.6511	0.0000	4,003.2157
Maximum	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481

Burroughs Project - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481
2023	10.8683	17.5295	20.3127	0.0416	0.8883	0.7770	1.6652	0.2390	0.7352	0.9742	0.0000	4,041.2936	4,041.2936	0.6628	0.0000	4,057.8627
2024	10.7389	16.4692	20.0848	0.0414	0.8883	0.6805	1.5688	0.2390	0.6437	0.8827	0.0000	4,013.7535	4,013.7535	0.6565	0.0000	4,030.1669
2025	10.6101	15.3884	19.8667	0.0411	0.8883	0.5853	1.4735	0.2390	0.5535	0.7925	0.0000	3,986.9382	3,986.9382	0.6511	0.0000	4,003.2157
Maximum	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Burroughs Project - Bay Area AQMD Air District, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493
Energy	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Mobile	2.1577	10.3341	25.5917	0.0964	9.6316	0.0795	9.7111	2.5763	0.0742	2.6504		9,779.3319	9,779.3319	0.3397		9,787.8233
Total	17.8814	16.8394	91.4404	0.2840	9.6316	8.1834	17.8150	2.5763	8.1781	10.7543	1,115.8414	16,897.6567	18,013.4981	5.7214	0.1299	18,195.2545

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Energy	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Mobile	2.1418	10.2366	25.2278	0.0947	9.4390	0.0782	9.5171	2.5247	0.0729	2.5976		9,598.2721	9,598.2721	0.3348		9,606.6427
Total	12.7514	15.8906	44.6937	0.1304	9.4390	0.6145	10.0534	2.5247	0.6092	3.1339	0.0000	16,595.0010	16,595.0010	0.4979	0.1277	16,645.5059

Burroughs Project - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	28.69	5.63	51.12	54.08	2.00	92.49	43.57	2.00	92.55	70.86	100.00	1.79	7.87	91.30	1.71	8.52

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Burroughs Project - Bay Area AQMD Air District, Winter

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323

Burroughs Project - Bay Area AQMD Air District, Winter

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323

Burroughs Project - Bay Area AQMD Air District, Winter

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0674	2.1709	0.5793	5.7900e-003	0.1489	4.4300e-003	0.1534	0.0429	4.2300e-003	0.0471		613.4456	613.4456	0.0308		614.2165
Worker	0.2384	0.1561	1.5817	5.2900e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		527.0940	527.0940	0.0111		527.3711
Total	0.3058	2.3270	2.1609	0.0111	0.7650	8.2200e-003	0.7732	0.2063	7.7200e-003	0.2140		1,140.5396	1,140.5396	0.0419		1,141.5876

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0674	2.1709	0.5793	5.7900e-003	0.1489	4.4300e-003	0.1534	0.0429	4.2300e-003	0.0471		613.4456	613.4456	0.0308		614.2165
Worker	0.2384	0.1561	1.5817	5.2900e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		527.0940	527.0940	0.0111		527.3711
Total	0.3058	2.3270	2.1609	0.0111	0.7650	8.2200e-003	0.7732	0.2063	7.7200e-003	0.2140		1,140.5396	1,140.5396	0.0419		1,141.5876

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.6732	0.5144	5.6200e-003	0.1489	1.9800e-003	0.1509	0.0429	1.8900e-003	0.0448		596.3453	596.3453	0.0262		596.9997
Worker	0.2234	0.1403	1.4526	5.0800e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		506.9086	506.9086	9.9200e-003		507.1566
Total	0.2740	1.8136	1.9670	0.0107	0.7650	5.6900e-003	0.7707	0.2063	5.3000e-003	0.2116		1,103.2539	1,103.2539	0.0361		1,104.1563

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.6732	0.5144	5.6200e-003	0.1489	1.9800e-003	0.1509	0.0429	1.8900e-003	0.0448		596.3453	596.3453	0.0262		596.9997
Worker	0.2234	0.1403	1.4526	5.0800e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		506.9086	506.9086	9.9200e-003		507.1566
Total	0.2740	1.8136	1.9670	0.0107	0.7650	5.6900e-003	0.7707	0.2063	5.3000e-003	0.2116		1,103.2539	1,103.2539	0.0361		1,104.1563

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0490	1.6546	0.4950	5.5800e-003	0.1489	1.9400e-003	0.1509	0.0429	1.8500e-003	0.0447		592.3895	592.3895	0.0256		593.0303
Worker	0.2104	0.1267	1.3440	4.8800e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		486.8476	486.8476	8.9200e-003		487.0706
Total	0.2594	1.7813	1.8391	0.0105	0.7650	5.5800e-003	0.7706	0.2063	5.2000e-003	0.2115		1,079.2371	1,079.2371	0.0346		1,080.1009

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0490	1.6546	0.4950	5.5800e-003	0.1489	1.9400e-003	0.1509	0.0429	1.8500e-003	0.0447		592.3895	592.3895	0.0256		593.0303
Worker	0.2104	0.1267	1.3440	4.8800e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		486.8476	486.8476	8.9200e-003		487.0706
Total	0.2594	1.7813	1.8391	0.0105	0.7650	5.5800e-003	0.7706	0.2063	5.2000e-003	0.2115		1,079.2371	1,079.2371	0.0346		1,080.1009

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0475	1.6350	0.4803	5.5400e-003	0.1489	1.9000e-003	0.1508	0.0429	1.8100e-003	0.0447		588.5776	588.5776	0.0251		589.2054
Worker	0.1993	0.1152	1.2439	4.6800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		467.0319	467.0319	8.0700e-003		467.2336
Total	0.2468	1.7502	1.7241	0.0102	0.7651	5.4900e-003	0.7705	0.2063	5.1100e-003	0.2114		1,055.609 4	1,055.609 4	0.0332		1,056.439 0

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0475	1.6350	0.4803	5.5400e-003	0.1489	1.9000e-003	0.1508	0.0429	1.8100e-003	0.0447		588.5776	588.5776	0.0251		589.2054
Worker	0.1993	0.1152	1.2439	4.6800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		467.0319	467.0319	8.0700e-003		467.2336
Total	0.2468	1.7502	1.7241	0.0102	0.7651	5.4900e-003	0.7705	0.2063	5.1100e-003	0.2114		1,055.609 4	1,055.609 4	0.0332		1,056.439 0

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313
Total	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313
Total	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141
Total	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141
Total	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467
Total	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467
Total	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Winter

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1418	10.2366	25.2278	0.0947	9.4390	0.0782	9.5171	2.5247	0.0729	2.5976		9,598.2721	9,598.2721	0.3348		9,606.6427
Unmitigated	2.1577	10.3341	25.5917	0.0964	9.6316	0.0795	9.7111	2.5763	0.0742	2.6504		9,779.3319	9,779.3319	0.3397		9,787.8233

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Burroughs Project - Bay Area AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
NaturalGas Unmitigated	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Burroughs Project - Bay Area AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	16563.1	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Total		0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	15.5296	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Total		0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635

6.0 Area Detail

6.1 Mitigation Measures Area

Burroughs Project - Bay Area AQMD Air District, Winter

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Unmitigated	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.5740	4.7814	48.0551	0.1769		7.8854	7.8854		7.8854	7.8854	1,115.8414	5,138.8235	6,254.6650	5.3148	0.0942	6,415.6107
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

Burroughs Project - Bay Area AQMD Air District, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4711	4.0254	1.7129	0.0257		0.3255	0.3255		0.3255	0.3255	0.0000	5,138.8235	5,138.8235	0.0985	0.0942	5,169.3610
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	10.4421	4.2229	18.8569	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Burroughs Project

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	5	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	5.56100E-002	3.76490E-001	5.43170E-001	8.90000E-004	1.95100E-002	1.95100E-002	0.00000E+000	7.65976E+001	7.65976E+001	4.44000E-003	0.00000E+000	7.67086E+001
Cranes	8.94900E-002	9.57580E-001	4.73460E-001	1.51000E-003	3.99600E-002	3.67700E-002	0.00000E+000	1.33074E+002	1.33074E+002	4.30400E-002	0.00000E+000	1.34150E+002
Excavators	1.21500E-002	1.06620E-001	1.95310E-001	3.10000E-004	5.15000E-003	4.74000E-003	0.00000E+000	2.72164E+001	2.72164E+001	8.80000E-003	0.00000E+000	2.74364E+001
Forklifts	8.84200E-002	8.28260E-001	1.02779E+000	1.38000E-003	4.95200E-002	4.55600E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	8.84800E-002	7.88040E-001	1.09996E+000	1.97000E-003	3.57000E-002	3.57000E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.14000E-003	0.00000E+000	1.69741E+002
Graders	1.24500E-002	1.57730E-001	5.16500E-002	2.00000E-004	5.02000E-003	4.61000E-003	0.00000E+000	1.74528E+001	1.74528E+001	5.64000E-003	0.00000E+000	1.75939E+001
Pavers	8.28000E-003	8.39600E-002	1.15360E-001	1.90000E-004	3.99000E-003	3.67000E-003	0.00000E+000	1.65201E+001	1.65201E+001	5.34000E-003	0.00000E+000	1.66537E+001
Paving Equipment	7.13000E-003	6.95100E-002	1.01840E-001	1.60000E-004	3.39000E-003	3.12000E-003	0.00000E+000	1.43142E+001	1.43142E+001	4.63000E-003	0.00000E+000	1.44300E+001
Rollers	6.65000E-003	6.90400E-002	7.44100E-002	1.00000E-004	3.98000E-003	3.66000E-003	0.00000E+000	9.22076E+000	9.22076E+000	2.98000E-003	0.00000E+000	9.29532E+000
Rubber Tired Dozers	2.51100E-002	2.63810E-001	1.07460E-001	2.60000E-004	1.25200E-002	1.15200E-002	0.00000E+000	2.25082E+001	2.25082E+001	7.28000E-003	0.00000E+000	2.26902E+001
Scrapers	4.91500E-002	5.36610E-001	3.82550E-001	9.10000E-004	2.09500E-002	1.92700E-002	0.00000E+000	8.00297E+001	8.00297E+001	2.58800E-002	0.00000E+000	8.06768E+001
Tractors/Loaders/Backhoes	1.25880E-001	1.27314E+000	1.89308E+000	2.64000E-003	6.11400E-002	5.62500E-002	0.00000E+000	2.31919E+002	2.31919E+002	7.50100E-002	0.00000E+000	2.33794E+002
Welders	7.34300E-002	4.19760E-001	5.01170E-001	7.70000E-004	1.53400E-002	1.53400E-002	0.00000E+000	5.64662E+001	5.64662E+001	5.96000E-003	0.00000E+000	5.66151E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	5.56100E-002	3.76490E-001	5.43170E-001	8.90000E-004	1.95100E-002	1.95100E-002	0.00000E+000	7.65975E+001	7.65975E+001	4.44000E-003	0.00000E+000	7.67085E+001
Cranes	8.94900E-002	9.57580E-001	4.73460E-001	1.51000E-003	3.99600E-002	3.67700E-002	0.00000E+000	1.33074E+002	1.33074E+002	4.30400E-002	0.00000E+000	1.34150E+002
Excavators	1.21500E-002	1.06620E-001	1.95310E-001	3.10000E-004	5.15000E-003	4.74000E-003	0.00000E+000	2.72163E+001	2.72163E+001	8.80000E-003	0.00000E+000	2.74364E+001
Forklifts	8.84200E-002	8.28260E-001	1.02779E+000	1.38000E-003	4.95200E-002	4.55600E-002	0.00000E+000	1.20862E+002	1.20862E+002	3.90900E-002	0.00000E+000	1.21839E+002
Generator Sets	8.84800E-002	7.88040E-001	1.09996E+000	1.97000E-003	3.57000E-002	3.57000E-002	0.00000E+000	1.69562E+002	1.69562E+002	7.14000E-003	0.00000E+000	1.69740E+002
Graders	1.24500E-002	1.57730E-001	5.16500E-002	2.00000E-004	5.02000E-003	4.61000E-003	0.00000E+000	1.74527E+001	1.74527E+001	5.64000E-003	0.00000E+000	1.75939E+001
Pavers	8.28000E-003	8.39600E-002	1.15360E-001	1.90000E-004	3.99000E-003	3.67000E-003	0.00000E+000	1.65201E+001	1.65201E+001	5.34000E-003	0.00000E+000	1.66537E+001
Paving Equipment	7.13000E-003	6.95100E-002	1.01840E-001	1.60000E-004	3.39000E-003	3.12000E-003	0.00000E+000	1.43142E+001	1.43142E+001	4.63000E-003	0.00000E+000	1.44300E+001
Rollers	6.65000E-003	6.90400E-002	7.44100E-002	1.00000E-004	3.98000E-003	3.66000E-003	0.00000E+000	9.22075E+000	9.22075E+000	2.98000E-003	0.00000E+000	9.29531E+000
Rubber Tired Dozers	2.51100E-002	2.63810E-001	1.07460E-001	2.60000E-004	1.25200E-002	1.15200E-002	0.00000E+000	2.25082E+001	2.25082E+001	7.28000E-003	0.00000E+000	2.26902E+001
Scrapers	4.91500E-002	5.36610E-001	3.82550E-001	9.10000E-004	2.09500E-002	1.92700E-002	0.00000E+000	8.00296E+001	8.00296E+001	2.58800E-002	0.00000E+000	8.06767E+001
Tractors/Loaders/Balckhoes	1.25880E-001	1.27314E+000	1.89308E+000	2.64000E-003	6.11400E-002	5.62500E-002	0.00000E+000	2.31919E+002	2.31919E+002	7.50100E-002	0.00000E+000	2.33794E+002
Welders	7.34300E-002	4.19760E-001	5.01170E-001	7.70000E-004	1.53400E-002	1.53400E-002	0.00000E+000	5.64661E+001	5.64661E+001	5.96000E-003	0.00000E+000	5.66150E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17327E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20234E-006	1.20234E-006	0.00000E+000	0.00000E+000	1.19269E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10228E-006	1.10228E-006	0.00000E+000	0.00000E+000	1.09344E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15834E-006	1.15834E-006	0.00000E+000	0.00000E+000	1.14905E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.23718E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14595E-006	1.14595E-006	0.00000E+000	0.00000E+000	1.13676E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21064E-006	1.21064E-006	0.00000E+000	0.00000E+000	1.20093E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.39721E-006	1.39721E-006	0.00000E+000	0.00000E+000	1.38600E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.08451E-006	1.08451E-006	0.00000E+000	0.00000E+000	1.07581E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.33285E-006	1.33285E-006	0.00000E+000	0.00000E+000	1.32216E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12458E-006	1.12458E-006	0.00000E+000	0.00000E+000	1.11556E-006
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16420E-006	1.16420E-006	0.00000E+000	0.00000E+000	1.19763E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23642E-006

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	PM2.5 Reduction	
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	PM2.5 Reduction	
No	Water Exposed Area	PM10 Reduction	PM2.5 Reduction	Frequency (per day)

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.04	0.01	0.04	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.22	0.06	0.22	0.06	0.00	0.00
Grading	Fugitive Dust	0.26	0.11	0.26	0.11	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00	100.00
Hearth	95.35	26.20	98.08	91.95	97.78	97.78	100.00	0.00	29.10	99.01	0.00	31.31
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.72	0.92	1.48	1.81	1.73	1.78	0.00	1.84	1.84	1.44	0.00	1.84
Natural Gas	6.26	6.24	6.24	6.18	6.22	6.22	0.00	6.24	6.24	6.15	6.09	6.24
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	19.98	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
No	Land Use	Increase Transit Accessibility	0.25	0.00		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.00			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site	
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02		
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00	
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00	
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00	
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00	0.00	
No	Transit Improvements	Expand Transit Network	0.00	0.00	
No	Transit Improvements	Increase Transit Frequency	0.00		0.00
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.02		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"	4.50		
No	Commute	Workplace Parking Charge		0.00	
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program	10.00		
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.02		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	7.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	0.00	100.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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Burroughs Project - Bay Area AQMD Air District, Annual

Burroughs Project
Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWEL0.

Construction Off-road Equipment Mitigation - Engine tiers upgraded per mitigation measure.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Burroughs Project - Bay Area AQMD Air District, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2590	1.6826	1.4897	3.0200e-003	0.2800	0.0740	0.3540	0.1132	0.0684	0.1816	0.0000	265.2999	265.2999	0.0754	0.0000	267.1839
2023	1.4091	2.2775	2.6318	5.4300e-003	0.1112	0.1010	0.2122	0.0300	0.0956	0.1256	0.0000	478.3314	478.3314	0.0781	0.0000	480.2826
2024	1.4032	2.1563	2.6229	5.4400e-003	0.1121	0.0891	0.2012	0.0303	0.0843	0.1146	0.0000	478.6958	478.6958	0.0779	0.0000	480.6437
2025	0.2937	0.3673	0.4758	9.9000e-004	0.0207	0.0140	0.0347	5.5800e-003	0.0133	0.0189	0.0000	86.9983	86.9983	0.0139	0.0000	87.3467
Maximum	1.4091	2.2775	2.6318	5.4400e-003	0.2800	0.1010	0.3540	0.1132	0.0956	0.1816	0.0000	478.6958	478.6958	0.0781	0.0000	480.6437

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1335	0.1972	1.6799	3.0200e-003	0.2800	4.6500e-003	0.2846	0.1132	4.6400e-003	0.1178	0.0000	265.2996	265.2996	0.0754	0.0000	267.1836
2023	1.2262	0.5454	2.7926	5.4300e-003	0.1112	6.6500e-003	0.1179	0.0300	6.5900e-003	0.0366	0.0000	478.3310	478.3310	0.0781	0.0000	480.2822
2024	1.2335	0.5451	2.7953	5.4400e-003	0.1121	6.6800e-003	0.1188	0.0303	6.6300e-003	0.0369	0.0000	478.6954	478.6954	0.0779	0.0000	480.6433
2025	0.2652	0.0978	0.5088	9.9000e-004	0.0207	1.2200e-003	0.0219	5.5800e-003	1.2100e-003	6.7900e-003	0.0000	86.9982	86.9982	0.0139	0.0000	87.3467
Maximum	1.2335	0.5454	2.7953	5.4400e-003	0.2800	6.6800e-003	0.2846	0.1132	6.6300e-003	0.1178	0.0000	478.6954	478.6954	0.0781	0.0000	480.6433

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	15.05	78.63	-7.71	0.00	0.00	93.10	32.28	0.00	92.71	55.04	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.3120	0.1291
2	10-1-2022	12-31-2022	0.6368	0.2053
3	1-1-2023	3-31-2023	0.9128	0.4393
4	4-1-2023	6-30-2023	0.9210	0.4422
5	7-1-2023	9-30-2023	0.9311	0.4471
6	10-1-2023	12-31-2023	0.9331	0.4490
7	1-1-2024	3-31-2024	0.8843	0.4425
8	4-1-2024	6-30-2024	0.8824	0.4406

Burroughs Project - Bay Area AQMD Air District, Annual

9	7-1-2024	9-30-2024	0.8921	0.4455
10	10-1-2024	12-31-2024	0.8940	0.4473
11	1-1-2025	3-31-2025	0.6544	0.3600
		Highest	1.3120	0.4490

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6091
Energy	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	501.2763	501.2763	0.0283	0.0105	505.1116
Mobile	0.3974	1.8500	4.4577	0.0177	1.6873	0.0144	1.7017	0.4528	0.0135	0.4662	0.0000	1,630.139 1	1,630.139 1	0.0547	0.0000	1,631.507 2
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	4.2994	10.9600	15.2595	0.4430	0.0107	29.5242
Total	2.2585	2.1767	6.6167	0.0213	1.6873	0.1269	1.8142	0.4528	0.1260	0.5787	65.6861	2,170.864 7	2,236.550 9	3.5766	0.0217	2,332.427 2

Burroughs Project - Bay Area AQMD Air District, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9100e-003	4.8000e-004	28.7041
Energy	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Mobile	0.3945	1.8330	4.3917	0.0174	1.6535	0.0142	1.6677	0.4437	0.0132	0.4569	0.0000	1,600.0703	1,600.0703	0.0539	0.0000	1,601.4185
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	3.4396	8.7680	12.2076	0.3544	8.5700e-003	23.6194
Total	2.1998	2.1344	6.0553	0.0193	1.6535	0.0457	1.6992	0.4437	0.0447	0.4884	54.1670	1,939.8091	1,993.9761	3.4149	0.0146	2,083.6959

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.60	1.95	8.48	9.53	2.00	64.02	6.34	2.00	64.51	15.60	17.54	10.64	10.85	4.52	32.66	10.66

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8713	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266
Total	0.1087	1.1653	0.8713	1.8600e-003	0.2602	0.0491	0.3093	0.1079	0.0451	0.1530	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.0990	0.9900	1.8600e-003		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264
Total	0.0229	0.0990	0.9900	1.8600e-003	0.2602	3.0500e-003	0.2633	0.1079	3.0500e-003	0.1110	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.0243	0.3459	4.6000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.6100e-003	0.0243	0.3459	4.6000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0800e-003	0.0346	0.2706	4.2000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	5.0800e-003	0.0346	0.2706	4.2000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.0426	0.2905	2.2698	3.5000e-003		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214
Total	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-003	0.0525	0.4103	6.3000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213
Total	7.7000e-003	0.0525	0.4103	6.3000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0944	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	1.3500e-003	0.0192	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0926	1.3500e-003	0.0192	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1670	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8600e-003	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1459	0.0167	0.2382	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1745	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0169	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1548	0.0169	0.2401	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8700e-003	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2553	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	3.6700e-003	0.0522	8.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2512	3.6700e-003	0.0522	8.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Annual

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3945	1.8330	4.3917	0.0174	1.6535	0.0142	1.6677	0.4437	0.0132	0.4569	0.0000	1,600.0703	1,600.0703	0.0539	0.0000	1,601.4185
Unmitigated	0.3974	1.8500	4.4577	0.0177	1.6873	0.0144	1.7017	0.4528	0.0135	0.4662	0.0000	1,630.1391	1,630.1391	0.0547	0.0000	1,631.5072

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	178.6633	178.6633	0.0221	4.5800e-003	180.5816
NaturalGas Mitigated	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
NaturalGas Unmitigated	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

Burroughs Project - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	6.04554e+006	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301
Total		0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	5.66829e+006	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Total		0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.68284e+006	178.6633	0.0221	4.5800e-003	180.5816
Total		178.6633	0.0221	4.5800e-003	180.5816

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9100e-003	4.8000e-004	28.7041
Unmitigated	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6091

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.0304	0.4975	1.7400e-003		0.0814	0.0814		0.0814	0.0814	10.6593	25.9666	36.6258	0.0503	4.8000e-004	38.0259
Landscaping	0.0463	0.0178	1.5430	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4200e-003	0.0000	2.5832
Total	1.8285	0.0482	2.0405	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0528	4.8000e-004	40.6091

Burroughs Project - Bay Area AQMD Air District, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.6200e-003	0.0224	9.5400e-003	1.4000e-004		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	25.9666	25.9666	5.0000e-004	4.8000e-004	26.1209
Landscaping	0.0463	0.0178	1.5430	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4200e-003	0.0000	2.5832
Total	1.7747	0.0402	1.5525	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9200e-003	4.8000e-004	28.7041

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Burroughs Project - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.2076	0.3544	8.5700e-003	23.6194
Unmitigated	15.2595	0.4430	0.0107	29.5242

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	13.552 / 8.54368	15.2595	0.4430	0.0107	29.5242
Total		15.2595	0.4430	0.0107	29.5242

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	10.8416 / 6.83494	12.2076	0.3544	8.5700e-003	23.6194
Total		12.2076	0.3544	8.5700e-003	23.6194

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.7274	2.9979	0.0000	125.6751
Unmitigated	50.7274	2.9979	0.0000	125.6751

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Burroughs Project - Bay Area AQMD Air District, Summer

Burroughs Project
Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Summer

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWEL0.

Construction Off-road Equipment Mitigation - Engine tiers upgraded per mitigation measure.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Burroughs Project - Bay Area AQMD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.989 6	6,163.989 6	1.9474	0.0000	6,212.674 4
2023	10.8487	17.4894	20.3877	0.0423	0.8883	0.7769	1.6652	0.2390	0.7352	0.9741	0.0000	4,108.750 7	4,108.750 7	0.6619	0.0000	4,125.298 5
2024	10.7195	16.4325	20.1581	0.0420	0.8883	0.6805	1.5687	0.2390	0.6436	0.8826	0.0000	4,078.902 1	4,078.902 1	0.6557	0.0000	4,095.294 3
2025	10.5909	15.3547	19.9361	0.0417	0.8883	0.5852	1.4735	0.2390	0.5535	0.7925	0.0000	4,049.826 3	4,049.826 3	0.6503	0.0000	4,066.082 8
Maximum	11.0289	38.8772	29.4942	0.0636	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,163.989 6	6,163.989 6	1.9474	0.0000	6,212.674 4

Burroughs Project - Bay Area AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	9.4757	4.6699	33.4518	0.0636	8.8376	0.1026	8.9402	3.6401	0.1025	3.7426	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744
2023	9.4419	4.1650	21.6253	0.0423	0.8883	0.0511	0.9394	0.2390	0.0507	0.2896	0.0000	4,108.7507	4,108.7507	0.6619	0.0000	4,125.2985
2024	9.4247	4.1334	21.4738	0.0420	0.8883	0.0510	0.9393	0.2390	0.0506	0.2895	0.0000	4,078.9021	4,078.9021	0.6557	0.0000	4,095.2943
2025	9.4102	4.1030	21.3350	0.0417	0.8883	0.0509	0.9392	0.2390	0.0505	0.2894	0.0000	4,049.8263	4,049.8263	0.6503	0.0000	4,066.0828
Maximum	9.4757	4.6699	33.4518	0.0636	8.8376	0.1026	8.9402	3.6401	0.1025	3.7426	0.0000	6,163.9896	6,163.9896	1.9474	0.0000	6,212.6744

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.59	80.63	-8.79	0.00	0.00	93.05	22.55	0.00	92.61	40.84	0.00	0.00	0.00	0.00	0.00	0.00

Burroughs Project - Bay Area AQMD Air District, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493
Energy	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Mobile	2.5174	9.8881	25.5424	0.1029	9.6316	0.0792	9.7108	2.5763	0.0738	2.6501		10,432.0250	10,432.0250	0.3328		10,440.3452
Total	18.2411	16.3934	91.3911	0.2904	9.6316	8.1831	17.8147	2.5763	8.1777	10.7540	1,115.8414	17,550.3497	18,666.1912	5.7146	0.1299	18,847.7764

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Energy	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Mobile	2.5014	9.8004	25.1342	0.1010	9.4390	0.0778	9.5168	2.5247	0.0726	2.5973		10,239.3583	10,239.3583	0.3278		10,247.5532
Total	13.1110	15.4544	44.6002	0.1367	9.4390	0.6141	10.0531	2.5247	0.6089	3.1336	0.0000	17,236.0873	17,236.0873	0.4909	0.1277	17,286.4164

Burroughs Project - Bay Area AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	28.12	5.73	51.20	52.92	2.00	92.50	43.57	2.00	92.55	70.86	100.00	1.79	7.66	91.41	1.71	8.28

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Burroughs Project - Bay Area AQMD Air District, Summer

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586

Burroughs Project - Bay Area AQMD Air District, Summer

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	0.7616	3.3000	32.9991	0.0621	8.6733	0.1015	8.7749	3.5965	0.1015	3.6980	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586
Total	0.0599	0.0337	0.4527	1.5300e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		152.5791	152.5791	3.1800e-003		152.6586

Burroughs Project - Bay Area AQMD Air District, Summer

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	2.1547	0.5042	5.9400e-003	0.1489	4.2700e-003	0.1532	0.0429	4.0800e-003	0.0470		629.5179	629.5179	0.0285		630.2311
Worker	0.2245	0.1264	1.6975	5.7400e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		572.1715	572.1715	0.0119		572.4696
Total	0.2881	2.2811	2.2017	0.0117	0.7650	8.0600e-003	0.7731	0.2063	7.5700e-003	0.2139		1,201.6894	1,201.6894	0.0405		1,202.7007

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0636	2.1547	0.5042	5.9400e-003	0.1489	4.2700e-003	0.1532	0.0429	4.0800e-003	0.0470		629.5179	629.5179	0.0285		630.2311
Worker	0.2245	0.1264	1.6975	5.7400e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		572.1715	572.1715	0.0119		572.4696
Total	0.2881	2.2811	2.2017	0.0117	0.7650	8.0600e-003	0.7731	0.2063	7.5700e-003	0.2139		1,201.6894	1,201.6894	0.0405		1,202.7007

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0477	1.6651	0.4539	5.7700e-003	0.1489	1.8900e-003	0.1508	0.0429	1.8100e-003	0.0447		611.8088	611.8088	0.0244		612.4184
Worker	0.2095	0.1137	1.5656	5.5200e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		550.2366	550.2366	0.0107		550.5042
Total	0.2572	1.7788	2.0195	0.0113	0.7650	5.6000e-003	0.7707	0.2063	5.2200e-003	0.2115		1,162.0454	1,162.0454	0.0351		1,162.9226

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0477	1.6651	0.4539	5.7700e-003	0.1489	1.8900e-003	0.1508	0.0429	1.8100e-003	0.0447		611.8088	611.8088	0.0244		612.4184
Worker	0.2095	0.1137	1.5656	5.5200e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		550.2366	550.2366	0.0107		550.5042
Total	0.2572	1.7788	2.0195	0.0113	0.7650	5.6000e-003	0.7707	0.2063	5.2200e-003	0.2115		1,162.0454	1,162.0454	0.0351		1,162.9226

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0461	1.6467	0.4373	5.7200e-003	0.1489	1.8600e-003	0.1508	0.0429	1.7800e-003	0.0447		607.6296	607.6296	0.0239		608.2272
Worker	0.1966	0.1027	1.4532	5.3000e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		528.4380	528.4380	9.6500e-003		528.6793
Total	0.2427	1.7494	1.8905	0.0110	0.7650	5.5000e-003	0.7706	0.2063	5.1300e-003	0.2114		1,136.0676	1,136.0676	0.0336		1,136.9066

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0461	1.6467	0.4373	5.7200e-003	0.1489	1.8600e-003	0.1508	0.0429	1.7800e-003	0.0447		607.6296	607.6296	0.0239		608.2272
Worker	0.1966	0.1027	1.4532	5.3000e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		528.4380	528.4380	9.6500e-003		528.6793
Total	0.2427	1.7494	1.8905	0.0110	0.7650	5.5000e-003	0.7706	0.2063	5.1300e-003	0.2114		1,136.0676	1,136.0676	0.0336		1,136.9066

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0448	1.6274	0.4247	5.6800e-003	0.1489	1.8300e-003	0.1508	0.0429	1.7500e-003	0.0446		603.6157	603.6157	0.0235		604.2020
Worker	0.1855	0.0934	1.3480	5.0800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		506.9068	506.9068	8.7600e-003		507.1257
Total	0.2303	1.7208	1.7727	0.0108	0.7651	5.4200e-003	0.7705	0.2063	5.0500e-003	0.2114		1,110.522 5	1,110.522 5	0.0322		1,111.327 7

Burroughs Project - Bay Area AQMD Air District, Summer

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0448	1.6274	0.4247	5.6800e-003	0.1489	1.8300e-003	0.1508	0.0429	1.7500e-003	0.0446		603.6157	603.6157	0.0235		604.2020
Worker	0.1855	0.0934	1.3480	5.0800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		506.9068	506.9068	8.7600e-003		507.1257
Total	0.2303	1.7208	1.7727	0.0108	0.7651	5.4200e-003	0.7705	0.2063	5.0500e-003	0.2114		1,110.522 5	1,110.522 5	0.0322		1,111.327 7

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939
Total	0.0449	0.0253	0.3395	1.1500e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		114.4343	114.4343	2.3800e-003		114.4939

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009
Total	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009
Total	0.0419	0.0227	0.3131	1.1000e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		110.0473	110.0473	2.1400e-003		110.1009

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359
Total	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359
Total	0.0393	0.0205	0.2906	1.0600e-003	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		105.6876	105.6876	1.9300e-003		105.7359

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251
Total	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251

Burroughs Project - Bay Area AQMD Air District, Summer

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251
Total	0.0371	0.0187	0.2696	1.0200e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		101.3814	101.3814	1.7500e-003		101.4251

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Summer

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5014	9.8004	25.1342	0.1010	9.4390	0.0778	9.5168	2.5247	0.0726	2.5973		10,239.3583	10,239.3583	0.3278		10,247.5532
Unmitigated	2.5174	9.8881	25.5424	0.1029	9.6316	0.0792	9.7108	2.5763	0.0738	2.6501		10,432.0250	10,432.0250	0.3328		10,440.3452

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Burroughs Project - Bay Area AQMD Air District, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
NaturalGas Unmitigated	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Burroughs Project - Bay Area AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	16563.1	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Total		0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	15.5296	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Total		0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635

6.0 Area Detail

6.1 Mitigation Measures Area

Burroughs Project - Bay Area AQMD Air District, Summer

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Unmitigated	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.5740	4.7814	48.0551	0.1769		7.8854	7.8854		7.8854	7.8854	1,115.8414	5,138.8235	6,254.6650	5.3148	0.0942	6,415.6107
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

Burroughs Project - Bay Area AQMD Air District, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4711	4.0254	1.7129	0.0257		0.3255	0.3255		0.3255	0.3255	0.0000	5,138.8235	5,138.8235	0.0985	0.0942	5,169.3610
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	10.4421	4.2229	18.8569	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Burroughs Project - Bay Area AQMD Air District, Winter

Burroughs Project
Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	234.06	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Winter

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWEL0.

Construction Off-road Equipment Mitigation - Engine tiers upgraded per mitigation measure.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Burroughs Project - Bay Area AQMD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	234.06
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481
2023	10.8683	17.5295	20.3127	0.0416	0.8883	0.7770	1.6652	0.2390	0.7352	0.9742	0.0000	4,041.2936	4,041.2936	0.6628	0.0000	4,057.8627
2024	10.7389	16.4692	20.0848	0.0414	0.8883	0.6805	1.5688	0.2390	0.6437	0.8827	0.0000	4,013.7535	4,013.7535	0.6565	0.0000	4,030.1669
2025	10.6101	15.3884	19.8667	0.0411	0.8883	0.5853	1.4735	0.2390	0.5535	0.7925	0.0000	3,986.9382	3,986.9382	0.6511	0.0000	4,003.2157
Maximum	11.0495	38.8851	29.4633	0.0635	8.8376	1.6359	10.4735	3.6401	1.5050	5.1451	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481

Burroughs Project - Bay Area AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	9.4962	4.7217	33.4209	0.0635	8.8376	0.1026	8.9402	3.6401	0.1025	3.7426	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481
2023	9.4614	4.2051	21.5502	0.0416	0.8883	0.0512	0.9394	0.2390	0.0507	0.2897	0.0000	4,041.2936	4,041.2936	0.6628	0.0000	4,057.8627
2024	9.4441	4.1701	21.4005	0.0414	0.8883	0.0511	0.9393	0.2390	0.0506	0.2896	0.0000	4,013.7535	4,013.7535	0.6565	0.0000	4,030.1669
2025	9.4294	4.1367	21.2656	0.0411	0.8883	0.0510	0.9392	0.2390	0.0505	0.2895	0.0000	3,986.9382	3,986.9382	0.6511	0.0000	4,003.2157
Maximum	9.4962	4.7217	33.4209	0.0635	8.8376	0.1026	8.9402	3.6401	0.1025	3.7426	0.0000	6,151.9689	6,151.9689	1.9472	0.0000	6,200.6481

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.56	80.48	-8.82	0.00	0.00	93.05	22.55	0.00	92.60	40.84	0.00	0.00	0.00	0.00	0.00	0.00

Burroughs Project - Bay Area AQMD Air District, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493
Energy	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Mobile	2.1577	10.3341	25.5917	0.0964	9.6316	0.0795	9.7111	2.5763	0.0742	2.6504		9,779.3319	9,779.3319	0.3397		9,787.8233
Total	17.8814	16.8394	91.4404	0.2840	9.6316	8.1834	17.8150	2.5763	8.1781	10.7543	1,115.8414	16,897.6567	18,013.4981	5.7214	0.1299	18,195.2545

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Energy	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Mobile	2.1418	10.2366	25.2278	0.0947	9.4390	0.0782	9.5171	2.5247	0.0729	2.5976		9,598.2721	9,598.2721	0.3348		9,606.6427
Total	12.7514	15.8906	44.6937	0.1304	9.4390	0.6145	10.0534	2.5247	0.6092	3.1339	0.0000	16,595.0010	16,595.0010	0.4979	0.1277	16,645.5059

Burroughs Project - Bay Area AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	28.69	5.63	51.12	54.08	2.00	92.49	43.57	2.00	92.55	70.86	100.00	1.79	7.87	91.30	1.71	8.52

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Burroughs Project - Bay Area AQMD Air District, Winter

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323

Burroughs Project - Bay Area AQMD Air District, Winter

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	0.7616	3.3000	32.9991	0.0621	8.6733	0.1015	8.7749	3.5965	0.1015	3.6980	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323
Total	0.0636	0.0416	0.4218	1.4100e-003	0.1643	1.0100e-003	0.1653	0.0436	9.3000e-004	0.0445		140.5584	140.5584	2.9600e-003		140.6323

Burroughs Project - Bay Area AQMD Air District, Winter

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0674	2.1709	0.5793	5.7900e-003	0.1489	4.4300e-003	0.1534	0.0429	4.2300e-003	0.0471		613.4456	613.4456	0.0308		614.2165
Worker	0.2384	0.1561	1.5817	5.2900e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		527.0940	527.0940	0.0111		527.3711
Total	0.3058	2.3270	2.1609	0.0111	0.7650	8.2200e-003	0.7732	0.2063	7.7200e-003	0.2140		1,140.5396	1,140.5396	0.0419		1,141.5876

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0674	2.1709	0.5793	5.7900e-003	0.1489	4.4300e-003	0.1534	0.0429	4.2300e-003	0.0471		613.4456	613.4456	0.0308		614.2165
Worker	0.2384	0.1561	1.5817	5.2900e-003	0.6161	3.7900e-003	0.6199	0.1634	3.4900e-003	0.1669		527.0940	527.0940	0.0111		527.3711
Total	0.3058	2.3270	2.1609	0.0111	0.7650	8.2200e-003	0.7732	0.2063	7.7200e-003	0.2140		1,140.5396	1,140.5396	0.0419		1,141.5876

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.6732	0.5144	5.6200e-003	0.1489	1.9800e-003	0.1509	0.0429	1.8900e-003	0.0448		596.3453	596.3453	0.0262		596.9997
Worker	0.2234	0.1403	1.4526	5.0800e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		506.9086	506.9086	9.9200e-003		507.1566
Total	0.2740	1.8136	1.9670	0.0107	0.7650	5.6900e-003	0.7707	0.2063	5.3000e-003	0.2116		1,103.2539	1,103.2539	0.0361		1,104.1563

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	1.6732	0.5144	5.6200e-003	0.1489	1.9800e-003	0.1509	0.0429	1.8900e-003	0.0448		596.3453	596.3453	0.0262		596.9997
Worker	0.2234	0.1403	1.4526	5.0800e-003	0.6161	3.7100e-003	0.6198	0.1634	3.4100e-003	0.1668		506.9086	506.9086	9.9200e-003		507.1566
Total	0.2740	1.8136	1.9670	0.0107	0.7650	5.6900e-003	0.7707	0.2063	5.3000e-003	0.2116		1,103.2539	1,103.2539	0.0361		1,104.1563

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0490	1.6546	0.4950	5.5800e-003	0.1489	1.9400e-003	0.1509	0.0429	1.8500e-003	0.0447		592.3895	592.3895	0.0256		593.0303
Worker	0.2104	0.1267	1.3440	4.8800e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		486.8476	486.8476	8.9200e-003		487.0706
Total	0.2594	1.7813	1.8391	0.0105	0.7650	5.5800e-003	0.7706	0.2063	5.2000e-003	0.2115		1,079.2371	1,079.2371	0.0346		1,080.1009

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0490	1.6546	0.4950	5.5800e-003	0.1489	1.9400e-003	0.1509	0.0429	1.8500e-003	0.0447		592.3895	592.3895	0.0256		593.0303
Worker	0.2104	0.1267	1.3440	4.8800e-003	0.6161	3.6400e-003	0.6198	0.1634	3.3500e-003	0.1668		486.8476	486.8476	8.9200e-003		487.0706
Total	0.2594	1.7813	1.8391	0.0105	0.7650	5.5800e-003	0.7706	0.2063	5.2000e-003	0.2115		1,079.2371	1,079.2371	0.0346		1,080.1009

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0475	1.6350	0.4803	5.5400e-003	0.1489	1.9000e-003	0.1508	0.0429	1.8100e-003	0.0447		588.5776	588.5776	0.0251		589.2054
Worker	0.1993	0.1152	1.2439	4.6800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		467.0319	467.0319	8.0700e-003		467.2336
Total	0.2468	1.7502	1.7241	0.0102	0.7651	5.4900e-003	0.7705	0.2063	5.1100e-003	0.2114		1,055.609 4	1,055.609 4	0.0332		1,056.439 0

Burroughs Project - Bay Area AQMD Air District, Winter

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0475	1.6350	0.4803	5.5400e-003	0.1489	1.9000e-003	0.1508	0.0429	1.8100e-003	0.0447		588.5776	588.5776	0.0251		589.2054
Worker	0.1993	0.1152	1.2439	4.6800e-003	0.6161	3.5900e-003	0.6197	0.1634	3.3000e-003	0.1667		467.0319	467.0319	8.0700e-003		467.2336
Total	0.2468	1.7502	1.7241	0.0102	0.7651	5.4900e-003	0.7705	0.2063	5.1100e-003	0.2114		1,055.609 4	1,055.609 4	0.0332		1,056.439 0

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	8.9897	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742
Total	0.0477	0.0312	0.3163	1.0600e-003	0.1232	7.6000e-004	0.1240	0.0327	7.0000e-004	0.0334		105.4188	105.4188	2.2200e-003		105.4742

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	8.9768	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313
Total	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313
Total	0.0447	0.0281	0.2905	1.0200e-003	0.1232	7.4000e-004	0.1240	0.0327	6.8000e-004	0.0334		101.3817	101.3817	1.9800e-003		101.4313

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	8.9659	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141
Total	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141
Total	0.0421	0.0253	0.2688	9.8000e-004	0.1232	7.3000e-004	0.1240	0.0327	6.7000e-004	0.0334		97.3695	97.3695	1.7800e-003		97.4141

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	8.9560	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467
Total	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467

Burroughs Project - Bay Area AQMD Air District, Winter

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.7852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	8.8149	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467
Total	0.0399	0.0230	0.2488	9.4000e-004	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		93.4064	93.4064	1.6100e-003		93.4467

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Winter

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1418	10.2366	25.2278	0.0947	9.4390	0.0782	9.5171	2.5247	0.0729	2.5976		9,598.2721	9,598.2721	0.3348		9,606.6427
Unmitigated	2.1577	10.3341	25.5917	0.0964	9.6316	0.0795	9.7111	2.5763	0.0742	2.6504		9,779.3319	9,779.3319	0.3397		9,787.8233

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Burroughs Project - Bay Area AQMD Air District, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
NaturalGas Unmitigated	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Burroughs Project - Bay Area AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	16563.1	0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819
Total		0.1786	1.5264	0.6495	9.7400e-003		0.1234	0.1234		0.1234	0.1234		1,948.6023	1,948.6023	0.0374	0.0357	1,960.1819

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	15.5296	0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635
Total		0.1675	1.4312	0.6090	9.1400e-003		0.1157	0.1157		0.1157	0.1157		1,827.0066	1,827.0066	0.0350	0.0335	1,837.8635

6.0 Area Detail

6.1 Mitigation Measures Area

Burroughs Project - Bay Area AQMD Air District, Winter

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.4421	4.2229	18.8570	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996
Unmitigated	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.5740	4.7814	48.0551	0.1769		7.8854	7.8854		7.8854	7.8854	1,115.8414	5,138.8235	6,254.6650	5.3148	0.0942	6,415.6107
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	15.5450	4.9789	65.1991	0.1778		7.9805	7.9805		7.9805	7.9805	1,115.8414	5,169.7224	6,285.5638	5.3444	0.0942	6,447.2493

Burroughs Project - Bay Area AQMD Air District, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.0122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4711	4.0254	1.7129	0.0257		0.3255	0.3255		0.3255	0.3255	0.0000	5,138.8235	5,138.8235	0.0985	0.0942	5,169.3610
Landscaping	0.5147	0.1975	17.1440	9.1000e-004		0.0951	0.0951		0.0951	0.0951		30.8989	30.8989	0.0296		31.6386
Total	10.4421	4.2229	18.8569	0.0266		0.4206	0.4206		0.4206	0.4206	0.0000	5,169.7224	5,169.7224	0.1281	0.0942	5,200.9996

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Burroughs Project - Bay Area AQMD Air District, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Burroughs Project - Bay Area AQMD Air District, Annual

Burroughs Project
Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	208.00	Dwelling Unit	43.24	374,400.00	595

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	175	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Burroughs Project - Bay Area AQMD Air District, Annual

Project Characteristics - Updated CO2 intensity factor based on PG&E RPS projections.

Land Use - Updated lot acreage based on site plan.

Construction Phase - Phase timing updated based on AQ Questionnaire.

Grading -

Vehicle Trips - Trip rate updated based on project-specific traffic report.

Woodstoves - Updated based on the AQ Questionnaire.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Represents compliance with 2019 CBSC.

Water Mitigation - Represents compliance with 2019 CBSC and MWEL0.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	55.00	600.00
tblConstructionPhase	NumDays	740.00	600.00
tblConstructionPhase	NumDays	75.00	60.00
tblConstructionPhase	NumDays	55.00	40.00
tblFireplaces	NumberGas	52.00	208.00
tblFireplaces	NumberNoFireplace	16.64	0.00
tblFireplaces	NumberWood	89.44	0.00
tblLandUse	LotAcreage	67.53	43.24
tblProjectCharacteristics	CO2IntensityFactor	641.35	175
tblVehicleTrips	ST_TR	9.91	9.44
tblVehicleTrips	SU_TR	8.62	9.44
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2590	1.6826	1.4897	3.0200e-003	0.2800	0.0740	0.3540	0.1132	0.0684	0.1816	0.0000	265.2999	265.2999	0.0754	0.0000	267.1839
2023	1.4091	2.2775	2.6318	5.4300e-003	0.1112	0.1010	0.2122	0.0300	0.0956	0.1256	0.0000	478.3314	478.3314	0.0781	0.0000	480.2826
2024	1.4032	2.1563	2.6229	5.4400e-003	0.1121	0.0891	0.2012	0.0303	0.0843	0.1146	0.0000	478.6958	478.6958	0.0779	0.0000	480.6437
2025	0.2937	0.3673	0.4758	9.9000e-004	0.0207	0.0140	0.0347	5.5800e-003	0.0133	0.0189	0.0000	86.9983	86.9983	0.0139	0.0000	87.3467
Maximum	1.4091	2.2775	2.6318	5.4400e-003	0.2800	0.1010	0.3540	0.1132	0.0956	0.1816	0.0000	478.6958	478.6958	0.0781	0.0000	480.6437

Burroughs Project - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2590	1.6826	1.4897	3.0200e-003	0.2800	0.0740	0.3540	0.1132	0.0684	0.1816	0.0000	265.2996	265.2996	0.0754	0.0000	267.1836
2023	1.4091	2.2775	2.6318	5.4300e-003	0.1112	0.1010	0.2122	0.0300	0.0956	0.1256	0.0000	478.3310	478.3310	0.0781	0.0000	480.2822
2024	1.4032	2.1563	2.6229	5.4400e-003	0.1121	0.0891	0.2012	0.0303	0.0843	0.1146	0.0000	478.6954	478.6954	0.0779	0.0000	480.6433
2025	0.2937	0.3673	0.4758	9.9000e-004	0.0207	0.0140	0.0347	5.5800e-003	0.0133	0.0189	0.0000	86.9982	86.9982	0.0139	0.0000	87.3467
Maximum	1.4091	2.2775	2.6318	5.4400e-003	0.2800	0.1010	0.3540	0.1132	0.0956	0.1816	0.0000	478.6954	478.6954	0.0781	0.0000	480.6433

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.3120	1.3120
2	10-1-2022	12-31-2022	0.6368	0.6368
3	1-1-2023	3-31-2023	0.9128	0.9128
4	4-1-2023	6-30-2023	0.9210	0.9210
5	7-1-2023	9-30-2023	0.9311	0.9311
6	10-1-2023	12-31-2023	0.9331	0.9331
7	1-1-2024	3-31-2024	0.8843	0.8843
8	4-1-2024	6-30-2024	0.8824	0.8824

Burroughs Project - Bay Area AQMD Air District, Annual

9	7-1-2024	9-30-2024	0.8921	0.8921
10	10-1-2024	12-31-2024	0.8940	0.8940
11	1-1-2025	3-31-2025	0.6544	0.6544
		Highest	1.3120	1.3120

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8282	0.0481	2.0379	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6088
Energy	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	456.1945	456.1945	0.0283	0.0105	460.0298
Mobile	0.3140	1.6271	3.4917	0.0158	1.6865	0.0105	1.6970	0.4524	9.7500e-003	0.4622	0.0000	1,456.2116	1,456.2116	0.0461	0.0000	1,457.3644
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	4.2994	8.1945	12.4939	0.4430	0.0107	26.7587
Total	2.1748	1.9538	5.6481	0.0194	1.6865	0.1230	1.8095	0.4524	0.1223	0.5747	65.6861	1,949.0899	2,014.7760	3.5680	0.0217	2,110.4367

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7745	0.0402	1.5499	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9000e-003	4.8000e-004	28.7038
Energy	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Mobile	0.3116	1.6142	3.4391	0.0155	1.6528	0.0103	1.6631	0.4434	9.5800e-003	0.4529	0.0000	1,429.4952	1,429.4952	0.0454	0.0000	1,430.6311
Waste						0.0000	0.0000		0.0000	0.0000	50.7274	0.0000	50.7274	2.9979	0.0000	125.6751
Water						0.0000	0.0000		0.0000	0.0000	3.4396	6.5556	9.9951	0.3544	8.5700e-003	21.4069
Total	2.1166	1.9156	5.1002	0.0174	1.6528	0.0418	1.6946	0.4434	0.0411	0.4844	54.1670	1,767.0215	1,821.1885	3.4064	0.0146	1,910.6958

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	2.68	1.96	9.70	10.33	2.00	66.02	6.35	2.00	66.40	15.70	17.54	9.34	9.61	4.53	32.66	9.46

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/1/2022	9/22/2022	5	60	
2	Paving	Paving	9/23/2022	11/17/2022	5	40	
3	Building Construction	Building Construction	11/18/2022	3/6/2025	5	600	
4	Architectural Coating	Architectural Coating	12/2/2022	3/20/2025	5	600	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 758,160; Residential Outdoor: 252,720; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Burroughs Project - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	75.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8713	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266
Total	0.1087	1.1653	0.8713	1.8600e-003	0.2602	0.0491	0.3093	0.1079	0.0451	0.1530	0.0000	163.6038	163.6038	0.0529	0.0000	164.9266

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.2 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1079	0.0000	0.1079	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1087	1.1653	0.8712	1.8600e-003		0.0491	0.0491		0.0451	0.0451	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264
Total	0.1087	1.1653	0.8712	1.8600e-003	0.2602	0.0491	0.3093	0.1079	0.0451	0.1530	0.0000	163.6036	163.6036	0.0529	0.0000	164.9264

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630
Total	1.7200e-003	1.1400e-003	0.0124	4.0000e-005	4.7400e-003	3.0000e-005	4.7700e-003	1.2600e-003	3.0000e-005	1.2900e-003	0.0000	3.8610	3.8610	8.0000e-005	0.0000	3.8630

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3790

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.3 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0221	0.2225	0.2916	4.6000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	40.0551	40.0551	0.0130	0.0000	40.3789

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315
Total	8.6000e-004	5.7000e-004	6.1800e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9305	1.9305	4.0000e-005	0.0000	1.9315

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325
Total	0.0265	0.2420	0.2536	4.2000e-004		0.0125	0.0125		0.0118	0.0118	0.0000	35.9174	35.9174	8.6000e-003	0.0000	36.1325

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0337	8.3600e-003	9.0000e-005	2.2400e-003	7.0000e-005	2.3000e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	8.7569	8.7569	4.2000e-004	0.0000	8.7673
Worker	3.3300e-003	2.2100e-003	0.0240	8.0000e-005	9.1900e-003	6.0000e-005	9.2400e-003	2.4400e-003	5.0000e-005	2.5000e-003	0.0000	7.4807	7.4807	1.6000e-004	0.0000	7.4846
Total	4.3400e-003	0.0359	0.0323	1.7000e-004	0.0114	1.3000e-004	0.0115	3.0900e-003	1.1000e-004	3.2100e-003	0.0000	16.2376	16.2376	5.8000e-004	0.0000	16.2519

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3500e-003	0.2181	0.0628	7.4000e-004	0.0188	2.5000e-004	0.0190	5.4200e-003	2.4000e-004	5.6600e-003	0.0000	71.3867	71.3867	2.9700e-003	0.0000	71.4610
Worker	0.0261	0.0166	0.1849	6.7000e-004	0.0770	4.8000e-004	0.0775	0.0205	4.4000e-004	0.0209	0.0000	60.3385	60.3385	1.1700e-003	0.0000	60.3678
Total	0.0324	0.2348	0.2476	1.4100e-003	0.0958	7.3000e-004	0.0965	0.0259	6.8000e-004	0.0266	0.0000	131.7252	131.7252	4.1400e-003	0.0000	131.8288

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1900e-003	0.2174	0.0609	7.4000e-004	0.0189	2.5000e-004	0.0192	5.4700e-003	2.4000e-004	5.7000e-003	0.0000	71.4504	71.4504	2.9300e-003	0.0000	71.5237
Worker	0.0247	0.0151	0.1726	6.5000e-004	0.0776	4.8000e-004	0.0781	0.0207	4.4000e-004	0.0211	0.0000	58.3962	58.3962	1.0700e-003	0.0000	58.4229
Total	0.0309	0.2325	0.2334	1.3900e-003	0.0965	7.3000e-004	0.0973	0.0261	6.8000e-004	0.0268	0.0000	129.8466	129.8466	4.0000e-003	0.0000	129.9465

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214
Total	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213
Total	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0385	0.0106	1.3000e-004	3.3900e-003	4.0000e-005	3.4300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	12.7337	12.7337	5.2000e-004	0.0000	12.7466
Worker	4.1900e-003	2.4700e-003	0.0287	1.1000e-004	0.0139	8.0000e-005	0.0140	3.7000e-003	8.0000e-005	3.7800e-003	0.0000	10.0493	10.0493	1.7000e-004	0.0000	10.0536
Total	5.2700e-003	0.0410	0.0393	2.4000e-004	0.0173	1.2000e-004	0.0174	4.6800e-003	1.2000e-004	4.8000e-003	0.0000	22.7829	22.7829	6.9000e-004	0.0000	22.8002

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0944	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1500e-003	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853
Total	0.0944	0.0148	0.0190	3.0000e-005		8.6000e-004	8.6000e-004		8.6000e-004	8.6000e-004	0.0000	2.6809	2.6809	1.7000e-004	0.0000	2.6853

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140
Total	4.5000e-004	3.0000e-004	3.2500e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0135	1.0135	2.0000e-005	0.0000	1.0140

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1670	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.1670	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736
Total	5.2200e-003	3.3300e-003	0.0370	1.3000e-004	0.0154	1.0000e-004	0.0155	4.1000e-003	9.0000e-005	4.1900e-003	0.0000	12.0677	12.0677	2.3000e-004	0.0000	12.0736

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1745	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1509					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	1.1745	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846
Total	4.9400e-003	3.0300e-003	0.0345	1.3000e-004	0.0155	1.0000e-004	0.0156	4.1300e-003	9.0000e-005	4.2200e-003	0.0000	11.6793	11.6793	2.1000e-004	0.0000	11.6846

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8700e-003	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2553	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

Burroughs Project - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2504					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8700e-003	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867
Total	0.2553	0.0327	0.0516	8.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	7.2768	7.2768	4.0000e-004	0.0000	7.2867

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385
Total	1.0200e-003	6.0000e-004	6.9500e-003	3.0000e-005	3.3800e-003	2.0000e-005	3.4000e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.4375	2.4375	4.0000e-005	0.0000	2.4385

4.0 Operational Detail - Mobile

Burroughs Project - Bay Area AQMD Air District, Annual

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3116	1.6142	3.4391	0.0155	1.6528	0.0103	1.6631	0.4434	9.5800e-003	0.4529	0.0000	1,429.4952	1,429.4952	0.0454	0.0000	1,430.6311
Unmitigated	0.3140	1.6271	3.4917	0.0158	1.6865	0.0105	1.6970	0.4524	9.7500e-003	0.4622	0.0000	1,456.2116	1,456.2116	0.0461	0.0000	1,457.3644

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261
Total	1,963.52	1,963.52	1,963.52	4,534,960	4,444,261

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Burroughs Project - Bay Area AQMD Air District, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	133.5815	133.5815	0.0221	4.5800e-003	135.4997
NaturalGas Mitigated	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
NaturalGas Unmitigated	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

Burroughs Project - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	6.04554e+006	0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301
Total		0.0326	0.2786	0.1185	1.7800e-003		0.0225	0.0225		0.0225	0.0225	0.0000	322.6130	322.6130	6.1800e-003	5.9100e-003	324.5301

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	5.66829e+006	0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789
Total		0.0306	0.2612	0.1111	1.6700e-003		0.0211	0.0211		0.0211	0.0211	0.0000	302.4814	302.4814	5.8000e-003	5.5500e-003	304.2789

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.68284e+006	133.5815	0.0221	4.5800e-003	135.4997
Total		133.5815	0.0221	4.5800e-003	135.4997

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Burroughs Project - Bay Area AQMD Air District, Annual

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7745	0.0402	1.5499	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9000e-003	4.8000e-004	28.7038
Unmitigated	1.8282	0.0481	2.0379	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6088

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.0304	0.4975	1.7400e-003		0.0814	0.0814		0.0814	0.0814	10.6593	25.9666	36.6258	0.0503	4.8000e-004	38.0259
Landscaping	0.0461	0.0178	1.5403	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4000e-003	0.0000	2.5829
Total	1.8282	0.0481	2.0379	1.8200e-003		0.0900	0.0900		0.0900	0.0900	10.6593	28.4894	39.1486	0.0527	4.8000e-004	40.6088

Burroughs Project - Bay Area AQMD Air District, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.6200e-003	0.0224	9.5400e-003	1.4000e-004		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	25.9666	25.9666	5.0000e-004	4.8000e-004	26.1209
Landscaping	0.0461	0.0178	1.5403	8.0000e-005		8.5600e-003	8.5600e-003		8.5600e-003	8.5600e-003	0.0000	2.5228	2.5228	2.4000e-003	0.0000	2.5829
Total	1.7745	0.0402	1.5499	2.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	28.4894	28.4894	2.9000e-003	4.8000e-004	28.7038

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Burroughs Project - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.9951	0.3544	8.5700e-003	21.4069
Unmitigated	12.4939	0.4430	0.0107	26.7587

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	13.552 / 8.54368	12.4939	0.4430	0.0107	26.7587
Total		12.4939	0.4430	0.0107	26.7587

Burroughs Project - Bay Area AQMD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	10.8416 / 6.83494	9.9951	0.3544	8.5700e-003	21.4069
Total		9.9951	0.3544	8.5700e-003	21.4069

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.7274	2.9979	0.0000	125.6751
Unmitigated	50.7274	2.9979	0.0000	125.6751

Burroughs Project - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	249.9	50.7274	2.9979	0.0000	125.6751
Total		50.7274	2.9979	0.0000	125.6751

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

Burroughs Project - Bay Area AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

day' in the unit is operation day.

NOx_STREX	PM2.5_RUNEX	PM2.5_IDLEX	PM2.5_STREX	PM2.5_PMTW	PM2.5_PMBW	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW
1.562290714	0.038413539	0.014745983	0	0.009000003	0.026460008	0.040150429	0.015412731	0	0.03600001

16325.7541 g pm2.5
272.0959016 g pm2.5/day
0.59986878 lbs pm2.5/day

17063.93225 g pm10
284.3988709 g pm10/day
0.626992184 lbs pm10/day

PM10_PMBW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX
0.061740018	1332.729358	4855.417034	0	0.002739279	0.087672171	0	0.209486496	0.763203942	0	0.058975932

566409977.3 g co2

566.4099773 mtco2

25064.77128

417.7461879

0.920972696

ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_RESTLOSS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOAK
1.887557803	0	0	0	0	0	0.06713961	2.148840876	0	0

g rog

g rog/day

lbs rog/day

TOG_RUNLOSS	TOG_RESTLOSS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
0	0	0	0.258126978	24.70494317	0	0.012590966	0.045871573	0

Appendix B
Jurisdictional Delineation Report



**Burroughs Property
Residential Development Project**

**SECTION 404
JURISDICTIONAL DELINEATION**

Project No.:
1115

Zentner Planning and Ecology
Oakland

Prepared for:
Westgate Ventures
And
City of Oakley

Issued:
May 2020

Project Name:

Burroughs Residential Development

Owner/Project Proponent:

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2551 San Ramon Valley Road #224
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And

City of Oakley
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Jurisdictional Delineation By:

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Field Assessments:

Sean Micallef, Chief Ecologist
Emily Mathews, Biologist
April 9, 2020

Table of Contents

I. INTRODUCTION	1
A. Purpose	1
B. Location	2
C. Site History	2
D. Site Description	3
II. Existing Conditions	4
A. Topography	4
B. Soils.....	5
C. Major Vegetation Types or Habitats On-Site.....	5
D. Regional and Local Ecology.....	6
III. JURISDICTIONAL DELINEATION	8
A. Introduction.....	8
B. Methods.....	8
1. Hydrophytic Vegetation.....	8
2. Hydric Soils.....	9
3. Wetland Hydrology.....	9
4. Other Waters	10
C. Results.....	10
1. Jurisdictional Areas	10
a. Other Waters (Little Dutch Slough)	10
b. Seasonal Wetlands	11
2. Non-jurisdictional.....	12
D. Change from 2005 Delineation.....	14
References	16
APPENDIX A	17

**Burroughs Property
Residential Development Project**

Jurisdictional Delineation

I. INTRODUCTION

A. Purpose

The report and accompanying map of the Burroughs property have been prepared to identify and describe aquatic resources. This report presents a delineation of jurisdictional “waters of the U.S.” As defined in the Clean Water Act, “waters of the U.S.” include coastal waters, rivers, streams (including intermittent streams), lakes, ponds, and wetlands. Any discharge of fill or dredged material into waters of the U.S. is subject to regulation by the Army Corps of Engineers (“Corps”) under Section 404 the Clean Water Act. This delineation was conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the appropriate regional supplements including the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008), Arid West 2016 Regional Wetland Plant List (USACE 2016), and the Field Guide to Identification of the Ordinary High Water (OHWM) in the Arid West Region of the Western United States: A Delineation manual (USACE 2008).

The focus of this report is on the Burroughs property (hereafter referred to as the “project site”). The property is comprised of two adjacent parcels, 032-081-025-2 and 031-081-026, owned by the City of Oakley and Westgate Ventures respectively. The two parcels are the subject of the landowners’ jointly proposed residential subdivision.

The Burroughs property was previously proposed for a residential development, though for a number of reasons the project was never completed. As a part of the past development, Zentner Planning and Ecology (Zentner) completed a Wetland Delineation of the property in 2005. Conditions of the project site have changed substantially since the 2005 delineation was completed, resulting in differences in the site’s jurisdictional features; these changes are also discussed in this document.

B. Location

The approximately 43.19-acre Burroughs site is located 1.5 miles east of Highway 4 on East Cypress Road in the City of Oakley in northeast Contra Costa County (**Figure 1**). The triangular shaped site is bounded on the south by Cypress Road, on the west by a channelized arm of Little Dutch Slough, and on the northeast by the recently undergrounded Contra Costa Canal. Access to the site is via a gate located on the south side of the site just east of Broadway Street.

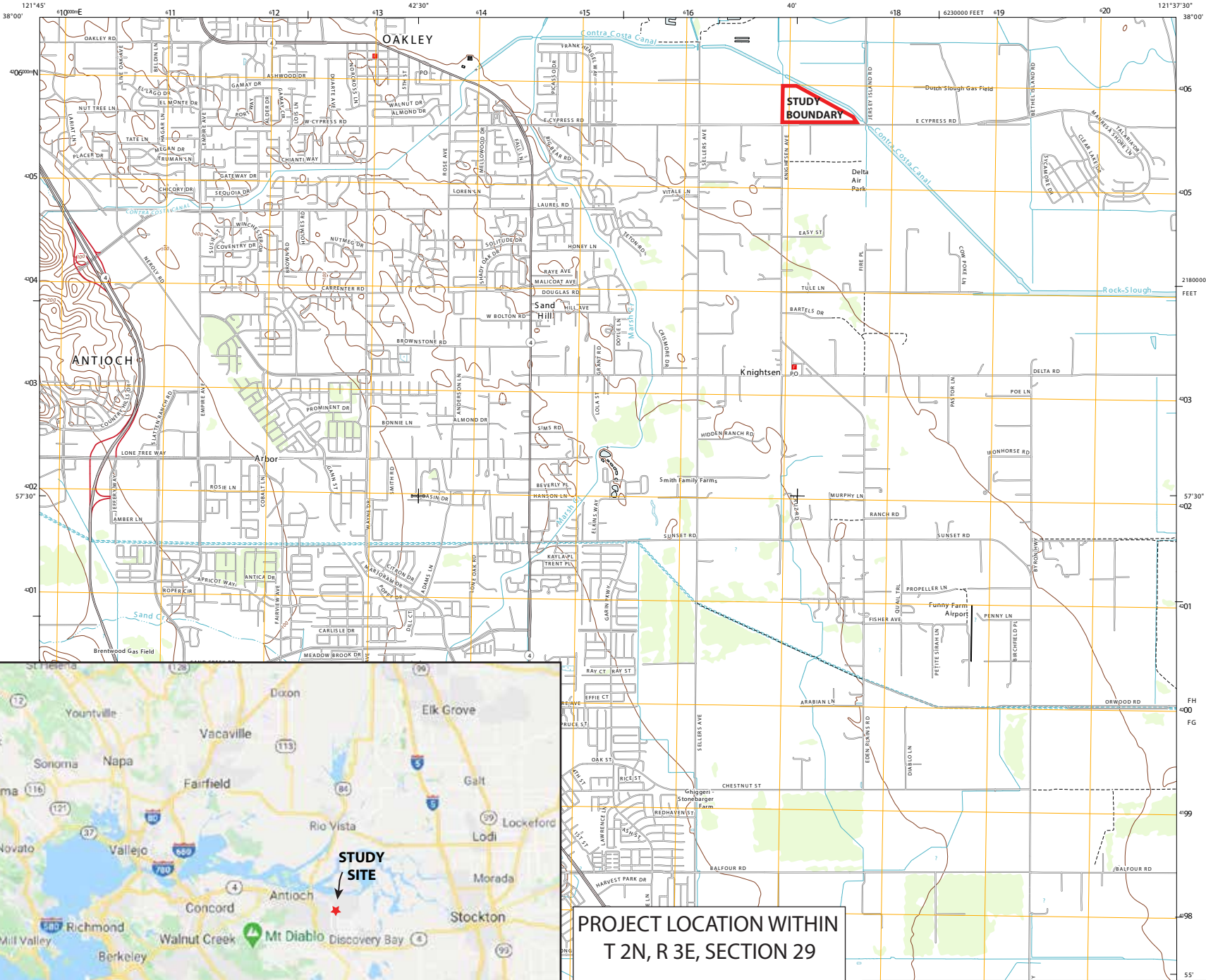


Photo 1: View looking northeast across the project site from the southwest corner of the property. April 2020.

The project site is located on the Brentwood USGS 7.5 minute quadrangle, near the north edge within T 2N, R 3E, section 29. The site consists of APNs 032-081-025-2 and 032-081-026.

C. Site History

The project site previously was utilized as irrigated pasture land with two residences, one modular, and associated buildings in the south central part of the property. The site is relatively leveled and heavily vegetated with the remnant of a sand dune in the south central part where the residences and outbuildings were previously located. Because sand in the region was highly valued for agricultural purposes, the sand dune



120A Linden Street,
Oakland, CA 94607
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Burrough's Property

Oakley,
California

FIGURE 1 LOCATION MAP



BY: JPE

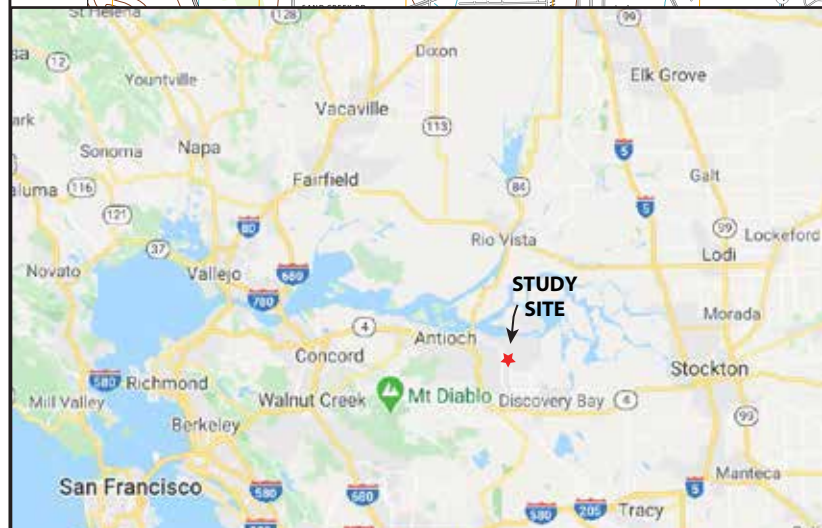
PROJECT: 1115

BASE MAP:

© 2018 GOOGLE MAPS

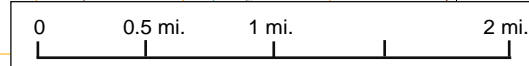
FILE: D:\Graphic Designer\My
Documents\PROJECTS\1100-1199\1115\
Adobe\Burroughs\Location.pdf

DATE: 05/8/2020, 1:30 PM



PROJECT LOCATION WITHIN
T 2N, R 3E, SECTION 29

37.991857, -121.664888



that once occurred on the site was likely mined and removed from the property prior to construction of the homes.

Several former drainage ditches surround the project side on the north, western, and parts of the southern project site. These drainage ditches were constructed in uplands to support the pasture land irrigation. Their use for irrigation was suspended prior to 2005 with the cessation of the site's irrigation.

In 2005 a residential development was proposed on the project site. Zentner Planning and Ecology (previously Zentner and Zentner) was hired to assist in the regulatory permitting process and to complete a wetland delineation of the property. Though this work was completed, the development was never constructed and the project site has remained vacant with periodic cattle grazing in the years since.

D. Site Description

The project site is currently predominately undeveloped, annual grassland that is being used to support a small number of cattle. The history of grazing at the site as well as common agricultural practices such as disking have heavily altered the project site from its natural condition and created a heavily modified and disturbed site.

The former residences and outbuildings have been removed from the property, though two concrete foundations and ornamental trees remain as indicators of the past residence. The property contains water troughs and a number of barbed wire fences that no longer appear to support any site functions. There is little to no other development on the site and the site's only current use is by cattle and the ranchers that tend them.



Photo 2: View looking south across the southcentral part of the site, which previously contained the property's residence. March 2020.

II. Existing Conditions

A. Topography

Site topography was assessed using a topographic survey recently completed by Bellacci and Associates. With the exceptions of the levelled dune, excavated irrigation ditches, and the channelized Little Dutch Slough, the site is a relatively level plain. Little Dutch Slough that runs along the property's western edge is the lowest part of the property at approximately sea level. With the exception of Little Dutch Slough, the lowest part of the site is in the eastern property corner and the highest is the southcentral part of the site on the levelled dune.

The majority of the site is a plain of annual grassland. A ditch runs along the north side of the property approximately one to three feet below the plain. A second ditch runs along the east side of the former dune almost to the northern ditch. A branch of this ditch then runs along the northern and western edges of the former dune, then follows the south project boundary parallel to East Cypress Road. The ditch then turns north and parallels the property's western boundary before ending just before the northern ditch. The ditches were constructed in uplands and previously utilized for

irrigation, though their use was discontinued. At the center of the site, a remnant sand dune that once contained a residence rises about above the plain.

B. Soils

Soils are mapped as: (1) Marcuse clay (Mb), on the majority of the site; (2) Delhi sand (DaC) of the small former dune in the center of the site; and (3) Piper loamy sand (Pe), in the northwest corner of the site, though soils in the area are generally dense clays, more like the Marcuse soils (SCS 1977).

Marcuse clay on this site is generally not hydric due to the regions' artificial drainage which has lowered the water table to approximately -2 to -3 feet and lower. However, undrained and alkaline variants are often hydric and commonly do support wetlands.

Neither of the other soil series are listed as hydric. Permeability of the Delhi sands and Piper loamy sands are high (6 to 20 inches per hour). Permeability of Marcuse clay is much lower at 0.06 to 0.2 inches per hour. Though at the low end of permeability for the site, however, the Marcuse clay can absorb 1.44 to 4.8 inches a day, if surrounding drainage structures (e.g. dikes, ditches, flap-gates) are maintained.

C. Major Vegetation Types or Habitats On-Site

The project site contains five principal habitats: annual grassland, ruderal, developed, seasonal wetland, and slough (**Figure 2**). Most of the site is annual grassland that has been heavily modified and disturbed by past grazing and agricultural disturbances. The annual grassland is dominated by non-native annual species such as Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*) and tall fescue (*Festuca arundinacea*). The other remaining habitats make up only a small portion of the site.

Ruderal vegetation communities are present at three small locations within the project area. These areas include a patch of invasive giant reed (*Arundo donax*) located on the former dune near the former residence and two patches of non-native Himalayan blackberry (*Rubus armeniacus*) located on the ditch that parallels Little Dutch Slough on the western side of the property.

The project site's developed areas are located in the central part of the site on the former dune. These areas previously contained a residence and associated infrastructure, though these structures have been removed and all that remains are concrete slabs and scattered cattle grazing infrastructure. The northern concrete slab still contains a water trough that is used by the cattle on site.

120A Linden Street, Oakland, CA 94607
P: 510.622.8110 F: 510.622.8116

Aerial Source: Ersi DigitalGlobe, USGS

Date: 4/21/2020

Cartographer: JPE

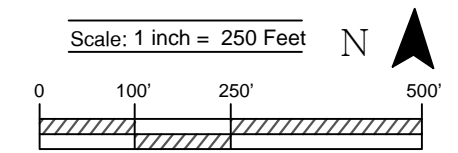


FIGURE 2
LAND COVER MAP

Burrough's Property
Oakley, California

Legend

Project Area	---
Annual Grassland 42.31 Acres	
Ruderal 0.36 Acres	
Slough/Channel 0.30 Acres	
Developed Urban 0.07 Acres	
Seasonal Wetland 0.15 Acres	



The site also contains a small grass-dominated seasonal wetland in the western part of the site. This wetland is dominated by Mexican rush (*Juncus mexicanus*), and meadow barley (*Hordeum brachyantherum*). The seasonal wetland is discussed in greater detail in the section below.

A portion of the channelized Little Dutch Slough runs along the western edge of the property and is the fifth and final habitat. The Slough is dominated by tules and bulrush with a few small willows. This habitat is discussed in greater detail in the section below.

D. Regional and Local Ecology

The project site is located approximately 0.2 miles west of the Sacramento-San Joaquin Delta's freshwater tidelands. The Delta was created 10,000 years ago when a warmer climate following the Pleistocene Ice Age melted continental ice sheets. The addition of their melt water then caused worldwide sea levels to rise. Rising seas first breached California's Golden Gate at this time to flood interior valleys and create the San Francisco Bay Estuary. During the Ice Age the Sacramento-San Joaquin river system had flowed through the Golden Gate to a shoreline near the present Farallon Islands, but the estuary's subsequent rising waters hydraulically dammed the river system's outflow to permanently flood the center of California's Central Valley and create the freshwater tidal wetland we know today as the Delta. An unusual Delta feature is the failure of rivers flowing into to fill it with sediment during the 10,000 years it developed. Instead its vast new emergent marsh was dominated by tules (*Schoenoplectus acutus*), which used the supportive substrate formed by their own past generations' dead stems and rhizomes to synchronously follow the gradually rising waters upward. The many generations of dead tules beneath each living generation formed the Delta's peat soils.

While Ice Age glaciers covered vast continental lowlands in northern North America, others farther south carved deep valleys like Yosemite in the Sierra Nevada's granite spine. Such glacial erosion produced enormous quantities of sand that major rivers carried down to the Central Valley, where it accumulated in large dune fields as the rivers left the mountains. One of the largest valley dune fields, fed by sand from the Stanislaus, Mokelumne, and other rivers to the north and south, once occupied much of the Delta area, where peat now largely covers it, and the northern part of the San Francisco Bay estuary, where it now mostly lies beneath bay mud. Edges of the old estuary-delta dune field too high for inundation by rising waterways and wetlands can still be seen, however. One example is Oakland, which is largely built on low hills around Lake Merritt formed by Ice Age Merritt sand. A second is Oakley, which is surrounded by Delhi sand of the same age and origin. Oakland and Oakley's similar names are not coincidental since the old estuary-delta dune field is particularly good substrate for coast live oak (*Quercus agrifolia*). Both communities are named for

forests of this tree that once covered surrounding sand deposits and stopped at their edge.

A remnant of an old dune field is located at the south central part of the project site surrounded by a level plain formed by more recent sediments deposited by Coast Range creeks over dunes that were lower. One mile southwest of the site, however, the dune field is continuously exposed in a 1.5-mile-wide band extending southeastward for 9 miles through Oakley from the San Joaquin River near Antioch. Sand hills are continuous in this belt, but to its northeast several hills like the one on the site are isolated amidst an otherwise continuous mantle of more recent sediments. East of the site in the Delta several sand islands even rise above surrounding peat. All delta sand islands have not been continuously exposed above peat, however, since some were revealed only when peat oxidized and deflated after it was farmed. Others like sands on Brannan Island are dredge spoils produced when sand underlying much of the Delta was excavated to deepen shipping channels.

Most natural vegetation on exposures of the old estuary-delta dune field in Contra Costa County has long been removed since Delhi sand is highly desirable for orchards and vineyards. More recently rapid urbanization around Oakley has removed even more of the few remaining examples of natural vegetation on nearby sand hills. Enough currently remains, however, to demonstrate original coverage of the dune field area by a forest or woodland that ended abruptly at the edge of the sands and was exclusively dominated by coast live oak. The nature of the woodland's understory is less certain, but California croton (*Croton californicus*), a native forb with an isolated population on northeastern Contra County's sands disjunct from its otherwise largely coastal dune associated populations, was certainly important. Telegraph weed (*Heterotheca grandiflora*) is another native forb now common on sands around Oakley, but its population may currently be unnaturally high since it thrives in the disturbed habitats now general in the area. The native shrub silver lupine (*Lupinus albifrons*) is a particularly common understory associate of oaks on sands around Oakley. Other native shrubs of the area's sands are dune lupine (*Lupinus chamissonis*), which is reported from the region but was not seen on this site, and golden-fleece (*Ericameria arborescens*), which was seen but is not otherwise reported for the area. A currently declining native forb of the Oakley sands that was probably once much more common is birdcage evening primrose (*Oenothera deltoides* ssp. *cognata*), a close relative of endangered Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*), which is essentially confined to the least stabilized areas of the dune field along the San Joaquin River near Antioch.

III. JURISDICTIONAL DELINEATION

A. Introduction

As defined by the Army Corps of Engineers (Corps), “wetlands” are areas periodically or permanently saturated by surface or groundwater and typically support vegetation adapted to life in saturated (hydic) soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and floodwaters, promotion of groundwater recharge, and their water filtration and purification functions. “Other waters” include tributaries or drainage ditches which exhibit perennial or ephemeral flow to a navigable waterway, wetland, or other significant water feature. Other waters may not necessarily be wetlands.

B. Methods

Boundaries between jurisdictional areas and uplands were investigated using the routine on-site assessment procedure, Section D, Subsection 2, page 57 of the 1987 “Corps of Engineers Wetlands Delineation Manual” (Environmental Laboratory 1987; hereafter the “Delineation Manual”) as modified by the new Interim Arid West Supplement to the Delineation Manual (Environmental Laboratory 2006; hereafter the AWS). Regional supplements including the Arid West 2016 Regional Wetland Plant List (USACE 2016), and the Field Guide to Identification of the Ordinary High Water (OHWM) in the Arid West Region of the Western United States: A Delineation manual (USACE 2008) were also consulted.

Wetlands were distinguished from uplands on this site by the presence of: 1) hydrophytic vegetation, 2) wetland hydrology, and 3) hydic soils (defined below). Data point(s) were mapped onto a 1-inch to 200-foot scale map (**Figure 3**). **Appendix A** contains delineation data sheets.

1. Hydrophytic Vegetation

Hydrophytic vegetation is dominated by plant species that can tolerate prolonged inundation or soil saturation during the growing season. More than 50% of the dominant species must be wetland indicators of FAC, FACW and OBL or outweigh them using a prevalence index for the vegetation to be considered hydrophytic. These wetland indicators, or hydrophytes, are listed in the Delineation Manual as OBL, FACW, and FAC. Other plants are listed as FACU or NI, and unlisted plants are considered as UPL. These abbreviations are defined as follows:

120A Linden Street, Oakland, CA 94607
 P: 510.622.8110 F: 510.622.8116

Aerial Source: Ersi DigitalGlobe, USGS

Date: 5/6/2020

Cartographer: JPE

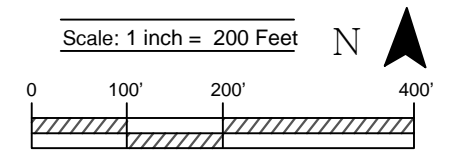






FIGURE 3
Jurisdictional Delineation
 Burrough's Property
 Oakley, California

Legend

Seasonal Wetland	
Slough	
Data Point	
Study Area	

Section 404 Jurisdictional Area

Delineated Areas	Acres
Seasonal Wetland- A	0.148
Slough- B	0.30
Seasonal Wetland TOTAL	0.148
Slough TOTAL	0.30
TOTAL	0.448

Disclaimer: Section 404 Jurisdictional Map
 This map exhibits conditions on the site at the time of completion of the delineation. For various reasons, conditions on a site may change, which may affect site wetland boundaries. Delineation maps generally expire five years after approval by the U.S. Army Corps of Engineers (Corps). Because regulations governing delineations are subject to change, this map should be reviewed by a qualified wetland consultant to ensure accuracy if not submitted to the Corps within six (6) months of preparation.

Field Work By : Zentner Planning and Ecology,
 4/9/2020



OBL	Obligate Wetland Plants. Plants that occur over 99% of the time in wetlands.
FACW	Facultative Wetland Plants. Plants that occur 67% to 99% of the time in wetlands.
FAC	Facultative Plants. Plants likely to occur 33% to 67% of the time in wetlands.
FACU	Facultative Upland Plants. Plants that occur 1% to 33% of the time in wetlands, but which occur more frequently in uplands.
NI	Non-indicator plants. (These must be checked against the National Indicator List and could be changed to a wetter or drier status)
UPL	Upland Plants. Plants that occur less than 1% of the time in wetlands.

Note: The 3 facultative categories are subdivided by (+) and (-) modifiers. FAC+ species are considered to be wetter (have a greater estimated probability of occurring in wetlands) than FAC species. FAC- species are considered to be drier (have a lesser estimated probability of occurring in wetlands) than FAC species.

2. Hydric Soils

Hydric soils develop under the low oxygen conditions typical of prolonged inundation or saturation, and generally show visible indications of chemical reduction. The hydric nature of a soil is most often indicated by low matrix chromas of 0 to 1, or 2 with mottles, and is determined by comparing the wetted soil with Munsell Soil Color Charts. The hydric nature of a soil may also be indicated by the presence of manganese or iron nodules, or other more subtle characteristics.

3. Wetland Hydrology

Common wetland hydrology indicators demonstrate inundation or saturation and include observations of standing water, saturated soils, algal mats, water-matted detritus, and water stains on rocks or other objects. In evaluating these hydrology indicators some attention must be given to the frequency and duration of inundation, and the effects of recent weather, unusual flooding and climatic fluctuations. According to the AWS, an area must have "14 or more days of flooding or ponding or a water table 12 inches (30 centimeters) or less below the soil surface, during the

growing season at a minimum frequency of 5 years in 10 (50 percent or higher probability)” to satisfy the hydrology standard. The old standard (US Army Corps 1987 Manual) was that an area must have ponding for 5% of the growing season (18 days in California) or a water table at a depth equal to 80% of the root mass.

4. Other Waters

The Corps also regulates “other waters tributary to waters of the U.S.” Boundaries between uplands and other waters are determined based on water elevations and geomorphic features. In freshwater conditions, the boundary between uplands and other waters is the ordinary high water mark (OHWM). In tidal conditions, the boundary is set by the high tide line, roughly equivalent to mean high water.

C. Results

The project site contains a small amount of Little Dutch Slough, one grass dominated seasonal wetland, and non-jurisdictional upland habitats; Table 1.

**Table 1
Aquatic Resources**

Name of Aquatic Resource	Delineation map id	Cowardin type	Acreage	Location (Latitude/longitude)
Seasonal wetlands	A	PEM	0.148 ac.	37.993571, -121.668004
Other Waters (Little Dutch Slough)	B	E2SB	0.300 ac.	37.993052, -121.668329

1. Jurisdictional Areas

a. Other Waters (Little Dutch Slough)

Area: B
Total Area: 0.30 acre

The project site contains a small, 0.30 acre, portion of Little Dutch Slough which runs along the western edge of the project site (Figure 3). Little Dutch Slough is tidally influenced and connects directly to the Sacramento/San Joaquin Bay Delta system. The portion of the Slough at the project site has been channelized.

Vegetation within Little Dutch Slough is dominated by tules (*Schoenoplectus sp.*) and cattails (*Typha sp.*), both obligate species. The extent of Little Dutch Slough has been mapped to the high tide line.

b. Seasonal Wetlands

Area:	A
Sample point:	14
Total area:	0.148 acre

The project site contains one small, 0.148 acre, seasonal wetland. This seasonal wetland is grass-dominated and does not pond or hold water at the surface, but becomes saturated by winter and spring rains for sufficient time to sustain hydrophytic vegetation. Though the wetland contains hydrophytic vegetation, the wetland also contains a prominence of non-hydrophytes, which suggests occasional winter and spring dry-down during periods between storms, due to slow but steady percolation.

The wetland meets the wetland soils and hydrology wetland criteria, and though it is close to meeting, it fails to meet the wetland vegetation criteria. However, given the closeness to meeting the wetland vegetation criteria and provided that the sample point has wetland soils and hydrology indicators, we believe that the sample point is a wetland.

i. Vegetation

The vegetation within the seasonal wetland fails to meet both the dominance test and the prevalence index for determining wetlands, though it is close to the threshold for both tests.

The dominance test is right at the threshold of 50% with Mexican rush (*Juncus mexicanus*) a hydrophytic species and reed fescue (*Festuca arundinacea*) an upland species as the dominant species. Also present in the wetland are Meadow barley (*Hordeum brachyantherum*; FACW) and Italian rye grass (*Festuca perennis*; FAC), both hydrophytes, though upland species including wild geranium (*Geranium dissectum*; UPL), and white clover (*trifolium repens*; FACU) are also present. The prevalence index for the sample plot is at 3.23 which is just above the threshold of 3.



Photo 3: Looking north at the seasonal wetland which can be identified by the darker green vegetation which is Mexican juncus. April 2020.

ii. Soils

Soils in the seasonal wetland are mapped as Marcuse clay (Mb); a partially drained, clay-loam soil. The soils had a color of 10 YR 2/2 with redox features with a color of 7.5 YR 5/8. The low chromo of the soil and the redox features are hydric soil indicators.

iii. Hydrology

Oxidized rhizospheres were identified along living roots; this is an indication of wetland hydrology.

2. Non-jurisdictional

The remaining parts of the project site is upland and non-jurisdictional.

Data points: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, and 16

The remaining parts of the project site are composed of upland vegetation, with the majority of the site being annual grassland. The sample points in these areas failed to satisfy the three technical wetland criteria.

The dominant vegetation in these areas includes foxtail barley (*Hordeum murinum*; UPL), Bermuda grass (*Cynodon dactylon*; FACU0), soft chess (*Bromus hordeaceus*; FACU), Italian rye grass (*Festuca perennis*; FAC), and yellow star thistle (*Centaurea solistitalis*; UPL). Other common vegetation includes black mustard (*Brassica nigra*; UPL), wild geranium (*Geranium dissectum*; UPL), ripgut brome (*Bromus diandrus*; UPL), white clover (*trifolium repens*; FACW), and milk thistle (*Silybum marianum*; UPL). All sample plots are dominated by upland species and fail to meet both the dominance test and prevalence index for determining hydrophytic vegetation.

Two sample points, five and eight, contained Mexican juncus and bird's foot trefoil (*Lotus corniculatus*; FAC), which are both hydrophytic species. However, these species are not strong wetland indicators and the surrounding vegetation is upland species. The presence of these hydrophytic species is likely a relic from when the site was irrigated and much wetter and contained more suitable habitat for these species. Given the current dry nature of the site it is likely that Mexican juncus will disappear from sample points five and eight over the next several years.

Several of the sample points (1, 2, 5, 6, 7, 8, 10, 11, and 13) contained root redox which is a hydric soil indicator and a wetland hydrology indicator. Though root redox is generally a clear sign that the area is a wetland, the sample points did not contain any other signs of wetland hydrology, soils, or vegetation. As well, these samples were taken in the midst of the flat field without any depression of topographic variances. Additionally, in many cases the redox was present along older roots, while younger roots did not show any signs of redox. For these reasons, we conclude that the presence of root redox is a relic from when the pasture was frequently irrigated and utilized as irrigated pasture. No other hydric soil indicators or wetland hydrology indicators were identified in any of the sample points.



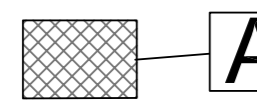
Photo 4: View looking east across the annual grass land at sample point 2, which is marked by Sean examining the soil.

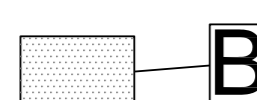
D. Change from 2005 Delineation

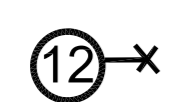
As discussed in the Site History section above, site conditions at the Burroughs property have changed significantly since the 2005 delineation was completed. The 2005 wetland delineation identified Little Dutch Slough (0.30 acre) as the only jurisdictional feature on the site (**Figure 4**), though several non-jurisdictional isolated seasonal wetlands and ditches constructed in uplands were also identified.


The most significant change since the 2005 delineation is that the site has not been irrigated for over fifteen years. Since the site no longer receives any artificial water it is significantly drier than it previously was. As well, the previously unlined Contra Costa Canal, which runs parallel and adjacent to the property's northern edge was recently undergrounded. Water from the unlined canal previously seeped in the property's northern irrigation ditch (area C Figure 4) keeping it wet year-round. Since the Canal was undergrounded water no longer seeps from the canal into the property's ditches.

Legend

Jurisdictional Area  **A**

Non-Jurisdictional Area  **B**

Data Point  **12-x**

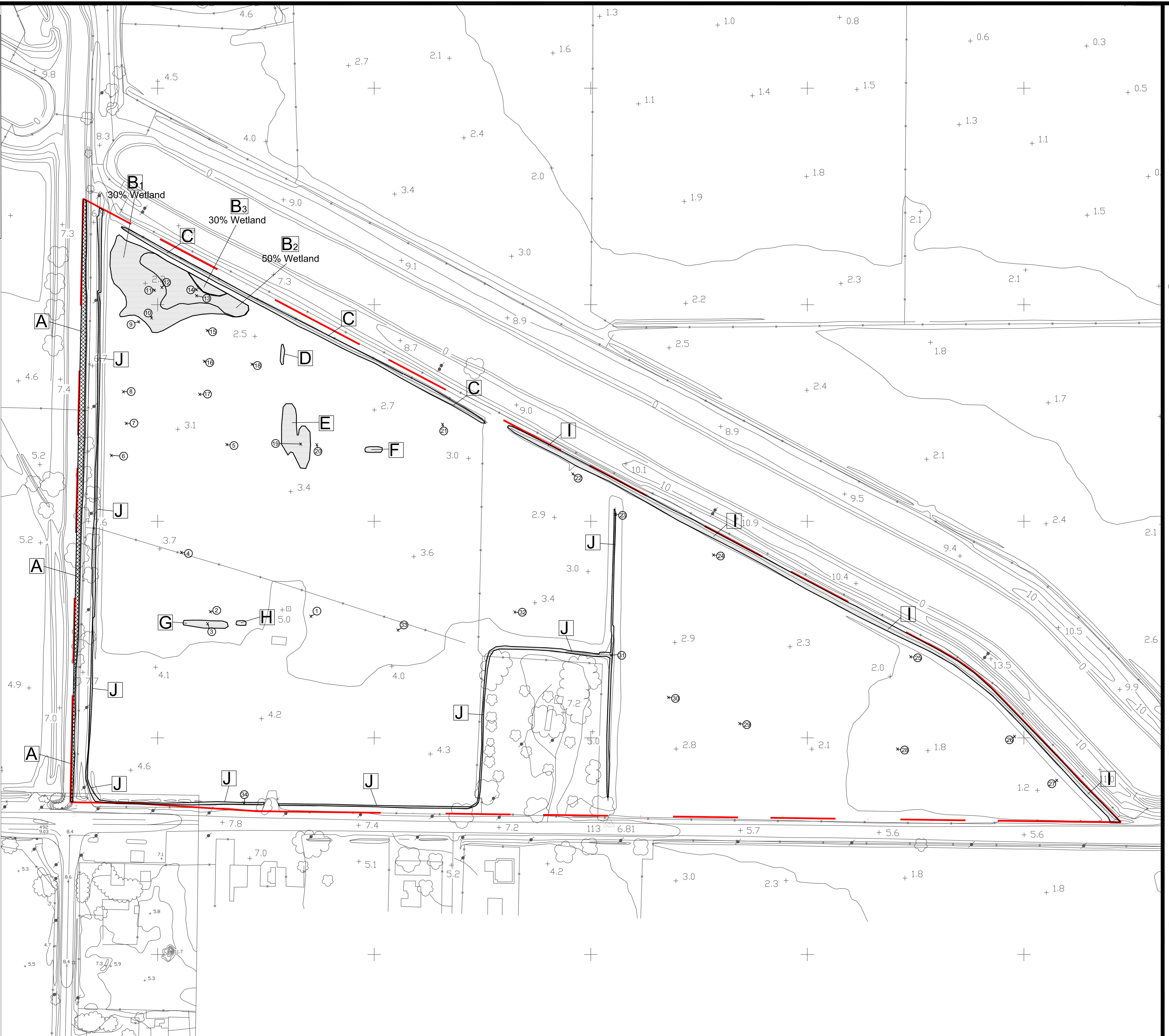
Project Boundary 

Section 404 Jurisdictional Areas

Habitat Type	Acreage
A. Slough	0.30
TOTAL	0.30 ACRES

Non-Jurisdictional Areas

Habitat Type	Acreage
B1. Isolated Seasonal Wetland	0.14
B2. Isolated Seasonal Wetland	0.14
B3. Isolated Seasonal Wetland	0.01
C. Ditch Constructed in Upland	0.22
D. Isolated Seasonal Wetland	0.01
E. Isolated Seasonal Wetland	0.14
F. Isolated Seasonal Wetland	0.01
G. Isolated Seasonal Wetland	0.03
H. Isolated Seasonal Wetland	0.01
I. Ditch Constructed in Upland	0.53
J. Ditch Constructed in Upland	0.37
TOTAL	1.7 ACRES



BURROUGHS PROPERTY

Oakley, CA




95 Linden Street, Suite 6
Oakland, California, 94607
510.622.8110

FIGURE 4

Section 404 Jurisdictional Delineation Map

DATE : 05/16/2005

0 100' 200'



Approximate Scale
SCALE : 1 INCH = 100 FEET



**TOPO SOURCE :
Carlson, Barbee &
Gibson**

Revisions :

Date	Description

Disclaimer: Section 404 Jurisdictional Map
This map exhibits conditions on the site at the time of completion of the delineation. For various reasons, conditions on a site may change, which may affect site wetland boundaries. Delineation maps generally expire five years after approval by the U.S. Army Corps of Engineers (Corps). Because regulations governing delineations are subject to change, this map should be reviewed by a qualified wetland consultant to ensure accuracy if not submitted to the Corps within six (6) months of preparation.

Field Work By: David Self on 3/09/05; 4/05/05.

At the time of the 2005 delineation, the northern irrigation ditch (area C, Figure 4) received seepage from the unlined canal and was dominated by wetland species such as cattails. Though wetland vegetation was present, the ditch was determined to be non-jurisdictional because it was a ditch constructed in uplands. Since the Contra Costa Canal has been undergrounded, the ditch has fully dried and it no longer holds water or supports wetland species, though there are a few remnant stands of dying cattail present. The feature remains non-jurisdictional as it fails to meet any of the three wetland criteria.

The drainage ditches that run along the western and southern part of the property and around the former dune were previously frequently flooded to assist in the property's irrigation. Though they were previously inundated, the 2005 delineation described these features as dry and dominated by weeds. They were determined non-jurisdictional because they 1) are ditches constructed in uplands and 2) did not meet the hydrology or vegetation wetland qualifications. These features remain non-jurisdictional for the same reasons and because they fail to meet any of the three wetland criteria.

The 2005 wetland delineation also identified 6 small isolated wetlands (B, D, E, F, G, and H; Figure 4). These areas were described as grass-dominated with brief, occasional inundation and a mix of prominent upland species. The isolated wetlands were hypothesized to have an artificial origin due to shallow graded topography and an absence of the strongly hydrophytic species that are common in natural seasonal depressions in the area. As well, the wetland vegetation present in these wetlands was described as "common species of wet spots in irrigated pastures and other moist, disturbed habitats in the region." At the time of the 2005 delineation, these areas, however, met the three technical criteria for wetlands.

Each of these six wetlands was visited during 2019-2020 winter and during the 2020 wetland delineation and neither wetland hydrology nor a dominance of wetland vegetation were present. As well, if hydric soil indicators were present they appeared to be old and not reflective of current conditions; ie. root redox on old roots, but not new roots. None of the previously identified six seasonal wetlands met the wetland criteria.

References

SCS. 1977. Soil Survey of Contra Costa County, California.

NRCS, 1986 (updated 2016). Hydric Soils of California, Soil Conservation Service, USDA.

APPENDIX A

Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burroughs City/County: Oakley/Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Lexstgate Ventures/City of Oakley State: CA Sampling Point: 1
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) Past Irrigation

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Hemizonia myosuroides</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Aristida Menziesii</u>	<u>5</u>	<u>-</u>	<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Bromus diandrus</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Eriogonum fasciculatum</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Centropogon exilis</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
6. _____				
7. _____				
8. _____				
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>7.5%</u>		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

Upland Vegetation dominates

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2		7.5YR5/6				Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all ERRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Some light redox, indicating past hydrology when site was irrigated

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonoughs City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures & City of Oakley State: CA Sampling Point: 2
 Investigator(s): Sean Miccolli & Emily Mathew Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center"><u>Ruderal Grassland</u></p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species <u>12</u> x 3 = <u>36</u>
5. _____				FACU species <u>15</u> x 4 = <u>60</u>
_____ = Total Cover				UPL species <u>73.5</u> x 5 = <u>367.5</u>
_____ = Total Cover				Column Totals: <u>100.5</u> (A) <u>443.5</u> (B)
_____ = Total Cover				Prevalence Index = B/A = <u>4.61</u>
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Centaurea solstitialis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Hordeum murinum</u>	<u>33.5</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Briza media</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Rumex crispus</u>	<u>2</u>	<u>-</u>	<u>FAC</u>	
6. _____				
7. _____				
8. _____				
<u>100.5</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Remarks:

Upland Vegetation is dominant

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2	10YR 3/2						Sandy loam	
3-12	10YR 4/3		10YR 5/8				Sandy loam	
								Redox below 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Some Redox below 3" - Likely relic from ^{Post Irrigated} ~~Agric~~ Muck

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No Indicators but relic redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bannoughs City/County: Oakley Carson Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/city of Oakley State: CA Sampling Point: 3
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____ = Total Cover <u>0</u>					
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	_____	_____	_____	OBL species _____ x 1 = _____	
2. _____	_____	_____	_____	FACW species _____ x 2 = _____	
3. _____	_____	_____	_____	FAC species _____ x 3 = _____	
4. _____	_____	_____	_____	FACU species _____ x 4 = _____	
5. _____	_____	_____	_____	UPL species _____ x 5 = _____	
_____ = Total Cover _____				Column Totals: _____ (A) _____ (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____	
1. <u>Bromus diandrus</u>	<u>7.5</u>	<u>—</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Hordelymus murineus</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>		
3. <u>Festuca yuccensis</u>	<u>10</u>	<u>—</u>	<u>FAC</u>		
4. <u>Cenchrus pycnanthoides</u>	<u>10</u>	<u>—</u>	<u>UPL</u>		
5. <u>Bromus tectorum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>		
6. <u>Germium divaricatum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>		
7. <u>Phragmites australis</u>	<u>7.5</u>	<u>—</u>	<u>FACW</u>		
8. <u>Taraxacum officinale</u>	<u>7.5</u>	<u>—</u>	<u>FACW</u>		
<u>102.5</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover _____					
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Vegetation is Dominant</p>					

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	2.5YR 2/1						clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *No Indicators*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *No Indicators*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonough City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Westwood & City of Oakley State: CA Sampling Point: 4
 Investigator(s): Sean & Emily Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Hondroon marianum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Centrosema strictifolium</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Beraniem dissectum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Cynodon dactylon</u>	<u>20.5</u>	<u>—</u>	<u>FAC</u>	
5. <u>Eriosema perenne</u>	<u>7.5</u>	<u>—</u>	<u>FAC</u>	
6. <u>Borrichia virgata</u>	<u>5</u>	<u>—</u>	<u>UPL</u>	
7. <u>Rumex crispus</u>	<u>1</u>	<u>—</u>	<u>FAC</u>	
8. <u>Festuca arundinacea</u>	<u>1</u>	<u>—</u>	<u>UPL</u>	
<u>Bromus hordeaceus</u>	<u>5</u>	<u>—</u>	<u>FAC</u>	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	<u>102</u>			
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Upland Vegetation is Dominant

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>12</u>	<u>10 YR 3/2</u>						<u>Clay loam</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydic Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydic Soil Present? Yes _____ No

Remarks:
NO Indicators

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
NO Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonduca City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 5
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes <u>✓</u> No _____	
Wetland Hydrology Present? Yes <u>✓</u> No _____	

Remarks: Grassland
Borderline Seasonal wetland, but could be relic feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)
4. _____				
_____ = Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				_____ Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species <u>35</u> x 2 = <u>70</u>
3. _____				FAC species <u>20</u> x 3 = <u>60</u>
4. _____				FACU species <u>29.5</u> x 4 = <u>118</u>
5. _____				UPL species <u>37.5</u> x 5 = <u>187.5</u>
_____ = Total Cover				Column Totals: <u>122</u> (A) <u>435.5</u> (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>3.57</u>
1. <u>Juncus sp. Mexicenus</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Cotus corniculatus</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Gadmeum dissectum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Trifolium repens</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Bromus thodourenus</u>	<u>10</u>	<u>-</u>	<u>FACU</u>	
6. <u>Hypochaeris glabra</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
7. <u>Centaurea solstitialis</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
8. <u>Vicia sativa</u>	<u>2.5</u>	<u>-</u>	<u>FACU</u>	
<u>Stellaria media</u> 2%				
<u>122</u> = Total Cover <u>FACU</u>				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Remarks: Upland vegetation is dominant

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 3/3		10YR 5/9				Clay loam	
								Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Faint redox - ^{May be} Relictual from irrigated agriculture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Faint redox - could be relictual

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonnieville City/County: Oakley ^{Central} ~~Central~~ Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/ City of Oakley State: UT Sampling Point: 6
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center"><u>Upland Grassland</u></p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Bromus hordeaceus</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Festuca perennis</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
3. <u>Cotus comiculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
4. <u>Centaurea solstitialis</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
5. <u>Vicia sativa</u>	<u>5</u>	<u>-</u>	<u>FACU</u>	
6. <u>Bromus diandrus</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
7. <u>Hordeum jubatum</u>	<u>5</u>	<u>-</u>	<u>FAC</u>	
8. <u>Hordeum murinum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)				
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>				

Remarks:

Upland Vegetation is Dominant

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			Loc^{2}
<u>10-12</u>	<u>7.5YR 5/2</u>		<u>7.5YR 5/2</u>			<u>Loamy clay</u>	
							<u>Redox</u>

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Relictual Redox from Irrigated Agriculture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators but Relictual Redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonoughs City/County: Oakley Contra Costa Sampling Date: 4/4/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 7
 Investigator(s): Jean M E Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks: <p align="center" style="font-size: 1.2em;">Ruderal Upland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0%</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals:	_____ (A) _____ (B)
1. <u>Silybum marianum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	Prevalence Index = B/A = _____	
2. <u>Geranium oligetum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
3. <u>Brassica oleracea</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	___ Dominance Test is >50%	
4. <u>Festuca perennis</u>	<u>5</u>	<u>-</u>	<u>FAC</u>	___ Prevalence Index is ≤3.0 ¹	
5. <u>Centaurea solstitialis</u>	<u>5</u>	<u>-</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	___ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	
= Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____			

Remarks:

Upland Vegetation Dominates

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2		7.5YR5/8				loamy clay	
								Strong redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Strong redox - likely indicator of past lead use w/ irrigated grazing land - Relictual

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Only Relictual Redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnoughs City/County: Oakley Colo Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CO Sampling Point: 8
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland with Actual Seasonal Wetland Features</u></p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)	
4. _____					
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____				OBL species _____ x 1 = _____	
2. _____				FACW species <u>25</u> x 2 = <u>50</u>	
3. _____				FAC species <u>10</u> x 3 = <u>30</u>	
4. _____				FACU species <u>20</u> x 4 = <u>80</u>	
5. _____				UPL species <u>67.5</u> x 5 = <u>337.5</u>	
_____ = Total Cover				Column Totals: <u>122.5</u> (A) <u>447.5</u> (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>4.06</u>	
1. <u>Juncus mexicanus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u>Hemlock minimumum</u>	<u>10</u>	<u>-</u>	<u>UPL</u>		
3. <u>Baccharis hordeaceus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>		
4. <u>Baccharis diandra</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>		
5. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>		
6. <u>Convolvulus arvensis</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>		
7. <u>Geranium dissectum</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>		
8. _____					
<u>122.5</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)					
1. _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____			
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland Vegetation Dominates</u></p>					

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR3/2		7.5YR5/8				Clay loam	
								Sparsely faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 Faint redox - indicator of past irrigated agriculture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No Indicators - but faint redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: BumDouglas City/County: Oakley/CC Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventural City of Oakley State: CA Sampling Point: 9
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks: Upland grassland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>47.5</u> x 3 = <u>142.5</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>47.5</u> (A) <u>367.5</u> (B) Prevalence Index = B/A = <u>3.77</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Geranium dissectum</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Bromus hordeaceus</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Hordeum marinum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Festuca proserpilis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	
5. <u>Cynodon dactylon</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
_____ = Total Cover				
<u>47.5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>				

Remarks: Upland Vegetation is Dominant

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2						Sandy clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *No Indicators*

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *No Indicators*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnoughs City/County: Oakley Contra Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/City of Oakley State: CA Sampling Point: 10
 Investigator(s): John M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks: <u>Ruderal Grassland with Indicators of Past Irrigated Landscape</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>10</u> x 2 = <u>20</u>
4. _____				FAC species <u>37.5</u> x 3 = <u>112.5</u>
5. _____				FACU species <u>12.5</u> x 4 = <u>50</u>
= Total Cover				UPL species <u>37.5</u> x 5 = <u>187.5</u>
				Column Totals: <u>97.5</u> (A) <u>370</u> (B)
				Prevalence Index = B/A = <u>379</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Hordeum brachyarrhenum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	___ Dominance Test is >50%
2. <u>Hordeum murinum</u>	<u>10</u>	<u>—</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Lotus corniculatus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Cassia psychroperla</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Festuca perennis</u>	<u>17.5</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Medicago polymorpha</u>	<u>10</u>	<u>—</u>	<u>FACU</u>	
7. <u>Festuca arvensis</u>	<u>10</u>	<u>—</u>	<u>UPL</u>	
8. <u>Lactuca scariola</u>	<u>2.5</u>	<u>—</u>	<u>FACU</u>	
<u>Cynodon dactylon</u>	<u>2.5</u>	<u>—</u>	<u>UPL</u>	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. <u>Cynodon dactylon</u>	<u>2.5</u>	<u>—</u>	<u>FAC</u>	
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR3/2		7.5YR5/8				Clay loam	
								Redox present

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Redox Present - likely Relictual from Past Irrigated landscape

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- No ponding all wet season
- No indicators except Redox ~ Relictual

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bunnoucks City/County: Oakley ^{California} ~~Costa~~ Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 11
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33.3</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species <u>10</u>	x 2 = <u>20</u>
4. _____	_____	_____	_____	FAC species <u>25</u>	x 3 = <u>75</u>
5. _____	_____	_____	_____	FACU species <u>27.5</u>	x 4 = <u>110</u>
= Total Cover				UPL species <u>35</u>	x 5 = <u>175</u>
Herb Stratum (Plot size: _____)				Column Totals:	<u>97.5</u> (A) <u>380</u> (B)
1. <u>Hordeum brachyantherum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	Prevalence Index = B/A = <u>3.89</u>	
2. <u>Cynodon dactylon</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
3. <u>Festuca perennis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Dominance Test is >50%	
4. <u>Geranium dissectum</u>	<u>12.5</u>	<u>—</u>	<u>OPL</u>	___ Prevalence Index is ≤3.0 ¹	
5. <u>Cirsium vulgare</u>	<u>15</u>	<u>Y</u>	<u>OPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. <u>Carburus pycnocephalus</u>	<u>25</u>	<u>—</u>	<u>OPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. <u>Lotus corniculatus</u>	<u>10</u>	<u>—</u>	<u>FAC</u>		
8. <u>Lactuca scariola</u>	<u>25</u>	<u>—</u>	<u>FACU</u>		
= Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?	
1. _____	_____	_____	_____	Yes _____	No <u>X</u>
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks: <p align="center" style="font-size: 1.2em;">Upland Vegetation, Dominates</p>					

SOIL

Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR 3/2		Reduced Iron				Clay loam	
			7.5YR 3/2					
								Reduced Iron but
								not on
								living roots

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Redox - but not on living roots
Evidence of past irrigated grazing land

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bunnage City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 12
 Investigator(s): Sean M. Enby M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>					

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	_____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)	
2.	_____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)	
3.	_____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
4.	_____	_____	_____	_____		
				_____ = Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)				Prevalence Index worksheet:	
1.	_____				Total % Cover of: _____ Multiply by: _____	
2.	_____				OBL species _____ x 1 = _____	
3.	_____				FACW species _____ x 2 = _____	
4.	_____				FAC species _____ x 3 = _____	
5.	_____				FACU species _____ x 4 = _____	
				_____ = Total Cover	UPL species _____ x 5 = _____	
				_____ = Total Cover	Column Totals: _____ (A) _____ (B)	
				_____ = Total Cover	Prevalence Index = B/A = _____	
Herb Stratum	(Plot size: _____)				Hydrophytic Vegetation Indicators:	
1.	<u>Hemlock monilum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
2.	<u>Bromus albidus</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3.	<u>Carduus pycnocephalus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4.	<u>Festuca perennis</u>	<u>12.5</u>	<u>-</u>	<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5.	<u>Brassica nigra</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>		
6.	_____					
7.	_____					
8.	_____					
				<u>95</u> = Total Cover		
Woody Vine Stratum	(Plot size: _____)					
1.	_____					
2.	_____					
				_____ = Total Cover		
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____				
					Hydrophytic Vegetation Present?	
					Yes _____ No <u>X</u>	
Remarks: <p align="center" style="font-size: 1.2em;">Upland Vegetation is Dominant</p>						

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 4/2						Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

No Indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burn Douglas City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/City of Oakley State: CA Sampling Point: 13
 Investigator(s): Sean & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>u</u> No _____		
Wetland Hydrology Present?	Yes <u>u</u> No _____		
Remarks: <u>Upland Rodent Grassland with past indicators of Irrigated Agriculture</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Bromus diandrus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Cyperus pycnostachyus</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Hordaleum murinum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Cirsium vulgare</u>	<u>2.5</u>	<u>-</u>	<u>UPL</u>	
5. <u>Festuca perennis</u>	<u>2.0</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Vicia sativa</u>	<u>5</u>	<u>-</u>	<u>FACU</u>	
7. <u>Lotus corniculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
8. <u>Brassica nigra</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
<u>107.5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Upland Vegetation Dominates

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>12</u>	<u>10YR3/2</u>		<u>7.5YR 5/8</u>				<u>Sandy clay loam</u>	
								<u>Reduced Iron strongly present</u>

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Reduced Iron - likely from past irrigation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Reduced Iron but
No redox on living roots

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnoughs City/County: Oakley ^{Costa} Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 14
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			
Remarks: <p align="center"><u>Seasonal Wetland – may be Relictual from past irrigation</u></p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>50%</u> (A/B)
4. _____				Prevalence Index worksheet:	
_____ = Total Cover				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: _____)				OBL species	x 1 = _____
1. _____				FACW species	<u>50</u> x 2 = <u>100</u>
2. _____				FAC species	<u>17.5</u> x 3 = <u>52.5</u>
3. _____				FACU species	<u>10</u> x 4 = <u>40</u>
4. _____				UPL species	<u>32.5</u> x 5 = <u>162.5</u>
5. _____				Column Totals:	<u>110</u> (A) <u>355</u> (B)
_____ = Total Cover				Prevalence Index = B/A = <u>3.23</u>	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Juncus mexicanus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	___ Dominance Test is >50%	
2. <u>Festuca arundinacea</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Geranium dissectum</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Hordelymus brachyatherum</u>	<u>10</u>	<u>-</u>	<u>FACW</u>		
6. <u>Lotus corniculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>		
7. <u>Trifolium repens</u>	<u>10</u>	<u>-</u>	<u>FACU</u>		
8. _____					
_____ = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?	
1. _____				Yes _____	No <input checked="" type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks: <p align="center"><u>Upland Vegetation is barley dominant</u></p>					

SOIL

Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 3/2		7.5YR 5/2				Clay loam	
								Redox present

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Low chroma w/ Redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Some Wetland Indicators Present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonnie City/County: Oakley, Contra Costa Sampling Date: 4/4/20
 Applicant/Owner: Westgate Venture/City of Oakley State: CA Sampling Point: 15
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland Grassland</u></p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)	
4. _____					
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____				OBL species _____ x 1 = _____	
2. _____				FACW species <u>10</u> x 2 = <u>20</u>	
3. _____				FAC species <u>55</u> x 3 = <u>165</u>	
4. _____				FACU species <u>15</u> x 4 = <u>60</u>	
5. _____				UPL species <u>20</u> x 5 = <u>100</u>	
_____ = Total Cover				Column Totals: <u>100</u> (A) <u>345</u> (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>3.45</u>	
1. <u>Poa annua</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
2. <u>Hordelymus brachyasterum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
3. <u>Elymus amabilis</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹	
4. <u>Poa perennis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Cotyledon umbellatus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Taraxacum officinale</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>		
7. <u>Cirsium vulgare</u>	<u>5</u>	<u>—</u>	<u>UPL</u>		
8. <u>Cynodon dactylon</u>	<u>10</u>	<u>—</u>	<u>FAC</u>		
_____ = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____			
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland Vegetation Dominates</u></p>					

SOIL

Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 7/2						Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
No Indicators

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (2 or more required) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bumoughs City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 16
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Cynodon dactylon</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Dominance Test is >50%
2. <u>Hordium murinum</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Centaurea solstitialis</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Brassica nigra</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	
6. _____				
7. _____				
8. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks: <p align="center" style="font-size: 1.2em;">Upland vegetation is dominant</p>				

SOIL

Sampling Point: 16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>10</u>	<u>10 YR</u>	<u>3/2</u>					<u>Clay loam</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No Indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

Appendix C
Application and Planning Survey Report

Application Form and Planning Survey Report

To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

Please complete this application to apply for take authorization under the state and federal East Contra Costa County HCP/NCCP incidental take permits. The East Contra Costa County Habitat Conservancy ("Conservancy") or local jurisdiction (City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, and Contra Costa County) may request more information in order to deem the application complete.

I. PROJECT OVERVIEW

PROJECT INFORMATION	
PROJECT NAME: Burroughs and City of Oakley Residential Development	
PROJECT TYPE: <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Transportation <input type="checkbox"/> Utility <input type="checkbox"/> Other	
PROJECT DESCRIPTION (BRIEF): The proposed project will construct 208 single family homes, roads, and ancillary features.	
PROJECT ADDRESS/LOCATION: 1136 E Cypress Road, Oakley, CA, 94561	
PARCEL/PROJECT SIZE (ACRES): 43.24	
PROJECT APN(S): 032-081-025-2 and 032-081-026-0	
APPLICATION SUBMITTAL DATE:	FINAL PSR DATE: (City/County/Conservancy use)
LEAD PLANNER:	
JURISDICTION: <input type="checkbox"/> City of Brentwood <input type="checkbox"/> City of Clayton <input checked="" type="checkbox"/> City of Oakley <input type="checkbox"/> City of Pittsburg <input type="checkbox"/> Contra Costa County <input type="checkbox"/> Participating Special Entity*	
<small>*Participating Special Entities are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, irrigation districts, transportation agencies, local park districts, geological hazard abatement districts, or other utilities or special districts that own land or provide public services.</small>	
DEVELOPMENT FEE ZONE: <input checked="" type="checkbox"/> Zone I <input type="checkbox"/> Zone II <input type="checkbox"/> Zone III <input type="checkbox"/> Zone IV	
<small>See figure 9-1 of the HCP/NCCP at www.cocohcp.org for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction.</small>	

PROJECT APPLICANT INFORMATION	
APPLICANT'S NAME: Adam Tennant – Westgate Ventures and Josh McMurray – City of Oakley	
AUTHORIZED AGENT'S NAME AND TITLE: Emily Mathews – Project Manager	
PHONE NO.: Adam - (650)400-5076 Josh - (925)625-7004	APPLICANT'S E-MAIL: atennant@westgateventures.net and mcmurray@ci.oakley.ca.us
MAILING ADDRESS: Adam - 2551 San Ramon Valley Road #224, San Ramon, CA 94583 Josh – 3231 Main Street, Oakley, CA 94561	

BIOLOGIST INFORMATION ¹	
BIOLOGICAL/ENVIRONMENTAL FIRM: Zentner Planning and Ecology	
CONTACT NAME AND TITLE: Emily Mathews – Project Manager - Biologist	
PHONE NO.: (510)622-8110	CONTACT'S E-MAIL: emilym@zentner.com
MAILING ADDRESS: 155 Filbert Street, Suite 206, Oakland, CA 94607	

¹ A USFWS/CDFW-approved biologist (project-specific) is required to conduct the surveys. Please submit biologist(s) approval request to the Conservancy.

II. PROJECT DETAILS

Please complete and/or provide the following attachments:

1) Project Description

Attach as **Attachment A: Project Description**. Provide a detailed written description that concisely and completely describes the project and location. Include the following information:

- All activities proposed for the site or project, including roads utilized, construction staging areas, and the installation of underground facilities, to ensure the entire project is covered by the HCP/NCCP permit
- Proposed construction dates, including details on construction phases, if applicable
- Reference a City/County application number for the project, if applicable
- General Best Management Practices, if applicable
- If the project will have temporary impacts, please provide a restoration plan describing how the site will be restored to pre-project conditions, including revegetation seed mixes or plantings and timing

2) Project Vicinity Map

Provide a project vicinity map. Attach as **Figure 1 in Attachment B: Figures**.

3) Project Site Plans

Provide any project site plans for the project. Attach as **Figure 2 in Attachment B: Figures**.

4) CEQA Document

Indicate the status of CEQA documents prepared for the project. Provide additional comments below table if necessary.

Type of Document	Status	Date Completed
<input checked="" type="checkbox"/> Initial Study	In Process	
<input type="checkbox"/> Notice of Preparation		
<input type="checkbox"/> Draft EIR		
<input type="checkbox"/> Final EIR		
<input type="checkbox"/> Notice of Categorical Exemption		
<input type="checkbox"/> Notice of Statutory Exemption		
<input type="checkbox"/> Other (describe)		

III. EXISTING CONDITIONS AND IMPACTS

Please complete and/or provide the following attachments:

1) Field-Verified Land Cover Map²

Attach a field-verified land cover map in **Attachment B: Figures** and label as **Figure 3**. The map should contain all land cover types present on-site overlaid on aerial/satellite imagery. Map colors for the land cover types should conform to the HCP/NCCP (see *Figure 3-3: Landcover in the Inventory Area* for land cover type legend).

2) Photographs of the Project Site

Attach representative photos of the project site in **Attachment B: Figures** and label as **Figure 4**. Please provide captions for each photo.

² For PSEs and city or county public works projects, please also identify permanent and temporary impact areas by overlaying crosshatching (permanent impacts) and hatching (temporary impacts) on the land cover map.

3) Land Cover Types and Impacts and Supplemental Tables

- For all terrestrial land cover types please provide calculations to the nearest **hundredth of an acre (0.01)**. For aquatic land cover types please provide calculations to the nearest **thousandth of an acre (0.001)**.
- **Permanent Impacts** are broadly defined in the ECCC HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development mitigation fee will apply (if proposed, would require Conservancy approval).
- **Temporary Impacts** are broadly defined in the ECCC HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e. vegetation can eventually recover).
- If **wetland (riparian woodland/scrub, wetland, or aquatic)** land cover types are present on the parcel but will not be impacted please discuss in the following section 4) Jurisdictional Wetlands and Waters. Wetland impact fees will only be charged if wetland features are impacted. However, development fees will apply to the entire parcel.
- **Stream** land cover type is considered a linear feature where impacts are calculated based on length impacted. The acreage within a stream, below Top of Bank (TOB), must be assigned to the adjacent land cover type(s). Insert area of impact to stream below TOB in parentheses after the Land Cover acreage number (e.g., Riparian Woodland/Scrub: 10 (0.036) – where 10 is the total impacted acreage including 0.036 acre, which is the acreage within stream TOB). Complete following supplemental **Stream Feature Detail** table to provide information for linear feet.
- **Total Impacts** acreage should be the total parcel acreage (development project) or project footprint acreage (rural infrastructure or utility project).

*Proposed for HCP/NCCP
Dedication on the Parcel
(Requires Conservancy Approval)*

Table 1: Land Cover Types and Impacts

Land Cover Type	Permanent Impacts	Temporary Impacts	Stream Setback	Preserve System Dedication
<i>Grassland</i>				
Annual Grassland	39.84	1.27	2.51	
Alkali Grassland				
Ruderal	0.36			
<i>Shrubland</i>				
Chaparral and Scrub				
<i>Woodland</i>				
Oak Savannah				
Oak Woodland				
<i>Riparian</i>				
Riparian Woodland/Scrub				
<i>Wetland</i>				
Permanent Wetland				
Seasonal Wetland	0.148			
Alkali Wetland				
<i>Aquatic</i>				
Aquatic (Reservoir/Open Water)				
Slough/Channel			0.30	
Pond				
Stream (in linear feet)	-	-	-	-
<i>Irrigated Agriculture</i>				
Pasture				
Cropland				
Orchard				
Vineyard				
<i>Other</i>				
Nonnative woodland				
Wind turbines				
<i>Developed (not counted toward Fees)</i>				
Urban	0.07			
Aqueduct				
Turf				
Landfill				
TOTAL IMPACTS	40.418	1.27	2.82	

Identify any uncommon vegetation and uncommon landscape features³:

Supplemental to Table 1: Uncommon Vegetation and Landscape Features

	Permanent Impacts	Temporary Impacts
<i>Uncommon Grassland Alliances</i>		
Purple Needlegrass Grassland		
Blue Wildrye Grassland		
Creeping Ryegrass Grassland		
Wildflower Fields		
Squirreltail Grassland		
One-sided Bluegrass Grassland		
Serpentine Bunchgrass Grassland		
Saltgrass Grassland		
Alkali Sacaton Bunchgrass Grassland		
<input type="checkbox"/> Other		
<i>Uncommon Landscape Features</i>		
Rock Outcrops		
Caves		
Springs and seeps		
Scalds		
Sand Deposits		
<input type="checkbox"/> Mines ⁴		
<input type="checkbox"/> Buildings (bat roosts) ³		
<input type="checkbox"/> Potential nest sites (trees or cliffs) ³		

Please provide details of impacts to stream features:

Stream Name: No impacts to stream features are proposed.

Watershed: n/a

Supplemental to Table 1: Stream Feature Detail⁵

Stream Width	Stream Type ⁶	Permanent Impacts (linear feet) ⁷	Temporary Impacts (linear feet) ⁷
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		
<input type="checkbox"/> ≤ 25 feet wide <input type="checkbox"/> > 25 feet wide	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral, 3rd or higher order <input type="checkbox"/> Ephemeral, 1st or 2nd order		

³ These acreages are for Conservancy tracking purposes. Impacts to these uncommon vegetation and landscape features should be accounted for within the land cover types in Table 1 (e.g., x acres of purple needlegrass in this supplemental table should be accounted for within annual grassland in Table 1).

⁴ Insert amount/number, not acreage. Provide additional information on these features in Attachment A: Project Description.

⁵ Use more than 1 row as necessary to describe impacts to streams on site.

⁶ See glossary (Appendix A) for definition of stream type and order.

⁷ Stream length is measured along stream centerline, based on length of impact to any part of the stream channel, TOB to TOB.

4) Summary of Land Cover Types

Please provide a written summary of descriptions for land cover types found on site including characteristic vegetation.

The project site contains five principal habitats: Annual grassland, ruderal, developed, seasonal wetland and slough.

Annual grassland (42.36 acres) – The majority of the site is comprised of annual grassland habitat. The site has been heavily modified and disturbed by past grazing and agricultural disturbances. The vegetation in the annual grassland is common in the region particularly in lands disturbed by grazing and/or agriculture. Dominant species in the annual grassland include Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*) and tall fescue (*Festuca arundinacea*).

Ruderal (0.36 acre) – The property contains three areas of ruderal vegetation: one located in the south central part of the property and the other two along the western side of the property. In the south central part of the site the ruderal vegetation is exclusively giant reed (*Arundo donax*), which has formed a large, dense stand with a cattle path crossing through. The other two ruderal land types on the west side of the property contain large, dense stands of Himalayan blackberry (*Rubus armeniacus*).

Urban developed (0.07 acre) – There are two urban developed parts of the property. Both areas consist of concrete slabs and are located in the south-central part of the property in the area that previously contained a ranch house and outbuildings. The ranch house and outbuildings have all been removed, though the houses' concrete slab remains and is one of the two developed area. The second developed area is a smaller concrete slab that currently contains a water trough for the cattle that graze the site.

Seasonal wetland (0.148 acre) – There is one small seasonal wetland on the project site. The seasonal wetland is grass-dominated and does not pond or hold water at the surface, but becomes saturated by winter and spring rains for sufficient time to sustain hydrophytic vegetation. Though the wetland contains hydrophytic vegetation, the wetland also contains a prominence of non-hydrophytes, which suggests occasional winter and spring dry-down during periods between storms due to slow but steady percolation. Vegetation within the seasonal wetland is dominated by Mexican rush (*Juncus mexicanus*) and tall fescue. Also present are meadow barley (*Hordeum brachyantherum*), Italian rye grass (*Festuca perennis*), wild geranium (*Geranium dissectum*), and white clover (*trifolium repens*).

Slough (0.30 acre) – A small portion of Little Dutch Slough runs along the western edge of the property. Little Dutch Slough is tidally influenced and connects directly to the Sacramento/San Joaquin Bay Delta system. The portion of the Slough at the project site has been channelized. Vegetation within the Slough on the project site is dominated by tules (*Schoenoplectus sp.*) and cattails (*Typha sp.*), both are obligate species.

5) Jurisdictional Wetlands and Waters

If wetlands and waters are present on the project site, project proponents must conduct a delineation of jurisdictional wetlands and waters. Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the ECCC HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. It should be noted that these features differ for federal and state jurisdictions. If you have identified any of these land cover types in Table 1, complete the section below.

- a) Attach the wetland delineation report as **Attachment E: Wetland Delineation**. If a wetland delineation has not been completed, please explain below in section 4c.
- b) **Please check the following permits the project may require. Please submit copies of these permits to the Conservancy prior to the start of construction:**

- CWA Section 404 Permit⁸ CWA Section 401 Water Quality Certification
 Waste Discharge Requirements Lake and Streambed Alteration Agreement

c) Provide any additional information on impacts to jurisdictional wetland and waters below, including status of the permit(s):

Permit applications are currently being prepared and will be submitted to the regulatory agencies shortly. Copies of these permits will be submitted to the City prior to the start of construction.

⁸ The USACE Sacramento District issued a Regional General Permit 1 (RGP) related to ECCC HCP/NCCP covered activities. The RGP is designed to streamline wetland permitting in the entire ECCC HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirement. Applicants seeking authorization under this RGP shall notify the Corps in accordance with RGP general condition number 18 (Notification).

6) Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a.

Table 2a. Species –Specific Planning Survey Requirements

Land Cover Type in Project Area	Required Survey Species	Habitat Element in Project Area	Planning Survey Requirement ⁹	Info in HCP
<input checked="" type="checkbox"/> Grasslands, oak savannah, agriculture, or ruderal	<input type="checkbox"/> San Joaquin kit fox	Assumed if within modeled range of species	If within modeled range of species, identify and map potential breeding or denning habitat within the project site and a 250-ft radius around the project footprint.	pp. 6-37 to 6-38
	<input checked="" type="checkbox"/> Western burrowing owl	Assumed	Identify and map potential breeding habitat within the project site and a 500-ft radius around the project footprint. Please note the HCP requires buffers for occupied burrows. Surveys may need to encompass an area larger than the project footprint.	pp. 6-39 to 6-41
<input checked="" type="checkbox"/> Aquatic (ponds, wetlands, streams, sloughs, channels, and marshes)	<input checked="" type="checkbox"/> Giant garter snake	Aquatic habitat accessible from the San Joaquin River	Identify and map potential habitat.	pp. 6-43 to 6-45
	<input type="checkbox"/> California tiger salamander	Ponds and wetlands Vernal pools Reservoirs Small lakes	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	pp. 6-45
	<input type="checkbox"/> California red-legged frog	Slow-moving streams, ponds and wetlands	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	p. 6-46
	<input type="checkbox"/> Covered shrimp	Seasonal wetlands Vernal pools Sandstone rock outcrops Sandstone depressions	Identify and map potential habitat. Please note the HCP requires a 50 foot non-disturbance buffer from seasonal wetlands that may be occupied by covered shrimp. Surveys may need to encompass an area larger than the project footprint.	pp. 6-46 to 6-48
<input checked="" type="checkbox"/> Any	<input type="checkbox"/> Townsend's big-eared bat	Rock formations with caves Mines Abandoned buildings outside urban area	Map and document potential breeding or roosting habitat.	pp. 6-36 to 6-37
	<input checked="" type="checkbox"/> Swainson's hawk	Potential nest sites within 1,000 feet of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-41 to 6-43
	<input checked="" type="checkbox"/> Golden Eagle	Potential nest sites with ½ mile of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-38 to 6-39

Surveys for all covered species must be conducted by a qualified biologist (USFWS/CDFW project-specific approved). Please submit biologist approval request to the East Contra Costa County Habitat Conservancy.

Surveys for all covered species must be conducted according to the respective USFWS or CDFW survey protocols, as identified in Chapter 6.4.3 in the HCP/NCCP.

7) Planning Survey Species Habitat Maps

Provide Planning Survey Species Habitat Maps as required in Table 2a, attach as **Figure 5 in Attachment B: Figures**.

⁹ The planning survey requirements in this table are not comprehensive. Please refer to Chapter 6.4.3 in the ECCC HCP/NCCP for more detail.

8) Results of Species Specific Surveys

Provide a written summary describing the results of the planning surveys. Please discuss the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site.

Western Burrowing Owl (WBO): The project site's 42.36 acres of annual grassland habitat provides potentially suitable breeding habitat for the WBO. A number of ground squirrel burrow were identified on the project site, though no WBO or signs of WBO have been observed near these burrow openings. As well, grassland habitat on neighboring properties (within 500 feet of the project site) could support breeding WBO and the WBO is known to occur in the region as there are a number of California Natural Diversity Database (CNDDDB) records of WBO. Though no WBO were observed on the project site or in the surrounding 500 foot buffer, a pre-construction survey of this area should be completed prior to beginning project work to ensure the species is not impacted by the project.

Giant Garter Snake (GGS): The site contains 0.3 acres of Little Dutch Slough, which runs along the project site's western border and provides potentially suitable habitat for the GGS. Little Dutch Slough connects directly to the Sacramento/ San Joaquin Bay Delta System where the GGS is known to occur. However, the closest CNDDDB record of the GGS is almost 4 miles away from the project site and the GGS is most commonly observed along watercourses and drainages in the central valley with few as far down in the watershed as the project site. However, to ensure the species is not impacted by the proposed project a pre-construction survey will be completed and clearing for construction within 200 feet of the Slough's edge will be minimized and all personnel working in this area will receive a mandatory training regarding the species.

California Tiger Salamander (CTS): Though the project site contains one 0.148 acre seasonal wetland, this wetland does not hold water on the surface. The wetland could not, therefore, support CTS. The project site contains no other habitat that could support CTS.

California Red-Legged Frog (CRLF): The project site contains one 0.148 acre seasonal wetland, though this wetland does not hold any water on the surface. The wetland is therefore unable to support CRLF. The project site contains no other habitat that could support CRLF.

Covered Shrimp – The project site contains on 0.148-acre seasonal wetland that does not hold water at the surface. The wetland is therefore unable to support covered shrimp species. As well, the site was monitored throughout the 2019-2020 winter to determine if any areas on the project site hold water at the surface for any period of time. No areas were identified that held water for a period of time sufficient to support covered shrimp species.

Swainson's Hawk – All trees within 1,000 feet of the project site that have the potential to support nesting Swainson's hawks have been mapped. We did not identify any nesting Swainson's hawks within this area during project planning. The California Natural Diversity Database (CNDDDB) has two records of Swainson's hawks nesting within ½ mile of the project site, though one of these records describes a nest in a tree that has been removed and the other record indicates that the nest is no longer active. A pre-construction survey will be completed prior to the start of construction to ensure that no nesting Swainson's hawks are impacted by the project.

Golden Eagle – All trees within ½ mile of project site that have a potential to support nesting golden eagles have been mapped. No golden eagles were observed during the project planning surveys and due to the habitats on and in the area around the project site it is unlikely that a golden eagle would nest in this area. As well, the closest CNDDDB No CNDDDB record of a nesting golden eagle is over 10 miles away from the project site. For these reasons it is unlikely that a golden eagle would occur on the project site. However, a pre-construction survey should be conducted prior to project implementation to ensure no golden eagles are impacted by the project.

9) Covered and No-Take Plants

Please check the applicable boxes in Table 2b based on the land cover types found in the project area. If suitable land cover types are present on site, surveys must be conducted using approved CDFW/USFWS methods during the appropriate season for identification of covered and no-take species (see page 6-9 of the ECCCP/NCCP). Reference populations of covered and no-take plants should be visited, where possible,

prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted. In order to complete all the necessary covered and no-take plant surveys, spring, summer, and fall surveys may be required.

Table 2b. Covered and No-Take Plant Species

Plant Species	Covered (C) or No-Take (N)	Associated Land Cover Type	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period	Suitable Land Cover Type Present
Adobe navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>) ^a	C	Annual Grassland	Generally found on clay barrens in Annual Grassland ^b	Apr–Jun	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Alkali milkvetch (<i>Astragalus tener</i> ssp. <i>tener</i>)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal moist habitat in soils with a slight to strongly elevated pH	Mar–Jun	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Big tarplant (<i>Blepharizonia plumosa</i>)	C	Annual grassland	Elevation below 1500 feet ^d most often on Altamont Series or Complex soils	Jul–Oct	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Brewer’s dwarf flax (<i>Hesperolinon breweri</i>)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Generally, restricted to grassland areas within a 500+ buffer from oak woodland and/or chaparral/scrub ^d	May–Jul	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Brittlescale (<i>Atriplex depressa</i>)	C	Alkali grassland Alkali wetland	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area ^d	May–Oct	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	N	Alkali grassland		Mar–Apr	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Contra Costa goldfields (<i>Lasthenia conjugens</i>)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal pools	Mar–Jun	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Diablo Helianthella (<i>Helianthella castanea</i>)	C	Chaparral and scrub Oak savanna Oak woodland	Elevations generally above 650 feet ^d	Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Diamond-petaled poppy (<i>Eschscholzia rhombipetala</i>)	N	Annual grassland		Mar–Apr	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Large-flowered fiddleneck (<i>Amsinckia grandiflora</i>)	N	Annual grassland	Generally on clay soil	Apr–May	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Mount Diablo buckwheat (<i>Eriogonum truncatum</i>)	N	Annual grassland Chaparral and scrub	Ecotone of grassland and chaparral/scrub	Apr–Sep	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Mount Diablo fairy-lantern (<i>Calochortus pulchellus</i>)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Elevations generally between 650 and 2,600 ^d	Apr–Jun	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Mount Diablo Manzanita (<i>Arctostaphylos auriculata</i>)	C	Chaparral and scrub	Elevations generally between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo ^d and the vicinity of Black Diamond Mines	Jan–Mar	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Recurved larkspur (<i>Delphinium recurvatum</i>)	C	Alkali grassland Alkali wetland		Mar–Jun	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Round-leaved filaree (<i>California macrophylla</i>) ^c	C	Annual grassland		Mar–May	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
San Joaquin spearscale (<i>Extriplex joaquiniana</i>) ^e	C	Alkali grassland Alkali wetland		Apr–Oct	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Showy madia (<i>Madia radiata</i>)	C	Annual grassland Oak savanna Oak woodland	Primarily occupies open grassland or grassland on edge of oak woodland	Mar–May	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

^a The species *Navarretia nigelliformis* subsp. *nigelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radians*. Any subspecies of *Navarretia nigelliformis* encountered as a part of botanical surveys in support of a PSR should be considered as covered under this HCP/NCCP.

^b Habitat for the *Navarretia nigelliformis* subspecies that occurs within the inventory are inaccurately described in the HCP/NCCP as vernal pools. The entity within the Inventory generally occupies clay barrens within Annual Grassland habitat, which is an upland habitat type.

^c From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site. Reference population of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant is visible and detectable at the time surveys are conducted.

^d See Species Profiles in Appendix D of the Final HCP/NCCP. Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted.

^e In the recent update to the Jepson eflora (JFP 2013) *Atriplex joaquiniana* has been circumscribed and segregated into a new genus called *Extriplex* based on the work of Elizabeth Zacharias and Bruce Baldwin (2010). The etymology of the genus *Extriplex* means, “beyond or outside Atriplex”.

10) Results of Covered and No-Take Plant Species

Provide a written summary describing the results of the planning surveys conducted as required in Table 2b. Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all surveys conducted (see Tables 3-8 and 6-5 of the ECCC HCP/NCCP for covered and no-take plants), including reference populations visited prior to conducting surveys.

If any covered or no-take plant species were found, include the following information in the results summary:

- Description and number of occurrences and their rough population size.
- Description of the “health” of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant’s blooming period.
- The CNDDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and how the project will avoid impacts to all covered and no-take plant species. If impacts to covered plant species cannot be avoided and plants will be removed by covered activity, the Conservancy must be notified and has the option to salvage the covered plants. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

No covered or no-take plant species were found during the botanical field surveys that were completed as required for the proposed project. The botanical field surveys were completed in accordance with CDFW and USFWS protocols (CDFW 2018) for special status plant species and sensitive natural communities that have a potential to occur on site. Three botanical surveys were completed on March 31, 2020, April 9, 2020, and August 22, 2020. Details from these surveys are provided in the table below. These surveys were timed to occur during the flowing period of the covered and no-take plant species that have a potential to occur on the project site (identified in Table 2b).

Survey Date & Time	Species Covered *a number of species were surveyed for more than once	Survey Details
March 31, 2020 9:30am – 12:30pm	Alkali milkvetch (<i>Astragalus tener ssp. tener</i>) Contra Costa goldfields (<i>Lasthenia conjugens</i>) Diamond-petaled poppy (<i>Eschscholzia grandiflora</i>) Round-leaved filaree (<i>California macrophylla</i>) Showy madia (<i>Madia radiata</i>)	Surveyors: E. Mathews & S. Micallef No covered, no-take, or otherwise special status plants observed. High 50s to low 60s. Clear skies after several days of rain. Early season plants are in bloom and/or easily identifiable.
April 9, 2020 10:00am – 2:00pm	Adobe navarretia (<i>Navarretia nigelliformis ssp. radians</i>) Alkali milkvetch (<i>Astragalus tener ssp. tener</i>) Brewer’s dwarf flax (<i>Blepharizonia plumosa</i>) Contra Costa goldfields (<i>Lasthenia conjugens</i>) Diamond-petaled poppy (<i>Eschscholzia grandiflora</i>) Large-flowered fiddleneck (<i>Amsinckia grandiflora</i>) Mount Diablo buckwheat (<i>Eriogonum truncatum</i>) Mount Diablo fairy-lantern (<i>Calochortus pulchellus</i>) Round-leaved filaree	Surveyors: E. Mathews & S. Micallef No covered, no-take, or otherwise special status plants observed. Low 60’s. Partly cloudy and breezy.

	(<i>California macrophylla</i>) Showy madia (<i>Madia radiata</i>)	
August 22, 2020 9:00am – 12:30pm	Big tarplant (<i>Blepharizonia plumose</i>) Mount Diablo buckwheat (<i>Eriogonum truncatum</i>)	Surveyors: E. Mathews & S. Micallef No covered, no-take, or otherwise special status plants observed. Warm and dry. Majority of plants have bloomed and gone to seed. Several late season species are currently in bloom.

Though the project site does not contain alkali grassland habitat, the surveying biologists also surveyed for brittlescale (*Atriplex depressa*), caper-fruited tropidocarpum (*Tropidocarpum capparideum*), recurved larkspur (*Delphinium recurvatum*), and San Joaquin spearscale (*Extriplex joaquiniana*) which occur in alkali grassland habitat.

Prior to completing botanical field surveys, the field surveyors compiled relevant botanical information about the general survey area to provide a regional context. As well, the surveyors carefully reviewed information about each species that could potentially occur on the site including habitat requirements, local occurrences, and physical descriptors.

The botanical field surveys were comprehensive and included the entire Burroughs property and adjacent areas where indirect impacts could occur. The surveyors traversed the entire property walking parallel transects to ensure thorough coverage. Zentner Planning and Ecology staff also conducted surveys of other similar sites in the region as well as areas adjacent to the site as reference for the species that were blooming and/or were currently able to be identified. All plant taxa observed were noted and a list of all plant species detected on the site is available upon request.

Surveys were conducted by Sean Micallef and Emily Mathews who are both knowledgeable in plant taxonomy and natural community ecology. They are familiar with common and special status plants in the region and they have both conducted numerous special status botanical field surveys in the region according to the CDFW/USFWS protocols. As well, they are familiar with the federal, state, and local statutes related to plants and plant collection and are experienced in analyzing project impacts on native plant species and sensitive natural communities.

IV. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION REQUIREMENTS

Please complete and/or provide the following attachments:

1) Species-Specific Avoidance and Minimization for Selected Covered Wildlife

Complete the following table and check the applicable box for covered species determined by the planning surveys.

Table 3. Summary of Applicable Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring Requirements¹⁰

Species	Preconstruction Survey Requirements	Avoidance and Minimization Requirements	Construction Monitoring Required	Info in HCP
<input type="checkbox"/> San Joaquin kit fox	<ul style="list-style-type: none"> On project footprint and 250-ft radius, map all dens (>5 in. diameter) and determine status Provide written survey results to USFWS within 5 working days after surveying 	<ul style="list-style-type: none"> Monitor dens Destroy unoccupied dens Discourage use of occupied (non-natal) dens 	<ul style="list-style-type: none"> Establish exclusion zones (>50 ft for potential dens, and >100 ft for known dens) Notify USFWS of occupied natal dens 	pp. 6-37 to 6-38
<input checked="" type="checkbox"/> Western burrowing owl	<ul style="list-style-type: none"> On project footprint and 500-ft radius, identify and map all owls and burrows, and determine status Document use of habitat (e.g. breeding, foraging) 	<ul style="list-style-type: none"> Avoid occupied nests during breeding season (Feb-Sep) Avoid occupied burrows during nonbreeding season (Sep – Feb) Install one-way doors in occupied burrow (if avoidance not possible) Monitor burrows with doors installed 	<ul style="list-style-type: none"> Establish buffer zones (250 ft around nests) Establish buffer zones (160 ft around burrows) 	pp. 6-39 to 6-41
<input checked="" type="checkbox"/> Giant garter snake	<ul style="list-style-type: none"> Delineate aquatic habitat up to 200 ft from water's edge on each side Document any occurrences 	<ul style="list-style-type: none"> Limit construction to Oct-May Dewater habitat April 15 – Sep 30 prior to construction Minimize clearing for construction 	<ul style="list-style-type: none"> Delineate 200 ft buffer around potential habitat near construction Provide field report on monitoring efforts Stop construction activities if snake is encountered; allow snake to passively relocate Remove temporary fill or debris from construction site Mandatory training for construction personnel 	pp. 6-43 to 6-45
<input type="checkbox"/> California tiger salamander	<ul style="list-style-type: none"> Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site 	<ul style="list-style-type: none"> Allow agency staff to translocate species, if requested 	<ul style="list-style-type: none"> None 	p. 6-45
<input type="checkbox"/> California red-legged frog	<ul style="list-style-type: none"> Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site 	<ul style="list-style-type: none"> Allow agency staff to translocate species, if requested 	<ul style="list-style-type: none"> None 	p. 6-46
<input type="checkbox"/> Covered shrimp	<ul style="list-style-type: none"> Establish presence/absence Document and evaluate use of all habitat features (e.g. vernal pools, rock outcrops) 	<ul style="list-style-type: none"> Establish buffer near construction activities Prohibit incompatible activities 	<ul style="list-style-type: none"> Establish buffer around outer edge of all hydric vegetation associated with habitat (50 ft or immediate watershed, whichever is larger) Mandatory training for construction personnel 	pp. 6-46 to 6-48
<input type="checkbox"/> Townsend's big-eared bat	<ul style="list-style-type: none"> Establish presence/absence Determine if potential sites were recently occupied (guano) 	<ul style="list-style-type: none"> Seal hibernacula before Nov Seal nursery sites before April Delay construction near occupied sites until hibernation or nursery seasons are over 	<ul style="list-style-type: none"> None 	pp. 6-36 to 6-37
<input checked="" type="checkbox"/> Swainson's hawk	<ul style="list-style-type: none"> Determine whether potential nests are occupied 	<ul style="list-style-type: none"> No construction within 1,000 ft of occupied nests within breeding season (March 15 - Sep 15) If necessary, remove active nest tree after nesting season to prevent occupancy in second year. 	<ul style="list-style-type: none"> Establish 1,000 ft buffer around active nest and monitor compliance (no activity within established buffer) 	pp. 6-41 to 6-43
<input checked="" type="checkbox"/> Golden Eagle	<ul style="list-style-type: none"> Establish presence/absence of nesting eagles 	<ul style="list-style-type: none"> No construction within ½ mile near active nests (most activity late Jan – Aug) 	<ul style="list-style-type: none"> Establish ½ mile buffer around active nest and monitor compliance with buffer 	pp. 6-38 to 6-39

¹⁰ The requirements in this table are not comprehensive; they are detailed in the next section on the following page.

2) Required Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring

All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, Species-Level Measures, and Table 6-1 of the ECCC HCP/NCCP. Detailed descriptions of preconstruction surveys, avoidance and minimization, and construction monitoring applicable to each of the wildlife species in Table 3 are located below. Please remove the species-specific measures that do not apply to your project (highlight entire section and delete).

WESTERN BURROWING OWL

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a USFWS/CDFW- approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

Avoidance and Minimization and Construction Monitoring

This measure incorporates avoidance and minimization guidelines from CDFW's *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 1995).

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

SWAINSON'S HAWK

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

Mitigation for Loss of Nest Trees

The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by:

- If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.

AND either

- 1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR
- 2) The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements will be met for all planting options:

- Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years will be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.
- Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.
- Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.
- Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.
- Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).

- Whenever feasible, plantings on the site should occur closest to suitable foraging habitat outside the UDA.
- Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.

GOLDEN EAGLE

Preconstruction Survey

Prior to implementation of covered activities, a qualified biologist will conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, *Planning Surveys*). If nests are occupied, minimization requirements and construction monitoring will be required.

Avoidance and Minimization

Covered activities will be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

Construction Monitoring

Construction monitoring will focus on ensuring that no covered activities occur within the buffer zone established around an active nest. Although no known golden eagle nest sites occur within or near the ULL, covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring will ensure that direct effects to golden eagles are minimized.

GIANT GARTER SNAKE

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a USFWS/CDFW– approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having suitable garter snake habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of giant garter snake.

Avoidance and Minimization Requirements

To the maximum extent practicable, impacts on giant garter snake habitat as a result of covered activities will be avoided. If feasible, in areas near construction activities, a buffer of 200 feet from suitable habitat will be delineated within which vegetation disturbance or use of heavy equipment is prohibited.

If impacts on giant garter snake habitat as a result of covered activities are not avoided, the following measures will be implemented. These measures are based on USFWS's *Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat* (U.S. Fish and Wildlife Service 1999).

- Limit construction activity that disturbs habitat to the period between May 1 and September 30. This is the active period for giant garter snake, and direct mortality is minimized because snakes are more likely to independently move away from disturbed area. If activities are necessary in giant garter snake habitat between October 1 and April 30, the USFWS Sacramento Field Office will be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.
- In areas where construction is to take place, dewater all irrigation ditches, canals or other aquatic habitat between April 15 and September 30 to remove habitat of garter snakes. Dewatered areas must remain dry, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.

Construction Monitoring

If suitable habitat for giant garter snake cannot be avoided between October 1 and April 30 the USFWS Sacramento Field Office will be contacted to determine if additional measures beyond those described below are necessary, and the following actions will be performed. A USFWS-approved biologist will conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on site during construction activities in potential aquatic and upland habitat to ensure that individuals of giant garter snake encountered during construction will be avoided. The biologist will provide USFWS with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. The monitor will be available thereafter. If a snake is encountered during construction activities, the monitor will have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant garter snakes encountered during construction activities should be allowed to move away from the construction area on their own. Only personnel with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate giant garter snakes that are encountered in the construction area. The project area will be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred.

To ensure that construction equipment and personnel do not affect nearby aquatic habitat for giant garter snake outside construction areas, silt fencing will be erected to clearly define the aquatic habitat to be avoided; restrict working areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction runoff into wetland areas through the use of fiber bales, filter fences, vegetation buffer strips, or other appropriate methods.

Fill or construction debris may be used by giant garter snakes as over-wintering sites. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.

Construction personnel will be trained to avoid harming giant garter snakes. A qualified biologist approved by USFWS will inform all construction personnel about the life history of giant garter snakes; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to giant garter snakes; and the terms and conditions of the Plan related to avoiding and minimizing impacts on giant garter snake.

3) Construction Monitoring Plan

Before implementing a covered activity, the applicant will develop and submit a construction monitoring plan to the planning department of the local land use jurisdiction and the East Contra Costa County Habitat Conservancy for review and approval. Elements of a brief construction monitoring plan will include the following:

- Results of planning and preconstruction surveys.¹¹
- Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the HCP/NCCP.
- Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored.
- Description of the onsite authority of the construction monitor to modify implementation of the activity.

Check box to acknowledge this requirement.

¹¹ If the preconstruction surveys do not trigger construction monitoring, results of preconstruction surveys should still be submitted to the local jurisdiction and the East Contra Costa County Habitat Conservancy.

V. SPECIFIC CONDITIONS ON COVERED ACTIVITIES

1) Check off the HCP conservation measures that apply to the project.

APPLIES TO ALL PROJECTS

Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds. This conservation measure applies to all projects. All projects will avoid all impacts on extremely rare plants and fully protected species listed in Table 6-5 of the ECCC HCP/NCCP. See HCP pp. 6-23 to 6-25, and Table 6-5.

APPLIES TO PROJECTS THAT IMPACT COVERED PLANT SPECIES

Conservation Measure 3.10. Plant Salvage when Impacts are Unavoidable. This condition applies to projects that cannot avoid impacts on covered plants and help protect covered plants by prescribing salvage whenever avoidance of impacts is not feasible. Project proponents wishing to remove populations of covered plants must notify the Conservancy of their construction schedule to allow the Conservancy the option of salvaging the populations. See HCP pp. 6-48 to 6-50.

APPLIES TO PROJECTS THAT INCLUDE ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization. All projects will implement measures described in the HCP to avoid and minimize impacts on wetlands, ponds, streams, and riparian woodland/scrub. See HCP pp. 6-33 to 6-35.

APPLIES TO NEW DEVELOPMENT PROJECTS

Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion. All new development must avoid or minimize direct and indirect impacts on local hydrological conditions and erosion by incorporating the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCWP's) amended NPDES Permit (order no. R2-2003-0022; permit no. CAS002912). The overall goal of this measure is to ensure that new development covered under the HCP has no or minimal adverse effects on downstream fisheries to avoid take of fish listed under ESA or CESA. See HCP pp. 6-21 to 6-22.

APPLIES TO NEW DEVELOPMENT PROJECTS THAT INCLUDE OR ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

Conservation Measure 1.7. Establish Stream Setbacks. A stream setback will be applied to all development projects covered by the HCP according to the stream types listed in Table 6-2 of the HCP. See HCP pp. 6-15 to 6-18 and Table 6-2.

APPLIES TO NEW DEVELOPMENT PROJECTS ADJACENT TO EXISTING PUBLIC OPEN SPACE, HCP PRESERVES, OR LIKELY HCP ACQUISITION SITES

Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space. Project applicants are encouraged to minimize their development footprint and set aside portions of their land to contribute to the HCP Preserve System. Land set aside that contributes to the HCP biological goals and objectives may be credited against development fees. See HCP pages 6-14 to 6-15.

Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property. Buffer zones will provide a buffer between development and wildlands that allows adequate fuel management to minimize the risk of wildlife damage to property or to the preserve. The minimum buffer zone for new development is 100 feet. See HCP pages 6-18 to 6-19.

Conservation Measure 1.9. Incorporate Urban-Wildlife Interface Design Elements. These projects will incorporate design elements at the urban-wildlife interface to minimize the indirect impacts of development on the adjacent preserve. See HCP pp. 6-20 to 6-21.

APPLIES TO ROAD MAINTENANCE PROJECTS OUTSIDE THE UDA

Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance. Road maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways, spreading invasive weeds, and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-25 to 6-26.

APPLIES TO NEW ROADS OR ROAD IMPROVEMENTS OUTSIDE THE UDA

Conservation Measure 1.14. Design Requirements for Covered Roads Outside the Urban Development Area (UDA). New roads or road improvements outside the UDA have impacts on many covered species far beyond the direct impacts of their project footprints. To minimize the impacts of new, expanded, and improved roads in agricultural and natural areas of the inventory area, road and bridge construction projects will adopt siting, design, and construction requirements described in the HCP and listed in Table 6-6. See HCP pp. 6-27 to 6-33 and Table 6-6.

APPLIES TO FLOOD CONTROL MAINTENANCE ACTIVITIES

Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance. Flood control maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-26 to 6-27.

- 2) For all checked conservation measures, describe how the project will comply with each measure. Attach as Attachment C: Project Compliance to HCP Conditions.

VI. MITIGATION MEASURES

- 1) **Mitigation Fee Calculator(s)**

Complete and attach the fee calculator (use permanent and/or temporary impact fee calculator as appropriate), and attach as **Attachment D: Fee Calculator(s)**.

- 2) **Briefly describe the amount of fees to be paid and when applicant plans to submit payment.**

The project fees include the development fees for 40.42 acres of permanent impacts (zone 1) and the wetland mitigation fee for permanent impacts to 0.148 acres of seasonal wetlands. The total fee for permanent impacts is \$729,729.07.

The project will also result in 1.27 acres of temporary impacts within fee zone one. The length of the temporary impact is expected to be less than 2 years. The fee to the temporary impacts is \$1,451.19.

The total project fees are \$731,180.26. The applicant plans to pay the fees upon receiving the project's grading permit.

ATTACHMENT A: PROJECT DESCRIPTION

Attachment A: Project Description

Burroughs and City of Oakley Residential Development

January 2021

I. INTRODUCTION

A. Purpose

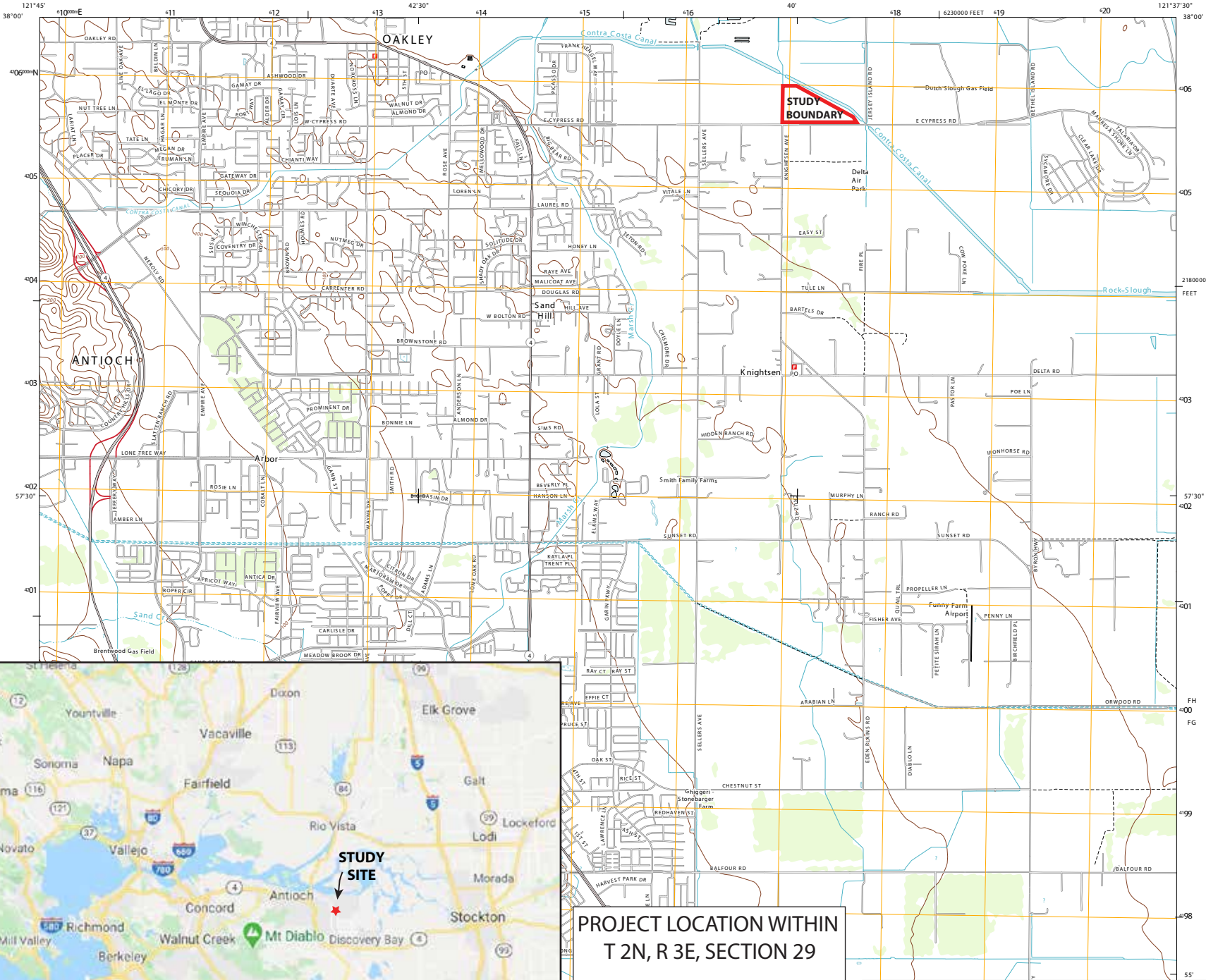
This document has been prepared to provide a detailed summary of the proposed Burroughs and City of Oakley Residential Development project to comply with the requirement of the Application Form and Planning Survey Report for coverage under the East Contra Costa County Habitat Conservation plan and Natural Community Conservation Plan. This document provides a description of all activities proposed for the site, a description of how temporarily disturbed habitat will be restored, construction details, and the project's general Best Management Practices.

The Burroughs and City of Oakley Residential project (the Project) will construct 208 single-family homes, roads, and ancillary features on the 43.24-acre project site. The project site is comprised of two parcels (032-081-026 and 032-081-025-2) which are owned by the Burroughs Family and the City of Oakley. The two parcels are the subject of the landowners' jointly proposed Project.

The Project is located within the City of Oakley in an area covered by the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The Project is a covered activity under the HCP/NCCP as a residential development "activity within the Urban Development Area" as defined by the HCP (Section 2.3, HCP/NCCP).

B. Location

The 43.24-acre project site is located 1.5 miles east on Cypress Road from Highway 4 in the City of Oakley in northeast Contra Costa County (**Figure 1**). The roughly triangular shaped site is bounded on the south by East Cypress Road, on the west by a channelized arm of Little Dutch Slough and on the northeast by the recently undergrounded Contra Costa Canal. The Gilbert residential development, which is still under construction, lies just west of Little Dutch Slough.



120A Linden Street,
Oakland, CA 94607
Phone: 510.622.8110
Fax: 510.622.8116

Burrough's Property

Oakley,
California

FIGURE 1 LOCATION MAP



BY: JPE

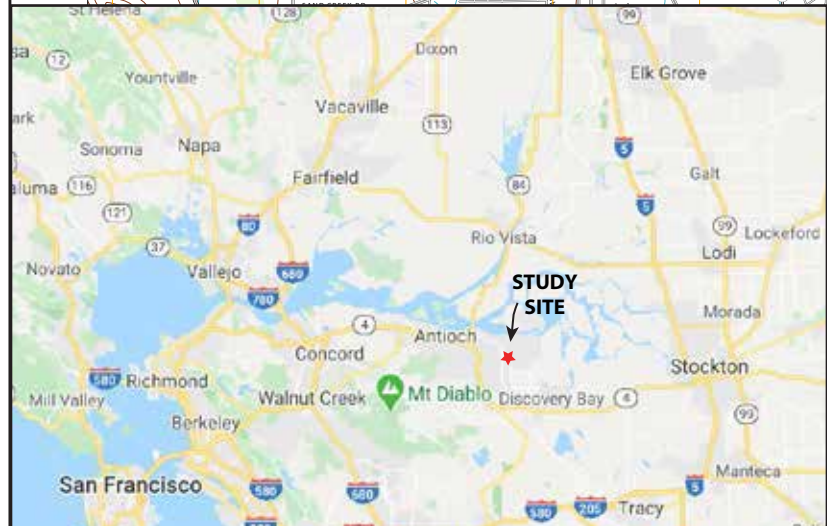
PROJECT: 1115

BASE MAP:

© 2018 GOOGLE MAPS

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Documents\PROJECTS\1100-1199\1115\
Adobe\Burroughs\Location.pdf

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PROJECT LOCATION WITHIN
T 2N, R 3E, SECTION 29

37.991857, -121.664888

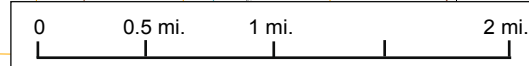




Photo 1: Representative view of the project site. East Cypress Road is to the right of the photo and can be roughly located based on the visible telephone poles. The property previously contained a home in the area shown on the center left of the photo where the trees are visible. March 2020.

To access the site from Highway 4 East take the Laurel Road exit (exit 31). Turn left onto Laurel Road, then travel 2.8 miles to Main Street. Turn left onto Main Street, then travel 0.5 mile to East Cypress Road. Turn right onto East Cypress road then travel 2.1 miles. Access to the site is on the left via a gate located on the south side of the site just past Broadway Street.

The project site is located on the Brentwood USGS 7.5 minute quadrangle, near the north edge within T 2N, R 3E, section 29.

II. Site History and Current Conditions

A. Site History

The project site was previously utilized as irrigated pasture land with two residences, one modular, and associated buildings in the south-central part of the property. These residences were constructed on top of a former sand dune. Because sand in the region was highly valued for agricultural purposes, the sand was mined and removed from the property prior to construction of the residences. Only small amounts of residual sand remain on the Property. The two residences and associated buildings have been removed from the property and only two small concrete foundations and several ornamental trees remain.

Ditches were constructed around the perimeter and into the south-central part of the property as part of the pasture's irrigation infrastructure. The ditches remain intact, but since irrigation of the property has been discontinued, these features no longer hold or convey water.

In 2005 a residential development was proposed on the project site. Zentner Planning and Ecology (previously Zentner and Zentner) was hired to assist with the regulatory permitting process and to complete special status species surveys. Though permits and special status species surveys were completed, the development was never constructed. The project site has remained vacant with periodic cattle grazing in the years since. Previously completed site surveys and species assessments were reviewed to provide supplemental site information and context and to improve current site assessments.

B. Existing Conditions

The Burroughs property is dominated by annual grassland that is currently being used to support a small number of grazing cattle. The history of grazing and other agricultural uses at the site have heavily altered the property from its natural condition resulting in a heavily modified and disturbed site with little native vegetation.

The site is relatively level and heavily vegetated with a number of former irrigation ditches and the remnants of a sand dune in the south-central part of the site. Former drainage ditches surround the project site on the northern, western, and parts of the southern property edge. These drainage ditches also extend around the perimeter of the former house site. These ditches were constructed as part of the pasture's irrigation infrastructure, though their use was suspended prior to 2005 with the cessation of the site's irrigation. With the exception of topographic variances, these constructed ditches are relatively indistinguishable from the rest of the property.



Photo 2: View of one of the former irrigation ditch that runs along the western edge of the former house site. April 2020.

The project site contains five principal habitats: annual grassland, ruderal, developed, seasonal wetland, and slough (**Figure 2**). The majority of the site (42.36 acres) is annual grassland while the remaining habitats make up only a small portion of the site.

The site's annual grassland is dominated by common, non-native grassland species such as Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Lolium multiflorum*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*) and tall fescue (*Festuca arundinacea*). These species are common in the region particularly in grazed or otherwise disturbed sites.

Ruderal vegetation communities are present at three small locations within the project site. The ruderal vegetation communities include a patch of invasive giant reed (*Arundo donax*) located on the former dune near the former residence and two patches of non-native Himalayan blackberry (*Rubus armeniacus*) both located on the ditch that parallels Little Dutch Slough on the western side of the property.

120A Linden Street, Oakland, CA 94607
P: 510.622.8110 F: 510.622.8116

Aerial Source: Ersi DigitalGlobe, USGS

Date: 4/21/2020

Cartographer: JPE

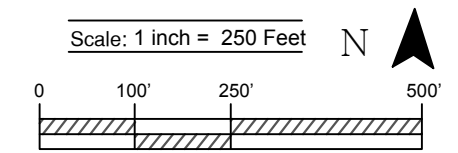

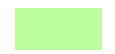






FIGURE 2
LAND COVER MAP

Burrough's Property
Oakley, California

Legend

Project Area	
Annual Grassland 42.31 Acres	
Ruderal 0.36 Acres	
Slough/Channel 0.30 Acres	
Developed Urban 0.07 Acres	
Seasonal Wetland 0.15 Acres	



The project site's developed areas are located in the central part of the site on the former dune. These areas previously contained a residence and associated infrastructure. The buildings have been removed, but two concrete slabs one with a water trough on top remain.



Photo 3: View of the site's wetland. The dark green vegetation within the wetland is visible and can be used to distinguish the wetland from the surrounding annual grassland. April 2020.

The site also contains one small (0.148 acre) grass-dominated seasonal wetland in the northwestern part of the site. This seasonal wetland does not pond or hold water at the surface, but becomes saturated by winter and spring rains for sufficient time to sustain hydrophytic vegetation. Though the wetland contains hydrophytic vegetation, the wetland also contains a prominence of non-hydrophytes, which suggests occasional winter and spring dry-down during periods between storms, due to slow but steady percolation. This wetland is dominated by Mexican rush (*Juncus mexicanus*) and tall fescue.



Photo 4: View looking along the western edge of the property. Little Dutch Slough is visible on the right of the photo and one of the former irrigation ditches is visible on the left side of the photo. One of the ruderal habitats, dominated by Himalayan blackberry, is visible in the center background of the photo. August 2020.

The project site also contains a small, 0.30 acre, portion of the channelized Little Dutch Slough, which runs along the western edge of the project site. Little Dutch Slough is tidally influenced and connects directly to the Sacramento/San Joaquin Bay Delta system. Vegetation within Little Dutch Slough is dominated by tules (*Schoenoplectus sp.*) and cattails (*Typha sp.*).

I. PROPOSED PROJECT

A. Overview

The proposed project will develop 208 single-family homes and ancillary features on the 43.24-acre project site (Figure 2). The development will be accessed off East Cypress Road via the proposed "A" Street. A total of seven new roads will be constructed within the development (Streets A – G). The proposed development's stormwater treatment infrastructure has been constructed on the adjacent Gilbert Property Subdivision (Subdivision 9474) as part of an agreement between the landowners. Stormwater from the Burroughs property will connect to an existing utility stub on the Gilbert Property via a pipe that will be placed beneath Little Dutch Slough.

The overall elevation of the project site will be raised approximately 5 feet above the current elevation for flood prevention. Gradual slopes (3:1) will slope up from the edges of the property to the edge of the residential development.

B. Residences

The development will construct 208 new single-family residences with lot sizes primarily ranging from 3,375 to 5,200 square feet.

C. Streets and Access Improvements

The Project will construct 7 new public roads (A – G Street). These roads will connect to East Cypress Road via A Street. Secondary access to the development will connect G Street to East Cypress Road via an emergency vehicle access road (EVA) in the southeast part of the property. All new roads will include curbs, gutters, and sidewalks per City standards.

D. Stormwater Treatment and Outfalls

Storm drains will be installed in the new streets to collect the runoff generated by the new impervious surfaces. Collected storm water will be directed to the adjacent Gilbert subdivision via a pipe that will run beneath Little Dutch Slough. The new pipe will connect to an existing utility stub on the Gilbert Subdivision where it will then be directed into the existing Gilbert Subdivision's stormwater treatment facilities. The stormwater treatment facilities on the Gilbert property have been size appropriately to accommodate the stormwater generated by the Burroughs Project.

The pipe that will be installed beneath Little Dutch Slough will be installed via bore jacking. This work will be completed from outside the limits of Little Dutch Slough and the pipe will be

installed beneath the bottom of the Slough. Installation of the pipe is not expected to result in any impacts to Little Dutch Slough.

E. Stream Setbacks

A 75-foot stream setback will be established from Little Dutch Slough’s top of bank to the east on the project site. The stream setback will be permanently protected with a deed restriction.

A small portion of the land within the stream setback will be temporarily impacted by project construction to create a gentle slope from the existing elevation to the proposed residential pad height. This slope will be constructed in the outermost portion of the stream setback. An asphalt walking trail will also be constructed within the stream setback to allow public access.

All land within the stream setback that is impacted by project construction will be restored to a condition similar to or with greater habitat values than the pre-construction condition.

F. Stream setback Restoration

Areas within the stream setback that are disturbed by project construction will be restored. The goal of this restoration is to create habitat that has a greater ecological value than the disturbed habitat by increasing native plant cover and diversity. The area within the proposed stream setback is currently dominated by annual, non-native grasses that create fire hazards and provide little habitat value beyond their use for grazing. Restoration of this area will include seeding and planting native species to increase native plant cover and diversity. The proposed planting and seeding pallet is shown in Table 1 below.

**Table 1
Stream Setback Restoration Plant Pallet**

Species		Type	Amount
California brome	<i>Bromus carinatus</i>	seed	8 lb./ac.
Blue wildrye	<i>Elymus glaucus</i>	seed	8 lb./ac.
Small fescue	<i>Festuca microstachys</i>	seed	9 lb./ac.
Tomcat clover	<i>Trifolium willdenovii</i>	seed	10 lb./ac.
Purple needlegrass	<i>Stipa pulchra</i>	seed	10 lb./ac.
Creeping wild rye	<i>Elymus triticoides</i>	plug	5,000 plugs/acre

Seeding will be completed after work within the stream setback has concluded and just prior to the first rains of the season. In most years seeding would occur in late October or early November. Planting will be completed after all work in the stream setback has concluded and after the first several rains of the season have softened and wetted the soil. Planting generally occurs in December.

III. Construction Details

A. Project Timing

The Project is projected to break ground in April 2022 and it is expected to be completed in October 2023. The project does not contain multiple phases.

B. Construction Staging and Access

All construction staging areas and access roads will be included within the project footprint. Equipment will access the project site via East Cypress Road. With the exception of the stormwater outfall pipeline that will be placed beneath Little Dutch Slough all utilities associated with the project will be installed within the project footprint.

C. Project Best Management Practices

The applicant Project shall adhere to each of the Best Management Practices (BMPs) listed below:

Administrative Measures

- 1.1 Project Plan Adherence. The Applicant shall complete all work as presented in the Project Plans. Any significant alterations or plan changes to the Project Plans or exhibits shall be submitted to the permitting agencies for acceptance prior to the commencement of work.
- 1.2 Unauthorized Take. The Applicant shall comply with all applicable state and federal laws, including the California and Federal Endangered Species Act. The Project Plans do not authorize the take of any state or federally endangered listed species, except as authorized by the relevant agency.

Work Periods, Equipment, and Vehicles

- 2.1 Lighting. All lighting shall be turned off at sunset, unless required for safety or security purposes. All project lighting left on after sunset will focus only on areas of impact to avoid light pollution to natural and sensitive areas outside the project limits and avoid disruption to nocturnal wildlife behavior.

- 2.2 Staging Areas. Staging areas shall be located in a dry location, outside of aquatic resources. Stationary equipment such as motors, pumps, generators, compressors and welders, located adjacent to aquatic resources, shall be positioned over drip-pans. Any mobile equipment or vehicles driven and/or operated in proximity to aquatic features shall be checked for leaks daily, and maintained, if necessary. Vehicles shall be moved away from the aquatic feature prior to refueling and lubrication.
- 2.3 Vehicle Speed Limit. No vehicle conducting any action for the project within the project work area may go over fifteen (15) miles per hour. Vehicles include but are not limited to tractors, excavators, personnel vehicles, pick-up trucks, and dump trucks.

Wildlife Protection

- 3.1 Allow Wildlife To Leave Unharmd. Applicant shall allow any wildlife encountered during the course of construction to leave the construction area unharmd.
- 3.2 Nesting Bird Surveys and Avoidance. Prior to the initiation of construction, including ground disturbing activities scheduled to occur between February 1 and September 1, a qualified biologist shall conduct pre-construction surveys for nesting birds no more than seven (7) days prior to the initiation of work. Surveys shall encompass all potential habitats within one-hundred (100) feet of the project area. The qualified biologist conducting the surveys shall be familiar with the breeding behaviors and nest structures for birds known to nest in the project area. Surveys shall be conducted during periods of peak activity (early morning, dusk) and shall be of sufficient duration to observe movement patterns. Survey results, including a description of timing, duration and methods used, shall be submitted to the relevant permitting agencies for review forty-eight hours prior to the initiation of the project.

If nesting birds are found no work shall be initiated until species specific buffers have been established. The buffer area (s) will be avoided until the young have fledged, as determined by a qualified biologist. Active nests found inside the limits of species specific buffer zones or nests within the vicinity of the project area showing signs of distress from project activity as determined by a qualified biologist will be monitored by a qualified biologist for changes in bird behavior. At the first indication of potential nest abandonment (e.g., female rises off the eggs; paces/shuffles in the nest; flaps her wings in an agitated manner; extended, concentrated staring at project activities; distress calls; continuous circling over the area of disturbance (male); and/or other indications of distress), the biologist shall stop work immediately and re-establish the buffer zone.

The Applicant or representatives of the Applicant will not disturb or destroy the nests of fully protected species or of other birds as per CDFG Code 3503.

- 3.3 Raptor Assessment and Avoidance. For any activity proposed to occur between March 15 and September 15, a qualified biologist shall conduct a survey no more than of seven (7) days prior to project initiation including ground disturbing activities of all large trees capable of providing suitable nesting habitat for raptors within a one-hundred (100) feet radius of the project. All instances shall be recorded prior to the initiation of construction. If nesting raptors are found no work shall be initiated until the appropriate buffers have been established.
- 3.4 Remove Temporary Flagging, Fencing, and Barriers. Applicant shall remove all temporary flagging, fencing, and/or barriers from the project site and vicinity of the creek upon completion of project activities.
- 3.5 Fence & Sign Post Restriction. Any fencing posts or signs, or vertical poles installed temporarily or permanently throughout the course of the Project shall have the top opening capped and/or the top three post holes covered or filled with screws or bolts to prevent the entrapment of wildlife, specifically birds of prey.
- 3.6 Western Burrowing Owl - Prior to any ground disturbance related to covered activities a qualified biologist will conduct a preconstruction survey in areas identified as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the EM will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

- 3.7 Swainson's hawk Avoidance and Minimization. Prior to any ground disturbance related to project activities during the nesting season (March 15 – September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet of the project site are found, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity near the project site. If nests are occupied, minimization measure and construction monitoring are required (see below).

During the nesting season (March 15 – September 15), project activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If sit-specific conditions of the nature of the activity (e.g. steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If the young fledge prior to September 15, covered activities can proceed normally. If the active nest is shielded from view and noise from the project site by other development, topography, or other features, the project application can apply for a waiver of this measure.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to project activities shall be mitigated by the project applicant.

- 3.8 Golden eagle avoidance and minimization. Prior to implementation of covered activities a qualified biologist shall conduct a preconstruction survey to establish whether golden

eagle nests are occupied. If nest are occupied, minimization and construction monitoring, as described below, will be required.

Covered activities will be prohibited with 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions of the nature of the project activity indicate that a small buffer could be appropriate or that a larger buffer should be implemented, then the applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If an active nest is identified, then construction monitoring will focus on ensuring that no covered activities occur within the buffer zone established around the active nest.

- 3.9 Giant garter snake avoidance and minimization. Prior to any ground disturbance related to project activities, a USFWS/CDFW– approved biologist will conduct a preconstruction survey in areas identified as having suitable garter snake habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of giant garter snake.

Wildlife exclusion fencing shall be installed along the perimeter of potentially suitable habitat to ensure that, if present, the species does not travel into the project area.

Vegetation Removal

- 4.1 Vegetation Removal. The disturbance or removal of vegetation shall not exceed the minimum necessary to complete work. Precautions shall be taken to avoid other damage to vegetation by people or equipment.
- 4.2 Re-vegetate or Seed Disturbed Soils. All upland exposed/ disturbed soils left barren of vegetation following work activities will be re-vegetated with native plants or seeded with an erosion control seed mix. Re-vegetation shall be completed as soon as possible after earthmoving activities cease; however, plantings will be most successful if done during the rainy season. Seeding placed after October 15 shall be applied by hydro-seed or shall be covered with broadcast straw, jute netting, coconut fiber blanket, light mulch or a similar erosion control method. Geotextiles, fiber rolls, and other erosion control treatment shall be made with wildlife-friendly, biodegradable products that will not entrap or harm wildlife. Permanent erosion control products shall not contain synthetic (e.g. plastic or nylon) netting or materials.

Erosion and Sediment Control

- 5.1 Location of Spoil Sites. Spoil sites shall not be located where spoils may be washed into an aquatic resource.

- 5.2 Cover Spoil Piles. Applicant shall have readily available plastic sheeting or visquine to cover exposed spoil piles and exposed areas in order to prevent loose soil from moving into a jurisdictional water feature. These covering materials shall be applied when it is evident rainy conditions threaten to erode loose soils into an aquatic resource.
- 5.3 Erosion Control Best Management Practices (BMPs). All exposed soils within the work area shall be stabilized immediately following the completion of earthmoving activities to prevent erosion into an aquatic resource. Erosion control BMPs, such as coir or other natural fabric, silt fences, straw hay bales, water check bars, and broadcasted straw shall be used. Erosion control BMPs shall be monitored during and after each storm event for effectiveness. Modifications, repairs and improvements to erosion control BMPs shall be made as needed to protect water quality. At no time shall silt laden run off be allowed to enter an aquatic resource or directed to where it may enter an aquatic resource.

Toxic and Hazardous Materials

- 6.1 Storage and Handling of Hazardous Materials. Any hazardous or toxic materials that could be deleterious to aquatic life shall be contained in watertight containers or removed from the project site when no longer needed for the project. Such materials include, but are not limited to rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, and oil or other petroleum products. These materials shall be prevented from contaminating the soil and/or entering aquatic resources. Any such materials, placed within or where they may enter an aquatic resource, by Applicant or any party working under contract, or with permission of Permittee, shall be removed immediately. Best management practices (BMPs) shall be employed to accomplish these requirements.
- 6.2 Removal of Trash and Debris. Applicant shall remove all raw construction materials and wastes from the project site following the completion of work. Food-contaminated wastes generated during work shall be removed on a weekly basis to avoid attracting predators to work sites. All temporary fences, barriers, and/or flagging shall be completely removed from work sites and properly disposed of upon completion of work. Applicant or its contractors shall not dump any litter or construction debris within aquatic resources.
- 6.3 Water Pollution. Permittee and all contractors shall be subject to the water pollution regulations found in FGC Sections 5650 and 12015.

ATTACHMENT C: PROJECT COMPLIANCE TO HCP CONDITIONS

Attachment C: Project Compliance to HCP Conditions

The Burroughs and City of Oakley Residential Development Project (the project) will comply with all applicable HCP conservation measures. The applicable HCP conservation measures as well as a description of how the project will comply is below.

Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds.

The proposed project will comply with Conservation Measure 1.11. Experienced biologists have completed thorough reconnaissance surveys of the property to assess the site's likelihood of supporting rare plants, fully protected wildlife species, or migratory birds. They have also completed several species specific surveys of the property following the requirements provided in the HCP and following standard CDFW and USFWS protocols when applicable. The biologists also completed an assessment of the proposed project's potential project impacts on these species and evaluated the HCP's species specific avoidance and minimization measures. They concluded that the HCP's avoidance and minimization measures would adequately prevent direct impacts to rare plants, fully protected wildlife species, and migratory birds.

The project's biologists completed a series of three special status plant surveys to capture the bloom season of all rare plants with a potential to occur on site. No rare plants were identified on the site and the biologists determined that the disturbed and heavily modified condition of the site as well as the current grazing practices make it highly unlikely that a rare plant would occur on the site.

Additional surveys were completed to assess the site's potential to support other fully protected wildlife species or migratory birds. The biologists concluded that while the site is unlikely to support the majority of the protected wildlife species in the region, there is a potential for burrowing owls and giant garter snakes to occur on the site and for Swainson's hawks and golden eagles to nest in the surrounding region. The applicant will, therefore, follow the HCP's avoidance and minimization measures for these species to avoid direct impacts to these species.

Conservation Measures 2.12. Wetland, Pond, and Stream Avoidance and Minimization.

The proposed project will comply with Conservation Measure 2.12 and adhere to the measures outlined in the HCP. The project site contains one small, 0.148 acre, isolated seasonal wetland as well as 0.30 acres of Little Dutch Slough. The project site does not contain any other aquatic features. The project will fill the seasonal wetland and run a stormwater outfall pipe beneath Little Dutch Slough; the project will result in no other impacts to Little Dutch Slough.

The project applicant will obtain project permits for these activities from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. As well, the project will preserve with a deed restriction a 75-foot-wide setback from Little Dutch Slough and fencing will be constructed between the project development and the buffer. The project applicant will also ensure that all avoidance and conservation measures outlined in the HCP (pp. 6-33 to 6-35) regarding work adjacent to streams are followed, including; having a qualified biologist training personnel working within or adjacent to the buffer, promptly removing trash from the site, not refueling any vehicles within 200 feet of the stream, ensuring appropriate erosion-control measures are utilized, ensuring seed mixtures are free on invasive nonnative species, and following the most current applicable herbicide application practices.

Conservation Measures 1.10. Maintain Hydrologic Conditions and Minimize Erosion.

The proposed project will avoid or minimize direct and indirect impacts on local hydrological conditions and erosion and will comply with Conservation Measure 1.11.

The project will utilize stormwater detention basins that have been constructed on the adjacent Gilbert property. These basins were recently constructed and have been sized to treat runoff in accordance with the criteria provided in the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCCWP's) amended NPDES Permit (order no. R-2-2003-0022; permit no. CAS002912) or the NPDES permit whichever was current at the time the Gilbert project was approved. The Gilbert property's stormwater program adheres to the other provisions including implementing a verification program for treatment controls, controlling peak runoff flows and volumes, and limiting the use of stormwater controls that functioning primarily as infiltration devices.

Conservation Measure 1.7. Establish Stream Setbacks.

The proposed project will comply with Conservation Measure 1.7 by establishing a 75-foot stream setback from the top of the stream bank along the length of Little Dutch Slough which runs along the western edge of the project site. The goal of the setback is the protect existing habitat quality, provide a buffer zone between urban development and existing habitat, maintain a viable wildlife corrido, protect water quality, protect the hydrologic processes through buffering, provide for recreation trails with wildlife use, and maximize the flood protection value. Soil will be placed within this setback to create a gentle slope from the existing top of bank up to the proposed elevation for the residential lots. An impervious pedestrian trail will also be constructed within the stream setback to provide for recreational access. All land within the setback that is disturbed by grading and trail construction will be seeded with native grasses and forbs. The area will be restored to a vegetated condition similar to, or with increased native plant diversity and cover, as compared to the pre-construction condition.

ATTACHMENT E: WETLAND DELINEATION (if applicable)



**Burroughs Property
Residential Development Project**

**SECTION 404
JURISDICTIONAL DELINEATION**

Project No.:
1115

Zentner Planning and Ecology
Oakland

Prepared for:
Westgate Ventures
And
City of Oakley

Issued:
May 2020

Project Name:

Burroughs Residential Development

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Field Assessments:

Sean Micallef, Chief Ecologist
Emily Mathews, Biologist
April 9, 2020

Table of Contents

I. INTRODUCTION	1
A. Purpose	1
B. Location	2
C. Site History	2
D. Site Description	3
II. Existing Conditions	4
A. Topography	4
B. Soils.....	5
C. Major Vegetation Types or Habitats On-Site.....	5
D. Regional and Local Ecology.....	6
III. JURISDICTIONAL DELINEATION	8
A. Introduction.....	8
B. Methods.....	8
1. Hydrophytic Vegetation.....	8
2. Hydric Soils.....	9
3. Wetland Hydrology.....	9
4. Other Waters	10
C. Results.....	10
1. Jurisdictional Areas	10
a. Other Waters (Little Dutch Slough)	10
b. Seasonal Wetlands	11
2. Non-jurisdictional.....	12
D. Change from 2005 Delineation.....	14
References	16
APPENDIX A	17

**Burroughs Property
Residential Development Project**

Jurisdictional Delineation

I. INTRODUCTION

A. Purpose

The report and accompanying map of the Burroughs property have been prepared to identify and describe aquatic resources. This report presents a delineation of jurisdictional “waters of the U.S.” As defined in the Clean Water Act, “waters of the U.S.” include coastal waters, rivers, streams (including intermittent streams), lakes, ponds, and wetlands. Any discharge of fill or dredged material into waters of the U.S. is subject to regulation by the Army Corps of Engineers (“Corps”) under Section 404 the Clean Water Act. This delineation was conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the appropriate regional supplements including the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008), Arid West 2016 Regional Wetland Plant List (USACE 2016), and the Field Guide to Identification of the Ordinary High Water (OHWM) in the Arid West Region of the Western United States: A Delineation manual (USACE 2008).

The focus of this report is on the Burroughs property (hereafter referred to as the “project site”). The property is comprised of two adjacent parcels, 032-081-025-2 and 031-081-026, owned by the City of Oakley and Westgate Ventures respectively. The two parcels are the subject of the landowners’ jointly proposed residential subdivision.

The Burroughs property was previously proposed for a residential development, though for a number of reasons the project was never completed. As a part of the past development, Zentner Planning and Ecology (Zentner) completed a Wetland Delineation of the property in 2005. Conditions of the project site have changed substantially since the 2005 delineation was completed, resulting in differences in the site’s jurisdictional features; these changes are also discussed in this document.

B. Location

The approximately 43.19-acre Burroughs site is located 1.5 miles east of Highway 4 on East Cypress Road in the City of Oakley in northeast Contra Costa County (**Figure 1**). The triangular shaped site is bounded on the south by Cypress Road, on the west by a channelized arm of Little Dutch Slough, and on the northeast by the recently undergrounded Contra Costa Canal. Access to the site is via a gate located on the south side of the site just east of Broadway Street.

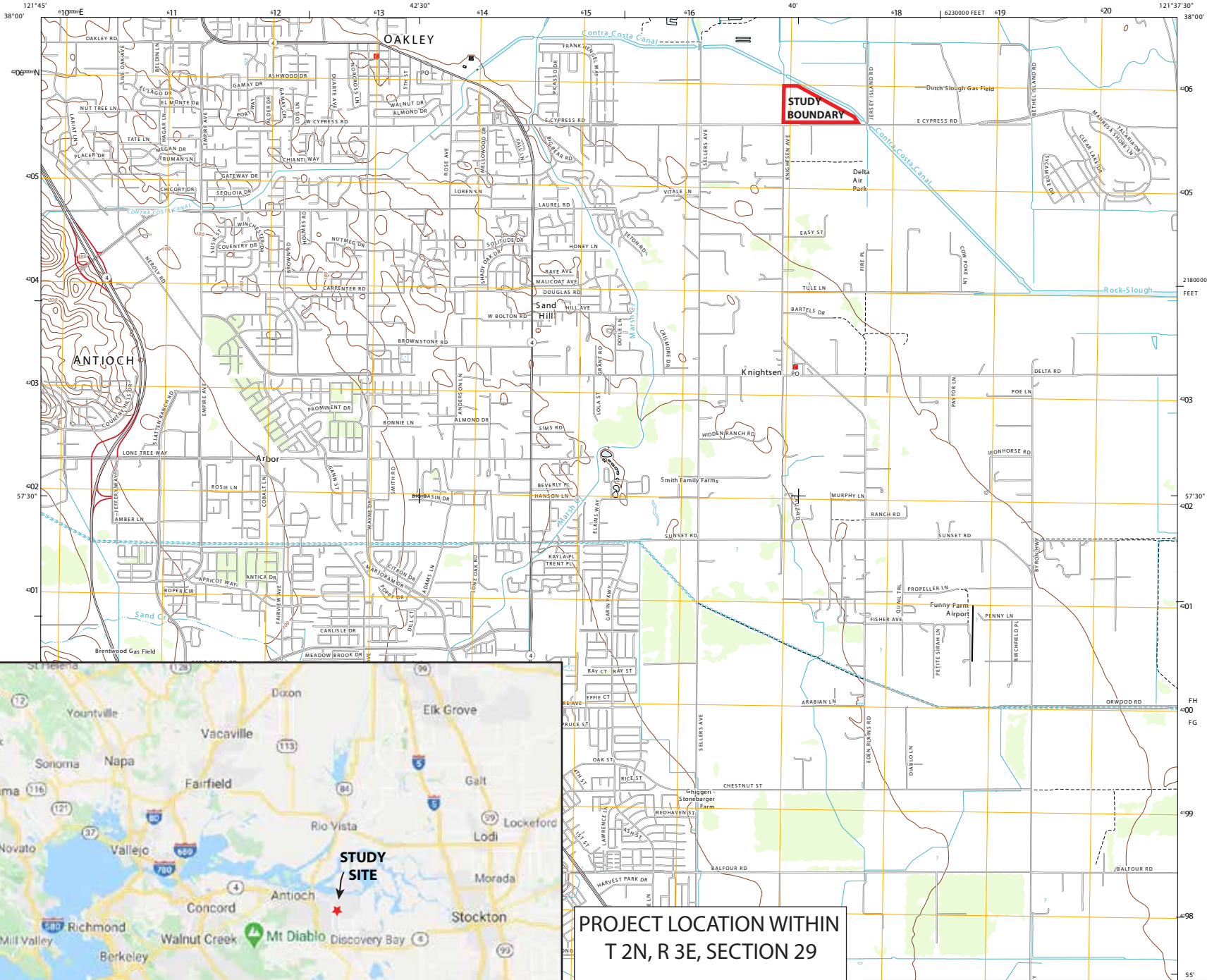


Photo 1: View looking northeast across the project site from the southwest corner of the property. April 2020.

The project site is located on the Brentwood USGS 7.5 minute quadrangle, near the north edge within T 2N, R 3E, section 29. The site consists of APNs 032-081-025-2 and 032-081-026.

C. Site History

The project site previously was utilized as irrigated pasture land with two residences, one modular, and associated buildings in the south central part of the property. The site is relatively leveled and heavily vegetated with the remnant of a sand dune in the south central part where the residences and outbuildings were previously located. Because sand in the region was highly valued for agricultural purposes, the sand dune



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Burrough's Property

Oakley,
California

FIGURE 1 LOCATION MAP



BY: JPE

PROJECT: 1115

BASE MAP:

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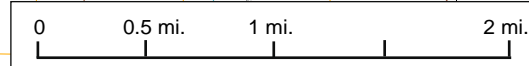
FILE: D:\Graphic Designer\My
Documents\PROJECTS\1100-1199\1115\
Adobe\Burroughs\Location.pdf

DATE: 05/8/2020, 1:30 PM



PROJECT LOCATION WITHIN
T 2N, R 3E, SECTION 29

37.991857, -121.664888



that once occurred on the site was likely mined and removed from the property prior to construction of the homes.

Several former drainage ditches surround the project side on the north, western, and parts of the southern project site. These drainage ditches were constructed in uplands to support the pasture land irrigation. Their use for irrigation was suspended prior to 2005 with the cessation of the site's irrigation.

In 2005 a residential development was proposed on the project site. Zentner Planning and Ecology (previously Zentner and Zentner) was hired to assist in the regulatory permitting process and to complete a wetland delineation of the property. Though this work was completed, the development was never constructed and the project site has remained vacant with periodic cattle grazing in the years since.

D. Site Description

The project site is currently predominately undeveloped, annual grassland that is being used to support a small number of cattle. The history of grazing at the site as well as common agricultural practices such as disking have heavily altered the project site from its natural condition and created a heavily modified and disturbed site.

The former residences and outbuildings have been removed from the property, though two concrete foundations and ornamental trees remain as indicators of the past residence. The property contains water troughs and a number of barbed wire fences that no longer appear to support any site functions. There is little to no other development on the site and the site's only current use is by cattle and the ranchers that tend them.



Photo 2: View looking south across the southcentral part of the site, which previously contained the property's residence. March 2020.

II. Existing Conditions

A. Topography

Site topography was assessed using a topographic survey recently completed by Bellacci and Associates. With the exceptions of the levelled dune, excavated irrigation ditches, and the channelized Little Dutch Slough, the site is a relatively level plain. Little Dutch Slough that runs along the property's western edge is the lowest part of the property at approximately sea level. With the exception of Little Dutch Slough, the lowest part of the site is in the eastern property corner and the highest is the southcentral part of the site on the levelled dune.

The majority of the site is a plain of annual grassland. A ditch runs along the north side of the property approximately one to three feet below the plain. A second ditch runs along the east side of the former dune almost to the northern ditch. A branch of this ditch then runs along the northern and western edges of the former dune, then follows the south project boundary parallel to East Cypress Road. The ditch then turns north and parallels the property's western boundary before ending just before the northern ditch. The ditches were constructed in uplands and previously utilized for

irrigation, though their use was discontinued. At the center of the site, a remnant sand dune that once contained a residence rises about above the plain.

B. Soils

Soils are mapped as: (1) Marcuse clay (Mb), on the majority of the site; (2) Delhi sand (DaC) of the small former dune in the center of the site; and (3) Piper loamy sand (Pe), in the northwest corner of the site, though soils in the area are generally dense clays, more like the Marcuse soils (SCS 1977).

Marcuse clay on this site is generally not hydric due to the regions' artificial drainage which has lowered the water table to approximately -2 to -3 feet and lower. However, undrained and alkaline variants are often hydric and commonly do support wetlands.

Neither of the other soil series are listed as hydric. Permeability of the Delhi sands and Piper loamy sands are high (6 to 20 inches per hour). Permeability of Marcuse clay is much lower at 0.06 to 0.2 inches per hour. Though at the low end of permeability for the site, however, the Marcuse clay can absorb 1.44 to 4.8 inches a day, if surrounding drainage structures (e.g. dikes, ditches, flap-gates) are maintained.

C. Major Vegetation Types or Habitats On-Site

The project site contains five principal habitats: annual grassland, ruderal, developed, seasonal wetland, and slough (**Figure 2**). Most of the site is annual grassland that has been heavily modified and disturbed by past grazing and agricultural disturbances. The annual grassland is dominated by non-native annual species such as Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*) and tall fescue (*Festuca arundinacea*). The other remaining habitats make up only a small portion of the site.

Ruderal vegetation communities are present at three small locations within the project area. These areas include a patch of invasive giant reed (*Arundo donax*) located on the former dune near the former residence and two patches of non-native Himalayan blackberry (*Rubus armeniacus*) located on the ditch that parallels Little Dutch Slough on the western side of the property.

The project site's developed areas are located in the central part of the site on the former dune. These areas previously contained a residence and associated infrastructure, though these structures have been removed and all that remains are concrete slabs and scattered cattle grazing infrastructure. The northern concrete slab still contains a water trough that is used by the cattle on site.

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Aerial Source: Ersi DigitalGlobe, USGS

Date: 4/21/2020

Cartographer: JPE

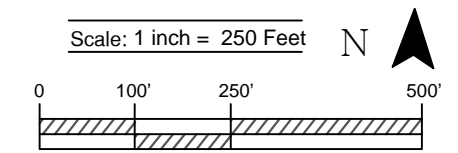

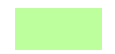






FIGURE 2

LAND COVER MAP

Burrough's Property
Oakley, California

Legend

Project Area	
Annual Grassland 42.31 Acres	
Ruderal 0.36 Acres	
Slough/Channel 0.30 Acres	
Developed Urban 0.07 Acres	
Seasonal Wetland 0.15 Acres	



The site also contains a small grass-dominated seasonal wetland in the western part of the site. This wetland is dominated by Mexican rush (*Juncus mexicanus*), and meadow barley (*Hordeum brachyantherum*). The seasonal wetland is discussed in greater detail in the section below.

A portion of the channelized Little Dutch Slough runs along the western edge of the property and is the fifth and final habitat. The Slough is dominated by tules and bulrush with a few small willows. This habitat is discussed in greater detail in the section below.

D. Regional and Local Ecology

The project site is located approximately 0.2 miles west of the Sacramento-San Joaquin Delta's freshwater tidelands. The Delta was created 10,000 years ago when a warmer climate following the Pleistocene Ice Age melted continental ice sheets. The addition of their melt water then caused worldwide sea levels to rise. Rising seas first breached California's Golden Gate at this time to flood interior valleys and create the San Francisco Bay Estuary. During the Ice Age the Sacramento-San Joaquin river system had flowed through the Golden Gate to a shoreline near the present Farallon Islands, but the estuary's subsequent rising waters hydraulically dammed the river system's outflow to permanently flood the center of California's Central Valley and create the freshwater tidal wetland we know today as the Delta. An unusual Delta feature is the failure of rivers flowing into to fill it with sediment during the 10,000 years it developed. Instead its vast new emergent marsh was dominated by tules (*Schoenoplectus acutus*), which used the supportive substrate formed by their own past generations' dead stems and rhizomes to synchronously follow the gradually rising waters upward. The many generations of dead tules beneath each living generation formed the Delta's peat soils.

While Ice Age glaciers covered vast continental lowlands in northern North America, others farther south carved deep valleys like Yosemite in the Sierra Nevada's granite spine. Such glacial erosion produced enormous quantities of sand that major rivers carried down to the Central Valley, where it accumulated in large dune fields as the rivers left the mountains. One of the largest valley dune fields, fed by sand from the Stanislaus, Mokelumne, and other rivers to the north and south, once occupied much of the Delta area, where peat now largely covers it, and the northern part of the San Francisco Bay estuary, where it now mostly lies beneath bay mud. Edges of the old estuary-delta dune field too high for inundation by rising waterways and wetlands can still be seen, however. One example is Oakland, which is largely built on low hills around Lake Merritt formed by Ice Age Merritt sand. A second is Oakley, which is surrounded by Delhi sand of the same age and origin. Oakland and Oakley's similar names are not coincidental since the old estuary-delta dune field is particularly good substrate for coast live oak (*Quercus agrifolia*). Both communities are named for

forests of this tree that once covered surrounding sand deposits and stopped at their edge.

A remnant of an old dune field is located at the south central part of the project site surrounded by a level plain formed by more recent sediments deposited by Coast Range creeks over dunes that were lower. One mile southwest of the site, however, the dune field is continuously exposed in a 1.5-mile-wide band extending southeastward for 9 miles through Oakley from the San Joaquin River near Antioch. Sand hills are continuous in this belt, but to its northeast several hills like the one on the site are isolated amidst an otherwise continuous mantle of more recent sediments. East of the site in the Delta several sand islands even rise above surrounding peat. All delta sand islands have not been continuously exposed above peat, however, since some were revealed only when peat oxidized and deflated after it was farmed. Others like sands on Brannan Island are dredge spoils produced when sand underlying much of the Delta was excavated to deepen shipping channels.

Most natural vegetation on exposures of the old estuary-delta dune field in Contra Costa County has long been removed since Delhi sand is highly desirable for orchards and vineyards. More recently rapid urbanization around Oakley has removed even more of the few remaining examples of natural vegetation on nearby sand hills. Enough currently remains, however, to demonstrate original coverage of the dune field area by a forest or woodland that ended abruptly at the edge of the sands and was exclusively dominated by coast live oak. The nature of the woodland's understory is less certain, but California croton (*Croton californicus*), a native forb with an isolated population on northeastern Contra County's sands disjunct from its otherwise largely coastal dune associated populations, was certainly important. Telegraph weed (*Heterotheca grandiflora*) is another native forb now common on sands around Oakley, but its population may currently be unnaturally high since it thrives in the disturbed habitats now general in the area. The native shrub silver lupine (*Lupinus albifrons*) is a particularly common understory associate of oaks on sands around Oakley. Other native shrubs of the area's sands are dune lupine (*Lupinus chamissonis*), which is reported from the region but was not seen on this site, and golden-fleece (*Ericameria arborescens*), which was seen but is not otherwise reported for the area. A currently declining native forb of the Oakley sands that was probably once much more common is birdcage evening primrose (*Oenothera deltoides* ssp. *cognata*), a close relative of endangered Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*), which is essentially confined to the least stabilized areas of the dune field along the San Joaquin River near Antioch.

III. JURISDICTIONAL DELINEATION

A. Introduction

As defined by the Army Corps of Engineers (Corps), “wetlands” are areas periodically or permanently saturated by surface or groundwater and typically support vegetation adapted to life in saturated (hydic) soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and floodwaters, promotion of groundwater recharge, and their water filtration and purification functions. “Other waters” include tributaries or drainage ditches which exhibit perennial or ephemeral flow to a navigable waterway, wetland, or other significant water feature. Other waters may not necessarily be wetlands.

B. Methods

Boundaries between jurisdictional areas and uplands were investigated using the routine on-site assessment procedure, Section D, Subsection 2, page 57 of the 1987 “Corps of Engineers Wetlands Delineation Manual” (Environmental Laboratory 1987; hereafter the “Delineation Manual”) as modified by the new Interim Arid West Supplement to the Delineation Manual (Environmental Laboratory 2006; hereafter the AWS). Regional supplements including the Arid West 2016 Regional Wetland Plant List (USACE 2016), and the Field Guide to Identification of the Ordinary High Water (OHWM) in the Arid West Region of the Western United States: A Delineation manual (USACE 2008) were also consulted.

Wetlands were distinguished from uplands on this site by the presence of: 1) hydrophytic vegetation, 2) wetland hydrology, and 3) hydic soils (defined below). Data point(s) were mapped onto a 1-inch to 200-foot scale map (**Figure 3**). **Appendix A** contains delineation data sheets.

1. Hydrophytic Vegetation

Hydrophytic vegetation is dominated by plant species that can tolerate prolonged inundation or soil saturation during the growing season. More than 50% of the dominant species must be wetland indicators of FAC, FACW and OBL or outweigh them using a prevalence index for the vegetation to be considered hydrophytic. These wetland indicators, or hydrophytes, are listed in the Delineation Manual as OBL, FACW, and FAC. Other plants are listed as FACU or NI, and unlisted plants are considered as UPL. These abbreviations are defined as follows:

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Aerial Source: Ersi DigitalGlobe, USGS

Date: 5/6/2020

Cartographer: JPE

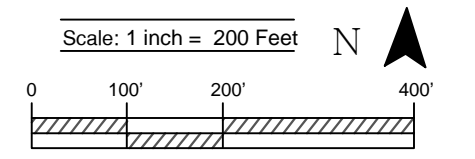






FIGURE 3
Jurisdictional Delineation
 Burrough's Property
 Oakley, California

Legend

Seasonal Wetland	
Slough	
Data Point	
Study Area	

Section 404 Jurisdictional Area

Delineated Areas	Acres
Seasonal Wetland- A	0.148
Slough- B	0.30
Seasonal Wetland TOTAL	0.148
Slough TOTAL	0.30
TOTAL	0.448

Disclaimer: Section 404 Jurisdictional Map
 This map exhibits conditions on the site at the time of completion of the delineation. For various reasons, conditions on a site may change, which may affect site wetland boundaries. Delineation maps generally expire five years after approval by the U.S. Army Corps of Engineers (Corps). Because regulations governing delineations are subject to change, this map should be reviewed by a qualified wetland consultant to ensure accuracy if not submitted to the Corps within six (6) months of preparation.

Field Work By : Zentner Planning and Ecology,
 4/9/2020



OBL	Obligate Wetland Plants. Plants that occur over 99% of the time in wetlands.
FACW	Facultative Wetland Plants. Plants that occur 67% to 99% of the time in wetlands.
FAC	Facultative Plants. Plants likely to occur 33% to 67% of the time in wetlands.
FACU	Facultative Upland Plants. Plants that occur 1% to 33% of the time in wetlands, but which occur more frequently in uplands.
NI	Non-indicator plants. (These must be checked against the National Indicator List and could be changed to a wetter or drier status)
UPL	Upland Plants. Plants that occur less than 1% of the time in wetlands.

Note: The 3 facultative categories are subdivided by (+) and (-) modifiers. FAC+ species are considered to be wetter (have a greater estimated probability of occurring in wetlands) than FAC species. FAC- species are considered to be drier (have a lesser estimated probability of occurring in wetlands) than FAC species.

2. Hydric Soils

Hydric soils develop under the low oxygen conditions typical of prolonged inundation or saturation, and generally show visible indications of chemical reduction. The hydric nature of a soil is most often indicated by low matrix chromas of 0 to 1, or 2 with mottles, and is determined by comparing the wetted soil with Munsell Soil Color Charts. The hydric nature of a soil may also be indicated by the presence of manganese or iron nodules, or other more subtle characteristics.

3. Wetland Hydrology

Common wetland hydrology indicators demonstrate inundation or saturation and include observations of standing water, saturated soils, algal mats, water-matted detritus, and water stains on rocks or other objects. In evaluating these hydrology indicators some attention must be given to the frequency and duration of inundation, and the effects of recent weather, unusual flooding and climatic fluctuations. According to the AWS, an area must have "14 or more days of flooding or ponding or a water table 12 inches (30 centimeters) or less below the soil surface, during the

growing season at a minimum frequency of 5 years in 10 (50 percent or higher probability)” to satisfy the hydrology standard. The old standard (US Army Corps 1987 Manual) was that an area must have ponding for 5% of the growing season (18 days in California) or a water table at a depth equal to 80% of the root mass.

4. Other Waters

The Corps also regulates “other waters tributary to waters of the U.S.” Boundaries between uplands and other waters are determined based on water elevations and geomorphic features. In freshwater conditions, the boundary between uplands and other waters is the ordinary high water mark (OHWM). In tidal conditions, the boundary is set by the high tide line, roughly equivalent to mean high water.

C. Results

The project site contains a small amount of Little Dutch Slough, one grass dominated seasonal wetland, and non-jurisdictional upland habitats; Table 1.

**Table 1
Aquatic Resources**

Name of Aquatic Resource	Delineation map id	Cowardin type	Acreage	Location (Latitude/longitude)
Seasonal wetlands	A	PEM	0.148 ac.	37.993571, -121.668004
Other Waters (Little Dutch Slough)	B	E2SB	0.300 ac.	37.993052, -121.668329

1. Jurisdictional Areas

a. Other Waters (Little Dutch Slough)

Area: B
Total Area: 0.30 acre

The project site contains a small, 0.30 acre, portion of Little Dutch Slough which runs along the western edge of the project site (Figure 3). Little Dutch Slough is tidally influenced and connects directly to the Sacramento/San Joaquin Bay Delta system. The portion of the Slough at the project site has been channelized.

Vegetation within Little Dutch Slough is dominated by tules (*Schoenoplectus sp.*) and cattails (*Typha sp.*), both obligate species. The extent of Little Dutch Slough has been mapped to the high tide line.

b. Seasonal Wetlands

Area:	A
Sample point:	14
Total area:	0.148 acre

The project site contains one small, 0.148 acre, seasonal wetland. This seasonal wetland is grass-dominated and does not pond or hold water at the surface, but becomes saturated by winter and spring rains for sufficient time to sustain hydrophytic vegetation. Though the wetland contains hydrophytic vegetation, the wetland also contains a prominence of non-hydrophytes, which suggests occasional winter and spring dry-down during periods between storms, due to slow but steady percolation.

The wetland meets the wetland soils and hydrology wetland criteria, and though it is close to meeting, it fails to meet the wetland vegetation criteria. However, given the closeness to meeting the wetland vegetation criteria and provided that the sample point has wetland soils and hydrology indicators, we believe that the sample point is a wetland.

i. Vegetation

The vegetation within the seasonal wetland fails to meet both the dominance test and the prevalence index for determining wetlands, though it is close to the threshold for both tests.

The dominance test is right at the threshold of 50% with Mexican rush (*Juncus mexicanus*) a hydrophytic species and reed fescue (*Festuca arundinacea*) an upland species as the dominant species. Also present in the wetland are Meadow barley (*Hordeum brachyantherum*; FACW) and Italian rye grass (*Festuca perennis*; FAC), both hydrophytes, though upland species including wild geranium (*Geranium dissectum*; UPL), and white clover (*trifolium repens*; FACU) are also present. The prevalence index for the sample plot is at 3.23 which is just above the threshold of 3.



Photo 3: Looking north at the seasonal wetland which can be identified by the darker green vegetation which is Mexican juncus. April 2020.

ii. Soils

Soils in the seasonal wetland are mapped as Marcuse clay (Mb); a partially drained, clay-loam soil. The soils had a color of 10 YR 2/2 with redox features with a color of 7.5 YR 5/8. The low chromo of the soil and the redox features are hydric soil indicators.

iii. Hydrology

Oxidized rhizospheres were identified along living roots; this is an indication of wetland hydrology.

2. Non-jurisdictional

The remaining parts of the project site is upland and non-jurisdictional.

Data points: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, and 16

The remaining parts of the project site are composed of upland vegetation, with the majority of the site being annual grassland. The sample points in these areas failed to satisfy the three technical wetland criteria.

The dominant vegetation in these areas includes foxtail barley (*Hordeum murinum*; UPL), Bermuda grass (*Cynodon dactylon*; FACU0), soft chess (*Bromus hordeaceus*; FACU), Italian rye grass (*Festuca perennis*; FAC), and yellow star thistle (*Centaurea solistitalis*; UPL). Other common vegetation includes black mustard (*Brassica nigra*; UPL), wild geranium (*Geranium dissectum*; UPL), ripgut brome (*Bromus diandrus*; UPL), white clover (*trifolium repens*; FACW), and milk thistle (*Silybum marianum*; UPL). All sample plots are dominated by upland species and fail to meet both the dominance test and prevalence index for determining hydrophytic vegetation.

Two sample points, five and eight, contained Mexican juncus and bird's foot trefoil (*Lotus corniculatus*; FAC), which are both hydrophytic species. However, these species are not strong wetland indicators and the surrounding vegetation is upland species. The presence of these hydrophytic species is likely a relic from when the site was irrigated and much wetter and contained more suitable habitat for these species. Given the current dry nature of the site it is likely that Mexican juncus will disappear from sample points five and eight over the next several years.

Several of the sample points (1, 2, 5, 6, 7, 8, 10, 11, and 13) contained root redox which is a hydric soil indicator and a wetland hydrology indicator. Though root redox is generally a clear sign that the area is a wetland, the sample points did not contain any other signs of wetland hydrology, soils, or vegetation. As well, these samples were taken in the midst of the flat field without any depression of topographic variances. Additionally, in many cases the redox was present along older roots, while younger roots did not show any signs of redox. For these reasons, we conclude that the presence of root redox is a relic from when the pasture was frequently irrigated and utilized as irrigated pasture. No other hydric soil indicators or wetland hydrology indicators were identified in any of the sample points.



Photo 4: View looking east across the annual grass land at sample point 2, which is marked by Sean examining the soil.

D. Change from 2005 Delineation

As discussed in the Site History section above, site conditions at the Burroughs property have changed significantly since the 2005 delineation was completed. The 2005 wetland delineation identified Little Dutch Slough (0.30 acre) as the only jurisdictional feature on the site (**Figure 4**), though several non-jurisdictional isolated seasonal wetlands and ditches constructed in uplands were also identified.

The most significant change since the 2005 delineation is that the site has not been irrigated for over fifteen years. Since the site no longer receives any artificial water it is significantly drier than it previously was. As well, the previously unlined Contra Costa Canal, which runs parallel and adjacent to the property's northern edge was recently undergrounded. Water from the unlined canal previously seeped in the property's northern irrigation ditch (area C Figure 4) keeping it wet year-round. Since the Canal was undergrounded water no longer seeps from the canal into the property's ditches.

Legend

- Jurisdictional Area A
- Non-Jurisdictional Area B
- Data Point 12-x
- Project Boundary

Section 404 Jurisdictional Areas

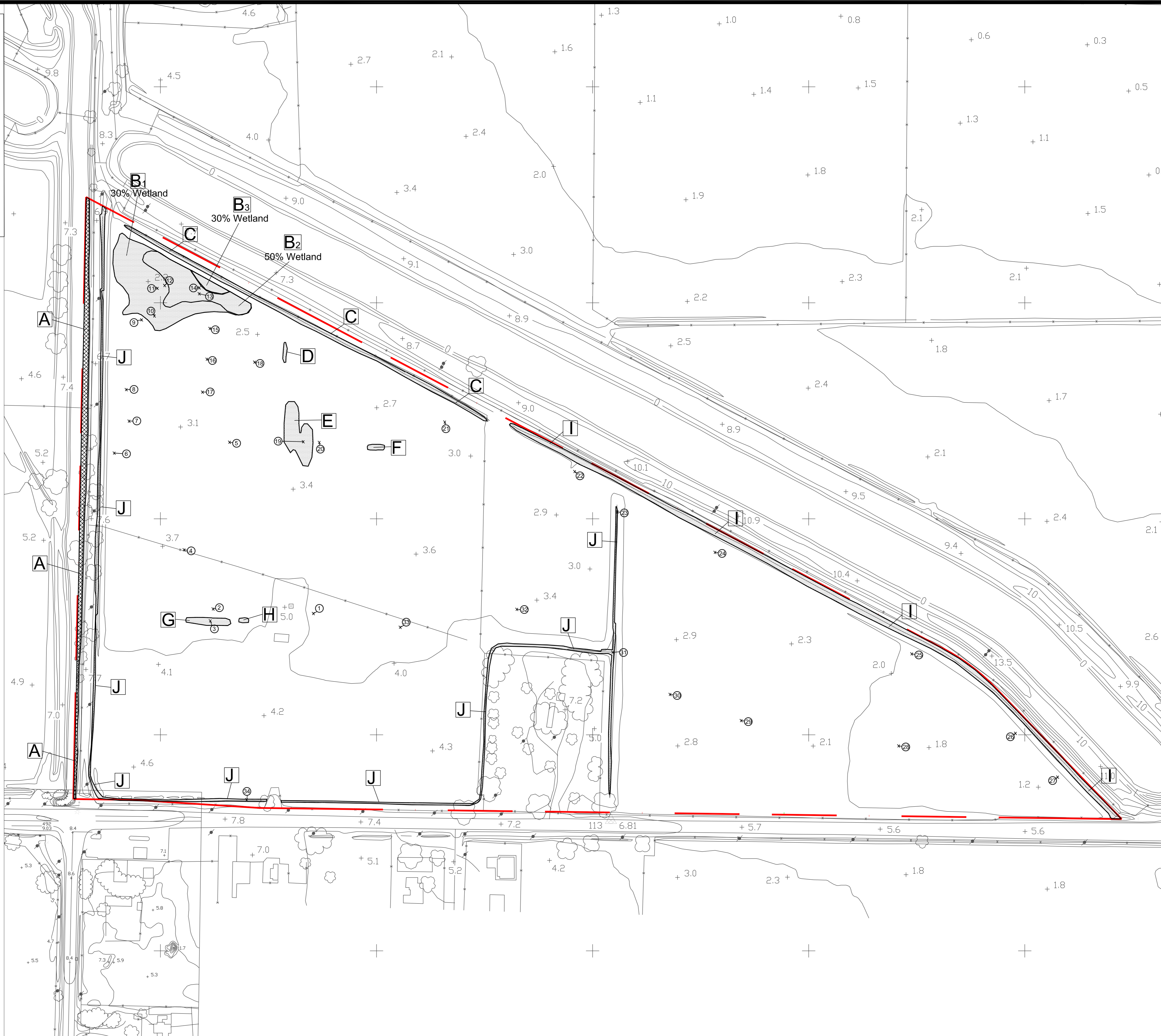
Habitat Type	Acreage
A. Slough	0.30
TOTAL	0.30 ACRES

Non-Jurisdictional Areas

Habitat Type	Acreage
B1. Isolated Seasonal Wetland	0.14
B2. Isolated Seasonal Wetland	0.14
B3. Isolated Seasonal Wetland	0.01
C. Ditch Constructed in Upland	0.22
D. Isolated Seasonal Wetland	0.01
E. Isolated Seasonal Wetland	0.14
F. Isolated Seasonal Wetland	0.01
G. Isolated Seasonal Wetland	0.03
H. Isolated Seasonal Wetland	0.01
I. Ditch Constructed in Upland	0.53
J. Ditch Constructed in Upland	0.37
TOTAL	1.7 ACRES

Disclaimer: Section 404 Jurisdictional Map
 This map exhibits conditions on the site at the time of completion of the delineation. For various reasons, conditions on a site may change, which may affect site wetland boundaries. Delineation maps generally expire five years after approval by the U.S. Army Corps of Engineers (Corps). Because regulations governing delineations are subject to change, this map should be reviewed by a qualified wetland consultant to ensure accuracy if not submitted to the Corps within six (6) months of preparation.

Field Work By: David Self on 3/09/05; 4/05/05.



BURROUGHS PROPERTY

Oakley, CA

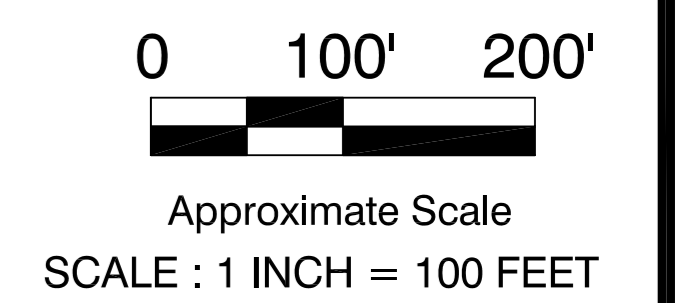


95 Linden Street, Suite 6
 Oakland, California, 94607
 510.622.8110

FIGURE 4

**Section 404
 Jurisdictional
 Delineation Map**

DATE : 05/16/2005



TOPO SOURCE :
 Carlson, Barbee &
 Gibson

Revisions :

Date	Description

PROJECT 844 WPH

SHEET 1

C:\Projects\844WPH\Delin.dwg

At the time of the 2005 delineation, the northern irrigation ditch (area C, Figure 4) received seepage from the unlined canal and was dominated by wetland species such as cattails. Though wetland vegetation was present, the ditch was determined to be non-jurisdictional because it was a ditch constructed in uplands. Since the Contra Costa Canal has been undergrounded, the ditch has fully dried and it no longer holds water or supports wetland species, though there are a few remnant stands of dying cattail present. The feature remains non-jurisdictional as it fails to meet any of the three wetland criteria.

The drainage ditches that run along the western and southern part of the property and around the former dune were previously frequently flooded to assist in the property's irrigation. Though they were previously inundated, the 2005 delineation described these features as dry and dominated by weeds. They were determined non-jurisdictional because they 1) are ditches constructed in uplands and 2) did not meet the hydrology or vegetation wetland qualifications. These features remain non-jurisdictional for the same reasons and because they fail to meet any of the three wetland criteria.

The 2005 wetland delineation also identified 6 small isolated wetlands (B, D, E, F, G, and H; Figure 4). These areas were described as grass-dominated with brief, occasional inundation and a mix of prominent upland species. The isolated wetlands were hypothesized to have an artificial origin due to shallow graded topography and an absence of the strongly hydrophytic species that are common in natural seasonal depressions in the area. As well, the wetland vegetation present in these wetlands was described as "common species of wet spots in irrigated pastures and other moist, disturbed habitats in the region." At the time of the 2005 delineation, these areas, however, met the three technical criteria for wetlands.

Each of these six wetlands was visited during 2019-2020 winter and during the 2020 wetland delineation and neither wetland hydrology nor a dominance of wetland vegetation were present. As well, if hydric soil indicators were present they appeared to be old and not reflective of current conditions; ie. root redox on old roots, but not new roots. None of the previously identified six seasonal wetlands met the wetland criteria.

References

SCS. 1977. Soil Survey of Contra Costa County, California.

NRCS, 1986 (updated 2016). Hydric Soils of California, Soil Conservation Service, USDA.

APPENDIX A

Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burroughs City/County: Oakley/Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Lexstgate Ventures / City of Oakley State: CA Sampling Point: 1
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) Past Irrigation

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Hemizonia myosuroides</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Aristida Menziesii</u>	<u>5</u>	<u>-</u>	<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Bromus diandrus</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Eriogonum fasciculatum</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Centropogon exilis</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
6. _____				
7. _____				
8. _____				
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>7.5%</u>		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:

Upland Vegetation dominates

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2		7.5YR5/6				Sandy loam	
								V. light redox at 10+ inches

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all ERRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Some light redox, indicating past hydrology when site was irrigated

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonoughs City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures & City of Oakley State: CA Sampling Point: 2
 Investigator(s): Sean Miccolli & Emily Mathew Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center"><u>Ruderal Grassland</u></p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)	
4. _____					
_____ = Total Cover				Prevalence Index worksheet:	
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				Total % Cover of: _____ Multiply by:	
1. _____				OBL species _____ x 1 = _____	
2. _____				FACW species _____ x 2 = _____	
3. _____				FAC species <u>12</u> x 3 = <u>36</u>	
4. _____				FACU species <u>15</u> x 4 = <u>60</u>	
5. _____				UPL species <u>73.5</u> x 5 = <u>367.5</u>	
_____ = Total Cover				Column Totals: <u>100.5</u> (A) <u>443.5</u> (B)	
<u>Herb Stratum</u> (Plot size: _____)				Prevalence Index = B/A = <u>4.61</u>	
1. <u>Centaurea solstitialis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
2. <u>Hordeum murinum</u>	<u>33.5</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
3. <u>Briza media</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	___ Prevalence Index is ≤3.0 ¹	
4. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Rumex crispus</u>	<u>2</u>	<u>-</u>	<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____					
7. _____					
8. _____					
<u>100.5</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present?	
1. _____				Yes _____	No <u>X</u>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					

Remarks:

Upland Vegetation is dominant

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
2	10YR 3/2						Sandy loam	
3-12	10YR 4/3		10YR 5/8				Sandy loam	
								Redox below 3"

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Some Redox below 3" - Likely relic from ^{Post Irrigated} ~~Agric~~ Muck

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No Indicators but relic redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bannoughs City/County: Oakley Carson Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/city of Oakley State: CA Sampling Point: 3
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u>	(A/B)
4. _____	_____	_____	_____	= Total Cover <u>1</u>	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of: _____	Multiply by: _____
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover _____				UPL species _____	x 5 = _____
Herb Stratum (Plot size: _____)				Column Totals: _____	(A) _____ (B)
1. <u>Bromus diandrus</u>	<u>7.5</u>	<u>—</u>	<u>UPL</u>	Prevalence Index = B/A = _____	
2. <u>Hordium murinum</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
3. <u>Festuca yvesensis</u>	<u>10</u>	<u>—</u>	<u>FAC</u>	____ Dominance Test is >50%	
4. <u>Cordus pycnostachyus</u>	<u>10</u>	<u>—</u>	<u>UPL</u>	____ Prevalence Index is ≤3.0 ¹	
5. <u>Brassica hirsuta</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. <u>Germium divaratum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	____ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. <u>Phytolacca americana</u>	<u>7.5</u>	<u>—</u>	<u>FACU</u>		
8. <u>Taraxacum officinale</u>	<u>7.5</u>	<u>—</u>	<u>FACU</u>		
= Total Cover <u>102.5</u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover _____					
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Vegetation is Dominant</p>					

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	2.5YR 2/1						clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *No Indicators*

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
Secondary Indicators (2 or more required) <input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *No Indicators*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonough City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Westwood & City of Oakley State: CA Sampling Point: 4
 Investigator(s): Sean & Emily Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center"><u>Upland Grassland</u></p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)	
4. _____	_____	_____	_____		
= Total Cover					
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
				Column Totals: _____ (A)	_____ (B)
				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Hondroon marianum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
2. <u>Centrosema strictifolium</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3. <u>Beraniem dissectum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Cynodon dactylon</u>	<u>2.5</u>	—	<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
5. <u>Eriosema perenne</u>	<u>7.5</u>	—	<u>FAC</u>		
6. <u>Bassia nigra</u>	<u>5</u>	—	<u>UPL</u>		
7. <u>Rumex crispus</u>	<u>1</u>	—	<u>FAC</u>		
8. <u>Festuca arundinacea</u>	<u>1</u>	—	<u>UPL</u>		
<u>Bromus hordeaceus</u>	<u>5</u>		<u>FACW</u>		
= Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?	
1. _____	<u>102</u>			Yes _____	No <u>X</u>
2. _____					
= Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks: <p align="center"><u>Upland Vegetation is Dominant</u></p>					

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>12</u>	<u>10 YR 3/2</u>						<u>Clay loam</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydic Soil Present? Yes _____ No

Remarks:

No Indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonduca City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 5
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes <u>✓</u> No _____	
Wetland Hydrology Present? Yes <u>✓</u> No _____	

Remarks: Grassland
Borderline Seasonal wetland, but could be relic feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)
4. _____				
_____ = Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				_____ Total % Cover of: _____ Multiply by: _____
1. _____				OBL species _____ x 1 = _____
2. _____				FACW species <u>35</u> x 2 = <u>70</u>
3. _____				FAC species <u>20</u> x 3 = <u>60</u>
4. _____				FACU species <u>29.5</u> x 4 = <u>118</u>
5. _____				UPL species <u>37.5</u> x 5 = <u>187.5</u>
_____ = Total Cover				Column Totals: <u>122</u> (A) <u>435.5</u> (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>3.57</u>
1. <u>Juncus sp. Mexicana</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Cotus corniculatus</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Gadmeum dissectum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Trifolium repens</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Bromus thodourenus</u>	<u>10</u>	<u>-</u>	<u>FACU</u>	
6. <u>Hypochaeris glabra</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
7. <u>Centaurea solstitialis</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
8. <u>Vicia sativa</u>	<u>2.5</u>	<u>-</u>	<u>FACU</u>	
<u>Stellaria media</u> <u>20</u> = Total Cover <u>FACU</u>				
Woody Vine Stratum (Plot size: _____)				
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks: Upland vegetation is dominant

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 3/3		10YR 5/9				Clay loam	
								Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: *Faint redox - Relictual from irrigation*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *Faint redox - could be relictilineal*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonnieville City/County: Oakley ^{Center} ~~Center~~ Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/ City of Oakley State: UT Sampling Point: 6
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center"><u>Upland Grassland</u></p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Bromus hordeaceus</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Festuca perennis</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
3. <u>Cotus corniculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
4. <u>Centaurea solstitialis</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	
5. <u>Vicia sativa</u>	<u>5</u>	<u>-</u>	<u>FACU</u>	
6. <u>Bromus diandrus</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
7. <u>Hordeum jubatum</u>	<u>5</u>	<u>-</u>	<u>FAC</u>	
8. <u>Hordeum murinum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)				
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>				

Remarks:

Upland Vegetation is Dominant

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>10-12</u>	<u>7.5YR 5/2</u>						<u>Loamy clay</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Relictual Redox from Irrigated Agriculture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No Indicators but Relictual Redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonoughs City/County: Oakley Contra Costa Sampling Date: 4/4/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 7
 Investigator(s): Jean M E Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks: <p align="center" style="font-size: 1.2em;">Ruderal Upland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Silybum marianum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Dominance Test is >50%
2. <u>Geranium oligectum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Brassica oleracea</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Festuca perennis</u>	<u>5</u>	<u>-</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Centaurea solstitialis</u>	<u>5</u>	<u>-</u>	<u>UPL</u>	
6. _____				
7. _____				
8. _____				
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____		

Remarks:

Upland Vegetation Dominates

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2		7.5YR5/8				loamy clay	
								Strong redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Strong redox - likely indicator of past lead use w/ irrigated grazing land - Relictual

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Only Relictual Redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnoughs City/County: Oakley Colo Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CO Sampling Point: 8
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland with Actual Seasonal Wetland Features</u></p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>25</u> x 2 = <u>50</u>
4. _____				FAC species <u>10</u> x 3 = <u>30</u>
5. _____				FACU species <u>20</u> x 4 = <u>80</u>
_____ = Total Cover				UPL species <u>67.5</u> x 5 = <u>337.5</u>
				Column Totals: <u>122.5</u> (A) <u>447.5</u> (B)
				Prevalence Index = B/A = <u>4.06</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Juncus mexicanus</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	___ Dominance Test is >50%
2. <u>Hemlock minimumum</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Baccharis hordeaceus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Baccharis diandra</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	
6. <u>Convolvulus arvensis</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
7. <u>Geranium dissectum</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>	
8. _____				
<u>122.5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Remarks: <p align="center" style="font-size: 1.2em;"><u>Upland Vegetation Dominates</u></p>				
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR3/2		7.5YR5/8				Clay loam	
								Sparsely faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Faint redox - indicator of past irrigated agriculture

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No Indicators - but faint redox

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: BumDouglas City/County: Oakley/CC Sampling Date: 4/9/20
 Applicant/Owner: Westgate Venture City of Oakley State: CA Sampling Point: 9
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species <u>47.5</u> x 3 = <u>142.5</u>
5. _____	_____	_____	_____	FACU species <u>25</u> x 4 = <u>100</u>
_____ = Total Cover				UPL species <u>25</u> x 5 = <u>125</u>
				Column Totals: <u>47.5</u> (A) <u>367.5</u> (B)
				Prevalence Index = B/A = <u>3.77</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Geranium dissectum</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%
2. <u>Bromus hordeaceus</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Hordeum marinum</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Festuca proserpilis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Cynodon dactylon</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>47.5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

Remarks:

Upland Vegetation is Dominant

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR3/2						Sandy clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *No Indicators*

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (2 or more required) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *No Indicators*

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnough City/County: Oakley Contra Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/ City of Oakley State: CA Sampling Point: 10
 Investigator(s): John M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>✓</u> No _____		
Wetland Hydrology Present?	Yes <u>✓</u> No _____		
Remarks: <u>Ruderal Grassland with Indicators of Past Irrigated Landscape</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>10</u> x 2 = <u>20</u>
4. _____				FAC species <u>37.5</u> x 3 = <u>112.5</u>
5. _____				FACU species <u>12.5</u> x 4 = <u>50</u>
= Total Cover				UPL species <u>37.5</u> x 5 = <u>187.5</u>
				Column Totals: <u>97.5</u> (A) <u>370</u> (B)
				Prevalence Index = B/A = <u>379</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Hordeum brachyaeternum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	___ Dominance Test is >50%
2. <u>Hordeum murinum</u>	<u>10</u>	<u>—</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Lotus corniculatus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Cassia psychropetalus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Festuca perennis</u>	<u>17.5</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Medicago polymorpha</u>	<u>10</u>	<u>—</u>	<u>FACU</u>	
7. <u>Festuca arvensis</u>	<u>10</u>	<u>—</u>	<u>UPL</u>	
8. <u>Lactuca scariola</u>	<u>2.5</u>	<u>—</u>	<u>FACU</u>	
<u>Cynodon dactylon</u>	<u>2.5</u>	<u>—</u>	<u>UPL</u>	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. <u>Cynodon dactylon</u>	<u>2.5</u>	<u>—</u>	<u>FAC</u>	
2. _____				
<u>2.5</u> = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Remarks:				

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR3/2		7.5YR5/R				Clay loam	
								Redox present

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Redox Present - likely Relictual from Past Irrigated landscape

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- No ponding all wet season
- No indicators except Redox ~ Relictual

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bunnoucks City/County: Oakley ^{Carpa} ~~Costa~~ Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 11
 Investigator(s): Sean H & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33.3</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species <u>10</u>	x 2 = <u>20</u>
4. _____	_____	_____	_____	FAC species <u>25</u>	x 3 = <u>75</u>
5. _____	_____	_____	_____	FACU species <u>27.5</u>	x 4 = <u>110</u>
= Total Cover				UPL species <u>35</u>	x 5 = <u>175</u>
Herb Stratum (Plot size: _____)				Column Totals:	<u>97.5</u> (A) <u>380</u> (B)
1. <u>Hordeum brachyantherum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	Prevalence Index = B/A = <u>3.89</u>	
2. <u>Cynodon dactylon</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
3. <u>Festuca perennis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Dominance Test is >50%	
4. <u>Geranium dissectum</u>	<u>12.5</u>	<u>—</u>	<u>OPL</u>	___ Prevalence Index is ≤3.0 ¹	
5. <u>Cirsium vulgare</u>	<u>15</u>	<u>Y</u>	<u>OPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. <u>Carburus pycnocephalus</u>	<u>2.5</u>	<u>—</u>	<u>OPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. <u>Lotus corniculatus</u>	<u>10</u>	<u>—</u>	<u>FAC</u>	___	
8. <u>Lactuca scariola</u>	<u>7.5</u>	<u>—</u>	<u>FACU</u>	___	
= Total Cover				___	
Woody Vine Stratum (Plot size: _____)				___	
1. _____	_____	_____	_____	___	
2. _____	_____	_____	_____	___	
= Total Cover				___	
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	

Remarks:

Upland Vegetation, Dominates

SOIL

Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
12	10YR 3/2		Reduced Iron				Clay loam	
			7.5YR 3/2					
								Reduced Iron but
								not on
								living roots

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Redox - but not on living roots
Evidence of past irrigated grazing land

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
Water Table Present? Yes No Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bunnage City/County: Oakley, Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 12
 Investigator(s): Sean M. Engh M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>	
Hydric Soil Present?	Yes _____	No <u>X</u>				
Wetland Hydrology Present?	Yes _____	No <u>X</u>				
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>						

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)	
2. _____				Total Number of Dominant Species Across All Strata: _____ (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
4. _____					
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____				OBL species _____ x 1 = _____	
2. _____				FACW species _____ x 2 = _____	
3. _____				FAC species _____ x 3 = _____	
4. _____				FACU species _____ x 4 = _____	
5. _____				UPL species _____ x 5 = _____	
_____ = Total Cover				Column Totals: _____ (A) _____ (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____	
1. <u>Hesperis matronalis</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Bromus alpestris</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>		
3. <u>Carduus pycnocephalus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>		
4. <u>Festuca perennis</u>	<u>12.5</u>	<u>-</u>	<u>FAC</u>		
5. <u>Brassica nigra</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>		
6. _____					
7. _____					
8. _____					
<u>95</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
Remarks: <p align="center" style="font-size: 1.2em;">Upland Vegetation is Dominant</p>					

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 4/2						Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

No Indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? Yes _____ No _____ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burn Douglas City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures/City of Oakley State: CA Sampling Point: 13
 Investigator(s): Sean & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>u</u> No _____		
Wetland Hydrology Present?	Yes <u>u</u> No _____		
Remarks: <u>Upland Ruderal Grassland with past indicators of Irrigated Agriculture</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Bromus diandrus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Carduus pycnocephalus</u>	<u>35</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Hordaleum murinum</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Cirsium vulgare</u>	<u>2.5</u>	<u>-</u>	<u>UPL</u>	
5. <u>Festuca perennis</u>	<u>2.0</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Vicia sativa</u>	<u>5</u>	<u>-</u>	<u>FACU</u>	
7. <u>Lotus corniculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>	
8. <u>Brassica nigra</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	
<u>107.5</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by:
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 ___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0¹
 ___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Upland Vegetation Dominates

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>12</u>	<u>10YR3/2</u>		<u>7.5YR 5/8</u>				<u>Sandy clay loam</u>	
								<u>Reduced Iron strongly present</u>

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Reduced Iron - likely from past irrigation

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (Nonriverine)
- Sediment Deposits (B2) (Nonriverine)
- Drift Deposits (B3) (Nonriverine)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (Riverine)
- Sediment Deposits (B2) (Riverine)
- Drift Deposits (B3) (Riverine)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Reduced Iron but
No redox on living roots

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Burnoughs City/County: Oakley ^{Costa} Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 14
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			
Remarks: <p align="center"><i>Seasonal Wetland – may be Relictual from past irrigation</i></p>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. _____					
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____				OBL species _____ x 1 = _____	
2. _____				FACW species <u>50</u> x 2 = <u>100</u>	
3. _____				FAC species <u>17.5</u> x 3 = <u>52.5</u>	
4. _____				FACU species <u>10</u> x 4 = <u>40</u>	
5. _____				UPL species <u>32.5</u> x 5 = <u>162.5</u>	
_____ = Total Cover				Column Totals: <u>110</u> (A) <u>355</u> (B)	
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>3.23</u>	
1. <u>Juncus mexicanus</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators:	
2. <u>Festuca arundinacea</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	___ Dominance Test is >50%	
3. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	___ Prevalence Index is ≤3.0 ¹	
4. <u>Geranium dissectum</u>	<u>7.5</u>	<u>-</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Hordelymus brachyatherum</u>	<u>10</u>	<u>-</u>	<u>FACW</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Lotus corniculatus</u>	<u>7.5</u>	<u>-</u>	<u>FAC</u>		
7. <u>Trifolium repens</u>	<u>10</u>	<u>-</u>	<u>FACU</u>		
8. _____					
<u>110</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?	
1. _____				Yes _____	No <input checked="" type="checkbox"/>
2. _____					
_____ = Total Cover					
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____					
Remarks: <p align="center"><i>Upland Vegetation is barley dominant</i></p>					

SOIL

Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR3/2		7.5YR 5/2				Clay loam	
								Redox present

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR C)
- 1 cm Muck (A9) (LRR D)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Low chroma w/ Redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Some Wetland Indicators Present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bonnie City/County: Oakley, Contra Costa Sampling Date: 4/4/20
 Applicant/Owner: Westgate Venture/City of Oakley State: CA Sampling Point: 15
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>10</u> x 2 = <u>20</u>
4. _____				FAC species <u>55</u> x 3 = <u>165</u>
5. _____				FACU species <u>15</u> x 4 = <u>60</u>
_____ = Total Cover				UPL species <u>20</u> x 5 = <u>100</u>
				Column Totals: <u>100</u> (A) <u>345</u> (B)
				Prevalence Index = B/A = <u>3.45</u>
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Poa annua</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Hordelym brachyasterum</u>	<u>10</u>	<u>—</u>	<u>FACW</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Elymus amabilis</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Poa perennis</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Cotyledon umbellatus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
6. <u>Taraxacum officinale</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
7. <u>Cirsium vulgare</u>	<u>5</u>	<u>—</u>	<u>UPL</u>	
8. <u>Cynodon dactylon</u>	<u>10</u>	<u>—</u>	<u>FAC</u>	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		

Remarks:

Upland Vegetation Dominates

SOIL

Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
10	10YR 7/2						Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
No Indicators

HYDROLOGY

Wetland Hydrology Indicators:	Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No Indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bumoughs City/County: Oakley Contra Costa Sampling Date: 4/9/20
 Applicant/Owner: Westgate Ventures / City of Oakley State: CA Sampling Point: 16
 Investigator(s): Sean M & Emily M Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Remarks: <p align="center" style="font-size: 1.2em;">Upland Grassland</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Cynodon dactylon</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	___ Dominance Test is >50%
2. <u>Hordium murinum</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹
3. <u>Centaurea solstitialis</u>	<u>10</u>	<u>-</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Brassica nigra</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Festuca perennis</u>	<u>10</u>	<u>-</u>	<u>FAC</u>	
6. _____				
7. _____				
8. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Remarks: <p align="center" style="font-size: 1.2em;">Upland vegetation is dominant</p>				

SOIL

Sampling Point: 16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
<u>10</u>	<u>10 YR</u>	<u>3/2</u>					<u>Clay loam</u>	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (**LRR C**)
- 1 cm Muck (A9) (**LRR D**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)

- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

- 1 cm Muck (A9) (**LRR C**)
- 2 cm Muck (A10) (**LRR B**)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

No Indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1) (**Nonriverine**)
- Sediment Deposits (B2) (**Nonriverine**)
- Drift Deposits (B3) (**Nonriverine**)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)

- Salt Crust (B11)
- Biotic Crust (B12)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

- Water Marks (B1) (**Riverine**)
- Sediment Deposits (B2) (**Riverine**)
- Drift Deposits (B3) (**Riverine**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): _____
 Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

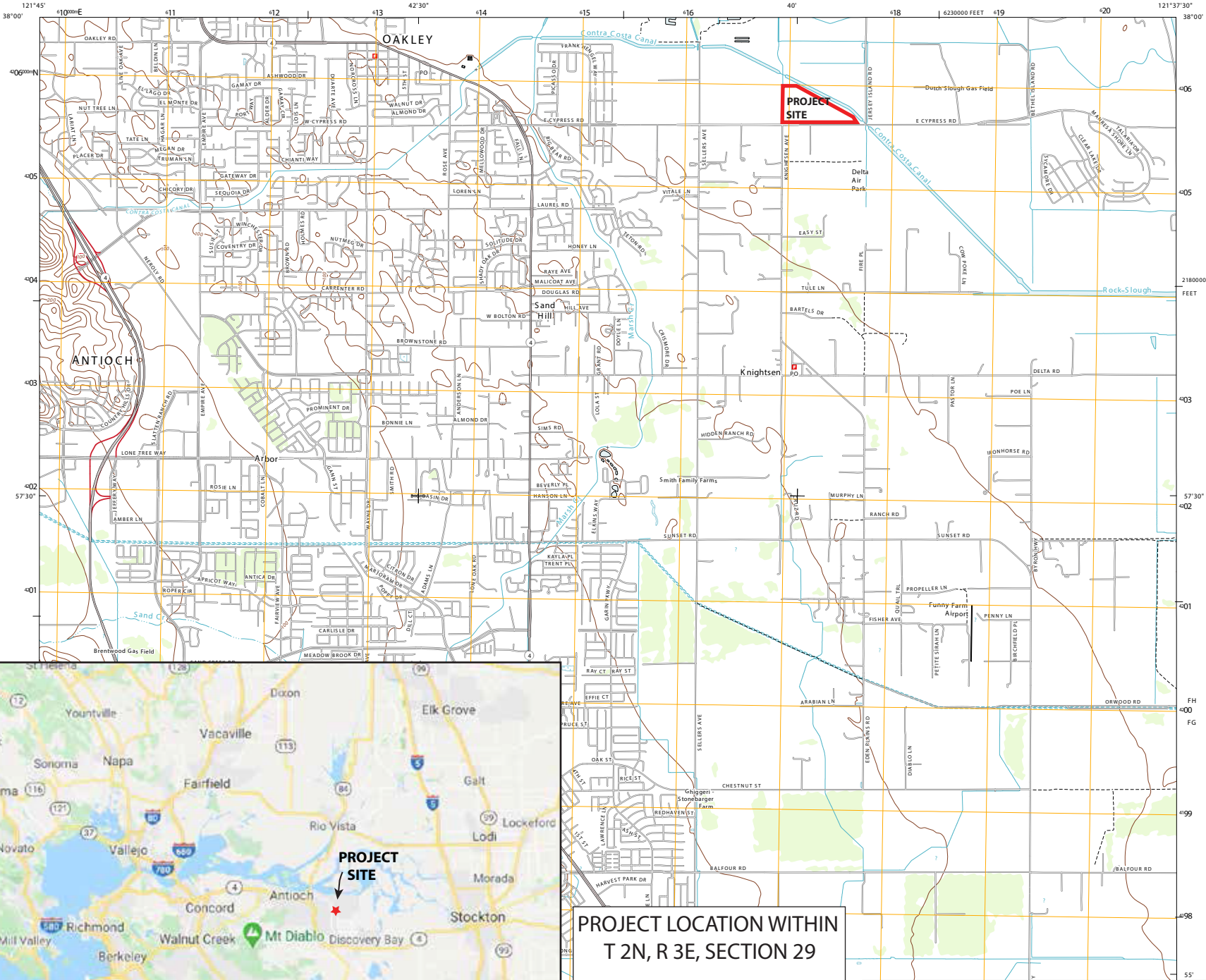
Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Indicators

ATTACHMENT B: FIGURES



120A Linden Street,
Oakland, CA 94607
Phone: 510.622.8110
Fax: 510.622.8116

Burrough's Property

Oakley,
California

FIGURE 1 PROJECT VICINITY MAP



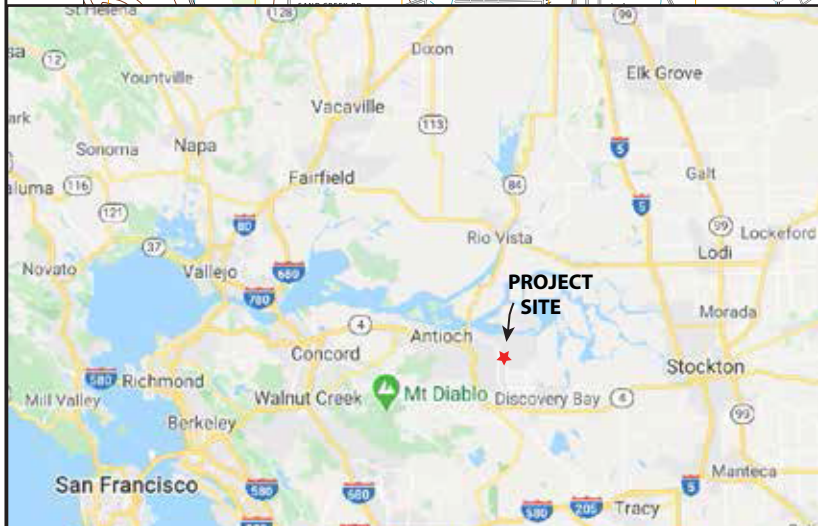
BY: JPE

PROJECT: 1115

BASE MAP:
© 2018 GOOGLE MAPS

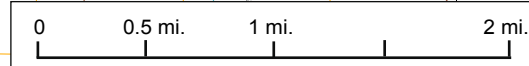
FILE: D:\Graphic Designer\My
Documents\PROJECTS\1100-1199\1115\
Adobe\Burroughs\Location.pdf

DATE: 01/18/21 1:30 PM



PROJECT LOCATION WITHIN
T 2N, R 3E, SECTION 29

37.991857, -121.664888



GENERAL NOTES

OWNER: CITY OF OAKLEY
3231 MAIN STREET
OAKLEY, CA 94561
(925)-625-7000

DEVELOPER: WESTGATE VENTURES, LLC
2551 SAN RAMON VALLEY BLVD #204
SAN RAMON, CA 94583
(925)-480-7209

ENGINEER: BELLECCI & ASSOCIATES, INC.
2290 DIAMOND BLVD #100
CONCORD, CA 94520
(925)-685-4569

AP.N: 032-081-025-2 (CITY OF OAKLEY)
032-081-026 (BURROUGHS)

SITE AREA: 43.24 ACRES

EXISTING ZONING: A-3

PROPOSED ZONING: P-1

EXISTING USE: VACANT

PROPOSED USE: SINGLE FAMILY RESIDENTIAL

SERVICES: WATER SUPPLY-
SANITARY SEWER-
STORM DRAIN-
GAS & ELECTRIC-
FIRE-
TELEPHONE-
CABLE TV-

FLOODING:

TOPOGRAPHY:

BASIS OF ELEVATION:

BASIS OF BEARINGS:

ROBERT BURROUGHS
4803 SISK ROAD #201
SALIDA, CA 95368
(209)-470-4489

DAMBO WATER DISTRICT
BONHOUSE SANITARY DISTRICT
CITY OF OAKLEY
PACIFIC GAS & ELECTRIC
EAST CONTRA COSTA FIRE PROTECTION DISTRICT
AERIAL
COMCAST

SITE FALLS WITHIN FIRM PANEL NUMBERS C6013C 0360G, ZONE AE (E.L. 9, 1588ACD) DATED MARCH 1, 2017
NOTE: THE ENTIRE SITE FALLS WITHIN THE 100 YEAR FLOOD PLAN

SHEET INDEX

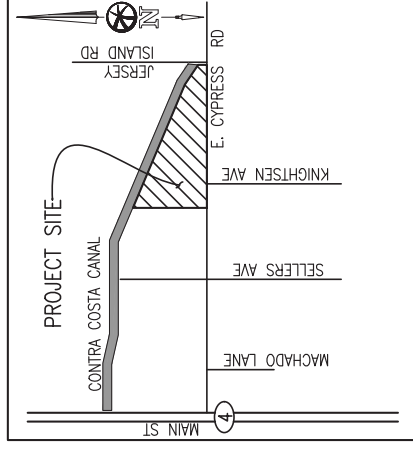
- COVER SHEET
- EXISTING CONDITIONS AND CONSTRAINTS MAP
- TYPICAL STREET SECTIONS
- PRELIMINARY SITE PLAN
- PRELIMINARY SITE PLAN
- PRELIMINARY SITE PLAN
- GRADING AND UTILITY PLAN
- GRADING AND UTILITY PLAN
- GRADING AND UTILITY PLAN
- PRELIMINARY GRADING SECTIONS

NOTES:

THE OWNER RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS ON THE LANDS SHOWN ON THIS MAP

VICINITY MAP

NO SCALE



TOTAL PROPOSED LOTS	208
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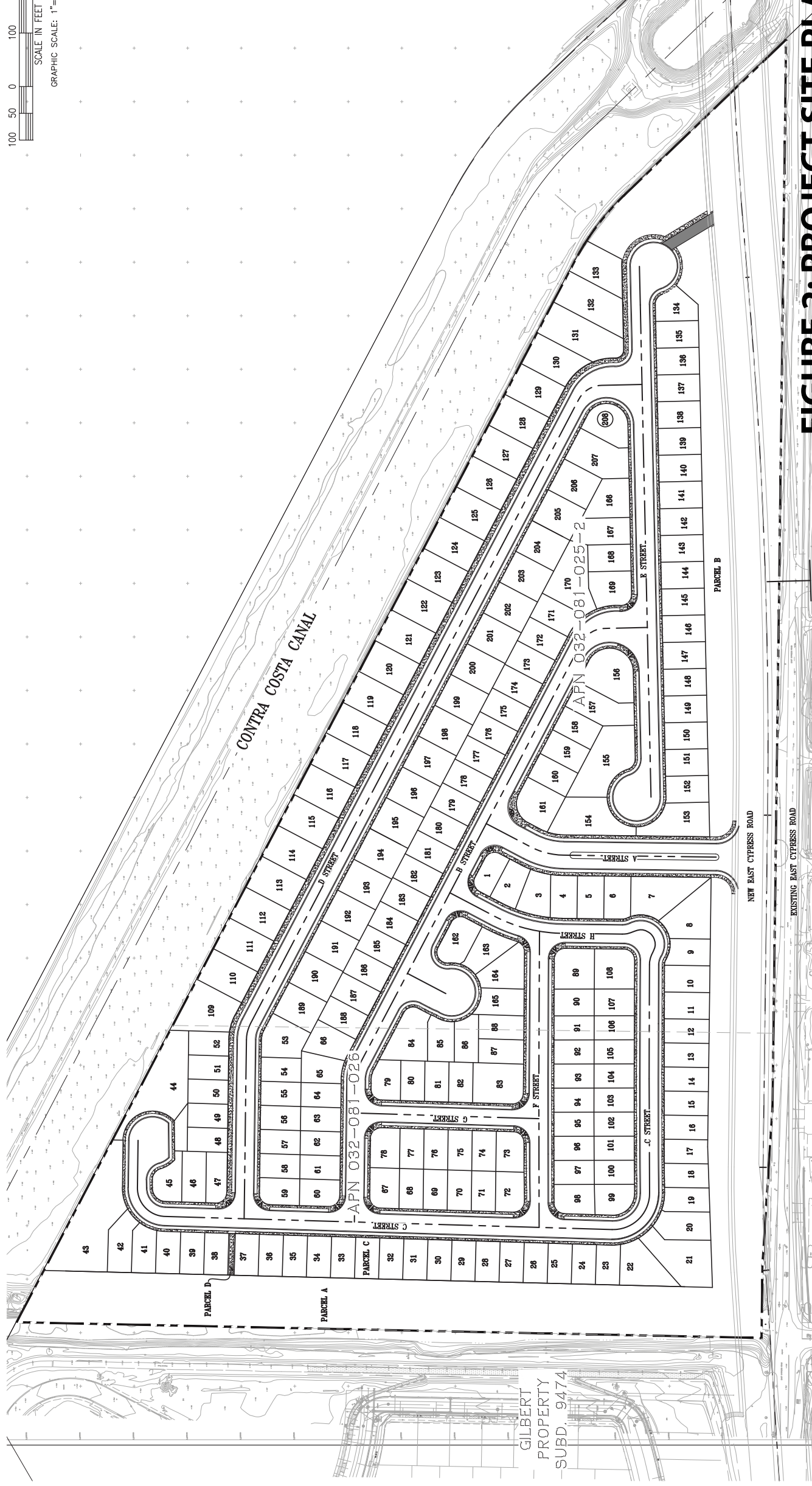
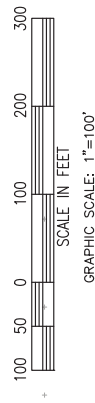
PARCEL NAME	AREA (AC)	USAGE
A	3.27	OPEN SPACE
B	1.49	OPEN SPACE
C	0.08	OPEN SPACE
D	0.02	OPEN SPACE

SUBDIVISION 9557
VESTING TENTATIVE MAP
COVER SHEET

CITY OF OAKLEY
CONTRA COSTA COUNTY, CALIFORNIA

BELLECCI & ASSOCIATES, INC.
CONCORD, CALIFORNIA

DECEMBER 18, 2020 SCALE: 1"=100'



120A Linden Street, Oakland, CA 94607
P: 510.622.8110 F: 510.622.8116

Aerial Source: Ersi DigitalGlobe, USGS

Date: 4/21/2020

Cartographer: JPE

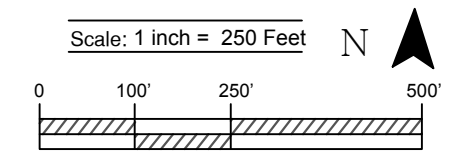


FIGURE 3
LAND COVER MAP

Burrough's Property
Oakley, California

Legend


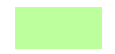




Project Area	
Annual Grassland 42.31 Acres	
Ruderal 0.36 Acres	
Slough/Channel 0.30 Acres	
Developed Urban 0.07 Acres	
Seasonal Wetland 0.15 Acres	



Figure 4:
Representative Photos of the
Burroughs and City of Oakley Residential Development
Project Site



Photo 1: Representative view of the project site. East Cypress Road is to the right of the photo and can be roughly located based on the visible telephone poles. The property previously contained a home in the area shown on the center left of the photo where the trees are visible. March 2020.



Photo 2: View from the approximate center of the southern property border looking east. E. Cypress Road is visible on the right side of the photo. January 2020.



Photo 3: View from the northern property border looking west. The Gilbert Development is just visible in the photo background. January 2020.



Photo 4: View from northwestern part of the property looking south. January 2020.



Photo 5: View from the southwestern corner of the property looking east. E. Cypress Road is visible on the right side of the photo. January 2020.



Photo 6: View looking along the western edge of the property. Little Dutch Slough is visible on the right of the photo and a former irrigation ditch is visible on the left side of the photo. One of the ruderal habitats, dominated by Himalayan blackberry, is visible in the center background of the photo. August 2020.



Photo 7: View of the central part of the property. This area previously contained a home and outbuildings. A dense stand of giant reed (*Arundo donax*) is visible on the left side of the photo. This stand has been mapped as ruderal vegetation on the property's habitat type map. January 2020.



Photo 8: View of the site's wetland. The dark green vegetation within the wetland is visible and can be used to distinguish the wetland from the surrounding annual grassland. April 2020.

120A Linden Street, Oakland, CA 94607
P: 510.622.8110 F: 510.622.8116

Aerial Source: Ersi DigitalGlobe, USGS

Date: 01/19/2021

Cartographer: JPE

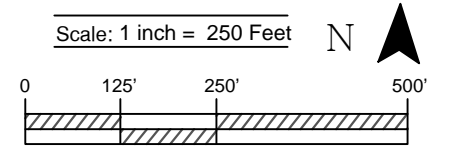




FIGURE 5

POTENTIAL GIANT GARDER SNAKE HABITAT

Burrough's Property
Oakley, California

Legend

- Project Area 
- Potential Giant Garder
Snake Habitat 
(Little Dutch Slough+ 200 ft buffer)



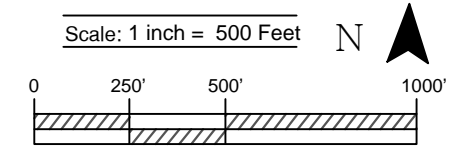




FIGURE 5

POTENTIAL BURROWING OWL BREEDING HABITAT

Burrough's Property
Oakley, California

Legend

- Project Area 
- Potential Burrowing Owl Breeding Habitat (project site and 500 ft radius) 



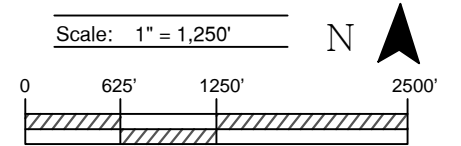







FIGURE 5

POTENTIAL SWAINSON'S HAWK AND GOLDEN EAGLE NESTING HABITAT

Burrough's Property
Oakley, California

Legend

- Project Site 
- 1,000 ft boundary 
- 0.5 mile boundary 
- Potential Swainson's Hawk and Golden Eagle nesting habitat 
- Potential Golden Eagle nesting habitat 



ATTACHMENT D: FEE CALCULATOR(S)

ECCC HCP/NCCP 2020 Fee Calculator Worksheet

Permanent Impacts

PROJECT APPLICANT: Westgate Ventures and City of Oakley

PROJECT NAME: Burroughs and City of Oakley Residential Development

APN(s): 032-081-025-2 and 032-081-026-0

JURISDICTION: _____

DATE: January 19, 2021

<u>DEVELOPMENT FEE</u>	ACREAGE PERMANENTLY IMPACTED (TABLE 1) ¹	x	2020 FEE PER ACRE (SUBJECT TO CHANGE) ²	=			
See appropriate ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone	Fee Zone 1		40.42	x	\$17,139.99	=	\$692,764.12
	Fee Zone 2			x	\$34,279.99	=	\$0.00
	Fee Zone 3			x	\$8,570.72	=	\$0.00
					Development Fee Total	=	\$692,764.12

<u>WETLAND MITIGATION FEE</u>	ACREAGE PERMANENTLY IMPACTED (TABLE 1) ¹	x	2020 FEE PER ACRE (SUBJECT TO CHANGE) ²	=			
	Riparian woodland / scrub			x	\$84,239.66	=	\$0.00
	Perennial Wetland			x	\$115,275.32	=	\$0.00
	Seasonal Wetland		0.148	x	\$249,763.19	=	\$36,964.95
	Alkali Wetland			x	\$236,462.19	=	\$0.00
	Ponds			x	\$125,620.54	=	\$0.00
	Aquatic (open water)			x	\$63,549.21	=	\$0.00
	Slough / Channel			x	\$143,355.21	=	\$0.00
<u>STREAMS</u>	LINEAR FEET PERMANENTLY IMPACTED (TABLE 1)	x	2020 FEE PER LINEAR FT (SUBJECT TO CHANGE) ²	=			
	Streams 25 feet wide or less			x	\$686.78	=	\$0.00
	Streams greater than 25 feet wide			x	\$1,034.52	=	\$0.00
					Wetland Mitigation Fee Total	=	\$36,964.95

<u>FEE REDUCTION³</u>	Development Fee reduction for land in lieu of fee	=	
	Development Fee reduction (up to 33%) for permanent assessments	=	
	Wetland Mitigation Fee reduction for wetland restoration/creation performed by applicant	=	
	Reduction Total	=	\$0.00

<u>FINAL FEE CALCULATION</u>	Development Fee Total	=	\$692,764.12
	Wetland Mitigation Fee Total	+	\$36,964.95
	Fee Subtotal	=	\$729,729.07
	Contribution to Recovery	+	
	TOTAL AMOUNT TO BE PAID	=	\$729,729.07

¹ City/County planning staff will consult the land cover map in the Final HCP/NCCP and will reduce the acreage subject to the Development Fee by the acreage of the subject property that was identified in the Final HCP/NCCP as urban, turf, landfill or aqueduct land cover.

² Development Fees are adjusted annually according to a formula that includes both a Home Price Index (HPI) and a Consumer Price Index (CPI). The Wetland Mitigation Fees are adjusted according to a CPI. The Conservancy conducted the 2013 periodic fee audit required by the HCP/NCCP. Action by the County and participating cities is pending, which could result in adjustments to some or all fees in 2020.

³ Fee reductions must be reviewed and approved by the Conservancy.

Appendix D
Preliminary Geotechnical Exploration



BURROUGHS PROPERTY
OAKLEY, CALIFORNIA

PRELIMINARY GEOTECHNICAL EXPLORATION

SUBMITTED TO
Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

PREPARED BY
ENGEO Incorporated

January 7, 2020

PROJECT NO.
16836.000.000

Project No.
16836.000.000

January 7, 2020

Mr. Adam Tennant
Principal
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

Subject: Burroughs Property
1180 Cypress Road
Oakley, California

PRELIMINARY GEOTECHNICAL EXPLORATION

Dear Mr. Tennant:

ENGEO prepared this preliminary geotechnical report for WestGate Ventures Fund III, LLC as outlined in our proposal dated October 8, 2019. We performed a geologic and geotechnical review of the existing site conditions, performed a field exploration and laboratory testing program, and have provided a preliminary geotechnical evaluation for the proposed development and levee design considerations.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated


Cale Crawford, PE




Steve Harris, GE




Jason Sedore

js/cac/sdh/cjn

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

1.0	INTRODUCTION	1
1.1	PURPOSE AND SCOPE	1
1.2	PROJECT LOCATION	1
1.3	PROJECT DESCRIPTION	2
2.0	FINDINGS	2
2.1	FIELD EXPLORATION	2
2.1.1	Test Pits	2
2.1.2	Cone Penetration Tests	3
2.2	SITE BACKGROUND	3
2.3	GEOLOGY AND SEISMICITY	3
2.3.1	Geology	3
2.3.2	Seismicity	3
2.4	SURFACE CONDITIONS	4
2.5	SUBSURFACE CONDITIONS	5
2.6	GROUNDWATER CONDITIONS	5
2.7	LABORATORY TESTING	5
3.0	GEOLOGICAL HAZARDS	5
3.1	UNDOCUMENTED FILL	5
3.2	EXPANSIVE SOIL	6
3.3	ORGANIC SOILS	6
3.4	SEISMIC HAZARDS	6
3.4.1	Ground Rupture	6
3.4.2	Ground Shaking	7
3.4.3	Liquefaction	7
3.4.3.1	Liquefaction Analysis	7
3.4.3.2	Liquefaction-Induced Settlement and Lateral Spreading	7
3.5	FLOODING	8
3.6	SHALLOW GROUNDWATER	8
3.7	2019 CBC SEISMIC DESIGN PARAMETERS	9
4.0	PRELIMINARY LEVEE RECOMMENDATIONS	9
4.1	LEVEE GEOMETRY AND MATERIALS	10
4.2	SOIL SAMPLING AND LABORATORY TESTING	11
4.3	LEVEE SEEPAGE ANALYSIS	11
4.4	LEVEE SLOPE STABILITY ANALYSIS	12
4.5	CONSOLIDATION SETTLEMENT	13
4.6	LEVEE EASEMENTS	13
5.0	ADDITIONAL RECOMMENDATIONS	13
6.0	LIMITATIONS AND UNIFORMITY OF CONDITIONS	14

TABLE OF CONTENTS (Continued)

SELECTED REFERENCES

FIGURES

APPENDIX A – Exploration Logs

APPENDIX B – Laboratory Test Data

APPENDIX C – Cone Penetration Test Logs

APPENDIX D – Liquefaction Analysis

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

ENGEO prepared this preliminary geotechnical exploration for preliminary design of the Burroughs Property in Oakley, California. WestGate Ventures Fund III, LLC authorized ENGEO to conduct the following scope of services:

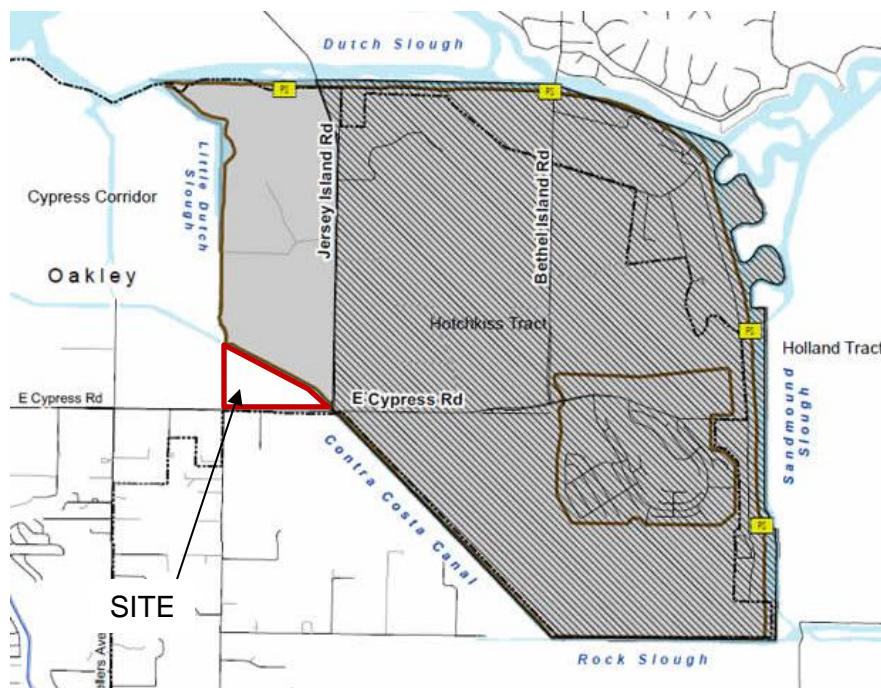
- Subsurface field exploration
- Soil laboratory testing
- Data analysis and conclusions
- Report preparation

This report was prepared for the exclusive use of our client and their consultants for design of this project. In the event that any changes are made in the character, design or layout of the development, we must be contacted to review the conclusions and recommendations contained in this report to evaluate whether modifications are recommended. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 PROJECT LOCATION

The site is located in Oakley, California, northeast of the intersection of East Cypress Road and Knightsen Avenue. The Site is bound by Cypress Road to the south, the Delaney Park residential development to the west, and by the former Contra Costa Canal alignment to the northeast. This site is located adjacent to the floodplain protected by Reclamation District No. 799 (RD 799), as shown in Exhibit 1.2-1, below.

EXHIBIT 1.2-1: RD 799 Protection Limits



1.3 PROJECT DESCRIPTION

Based on conversations with you and the plans provided, it is our understanding that the project will consist of developing the approximately 44.9 acre site into a residential community consisting of approximately 186 one- to two-story single family homes. Site improvements will include construction of roadways, underground utilities, and associated improvements. Structural loads have not yet been determined and we assume that all structural loads will be representative of this type of construction.

In addition, it is our understanding that the property is at least partially located within the 100-year floodplain, according to the Federal Emergency Management Agency (FEMA), as mapped in the Flood Insurance Rate Map (FIRM), as shown in Section 3.5, below. The site may therefore require flood protection to remove the site from the 100-year floodplain. Based on our conversations with you, it is our understanding that the preferred alternative to remove the site from the floodplain is to construct a setback levee around the perimeter of the site, as necessary, to prevent inundation during a design flood event.

Finally, based on our conversations with you, it is our understanding that the site civil engineer, Bellecci & Associates, has been in the process of surveying the site. At the time of this report, we have not been provided with the site topography.

2.0 FINDINGS

2.1 FIELD EXPLORATION

Our field exploration included excavating ten test pits and advancing four Cone Penetration Test (CPT) soundings at various locations on the site. We performed our test pit and CPT explorations on November 22, 2019 and December 19, 2019, respectively, as shown on the Site Plan (Figure 2).

The locations of our explorations are approximate and were estimated utilizing GPS-equipped smart phones or pacing from known reference points. They should be considered accurate only to the degree implied by the methods used.

2.1.1 Test Pits

We observed excavation of ten test pits at the locations shown on the Site Plan, Figure 2. An ENGEO representative observed the test pit excavation and logged the subsurface conditions at each location. We retained a rubber tired backhoe to excavate the test pits using a 2-foot-wide bucket and logged the type, location, and uniformity of the underlying soil. The maximum depth penetrated by the test pits was 6 ½ feet below the existing surface elevation.

We obtained bulk soil samples from the test pits using hand sampling techniques. The test pit logs present descriptions and graphically depict the subsurface conditions encountered.

We used the field logs to develop the report logs in Appendix A. The logs depict subsurface conditions at the exploration locations for the date of exploration; however, subsurface conditions may vary with time.

2.1.2 Cone Penetration Tests

We retained a CPT rig to push the cone penetrometer to a maximum depth of approximately 50 feet. The CPT has a 20-ton compression-type cone with a 15-square-centimeter (cm²) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm². The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with ASTM D-5778. Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and pore pressure (U) (Robertson and Campanella, 1988). CPT logs are presented in Appendix C.

2.2 SITE BACKGROUND

The site has been historically used for cultivation of row crops beginning prior to 1939. Based on our review of historical aerial photos. It appears that sometime between July 2003 and June 2008, the row crops were no longer being actively cultivated and the fields have since been left fallow. Since approximately June 2008 and September 2008, it appears that site has been used for livestock grazing site and continues to the day. A homestead appeared to have existed prior to 2009 in the central portion of the site.

2.3 GEOLOGY AND SEISMICITY

2.3.1 Geology

The site is located within the Great Valley Geomorphic Province of California within the Sacramento Delta. The Great Valley province is a north to south, elongate structural trough that has been, and is currently being, filled in with sediments primarily derived from the Sierra Nevada Province to the east. Minor amounts of sediments may be derived from the Coast Range Province to the west. Surface sediments are composed of eolian, tidal wetland, lacustrine, and alluvial deposits. Surface and near surface sediments across the site generally consists of unconsolidated material.

Atwater (1982) mapped the site as containing soils from the Modesto Formation and alluvium derived from the Marsh Creek alluvial fan. The Modesto Formation typically consists of interbedded clays, silts, and sand with minor amounts of gravel. The Marsh Creek alluvial fan deposits typically consist of silts and clays. In addition, Atwater mapped the central portion of the site as eolian deposits, which generally consist of wind-blown sands.

Diblee (2006) mapped the site as generally containing surficial sediments related to the San Joaquin Delta. This site is generally mapped as quaternary surficial clay deposits, overlain by a quaternary sand dune deposit within the central portion of the site. In addition, Diblee maps the area within the vicinity of the former Contra Costa Canal and the western berm separating the Burroughs property and the Delaney Park property as artificial fill.

2.3.2 Seismicity

The site is located in an area of moderate seismicity. No known active faults cross the property and the site is not located within an Alquist-Priolo Earthquake Fault Zone; however, large (>Mw7) earthquakes have historically occurred in the Bay Area to the west and along the margins of the Central Valley, and many earthquakes of low magnitude occur every year. The two nearest earthquake faults zoned as active by the State of California

Geological Survey are the Great Valley fault, located about 10 miles from the site. The Great Valley fault is a blind thrust fault with no known surface expression; the postulated fault location has been based on historical regional seismic activity and isolated subsurface information.

Portions of the Great Valley fault are considered seismically active thrust faults; however, since the Great Valley fault segments are not known to extend to the ground surface, the State of California has not defined Earthquake Fault Hazard Zones around the postulated traces. The Great Valley fault is considered capable of causing significant ground shaking at the site, but the recurrence interval is believed longer than for more distant, strike-slip faults. Recent studies suggest that this boundary fault may have been the cause of the Vacaville-Winters earthquake sequence of April 1892 (Eaton, 1986; Wong and Biggar, 1989; Moores and others, 1991). Further seismic activity can be expected to continue along the western margin of the Central Valley, and as with all projects in the area, the development should be designed to accommodate strong earthquake ground shaking

Additional nearby active faults are summarized in Table 2.3.2-1, Figure 4 shows the approximate location of these faults in relation to the project site.

TABLE 2.3.2-1: Active Faults Capable of Producing Significant Ground Shaking at the Site

FAULT NAME	DISTANCE FROM SITE (MILES)	DIRECTION FROM SITE	MAXIMUM MOMENT MAGNITUDE
Greenville Connected	12	west	7.0
Mount Diablo Thrust	19.5	southwest	6.7
Calaveras	22.5	southwest	7.0
Hayward-Rodgers Creek	31	west	7.0
San Andreas	50	west	8.0

2.4 SURFACE CONDITIONS

- In general, the site drains from the southwest corner of the site to the northeast border. The surface is relatively flat with the exception of the area around the previous residence. Here the elevation rises several feet at an approximate slope of 5:1.
- The site is covered by a moderate growth of grasses and weeds.
- Several shallow drainage ditches (1 to 2 feet in depth) cross the site.
- A concrete slab to a previous structure remains on the slightly elevated area of the site in the central portion of the site near the main entrance. A well and storage tank are in close proximity to the slab. Cattel pens and livestock equipment are located nearby.
- Large trees are located around the concrete slab and in its vicinity.

Please refer to the Site Plan, Figure 2, for more information on site features.

2.5 SUBSURFACE CONDITIONS

The site generally consists of hard, lean to fat clays, between 1 and 10 feet thick at the surface of the site, with the exception of the elevated central portion of the site, which generally consists of loose sand. These surficial layers are generally underlain by loose to medium dense sand to a depth of approximately 20 feet below the ground surface, across the site. Below the loose sand deposit, our CPTs encountered interbedded layers of dense sand and fine-grained deposits to the maximum depth of the explorations, approximately 50 feet below grade.

Laboratory testing indicates that the surficial clays have a Plasticity Index of approximately 51. These clays are expected to have a very high expansion potential when subjected to moisture variation based on season and irrigation.

Consult the Site Plan and exploration logs for specific subsurface conditions at each location. We include our exploration logs in Appendix A. The logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System. The logs graphically depict the subsurface conditions encountered at the time of the exploration.

2.6 GROUNDWATER CONDITIONS

We observed static groundwater in two of our test pits. We summarize our observations in the table below:

TABLE 2.6-1: Groundwater Observations

EXPLORATION LOCATION	APPROX. DEPTH TO GROUNDWATER (FEET)
TP-5	5.5
TP-8	4

Fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation practice, and other factors not evident at the time measurements were made.

2.7 LABORATORY TESTING

We performed laboratory tests on selected soil samples to evaluate their engineering properties. For this project, we performed organic content, plasticity index, and grain size analysis testing. Laboratory data is included in Appendix B.

3.0 GEOLOGICAL HAZARDS

The primary geotechnical concerns that could affect development on the site are undocumented fill, shallow groundwater, expansive soil, and potentially liquefiable sands. We summarize our conclusions below.

3.1 UNDOCUMENTED FILL

Undocumented fill was identified within the vicinity of the abandoned residence foundation during our field exploration. Additionally, undocumented fill may be found in the vicinity of the

abandoned gas well and the berms adjacent to the drainage ditches that are present on the site as indicated by Figure 2. The extent of this fill is expected to vary and may be better delineated during a design level geotechnical report.

Undocumented fills can undergo excessive settlement, especially under new fill or building loads. We recommend complete removal of this material to competent native soils. This material may be placed back as engineered fill.

3.2 EXPANSIVE SOIL

Our subsurface exploration indicates that portions of the existing surface soil likely has a high shrink/swell potential with variations in moisture content. Expansive soil changes in volume with changes in moisture. They can shrink or swell and cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soil can be reduced by: (1) using a rigid mat foundation that is designed to resist the settlement and heave of expansive soil, (2) deepening the foundations to below the zone of moisture fluctuation, i.e., by using deep footings or drilled piers, and/or (3) using mat or footings at normal shallow depths but bottomed on a layer of select fill having a low expansion potential.

Successful performance of structures on expansive soil requires special attention during construction. It is imperative that exposed soil be kept moist prior to placement of concrete for foundation construction. It is extremely difficult to remoisturize clayey soil without excavation, moisture conditioning, and recompaction.

3.3 ORGANIC SOILS

We used ASTM D2974 to determine organic content of a representative sample for the Property from Test Pit 8 at an approximate depth of 3 feet below the ground surface. The results of our testing indicate an organic content of 3.5 percent by percent of weight, which classifies the soil as non-organic. As soil conditions can vary across the site laterally and vertically, additional testing may be required during a design level geotechnical report to determine if organic soils exist within the vicinity of the project; however, on a preliminary planning basis, we consider the risk of highly organic soils on site to be relatively low.

3.4 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, and ground lurching. The following sections present a discussion of these hazards as they apply to the site. Based on topographic and lithologic data, the risk of regional subsidence or uplift, lateral spreading, landslides, tsunamis, flooding or seiches is considered low to negligible at the site.

3.4.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

3.4.2 [Ground Shaking](#)

An earthquake of moderate to high magnitude generated within the region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, structures should be designed using sound engineering judgment and the 2019 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

3.4.3 [Liquefaction](#)

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands. Empirical evidence indicates that loose to medium-dense gravels, silty sands, and low- to moderate plasticity silts and clays may be susceptible to liquefaction. In addition, sensitive high-plasticity soils may be susceptible to significant strength loss (cyclic softening) as a result of significant cyclic loading. The results of our liquefaction analysis are presented in Appendix D. We summarize the results of our liquefaction analysis below.

3.4.3.1 [Liquefaction Analysis](#)

We evaluated the liquefaction potential of the site soil with CPT data using methods published by Bounlanger and Idriss (2014). We estimated the Cyclic Stress Ratio (CSR) for a Peak Ground Acceleration (PGA) value of 0.51g, which is based on the 200-year return period seismic event. We also used a moment magnitude (M_w) of 6.70 in our analysis, which corresponds to the characteristic magnitude for the Great Valley 5 fault based on the United States Geological Survey (USGS) national seismic hazard maps. Because groundwater was measured at each CPT location using pore pressure dissipation tests, we assumed that the groundwater elevation was equal to the depth measured at the time of our exploration.

The results of our liquefaction analyses indicate the relatively continuous sand layer between the surficial clays and approximately 20 feet below the ground surface may be potentially liquefiable. Consequences of liquefaction include surface disruption, settlement, and lateral deformation of levee embankments. Given the relative thickness of non-liquefiable surface soil and potentially liquefiable soil, the risk of surface disruption is low to moderate for most of the site, but may be moderate to high in the eastern portion of the site.

3.4.3.2 [Liquefaction-Induced Settlement and Lateral Spreading](#)

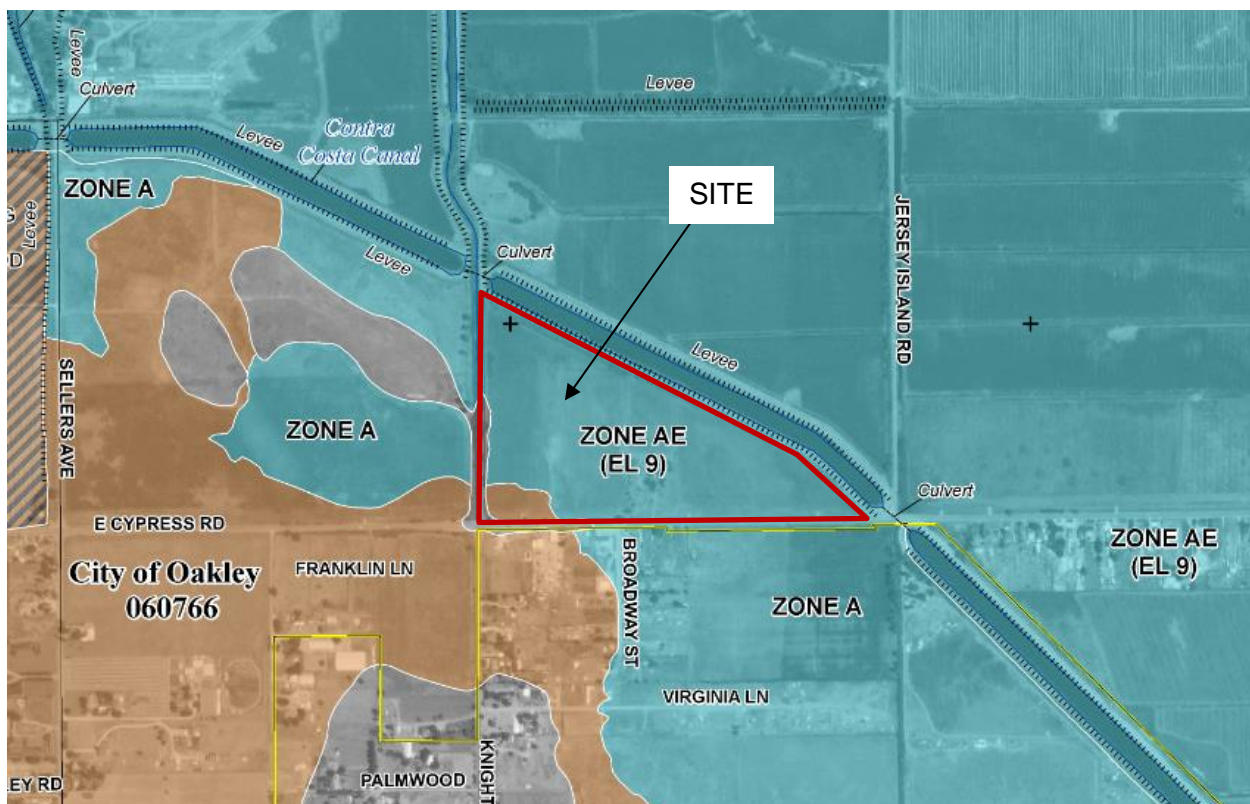
Based on the results of our analysis, we estimate up to approximately 4 inches of total settlement from liquefaction during a design-level seismic event. Given the depth of the

potentially liquefiable soils, and the fact that the proposed setback levees are to be constructed inland of the existing river channel, and will not be exposed to a nearby free face, we do not anticipate significant lateral spreading due to a seismic event.

3.5 FLOODING

Based on review of the FEMA flood zone map for the subject site, the majority of the site is designated as Flood Zone AE, an area with flood risk due to lack of adequate levee protection, as shown in Exhibit 3.5-1, below. A portion of the southwest area of the site is designated as Flood Zone X, which is defined as an area with 0.2 percent Annual Flood Hazard, Areas of 0.01 percent annual flood average depth less than one foot or with drainage areas less than one square mile.

EXHIBIT 3.5-1: FEMA Flood Insurance Rate Map of the Burroughs Property



We provide preliminary levee recommendations in Section 4. Design level recommendations should be addressed in a design level geotechnical report.

3.6 SHALLOW GROUNDWATER

Groundwater was encountered as shallow as four feet below the ground surface during our test pit explorations, and was interpreted as shallow as 5½ feet during our CPT explorations. Shallow groundwater can have adverse effects on construction schedules and property damage. The effects can include:

1. Impede grading activities.

2. Cause moisture damage to sensitive floor coverings.
3. Transmit moisture vapor through slabs causing excessive mold/mildew build-up, fogging of windows, and damage to computers and other sensitive equipment.
4. Cause premature pavement failure if hydrostatic pressures build up beneath the pavement section.

Dewatering wells may be needed during installation of underground utilities or during grading activities.

3.7 2019 CBC SEISMIC DESIGN PARAMETERS

The 2019 CBC utilizes design criteria set forth in the ASCE 7-16 Standard. Based on the subsurface conditions encountered, we characterized the site as Site Class D in accordance with the 2019 CBC. We provide the 2019 CBC seismic design parameters in Table 3.7-1 below, which include design spectral response acceleration parameters based on the mapped Risk-Targeted Maximum Considered Earthquake (MCER) spectral response acceleration parameters.

TABLE 3.7-1: 2019 CBC Seismic Design Parameters, Latitude: 37.991804 Longitude: -121.664464

PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	1.24
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.44
Site Coefficient, F_A	1.00
Site Coefficient, F_V	See Section 11.4.8 (ASCE 7-16)
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	1.24
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1} (g)	See Section 11.4.8 (ASCE 7-16)
Design Spectral Response Acceleration at Short Periods, S_{DS} (g)	0.83
Design Spectral Response Acceleration at 1-second Period, S_{D1} (g)	See Section 11.4.8 (ASCE 7-16)
Mapped MCE Geometric Mean (MCE_G) Peak Ground Acceleration, PGA (g)	0.51
Site Coefficient, F_{PGA}	1.10
MCE_G Peak Ground Acceleration adjusted for Site Class effects, PGA_M (g)	0.56
Long period transition-period, T_L	8 sec

Refer to ACE 7-16 Section 11.4.8 for code minimums based on proposed structure period. Site-specific response analysis may be required if exemptions do not apply.

4.0 PRELIMINARY LEEVE RECOMMENDATIONS

Based on modern guidance on levee design and construction, we have provided preliminary recommendations for the preparation of a design-level geotechnical evaluation of the proposed setback levee alignment. Based on our preliminary evaluation, the primary geotechnical concern that should be considered is underseepage of the proposed levee prism. Based on our subsurface exploration, portions of the proposed levee may be underlain by relatively high

permeability soils, which may lead to underseepage instability during high water events. We therefore consider that some remediation will be required to reduce the risk of underseepage, as discussed in Section 4.3, below.

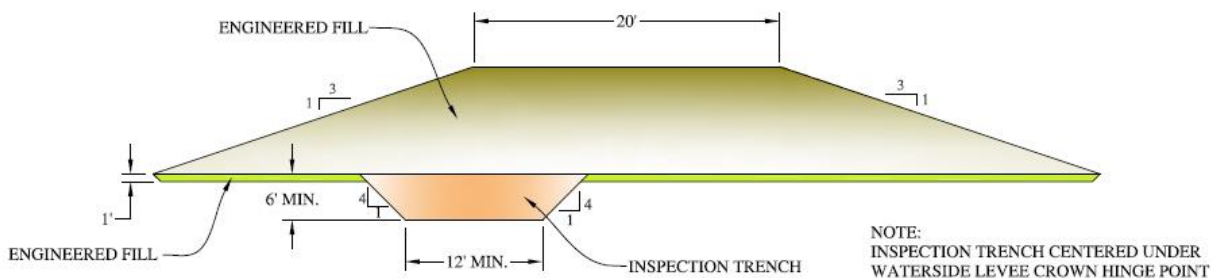
We should note that we do not have accurate topographic data from the site, and can therefore only make preliminary assessments of the potential underseepage conditions.

4.1 LEVEE GEOMETRY AND MATERIALS

Based on local regulatory agencies, including the Central Valley Flood Protection Board and the Contra Costa County Flood Control District, minimum dimensions required for new levee systems consist of a 3:1 (horizontal:vertical) slope for both the waterside and landside levee slopes, and a minimum crown width of 20 feet. The minimum crown elevation of the levee is the design water surface elevation, in this case the 100-year water surface elevation (9 feet, NAVD88) plus 3 feet, for a minimum top of levee of 12 feet, NAVD88.

Prior to construction of a new levee over 6 feet in height, an inspection trench into the levee foundation soils is required to be excavated below the levee to a minimum depth of 6 feet, per the California Code of Regulations (Title 23). For any levee below 6 feet in height, the inspection trench need only extend as deep as the height of the levee in that area (e.g. a 4-foot levee would only need a 4-foot deep trench). The inspection trench shall have a minimum bottom depth of 12 feet, and side slopes of 1:4 (horizontal:vertical), and shall be centered under the waterside hinge point of the levee crown. The purpose of this inspection trench is to confirm the subsurface conditions interpreted during the exploration phase of the project and to identify potentially hazardous shallow seepage layers that may have been missed during the levee evaluation.

EXHIBIT 4.1-1: Typical Setback Levee Details



In general, levee materials should consist of low permeability, low to moderately plastic soils. Based on guidance from the US Army Corps of Engineers (USACE) Sacramento District, new levees should be constructed of material that has:

- At least 20 percent fines (material passing the #200 sieve).
- 100 percent passing the 2-inch sieve.
- A Plasticity Index of at least 8 and less than 40.
- A maximum Liquid Limit of 45.

If not enough material matching the above specifications is available on site, then the civil engineer should consider: (1) the levees be constructed with imported soil matching the above specifications, or (2) the levees be constructed of on-site sandy soils, and the landside slope of

the proposed levee be constructed no steeper than 5:1 (horizontal:vertical) to prevent through seepage instability.

In addition, we recommend that the maximum organic content of the levee material be limited to no more than 3 percent by weight. Based on our preliminary evaluation, it is our opinion that the majority of the existing surficial soils should meet the organic soils requirements. Additional sampling should be performed during the design level geotechnical evaluation to confirm that potential borrow sources have an organic content of less than 3 percent.

4.2 SOIL SAMPLING AND LABORATORY TESTING

The standard of practice for levee design in the Central Valley requires a much higher resolution of explorations to adequately characterize the subsurface conditions along a particular levee alignment. In general, we recommend performing a series of explorations along the levee alignment at an interval of approximately 500 to 1,000 feet to characterize the subsurface conditions below the levee alignment. We recommend one exploration below the proposed levee crown, one near either the landside or waterside levee toe, and one landward of the levee toe. The approximate length of the proposed setback levee alignment is approximately 6,400 feet, which means that we should anticipate between 7 and 13 exploration clusters along the levee alignment.

In general, we recommend a combination of borings and CPTs to adequately characterize the subsurface conditions, at a minimum of one boring to every 5 to 10 CPTs. Explorations within the vicinity of the levee crown or levee toe should extend to at least 3 times the levee height.

Laboratory testing of soil samples recovered should adequately characterize the seepage and strength material properties of the subsurface soils. We recommend permeability testing, unconsolidated undrained triaxial testing, monotonic simple shear, grain size distribution, Atterberg limits, and moisture density testing, as appropriate.

4.3 LEVEE SEEPAGE ANALYSIS

Underseepage occurs when hydraulic head forces water to seep through the foundation soils. A hydraulic gradient is the drop in head over a given distance; an exit gradient is the vertical hydraulic gradient of the modeled condition at or near the landside toe. As discussed in the Subsurface Conditions section, we encountered a relatively shallow blanketing layer consisting of fine-grained soils. In addition, we encountered a relatively thick sand layer below this blanketing layer. If loaded from a high-water event, the hydraulic fluid pressure within this sand layer may develop significant hydrostatic pressure at the levee toe, creating higher than acceptable exit gradients at the setback levee toe. We recommend performing a seepage analysis to evaluate the seepage pressure distribution landward of the proposed levee alignment.

Based on our preliminary evaluation, we anticipate that some remediation will be required at select locations for underseepage effects. We recommend considering a toe and blanket drain on the landside of the proposed seepage berm to intercept and reduce the seepage pressures on the landside toe of the levee. The toe drain should be designed to adequately intercept seepage flows, and convey underseepage flows away from the toe of the proposed levee. The civil engineer should anticipate drainage conditions associated with the toe drain, such as conveyance of the intercepted seepage flow away from the levee.

As an alternative, underseepage may be mitigated with the installation of a seepage berm on the landside of the levee, which will serve to both buttress the levee slopes during hydraulic loads, and extend the length of the seepage path under the levee, reducing the potential erosion of the levee subgrade. For preliminary planning purposes, we recommend considering a berm length of at least four times the levee height.

Through seepage is a condition that occurs when the upstream water stage in a cross section rises above the landside embankment toe elevation, and the phreatic water surface through the levee embankment daylights onto the landside slope. This can cause localized instability, unraveling of the landside levee slope soils, and, potentially, progressive mobilization of embankment soils causing levee failure. In general, this effect will be mitigated by the utilization of select levee embankment fill, or flattening the landside slopes to 5:1; however, additional analysis may be required.

4.4 LEVEE SLOPE STABILITY ANALYSIS

Based on guidance from the USACE and DWR, evaluation of the proposed set-back levees should include multiple loading conditions. Conditions to be analyzed include post-construction, rapid drawdown, steady seepage from the design water elevation, steady seepage from the hydraulic top of levee, and seismic stability (seismic vulnerability). Each of the proposed failure conditions is described below.

During construction, loading placement creates an undrained condition for impervious foundation soils; i.e., the soil cannot drain faster than the soil is loaded. As discussed in the subsurface conditions, we encountered near-surface fine-grained soils and medium dense sands. Based on the subsurface conditions and assumed loading conditions, we believe the risk for post-construction instability is low and should be evaluated based on the undrained soil properties prior to placement of the levee fill.

Rapid drawdown occurs when a prolonged flood stage saturates the upstream embankment slope and then falls faster than the soil can drain. This condition incorporates a full-flood stage flood elevation, and in the case of setback levees, will draw down to the landside adjacent ground surface elevation. Design elevations have yet to be determined; however, on a preliminary basis and the inferred subsurface conditions, we anticipate the risk to be low to moderate.

Steady seepage occurs after saturation of the embankment and foundation soils during a particular water surface elevation. In the case of the design water surface elevation, the embankment and foundation soils are saturated to the pore water pressures associated with the design water surface elevation. In the case of the hydraulic top of levee, the pore pressures are modeled at a pressure associated with a water surface beyond the design water surface elevation, specifically to evaluate the fragility of the levee system with water surfaces beyond the anticipated design water surface. These conditions include fully developed pore pressures within the embankment and foundation soils, and typically represent the most critical hydraulic loading anticipated for the proposed levees.

Finally, effects of ground shaking should be considered, which include horizontal ground acceleration and residual soil strengths. Based on the proximity to active faults along the valley margin and bay area, and the subsurface conditions encountered during our preliminary evaluation, we anticipate the risk for seismic instability to be low to moderate. In addition,

based on the susceptibility of the subsurface soils to liquefaction and cyclic softening, we anticipate moderate susceptibility to post-liquefaction cases considering residual strengths.

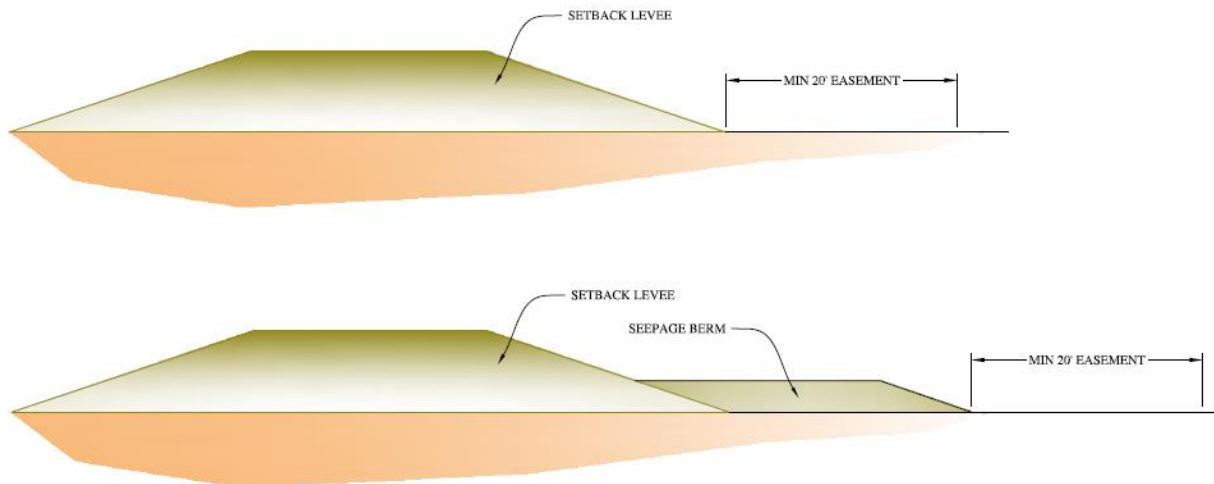
4.5 CONSOLIDATION SETTLEMENT

Consolidation settlement is generally driven by an increase in overburden pressure (such as weight associated with the construction/placement of levee fill or other levee improvements) over a saturated, soft, fine-grained, normally consolidated soil deposit (OCR close or equal to 1.0). Based on our review of the soil conditions, our CPTs indicate potentially soft soils within the northwestern portion of the site, with an estimated OCR value of approximately 2.0. Based on anticipated loading from levee improvements, preliminary estimates of consolidation settlement are on the order approximately 6 inches. We recommend that additional analysis be performed as part of the design-level evaluation and anticipated consolidation settlements be accounted for in the design of the minimum top of levee.

4.6 LEVEE EASEMENTS

Prior to development of a vesting tentative map, we recommend an evaluation of the necessary levee easements associated with the construction of a new levee system. In general, provided the levee geometry is in conformance with the proposed levee geometry outlined in Section 4.1, a levee will require at least a 20-foot easement from the levee toe or the inboard limit of the proposed levee improvement, whichever is greater, as shown in Exhibit 4.6-1 below. These setbacks are established to provide access from local regulatory agencies to provide levee monitoring and flood fighting abilities during a high-water event.

EXHIBIT 4.6-1: Required Easements



5.0 ADDITIONAL RECOMMENDATIONS

Based upon our findings and assuming that the project proceeds into the next phase of development, additional geotechnical studies will be necessary. These studies will include:

- A geotechnical exploration and report for the proposed development. The site exploration should include exploratory borings, **and** additional cone penetration tests and test pits, as appropriate. The exploration is necessary to characterize site-specific subsurface

conditions, collect soil samples for laboratory analysis, refine the liquefaction potential of subsurface soils, and determine site-specific recommendations for construction.

- A review of final construction plans and specifications, including grading plans, foundation plans and calculations for conformance with our recommendations.

Although these studies were not included in our current scope of services, we believe that they are important in expediting approval by governing agencies and achieving cost-effective construction. We will be pleased to provide an estimate for these additional services once final plans are available.

6.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents geotechnical recommendations for design of the improvements discussed in Section 1.3 for the Burroughs Property project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the owner to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty is expressed or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data are representative of the actual subsurface conditions across the site. Considering possible underground variability of soil and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, ENGEО must be notified immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, the proper regulatory officials must be notified immediately.

This document must not be subject to unauthorized reuse, that is, reusing without written authorization of ENGEО. Such authorization is essential because it requires ENGEО to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEО's documents. Therefore, ENGEО must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEО's scope of services does not include

on-site construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

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FIGURES

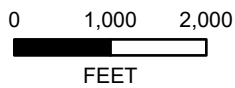
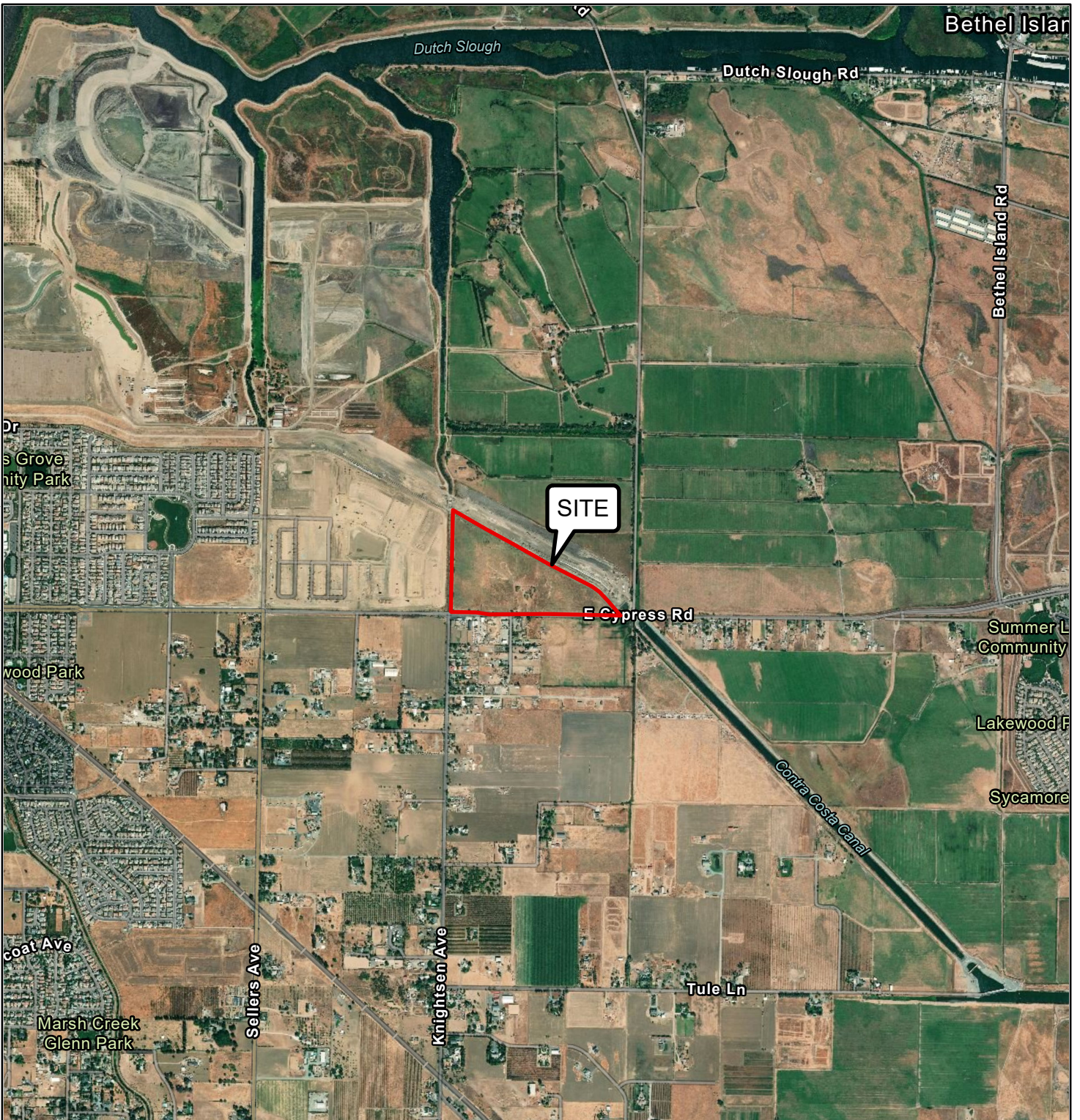
FIGURE 1: Vicinity Map

FIGURE 2: Site Plan

FIGURE 3: Regional Geologic Map

FIGURE 4: Regional Faulting and Seismicity Map

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BASEMAP SOURCE: ESRI MAPPING SERVICE 2017



VICINITY MAP
BURROUGHS PROPERTY
OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000

SCALE: AS SHOWN

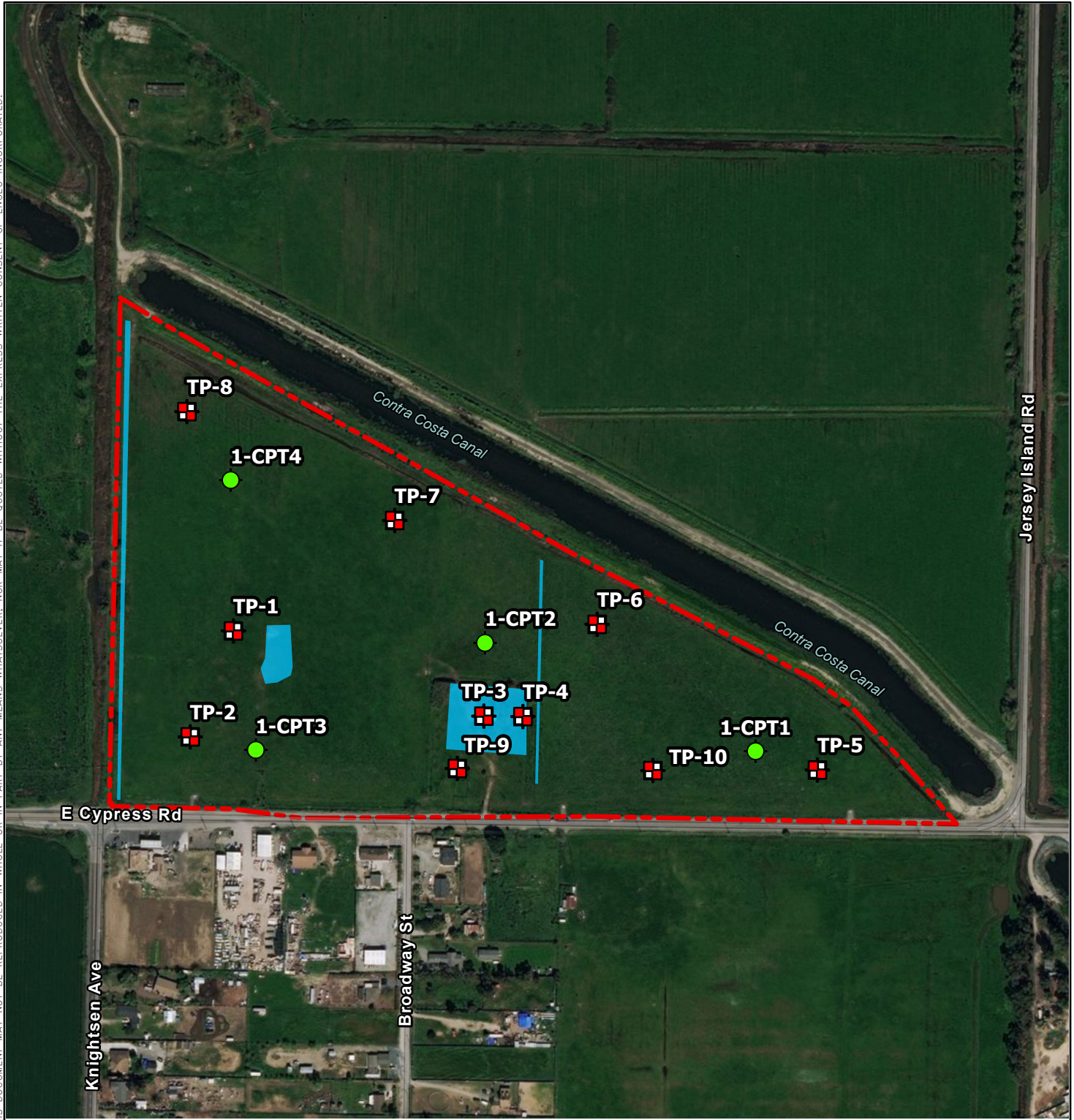
DRAWN BY: QRL

CHECKED BY: CAC

FIGURE NO.

1

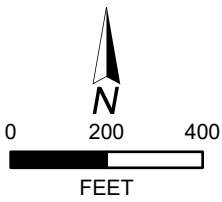
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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PROJECT SITE
- UNDOCUMENTED FILL / DISTURBED SOIL
- TEST PIT (ENGEO, 2019)
- CPT (ENGEO, 2019)



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

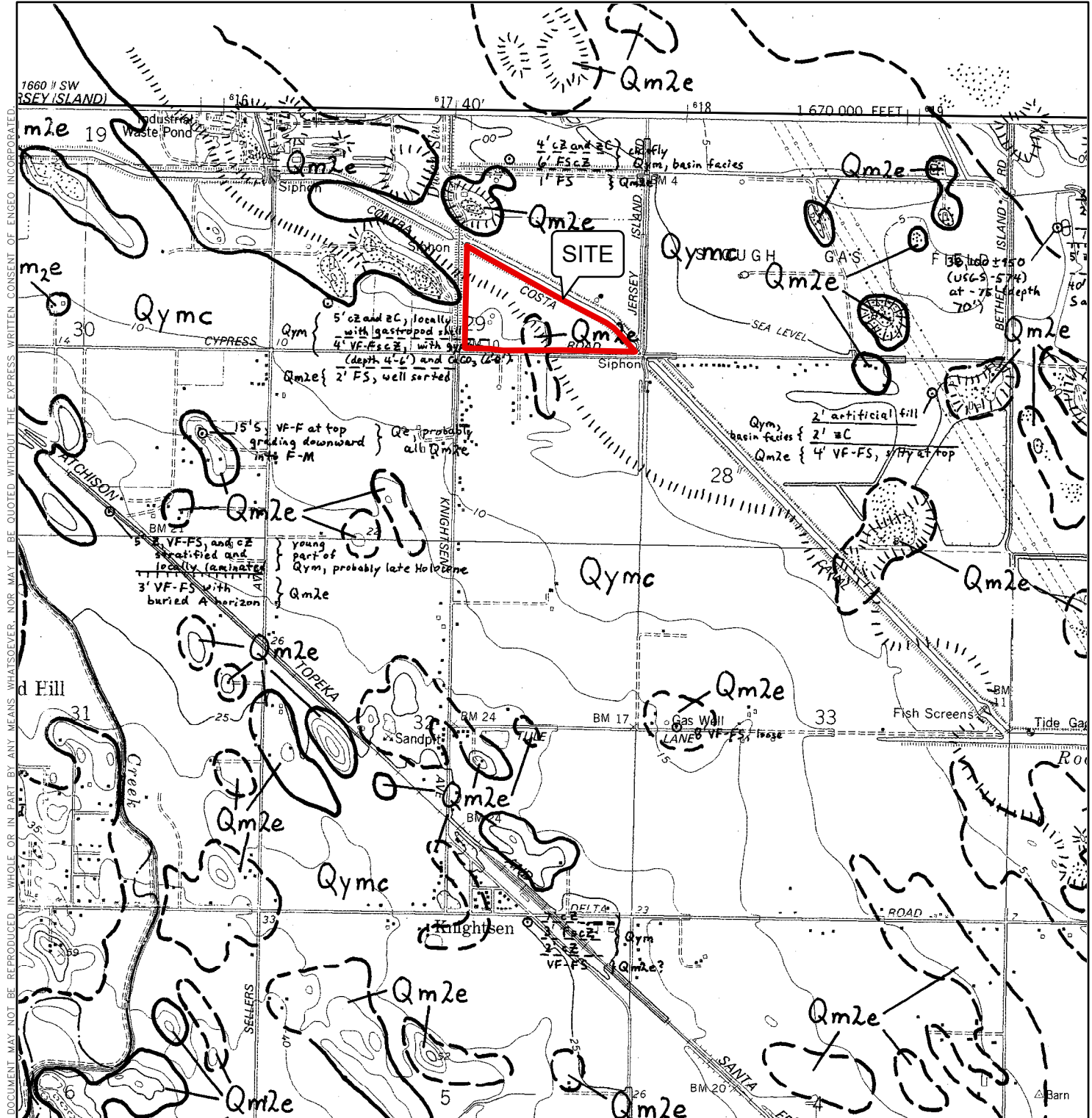


SITE PLAN
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: CAC

FIGURE NO.
2

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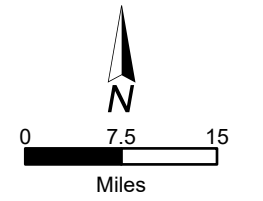
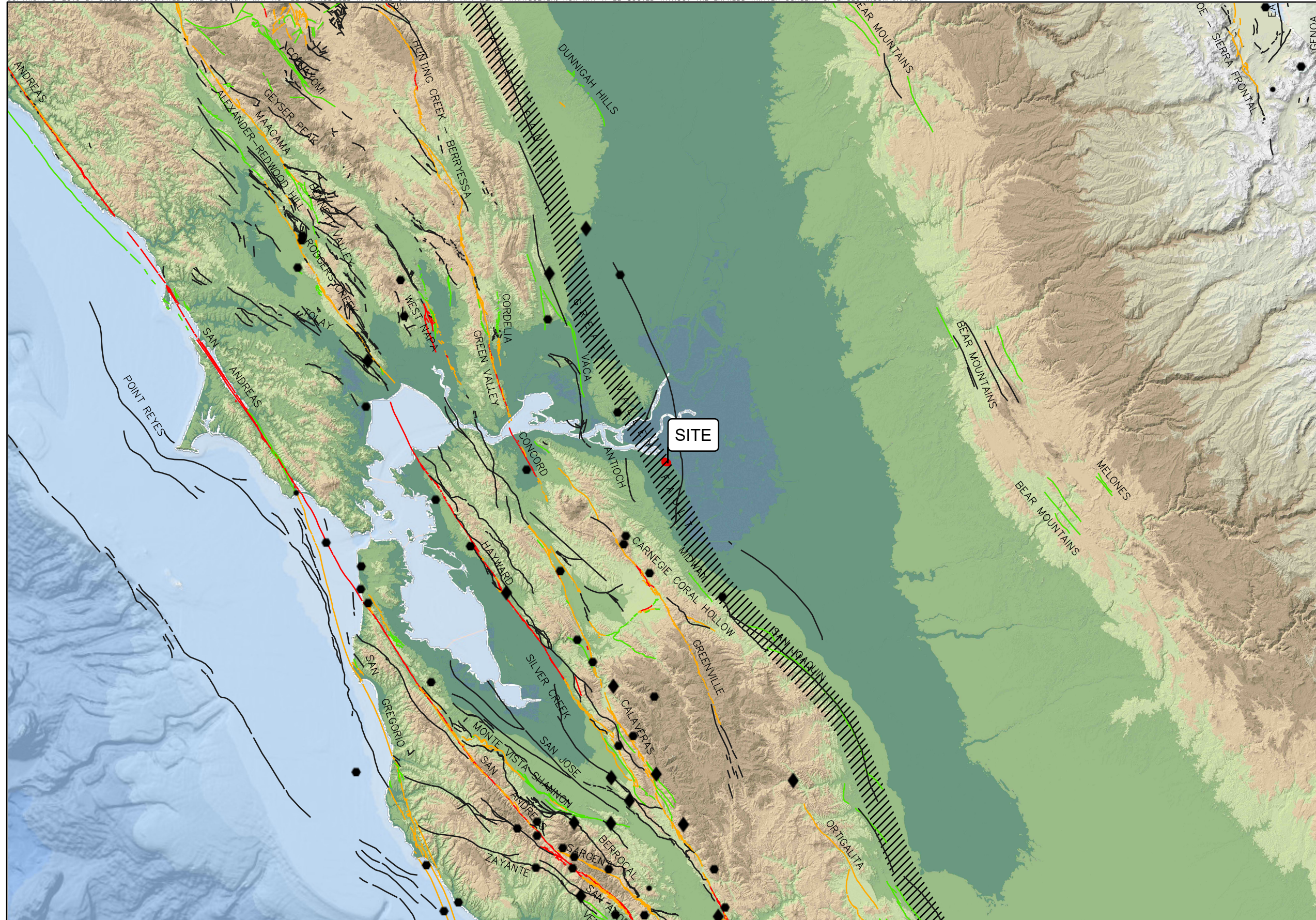
EXPLANATION	
Qm2e	EOLIAN DEPOSITS OF UPPER MEMBER OF PLEISTOCENE
Qymc	YOUNGER ALLUVIUM OF MARSH CREEK AND VICINITY (HOLOCENE AND UPPER PLEISTOCENE)

BASEMAP SOURCE: ATWATER, 1982



REGIONAL GEOLOGIC MAP
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	FIGURE NO.
SCALE: AS SHOWN	3
DRAWN BY: QRL	CHECKED BY: CAC



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

EARTHQUAKE

- ◆ MAGNITUDE 7+
- MAGNITUDE 6-7
- MAGNITUDE 5-6

USGS QUATERNARY FAULTS

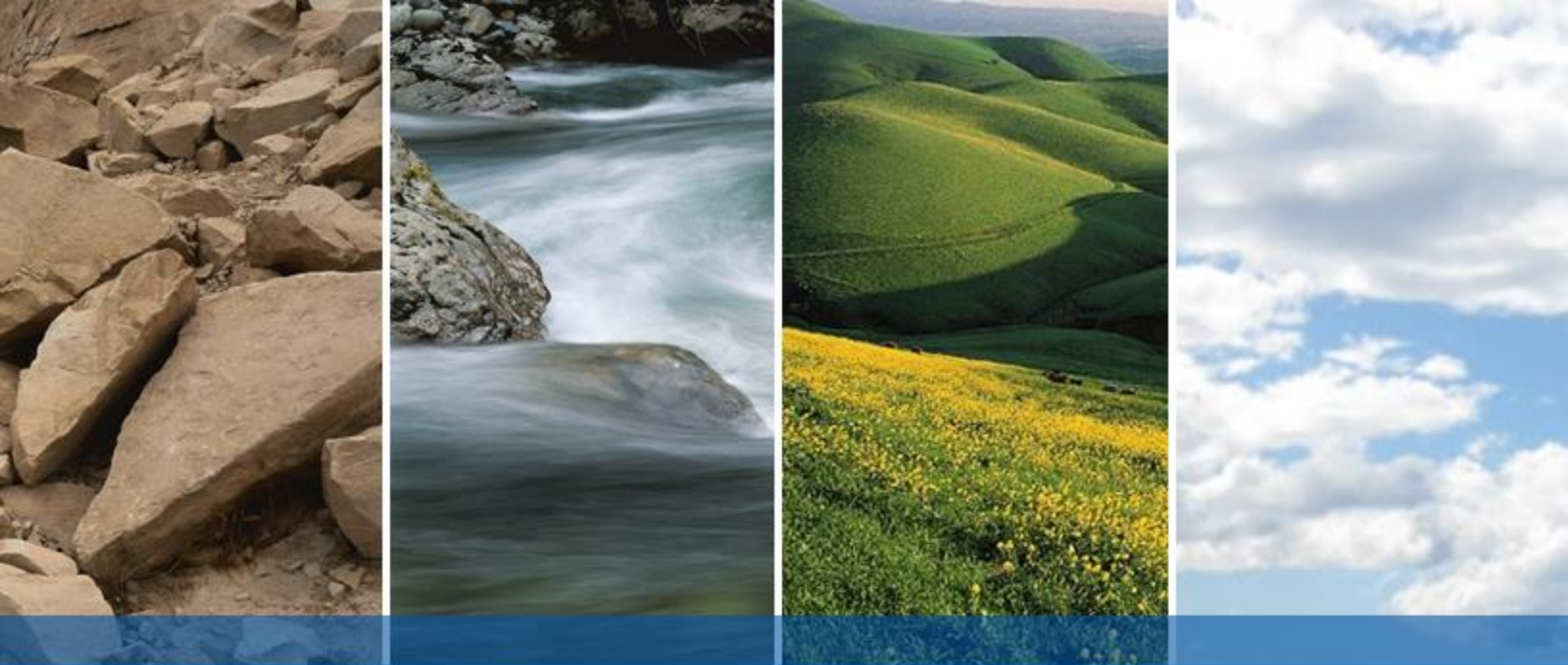
- HISTORICAL
- LATEST QUATERNARY
- LATE QUATERNARY
- UNDIFFERENTIATED QUATERNARY
- //// HISTORIC BLIND THRUST FAULT ZONE

BASE MAP SOURCE
 ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
 COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATA SET (NED) AT 30 METER RESOLUTION
 U.S.G.S. QUATERNARY FAULT DATABASE, 2018
 U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-PRESENT)



REGIONAL FAULTING AND SEISMICITY
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	FIGURE NO.
SCALE: AS SHOWN	4
DRAWN BY: QRL		CHECKED BY: CAC



APPENDIX A
EXPLORATION LOGS



TEST PIT LOG

Burroughs Property
Oakley, California
16836.000.000

Logged By: Jason Sedore
Logged Date: November 22, 2019

Test Pit Number	Depth (feet)	Description
TP-1	0 – 2	FAT CLAY WITH SAND (CH) dark grayish brown, hard, moist, high plasticity, 15-29% fine-grained sand, contains rootlets (POCKET PENETROMETER \geq 4.5 tsf)
	2 – 3	CLAYEY SAND (SC) dark grayish brown, dense, moist, fine-grained sand, 15-25% fines, contains rootlets
	3 – 5	SILTY SAND (SM) gray, medium dense, moist, fine-grained sand, 15-20% fines, contains rootlets
Bottom of test pit at 5 feet. No groundwater encountered.		
TP-2	0 – 5	FAT CLAY (CH) dark gray, hard, moist, high plasticity, <15% fine-grained sand, contains rootlets (POCKET PENETROMETER \geq 4.5 tsf) Grades to olive brown at 2feet Contains iron oxide, increasing moisture at 4feet Bottom of test pit at 5 feet. No groundwater encountered.
TP-3	0 – ½	SILTY SAND (SM) brown, dry, medium dense, fine-grained sand, 12-20% fines, contains rootlets (UNDOCUMENTED FILL)
	½ - 2 ½	POORLY GRADED SAND (SP) yellowish brown, dry, medium dense, fine-grained sand, <5% fines, contains debris (UNDOCUMENTED FILL)
	2 ½ - 4 ½	POORLY GRADED SAND (SP) yellowish brown, dry to moist, loose to medium dense, fine-grained sand, <5% fines (NATIVE)
Bottom of test pit at 4 ½ feet. No groundwater encountered.		
TP-4	0 – 3	SILTY SAND (SM) brown, dry, dense, fine-grained sand, 12-20% fines, contains roots, contains debris (UNDOCUMENTED FILL)
	3 – 5	POORLY GRADED SAND (SP) yellowish brown, moist, fine-grained sand, medium dense, <5% fines (NATIVE)
Bottom of test pit at 5 feet. No groundwater encountered.		



TEST PIT LOG

Burroughs Property
Oakley, California
16836.000.000

Logged By: Jason Sedore
Logged Date: November 22, 2019

Test Pit Number	Depth (feet)	Description
TP-5	0 – 6 ½	<p>FAT CLAY (CH) dark gray, hard, moist, high plasticity, <15% fine-grained sand, contains rootlets from 0-2 feet (POCKET PENETROMETER ≥ 4.5 tsf)</p> <p>Liquid Limit : 73 Plastic Limit 22 Plasticity Index : 51 at 1 foot</p> <p>Contains carbonates from 4-5 feet</p> <p>Wet at 5 ½ feet</p> <p>Bottom of test pit at 6 ½ feet. Groundwater encountered at 5 ½ feet.</p>
TP-6	0 – 1 1 – 2 2 – 3 3 – 5	<p>SANDY LEAN CLAY (CL) dark grayish brown, hard, moist, medium plasticity, 35-45% fine-grained sand, contains rootlets (POCKET PENETROMETER ≥ 4.5 tsf)</p> <p>CLAYEY SAND (SC) gray, dense, moist, fine-grained sand, 25-35% fines, contains rootlets</p> <p>SILTY SAND (SM) yellowish brown, dense, moist, fine-grained sand, 15-25% fines, contains rootlets</p> <p>POORLY GRADED SAND (SP) yellowish brown, medium dense, moist, fine-grained sand, <5% fines, contains rootlets, contains iron oxide</p> <p>Bottom of test pit at 5 feet. No groundwater encountered.</p>
TP-7	0 – 1 1 – 1 ½ 1 ½ - 5	<p>LEAN CLAY (CL) grayish brown, hard, moist, medium plasticity, 5-15% fine grained sand, contains rootlets (POCKET PENETROMETER ≥ 4.5 tsf)</p> <p>CLAYEY SAND (SC) dark gray, moist, very dense, fine-grained sand, 25-30% fines, contains rootlets</p> <p>POORLY GRADED SAND (SP) light gray, medium dense, moist, fine-grained sand, <5% fines, contains rootlets, contains iron oxide</p> <p>Bottom of test pit at 5 feet. No groundwater encountered.</p>

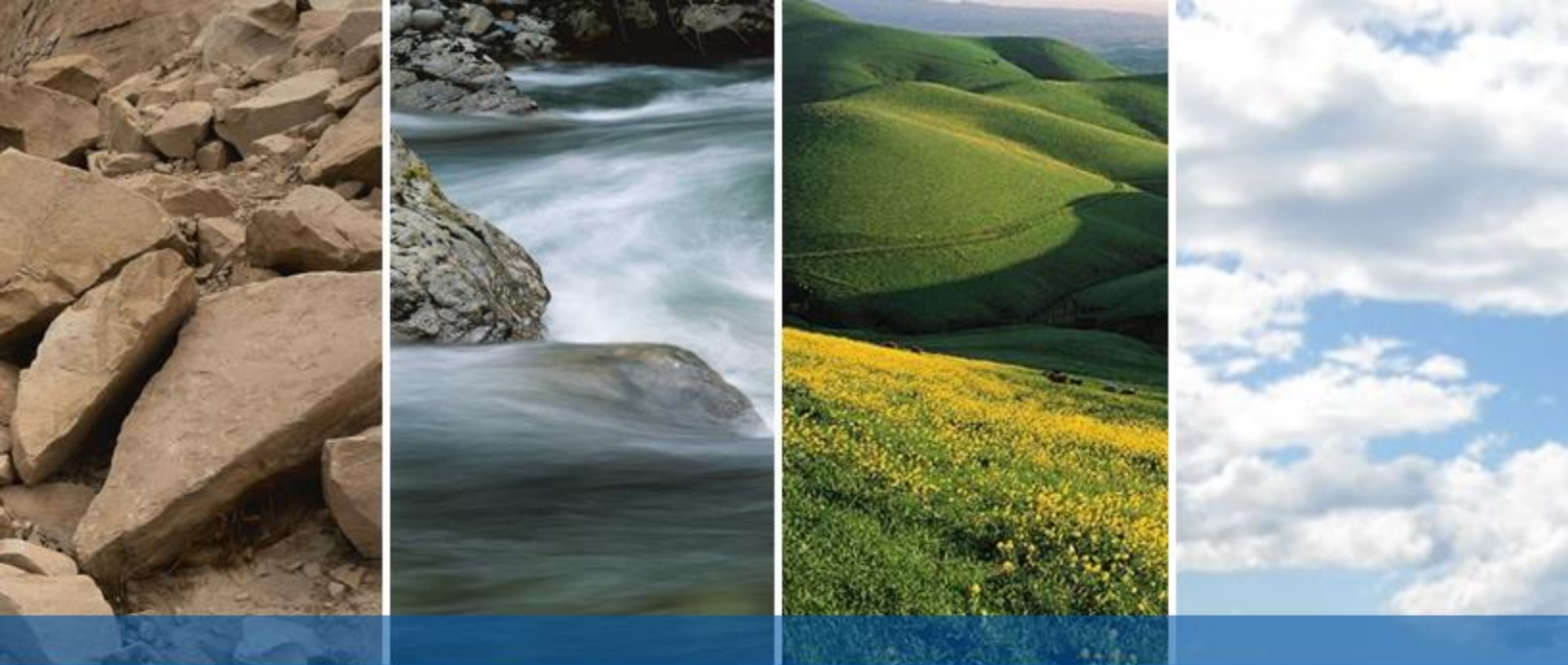


TEST PIT LOG

Burroughs Property
Oakley, California
16836.000.000

Logged By: Jason Sedore
Logged Date: November 22, 2019

Test Pit Number	Depth (feet)	Description
TP-8	0 – 2 ½	FAT CLAY (CH) dark gray mottled with olive brown, hard, moist, high plasticity, <15% fine-grained sand, contains rootlets (POCKET PENETROMETER ≥ 4.5 tsf)
	2 ½ - 4	FAT CLAY (CH) dark gray mottled with yellowish brown, hard, moist, high plasticity, <15% fine-grained sand, contains rootlets, contains snail shells, Organic Content = 3.5% at 3 feet Moisture Content = 32% (POCKET PENETROMETER ≥ 4.5 tsf)
	4 – 5 ½	FAT CLAY (CH) gray, very stiff, wet, high plasticity, <15% fine-grained sand (POCKET PENETROMETER = 3 tsf) Bottom of test pit at 5 ½ feet. Groundwater encountered at 4 feet.
TP-9	0 – 1	SILTY SAND (SM) brown to dark brown, medium dense, dry, fine-grained sand, 12-20% fines, contains rootlets
	1 – 4	POORLY GRADED SAND WITH SILT (SP-SM) brown, medium dense, moist, fine-grained sand, 7-12% fines, contains rootlets Bottom of test pit at 4 feet. No groundwater encountered.
TP-10	0 - 1 ½	SANDY LEAN CLAY (CL) grayish brown, hard, moist, medium plasticity, 30-40% fine-grained sand, contains rootlets
	1 ½ - 2	CLAYEY SAND (SC) gray, dense, moist, fine-grained sand, 20-30% fines, contains rootlets
	2 – 4 ½	SILTY SAND (SM) gray, medium dense, moist, fine-grained sand, 15-20% fines, contains rootlets, contains concretions at 3 feet Bottom of test pit at 4 ½ feet. No groundwater encountered.



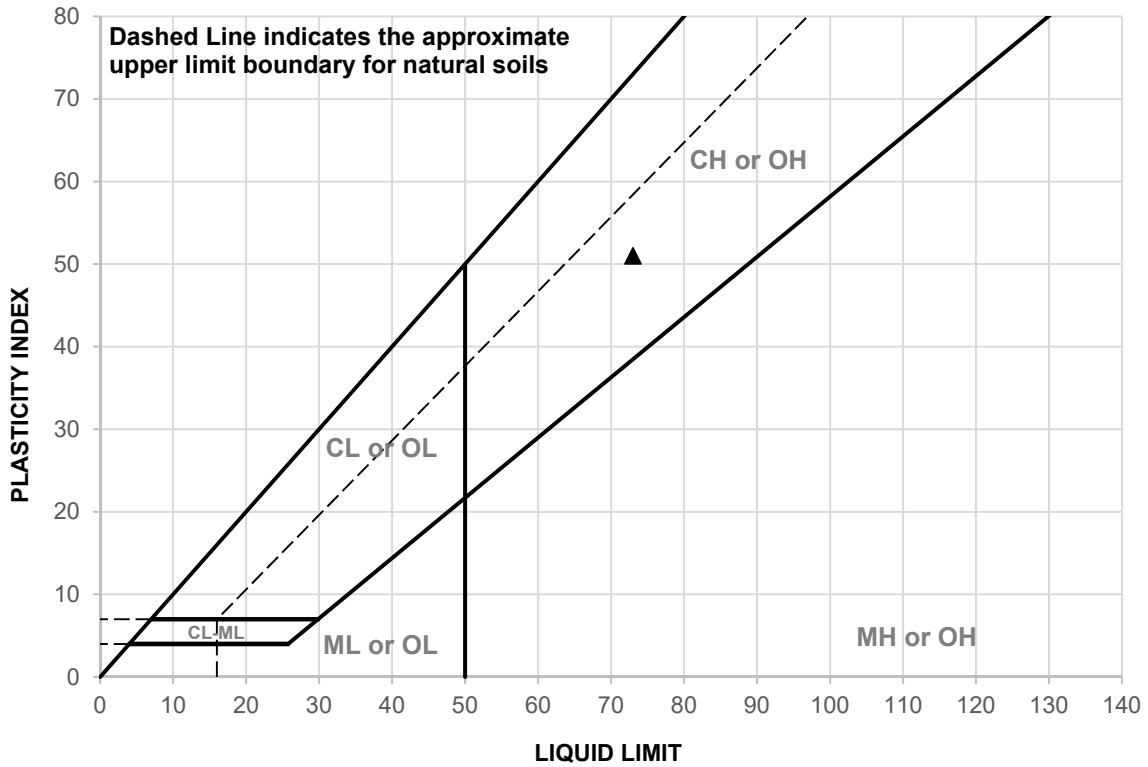
APPENDIX B

LABORATORY TEST DATA

**Liquid and Plastic Limits Test Report
Particle Size Distribution Report
Organic Content Test Report**

LIQUID AND PLASTIC LIMITS TEST REPORT

ASTM D4318



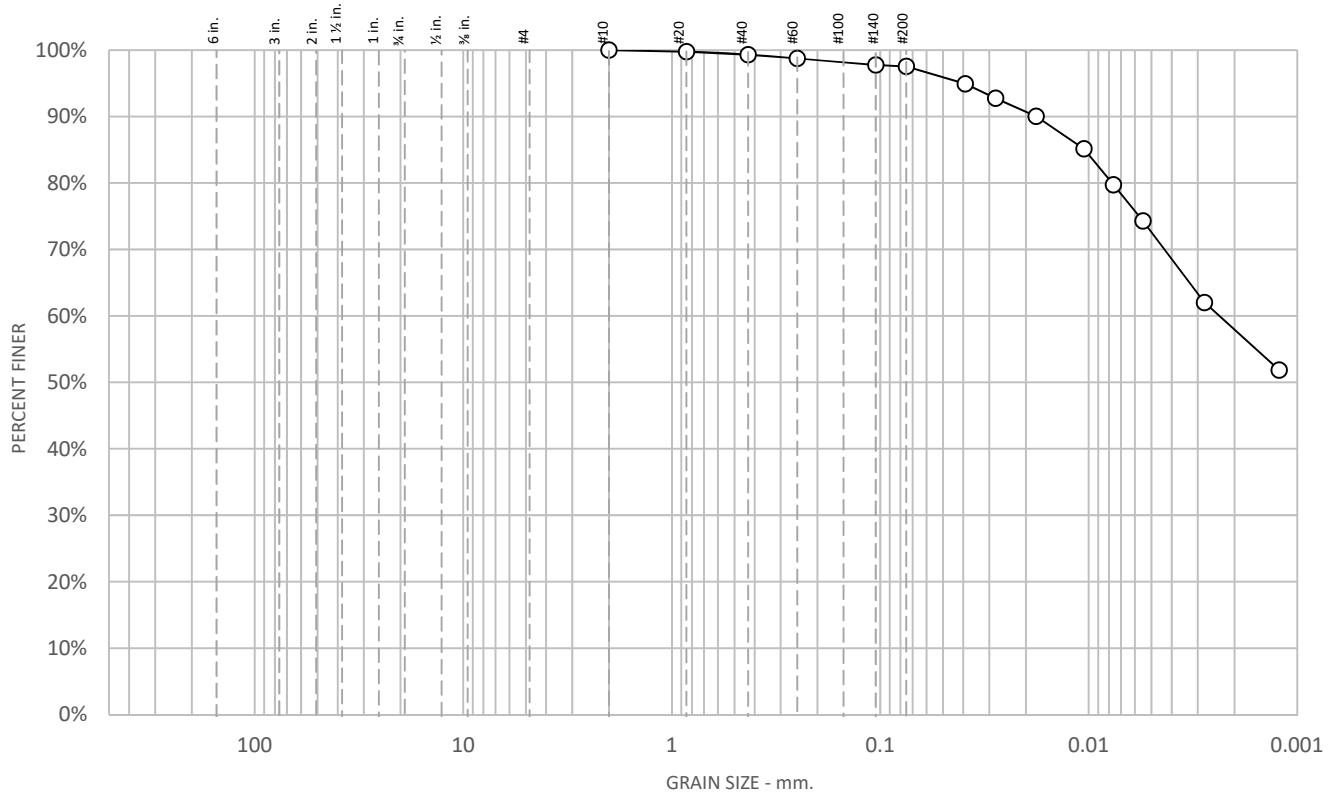
SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲ TP-5@1	1 foot	See exploration logs	73	22	51

SAMPLE ID	TEST METHOD	REMARKS
▲ TP-5@1	PI: ASTM D4318, Wet Method	



CLIENT: WestGate Ventures Fund III, LLC
PROJECT NAME: Burroughs Property
PROJECT NO: 16836.000.000 PH001
PROJECT LOCATION: Oakley, CA
REPORT DATE: 12/20/2019
TESTED BY: R. Montalvo
REVIEWED BY: M. Gilbert

Particle Size Distribution Report



% +75mm	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				0.7	1.8	39.6	57.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.8		
#40	99.3		
#60	98.8		
#140	97.8		
#200	97.5		
0.0391 mm.	94.9		
0.0280 mm.	92.8		
0.0179 mm.	90.0		
0.0105 mm.	85.1		
0.0076 mm.	79.7		
0.0055 mm.	74.3		
0.0028 mm.	62.0		
0.0012 mm.	51.8		

Soil Description
See exploration logs

Atterberg Limits
PL = 22 LL = 73 PI = 51

Coefficients
D₉₀ = 0.0178 mm D₈₅ = 0.0105 mm D₆₀ = 0.0024 mm
D₅₀ = D₃₀ = D₁₅ =
D₁₀ = C_u = C_c =

Classification
USCS = CH

Remarks
GS: ASTM D422 ASTM D422
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

* (no specification provided)

Sample Number: TP-5 @ 1	Project Number: 16836.000.000 PH001	
Client: WestGate Ventures Fund III, LLC	Date: 12/20/2019	
Project: Burroughs Property		
Project location: Oakley, CA		

Tested By: R. Montalvo **Checked By:** M. Gilbert

Test Location: 2213 Plaza Drive, Rocklin, CA 95765

Organic Matter of Peat & Other Organic Soils

ASTM D2974

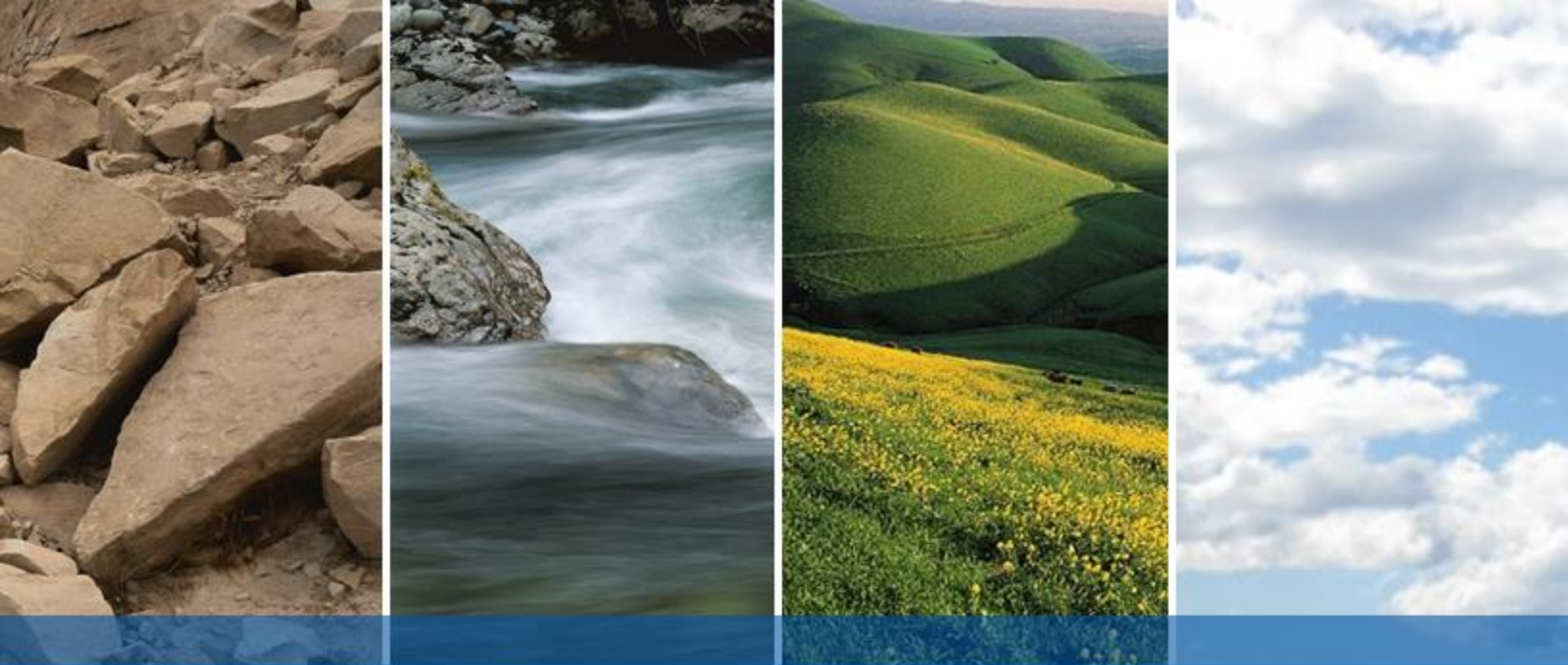
SAMPLE NO.	LOCATION/BORING ID	DEPTH (ft)	Moisture Content	ASH CONTENT %	ORGANIC MATTER %
1	TP-8@3	3	31.6	96.5	3.5

Testing remarks: Moisture Content (Method A); Ash Content (Method C)

PROJECT NAME: Burroughs Property
PROJECT NUMBER: 16836.000.000
CLIENT: WestGate Ventures Fund III, LLC
PHASE NUMBER: 001

DATE: 12/20/19

ENGEO
— Expect Excellence —



APPENDIX C

CPT DATA



Engeo Inc.

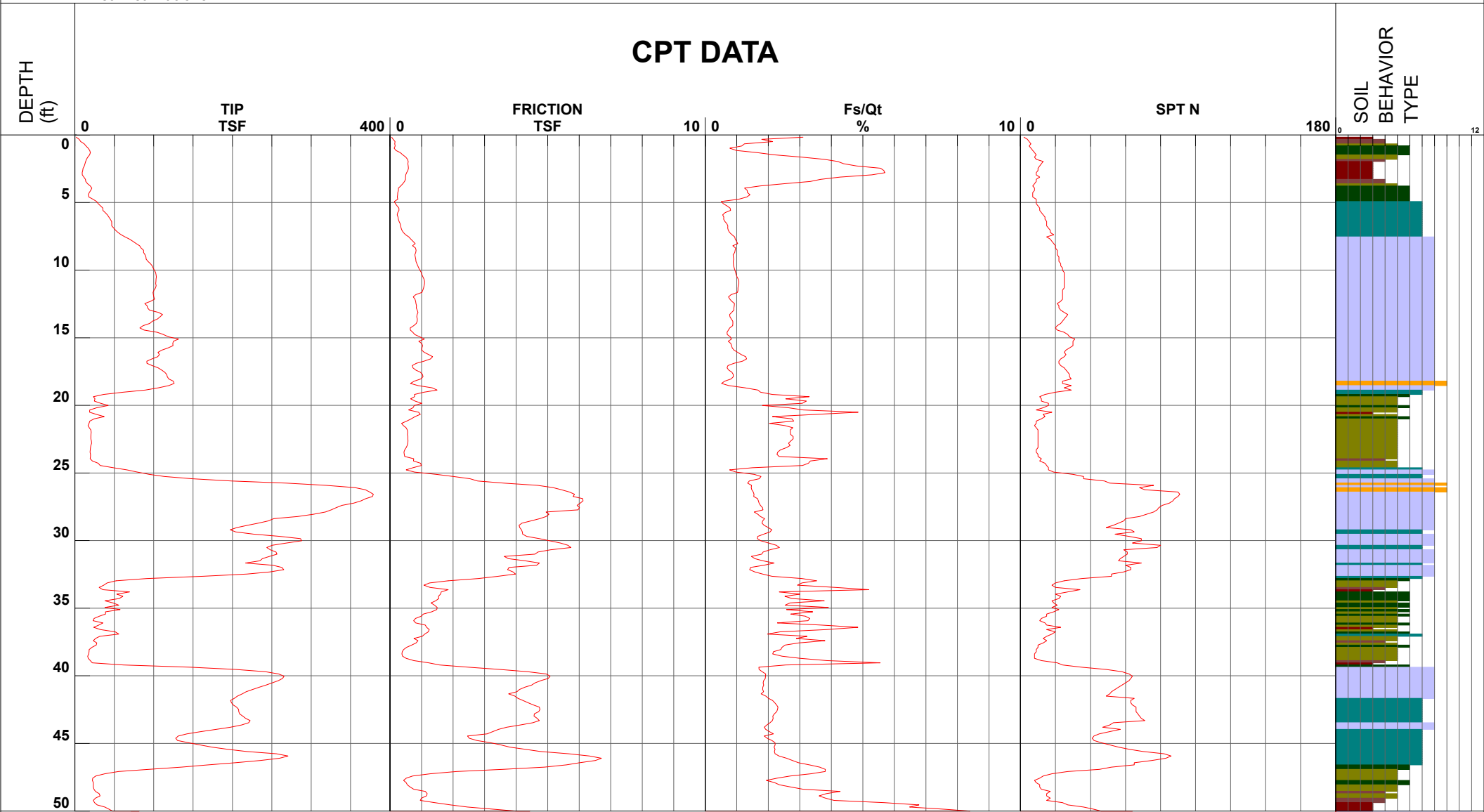
Project Burroughs Property
 Job Number 16836.000.000
 Hole Number CPT-01
 EST GW Depth During Test

Operator JM-AJ
 Cone Number DDG1489
 Date and Time 12/19/2019 8:24:16 AM
 5.90 ft

Filename SDF(176).cpt
 GPS
 Maximum Depth 50.69 ft

Net Area Ratio .8

CPT DATA



- | | | | |
|------------------------------|---------------------------------|--------------------------------|------------------------------------|
| ■ 1 - sensitive fine grained | ■ 4 - silty clay to clay | ■ 7 - silty sand to sandy silt | ■ 10 - gravelly sand to sand |
| ■ 2 - organic material | ■ 5 - clayey silt to silty clay | ■ 8 - sand to silty sand | ■ 11 - very stiff fine grained (*) |
| ■ 3 - clay | ■ 6 - sandy silt to clayey silt | ■ 9 - sand | ■ 12 - sand to clayey sand (*) |

Cone Size 10cm squared

S*Soil behavior type and SPT based on data from UBC-1983

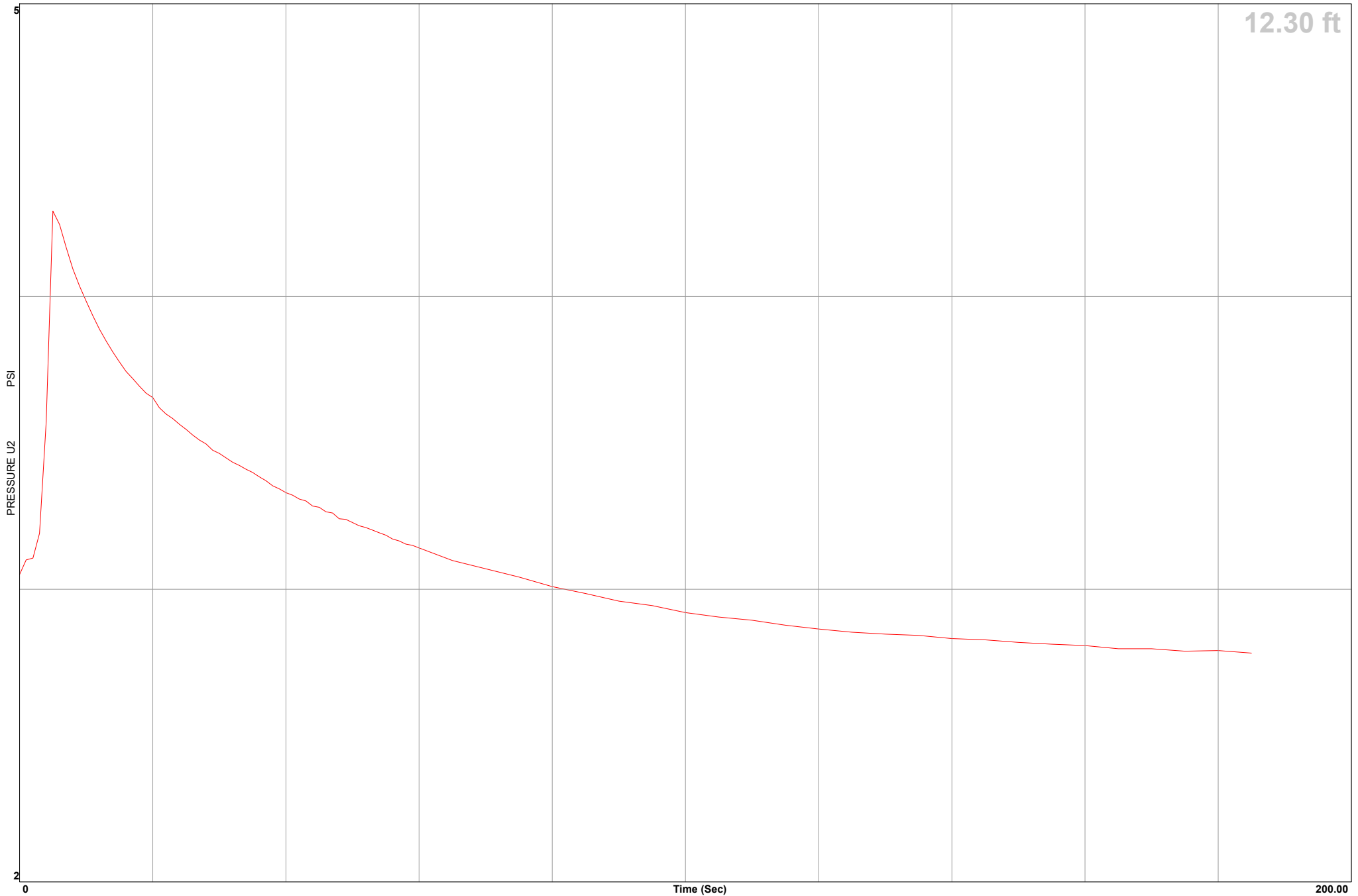


Engeo Inc.

Location Burroughs Property
Job Number 16836.000.000
Hole Number CPT-01
Equilized Pressure 2.7

Operator JM-AJ
Cone Number DDG1489
Date and Time 12/19/2019 8:24:16 AM
EST GW Depth During Test 5.9

GPS _____





Engeo Inc.

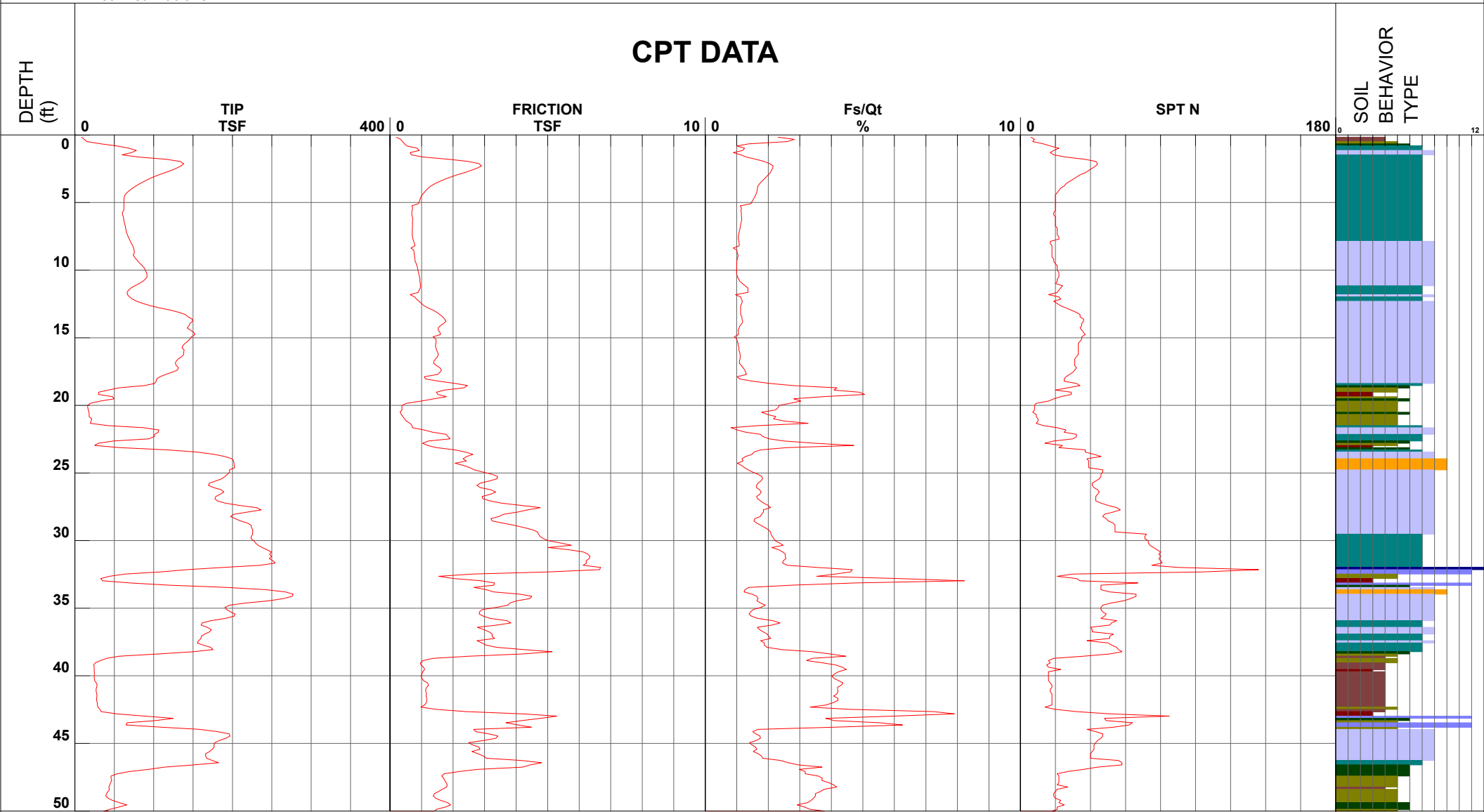
Project Burroughs Property
 Job Number 16836.000.000
 Hole Number CPT-02
 EST GW Depth During Test

Operator JM-AJ
 Cone Number DDG1489
 Date and Time 12/19/2019 9:07:40 AM
 9.20 ft

Filename SDF(177).cpt
 GPS
 Maximum Depth 50.69 ft

Net Area Ratio .8

CPT DATA



SOIL
BEHAVIOR
TYPE

- 1 - sensitive fine grained
- 4 - silty clay to clay
- 7 - silty sand to sandy silt
- 10 - gravelly sand to sand
- 2 - organic material
- 5 - clayey silt to silty clay
- 8 - sand to silty sand
- 11 - very stiff fine grained (*)
- 3 - clay
- 6 - sandy silt to clayey silt
- 9 - sand
- 12 - sand to clayey sand (*)

Cone Size 10cm squared

S*Soil behavior type and SPT based on data from UBC-1983

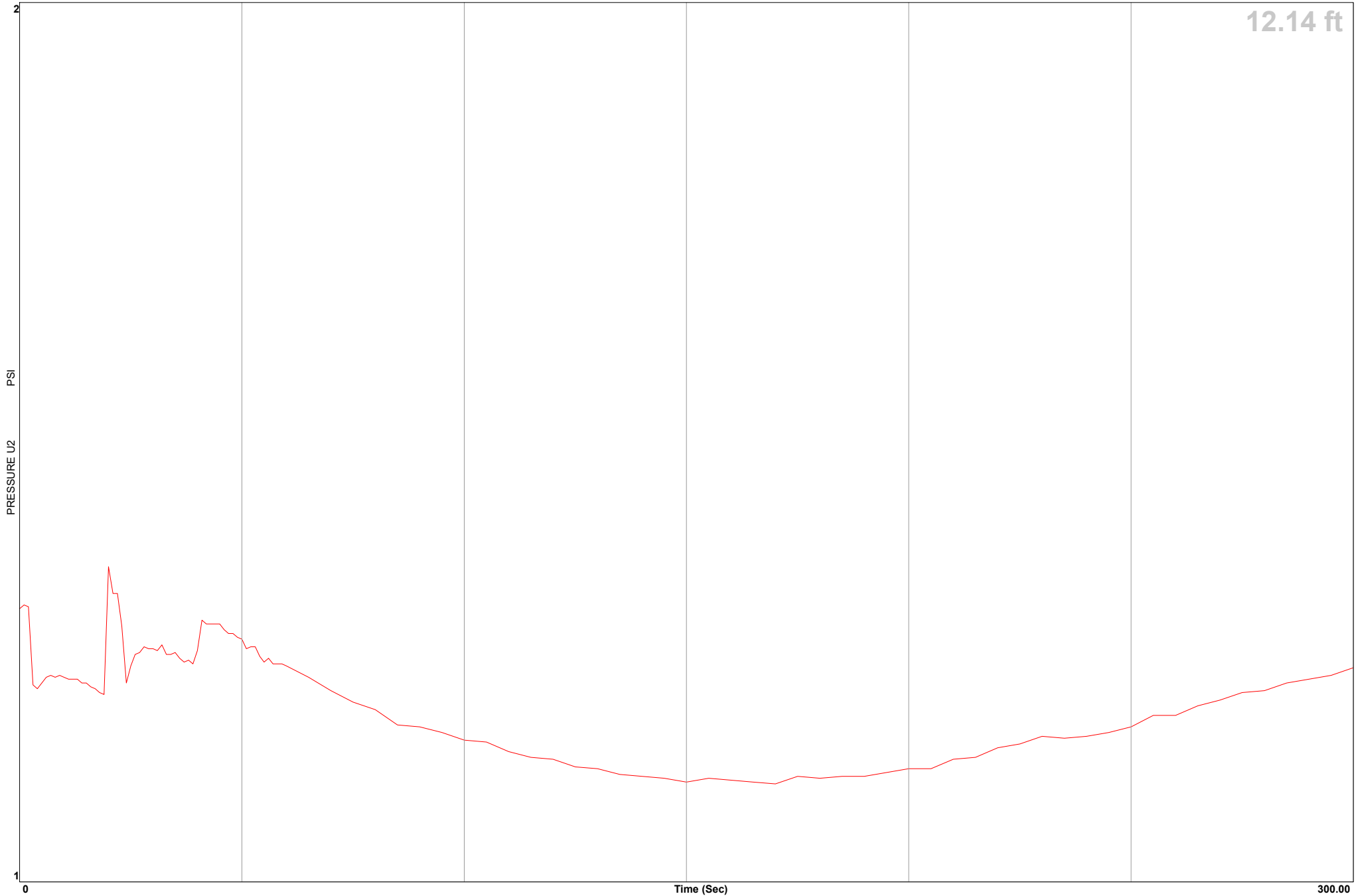


Engeo Inc.

Location Burroughs Property
Job Number 16836.000.000
Hole Number CPT-02
Equilized Pressure 1.2

Operator JM-AJ
Cone Number DDG1489
Date and Time 12/19/2019 9:07:40 AM
EST GW Depth During Test 9.2

GPS _____





Engeo Inc.

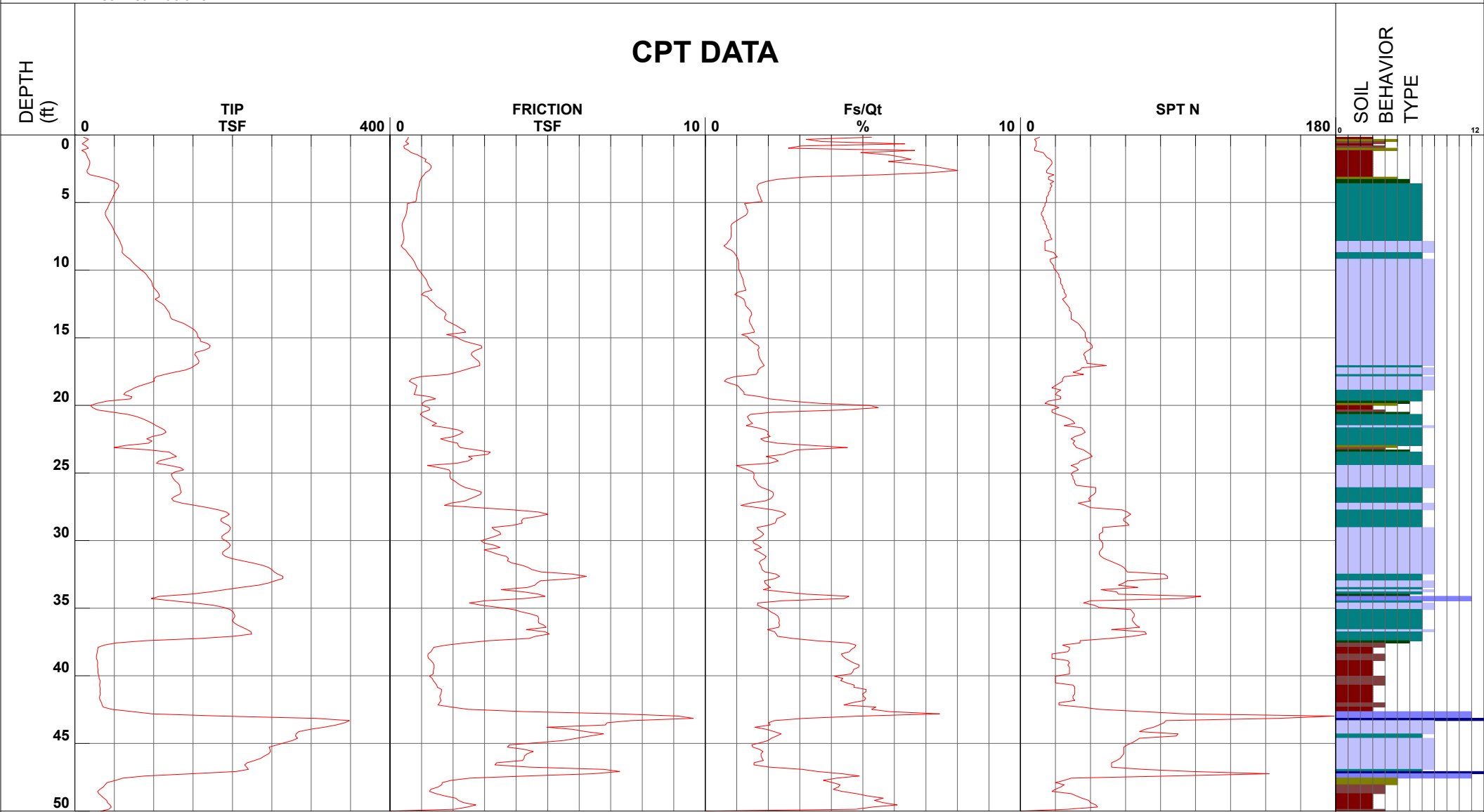
Project Burroughs Property
 Job Number 16836.000.000
 Hole Number CPT-03
 EST GW Depth During Test

Operator JM-AJ
 Cone Number DDG1489
 Date and Time 12/19/2019 9:54:02 AM
 8.50 ft

Filename SDF(178).cpt
 GPS
 Maximum Depth 50.36 ft

Net Area Ratio .8

CPT DATA



- | | | | |
|------------------------------|---------------------------------|--------------------------------|------------------------------------|
| ■ 1 - sensitive fine grained | ■ 4 - silty clay to clay | ■ 7 - silty sand to sandy silt | ■ 10 - gravelly sand to sand |
| ■ 2 - organic material | ■ 5 - clayey silt to silty clay | ■ 8 - sand to silty sand | ■ 11 - very stiff fine grained (*) |
| ■ 3 - clay | ■ 6 - sandy silt to clayey silt | ■ 9 - sand | ■ 12 - sand to clayey sand (*) |

Cone Size 10cm squared

S*Soil behavior type and SPT based on data from UBC-1983

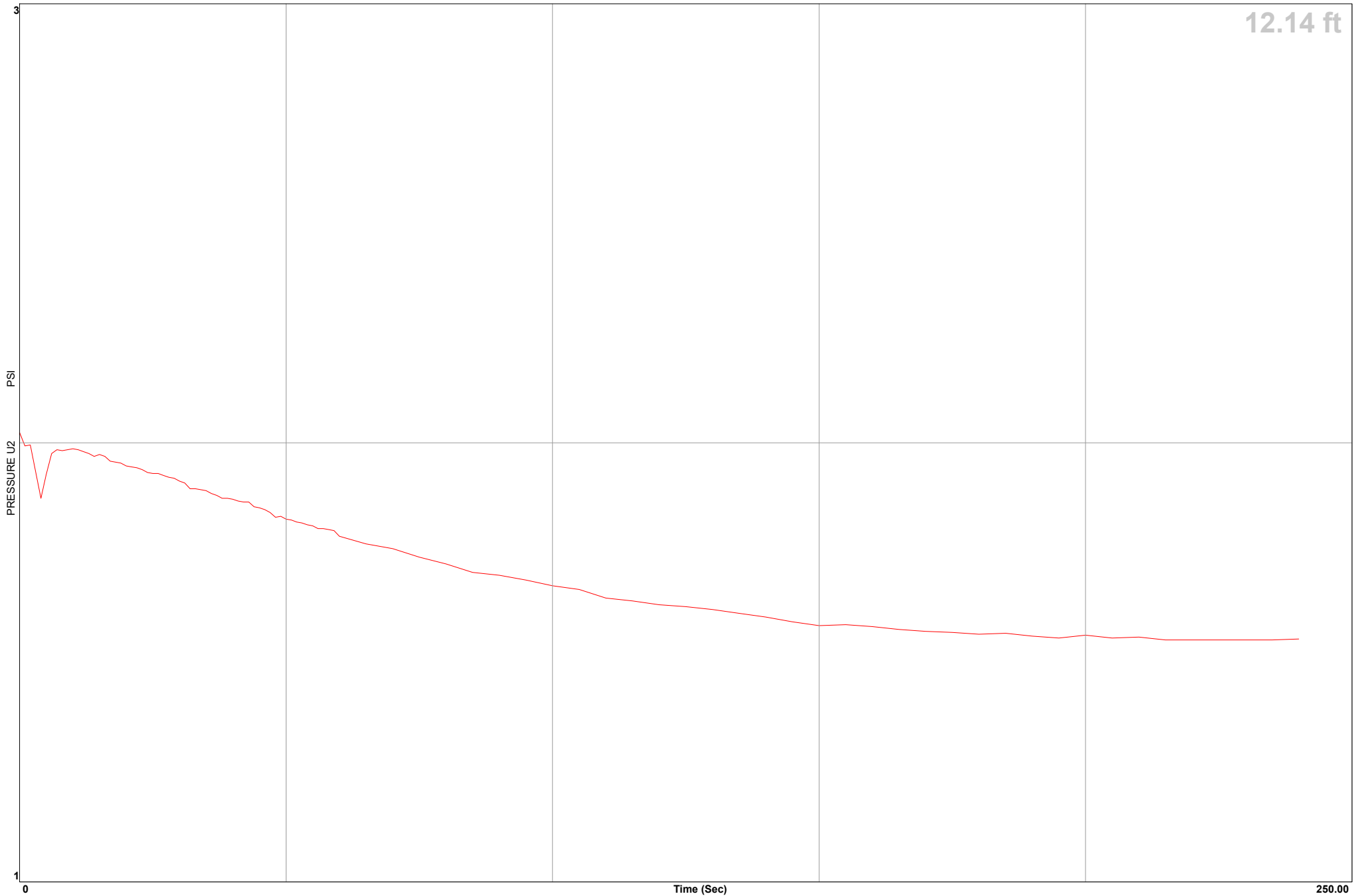


Engeo Inc.

Location Burroughs Property
Job Number 16836.000.000
Hole Number CPT-03
Equilized Pressure 1.5

Operator JM-AJ
Cone Number DDG1489
Date and Time 12/19/2019 9:54:02 AM
EST GW Depth During Test 8.5

GPS _____





Engeo Inc.

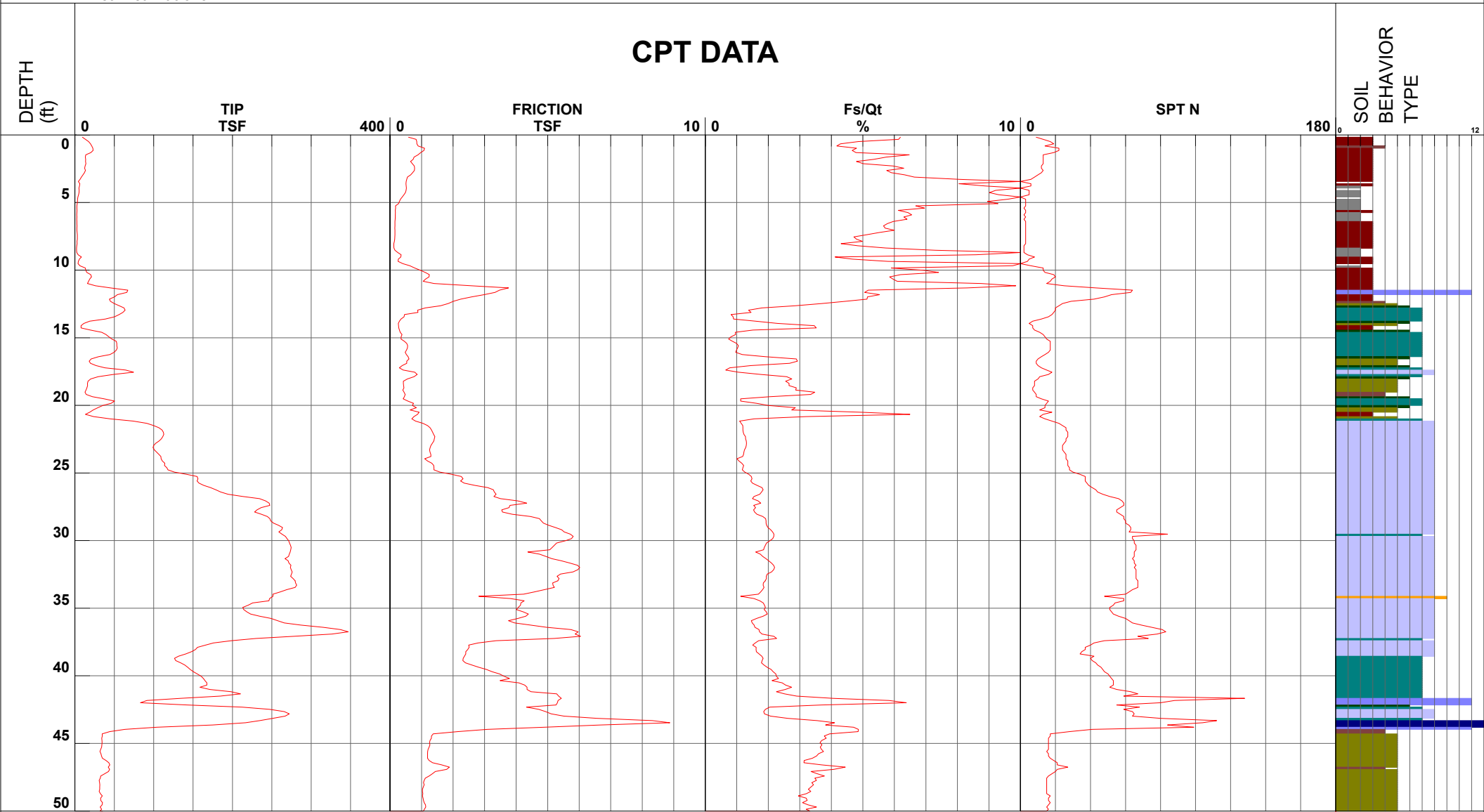
Project Burroughs Property
 Job Number 16836.000.000
 Hole Number CPT-04
 EST GW Depth During Test

Operator JM-AJ
 Cone Number DDG1489
 Date and Time 12/19/2019 11:09:11 AM
 5.60 ft

Filename SDF(179).cpt
 GPS
 Maximum Depth 50.52 ft

Net Area Ratio .8

CPT DATA



- | | | | |
|------------------------------|---------------------------------|--------------------------------|------------------------------------|
| ■ 1 - sensitive fine grained | ■ 4 - silty clay to clay | ■ 7 - silty sand to sandy silt | ■ 10 - gravelly sand to sand |
| ■ 2 - organic material | ■ 5 - clayey silt to silty clay | ■ 8 - sand to silty sand | ■ 11 - very stiff fine grained (*) |
| ■ 3 - clay | ■ 6 - sandy silt to clayey silt | ■ 9 - sand | ■ 12 - sand to clayey sand (*) |

Cone Size 10cm squared

S*Soil behavior type and SPT based on data from UBC-1983

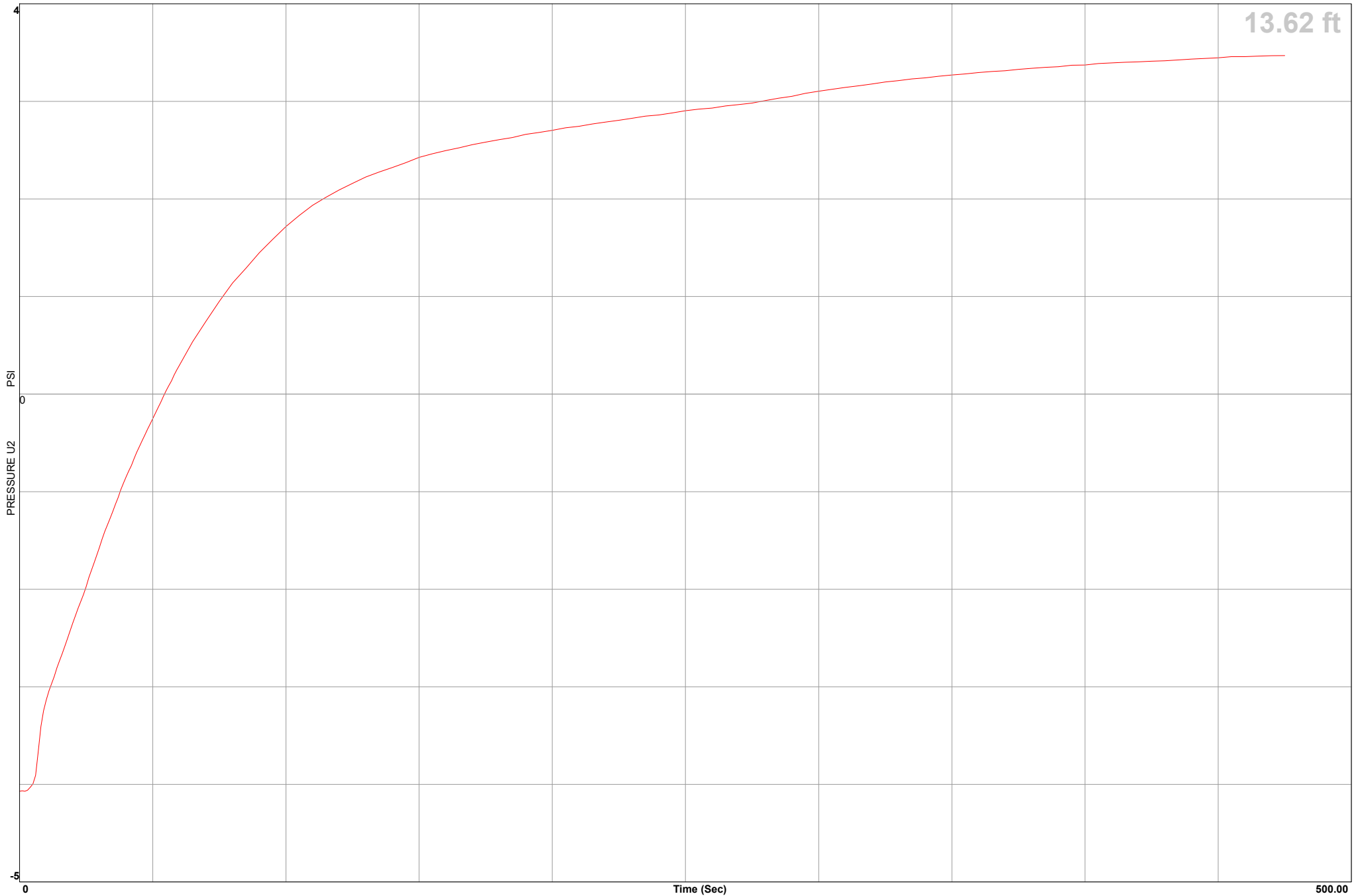


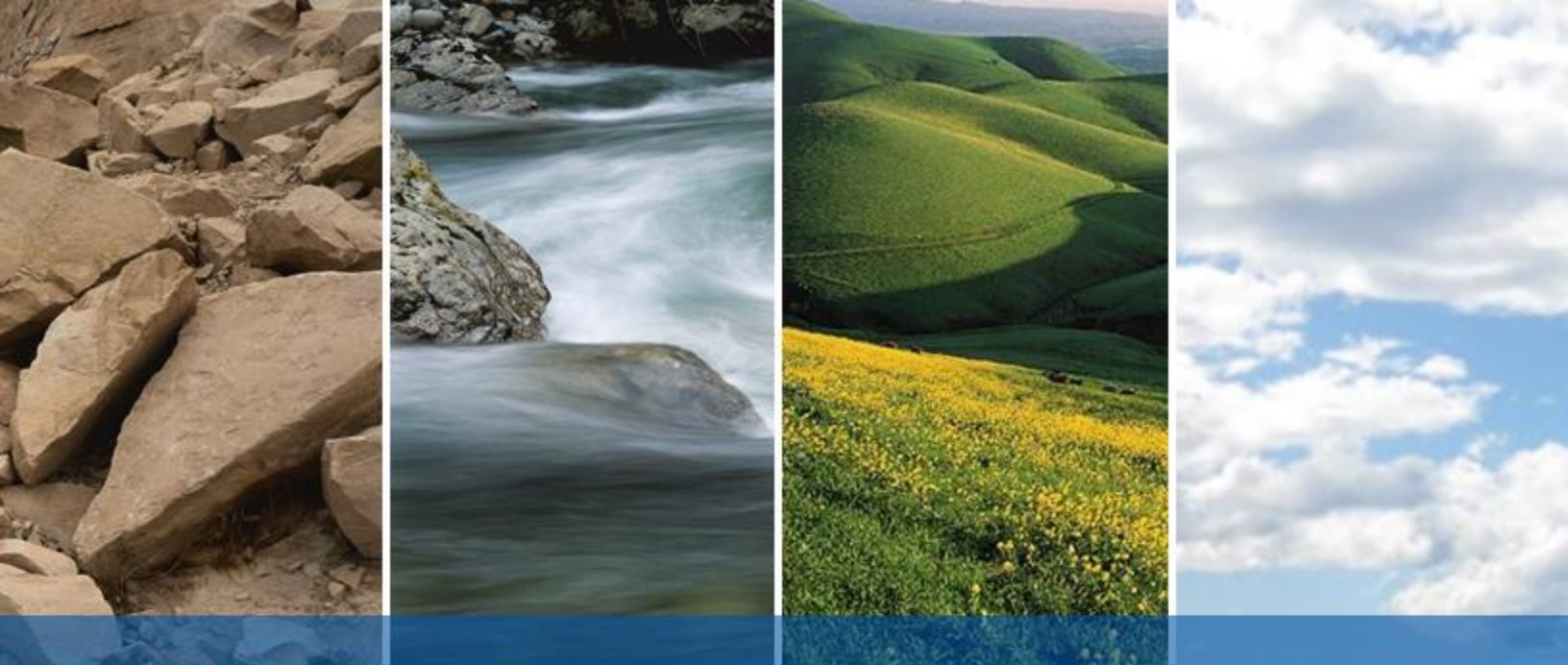
Engeo Inc.

Location Burroughs Property
Job Number 16836.000.000
Hole Number CPT-04
Equilized Pressure 3.4

Operator JM-AJ
Cone Number DDG1489
Date and Time 12/19/2019 11:09:11 AM
EST GW Depth During Test 5.6

GPS _____





APPENDIX D

LIQUEFACTION ANALYSIS

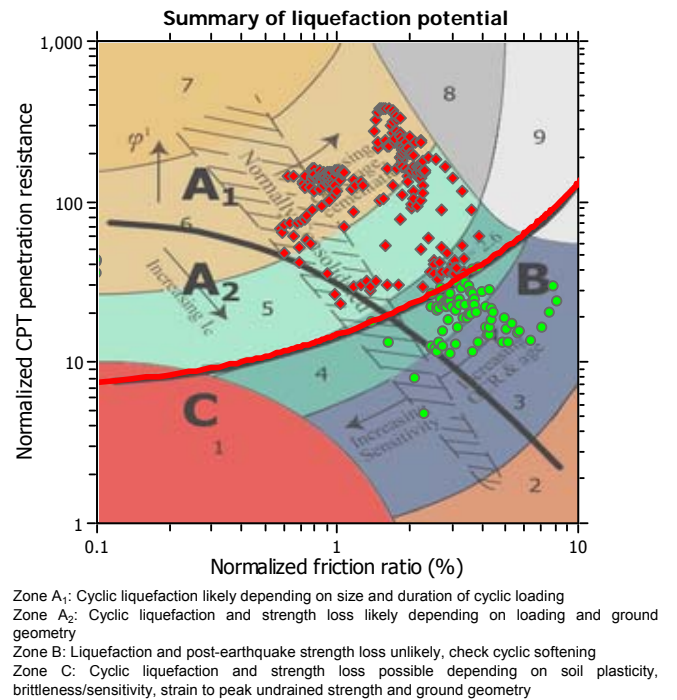
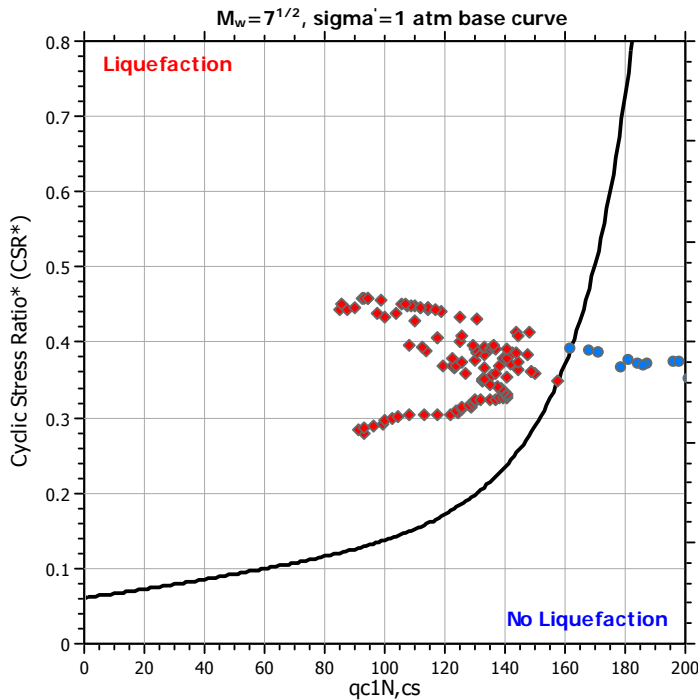
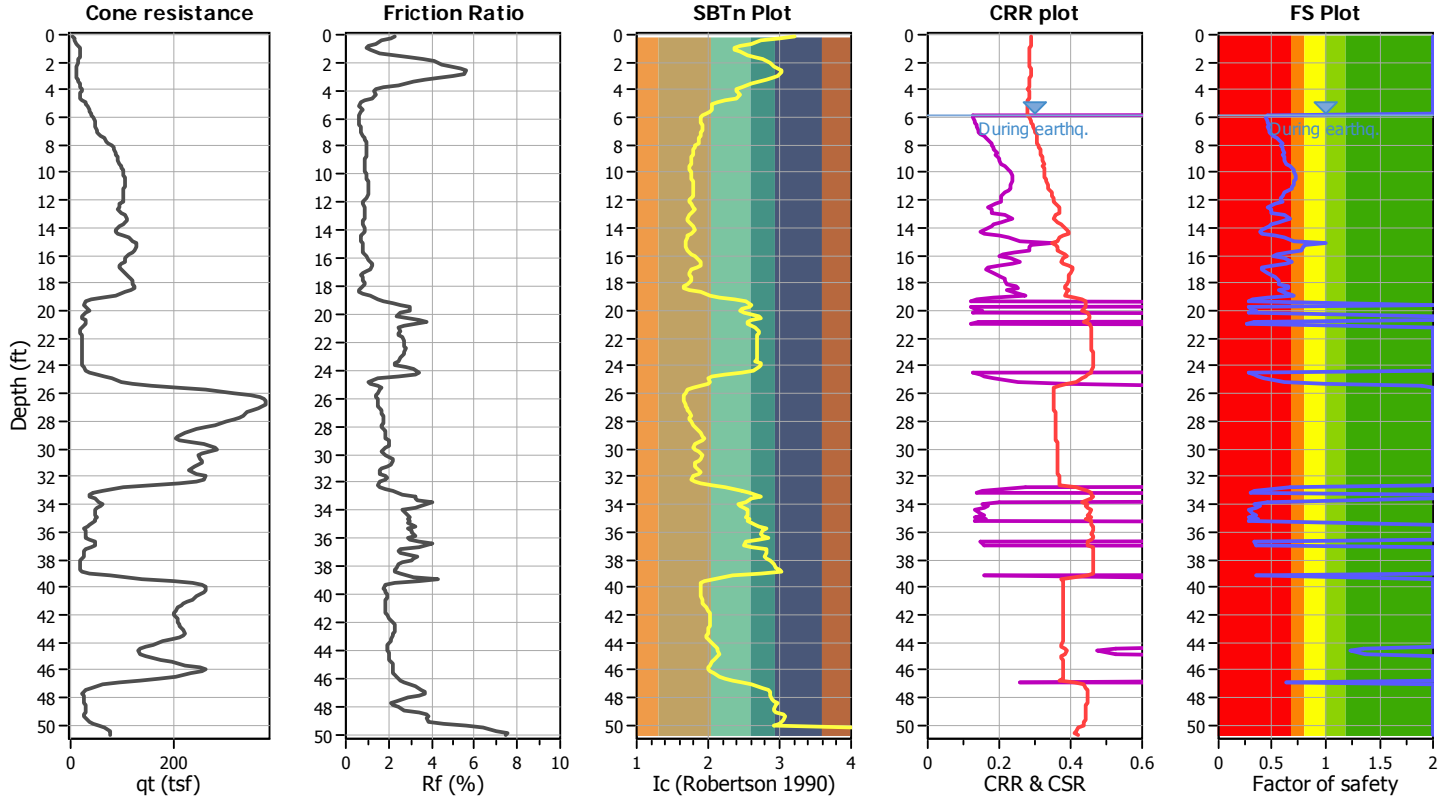
LIQUEFACTION ANALYSIS REPORT

Project title : Burroughs Property
 CPT file : 1-CPT01

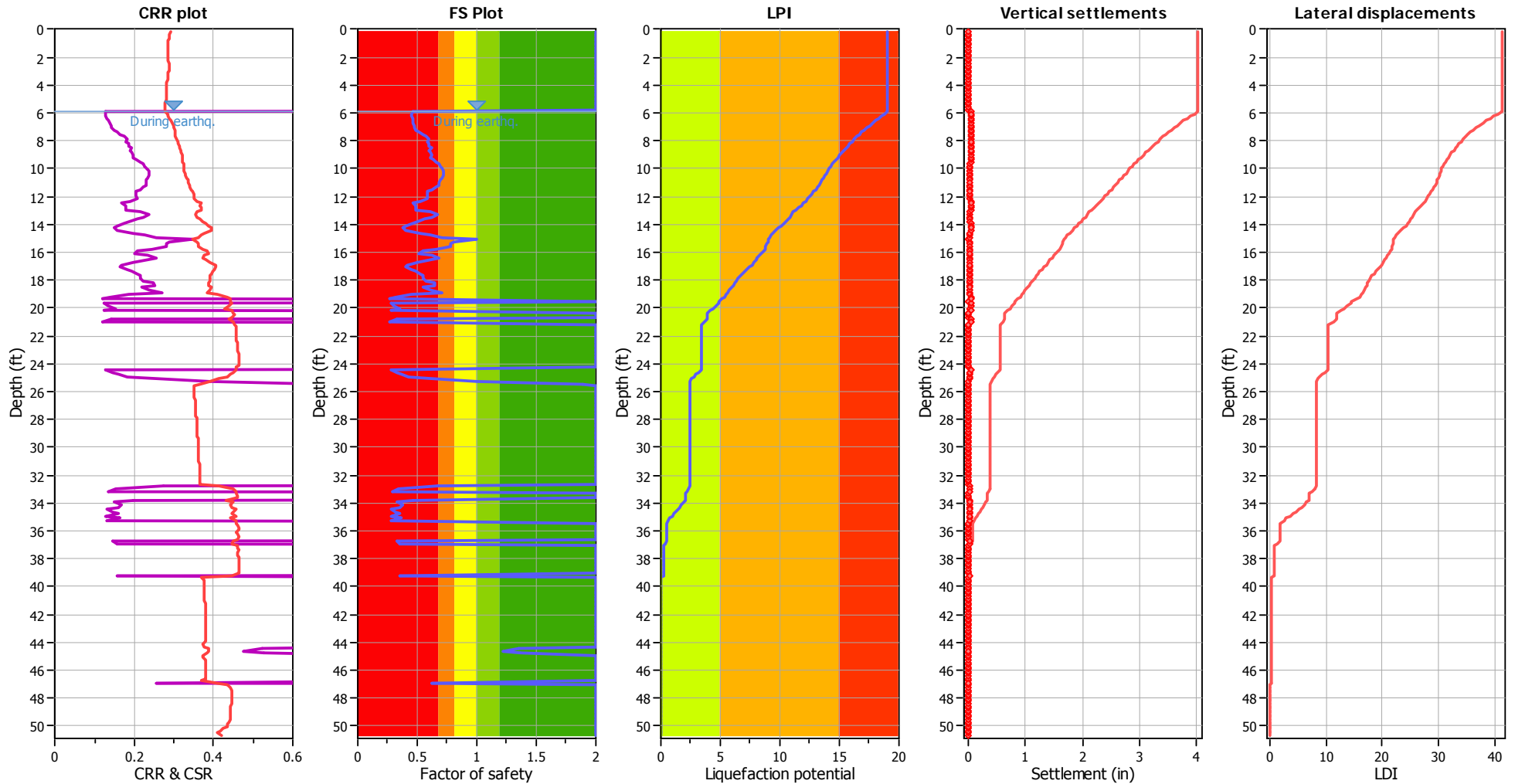
Location : Oakley, California

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	5.90 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.90 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w :	6.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_o applied:	Yes		



Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	5.90 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_{σ} applied:	Yes
Earthquake magnitude M_w :	6.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.90 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

LIQUEFACTION ANALYSIS REPORT

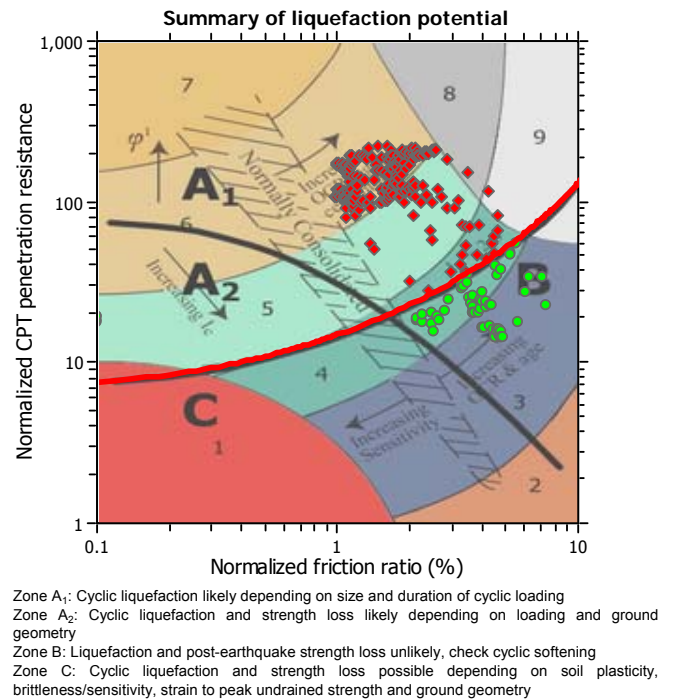
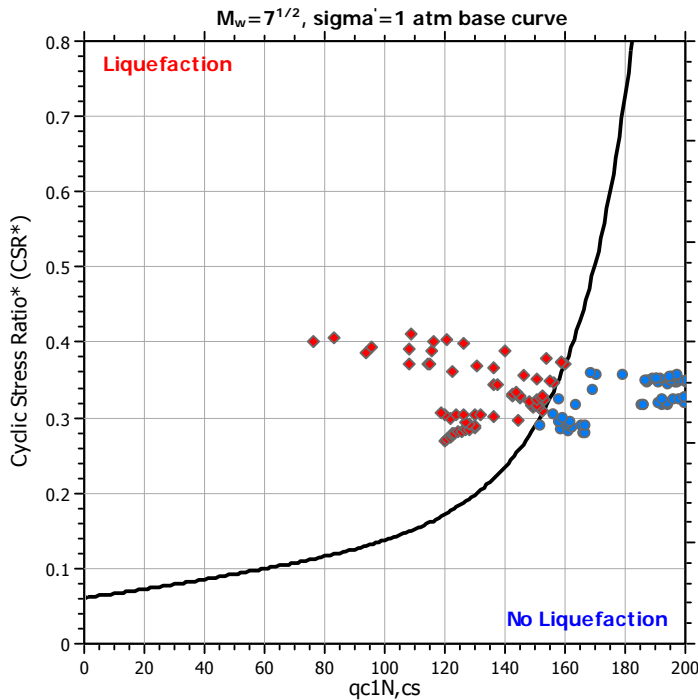
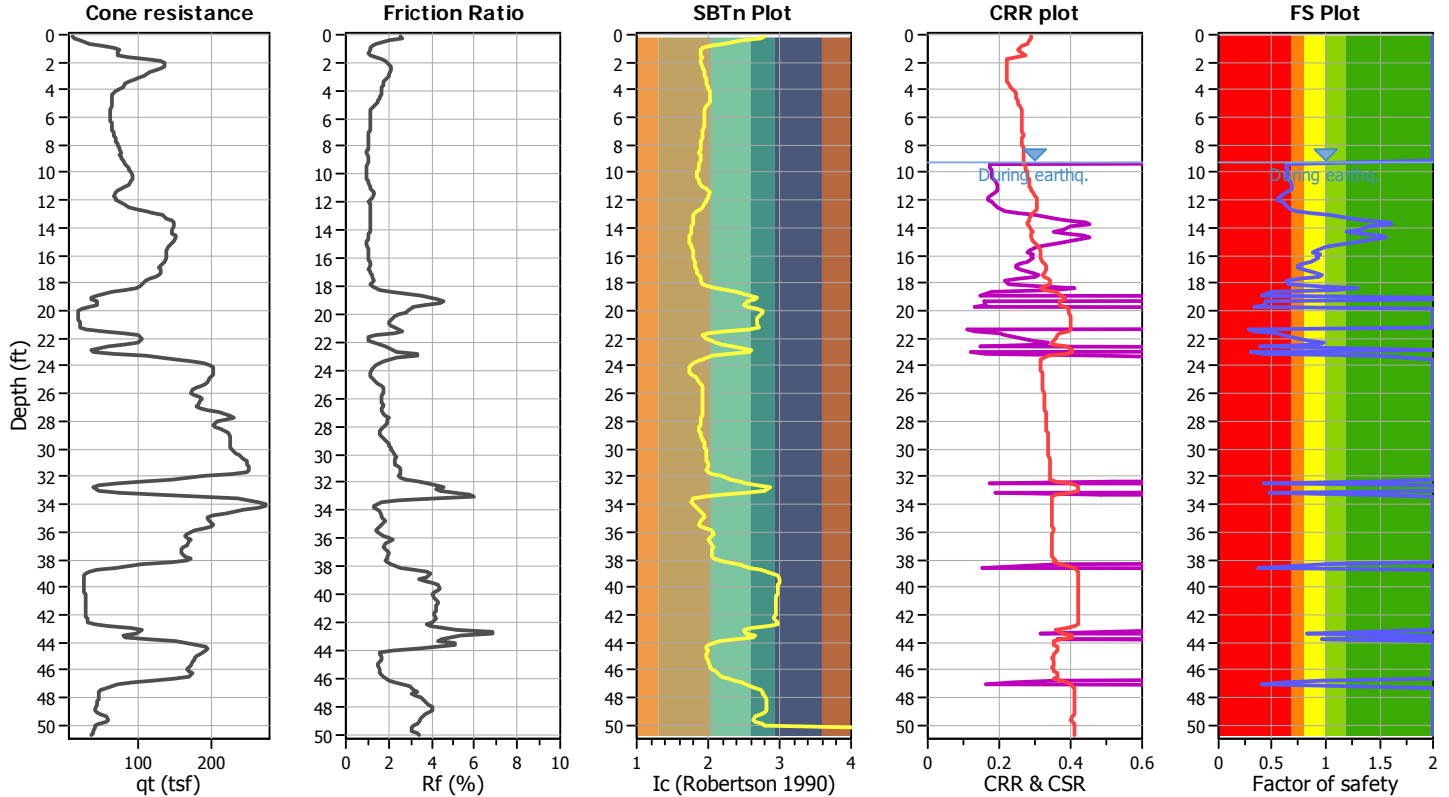
Project title : Burroughs Property

Location : Oakley, California

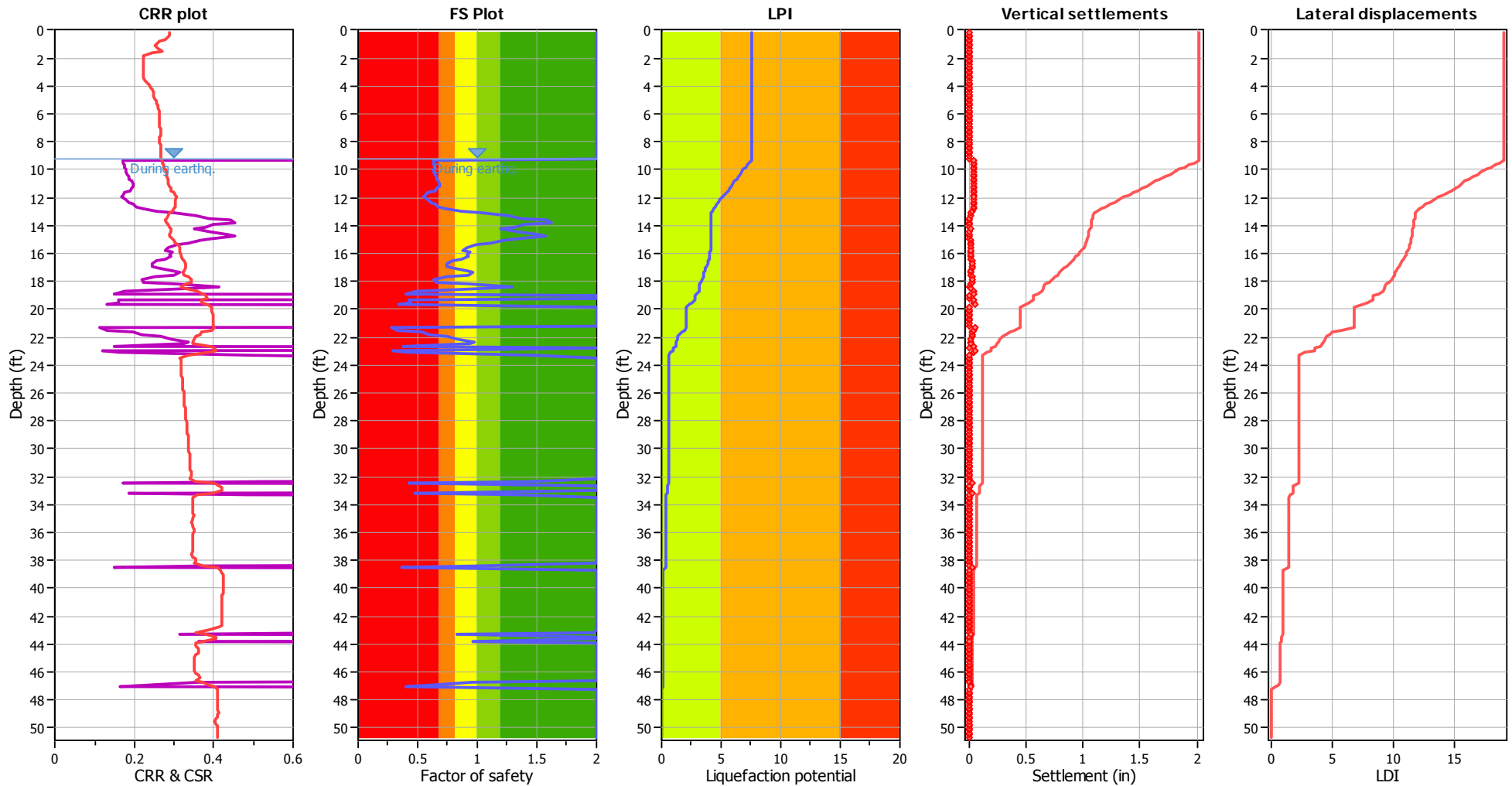
CPT file : 1-CPT02

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	9.20 ft	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	9.20 ft	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_o applied:	Yes	MSF method:	Method



Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	9.20 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I _c value	I _c cut-off value:	2.60	K _σ applied:	Yes
Earthquake magnitude M _w :	6.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	9.20 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

LIQUEFACTION ANALYSIS REPORT

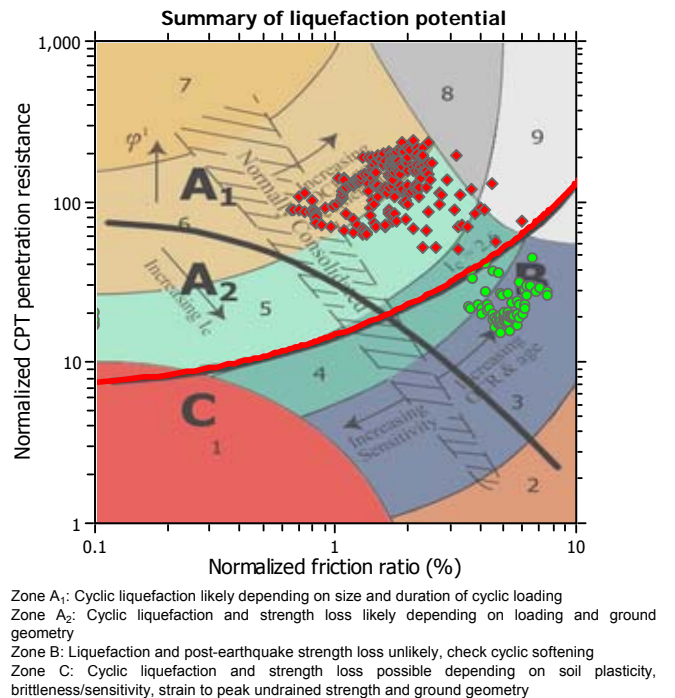
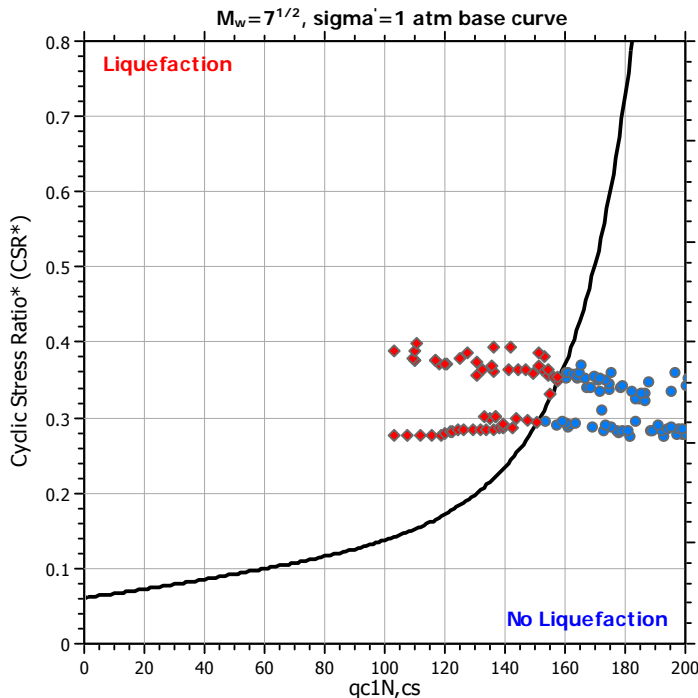
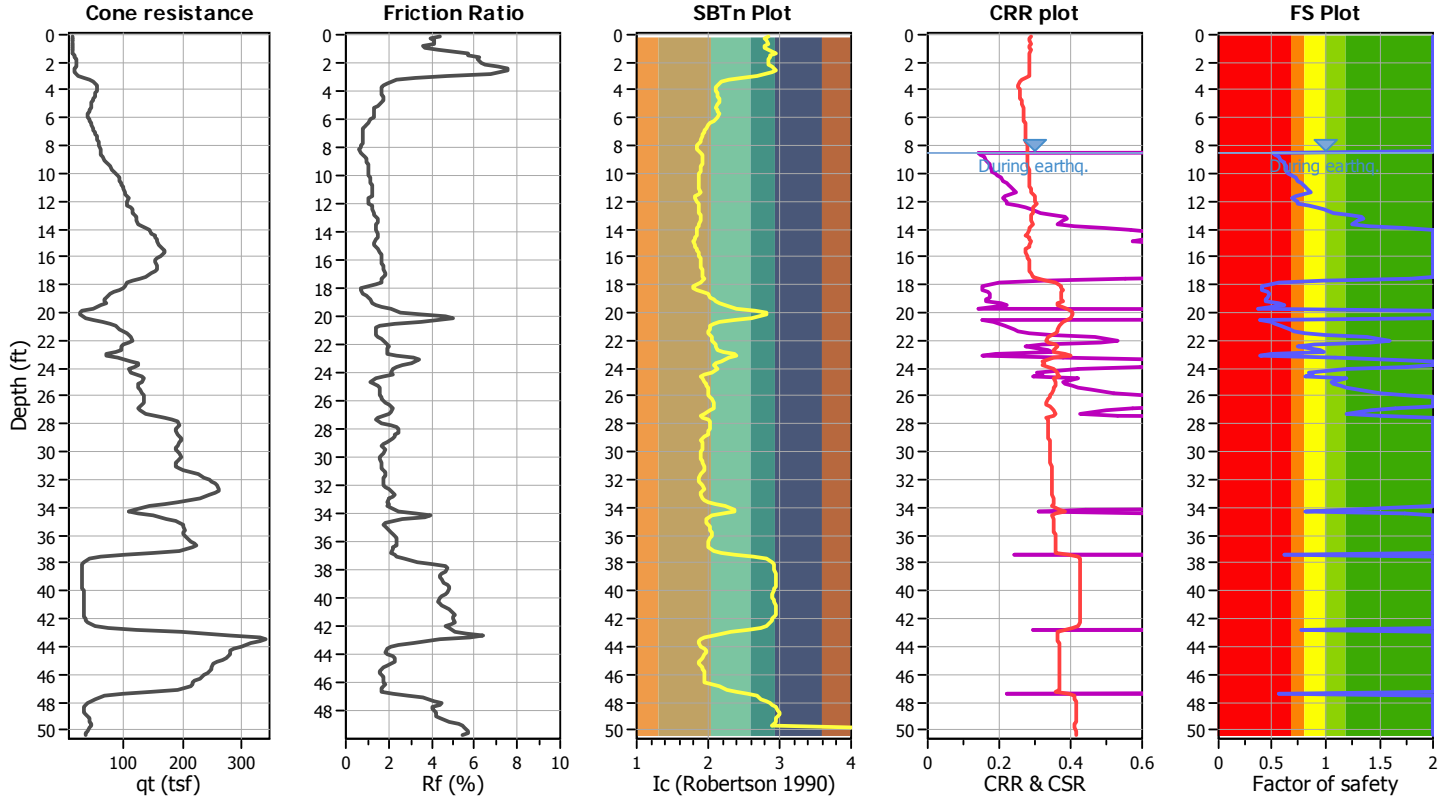
Project title : Burroughs Property

Location : Oakley, California

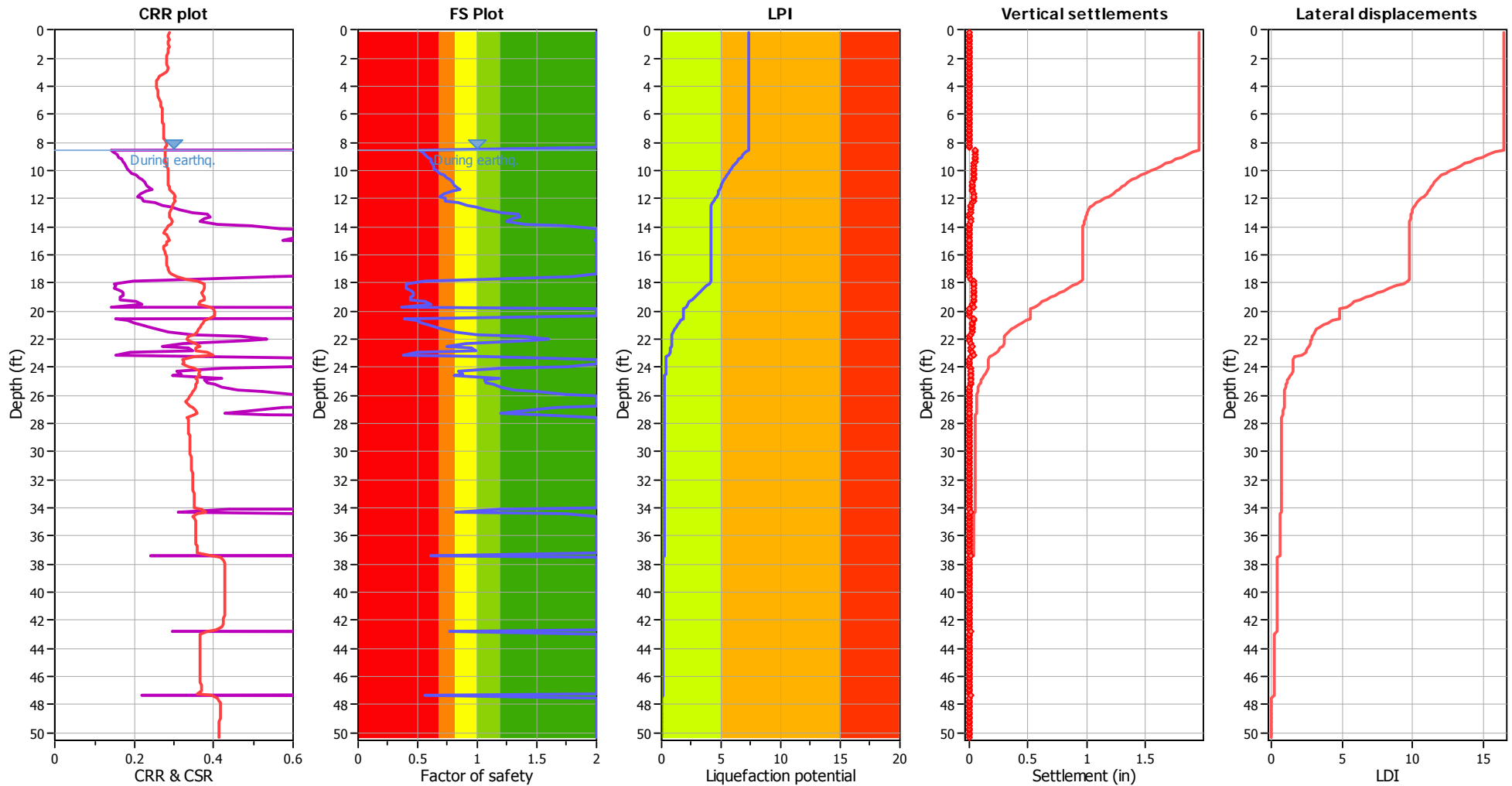
CPT file : 1-CPT03

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	8.50 ft	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	8.50 ft	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_o applied:	Yes	MSF method:	Method



Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	8.50 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_c applied:	Yes
Earthquake magnitude M_w :	6.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	8.50 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

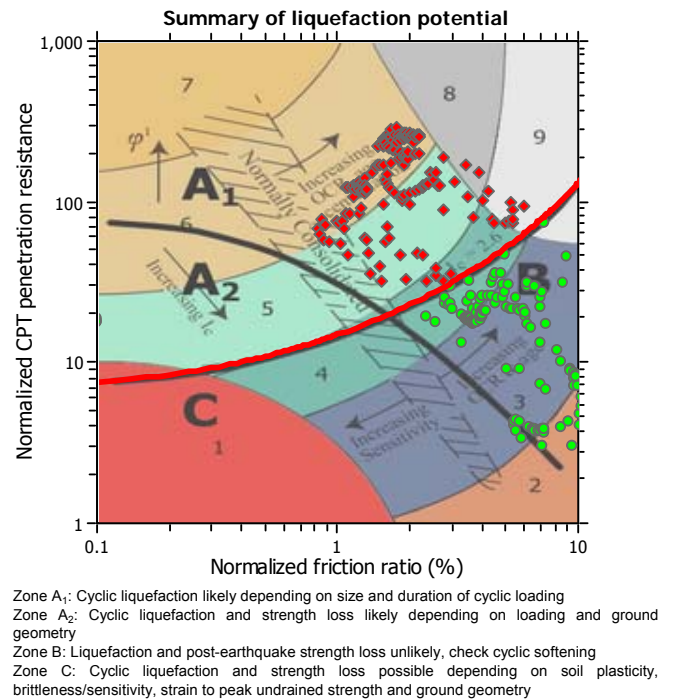
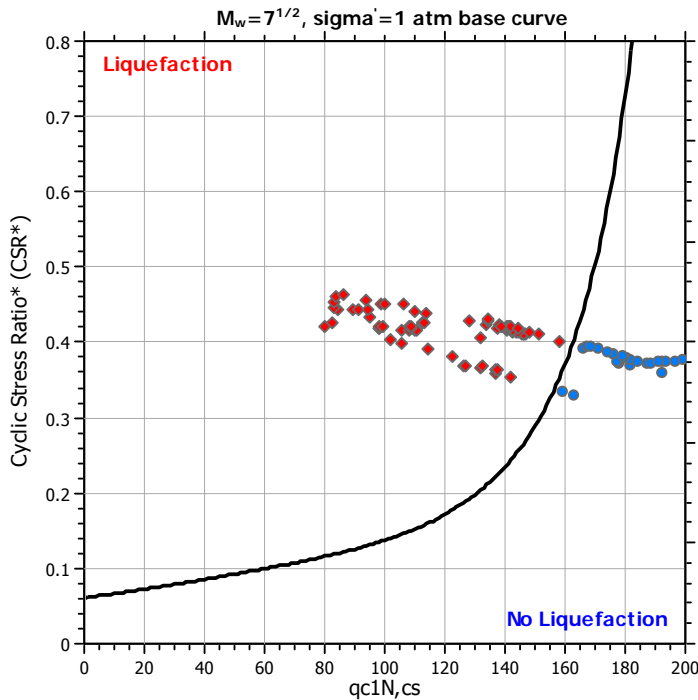
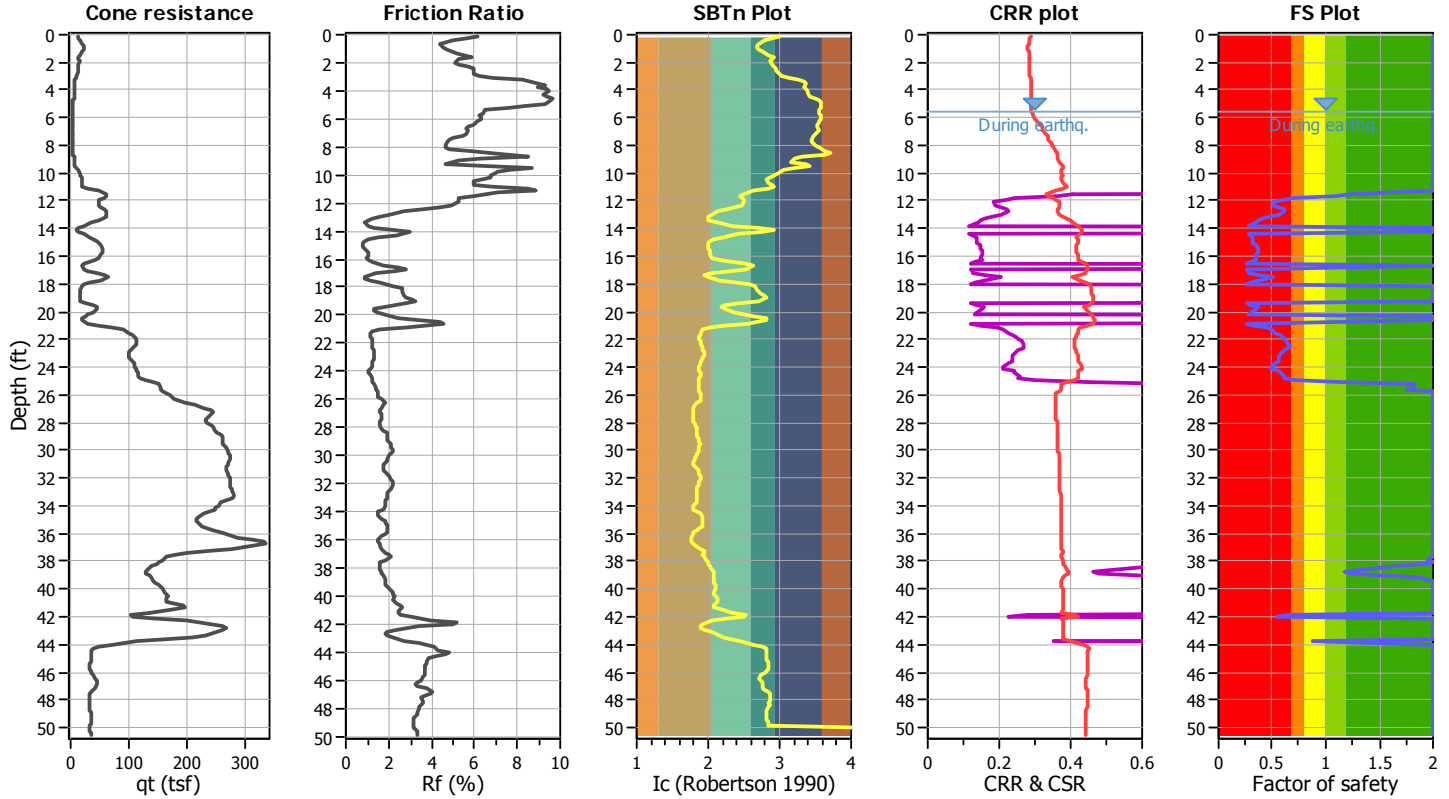
LIQUEFACTION ANALYSIS REPORT

Project title : Burroughs Property
 CPT file : 1-CPT04

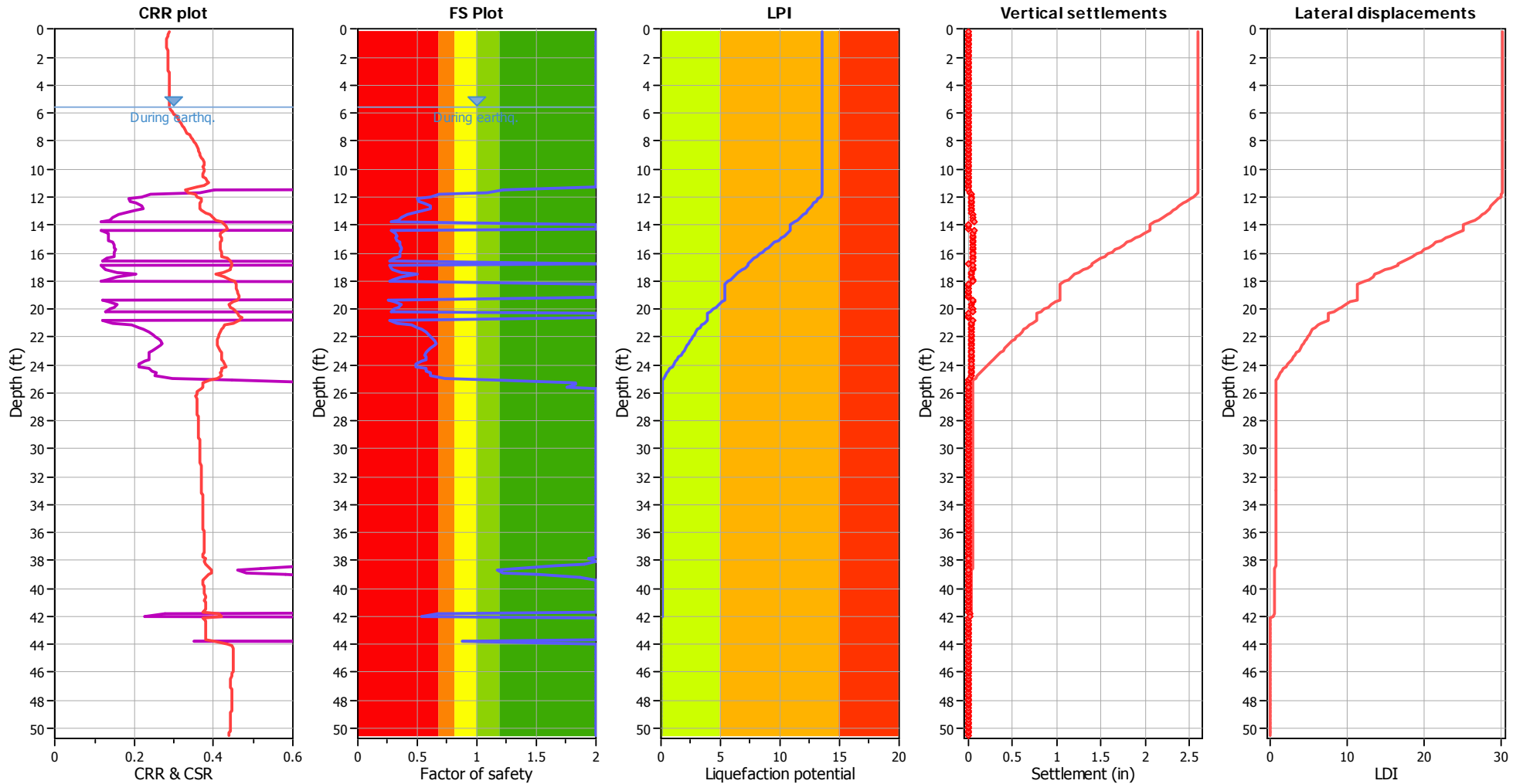
Location : Oakley, California

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	5.60 ft	Use fill:	No	Clay like behavior	
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	5.60 ft	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_o applied:	Yes	MSF method:	Method



Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (earthq.):	5.60 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K _c applied:	Yes
Earthquake magnitude M _w :	6.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	5.60 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

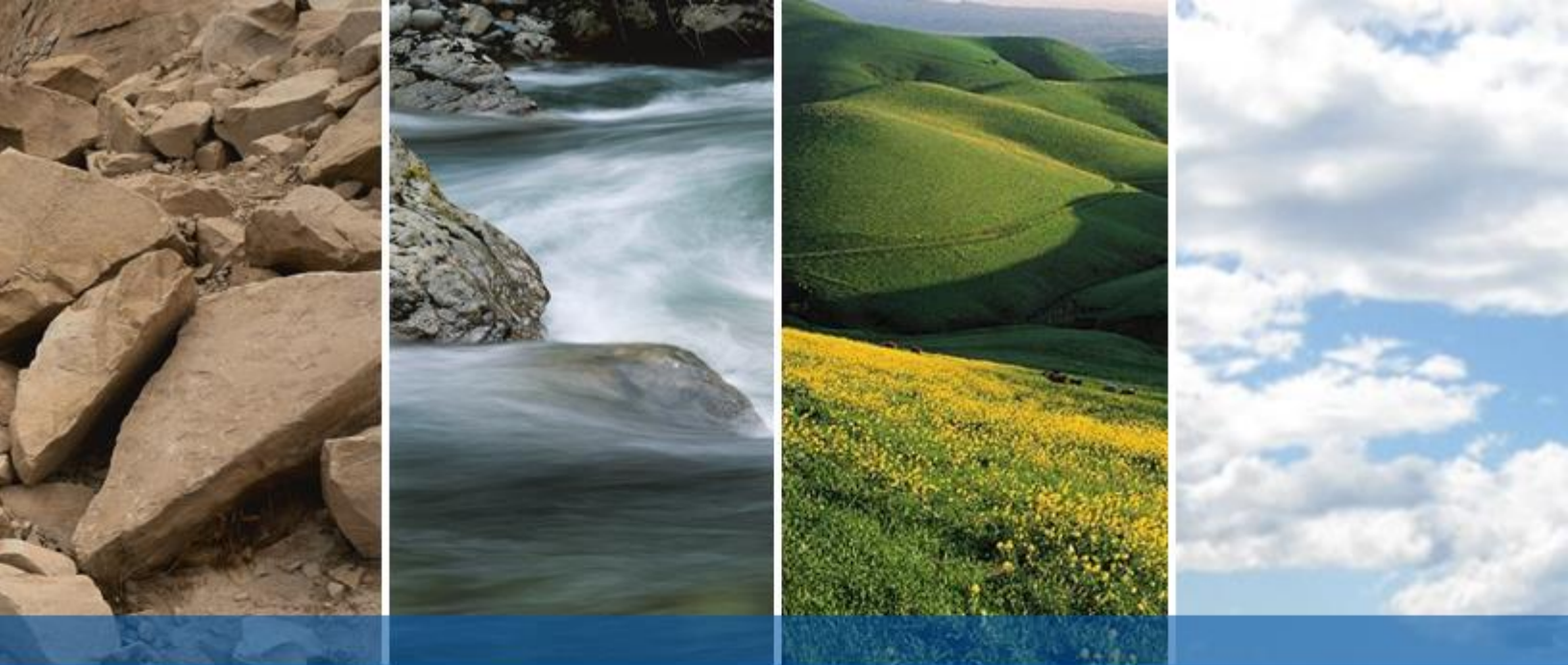
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk



Appendix E
Phase I ESA for the Oakley Property



CITY OF OAKLEY PROPERTY
OAKLEY, CALIFORNIA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

DRAFT

SUBMITTED TO
Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

PREPARED BY
ENGEO Incorporated

December 24, 2019

PROJECT NO.
16836.000.000

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Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

Subject: City of Oakley Property
APN 032-081-025
Oakley, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Tennant:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Oakley, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Victoria Drake, EIT
vd/sm/jf

Shawn Munger, CHG

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	3
1.1 SITE LOCATION AND DESCRIPTION	3
1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES	3
1.3 SITE AND VICINITY CHARACTERISTICS	3
1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT	4
1.5 DETAILED SCOPE OF SERVICES.....	4
1.6 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT	5
1.7 SPECIAL TERMS AND CONDITIONS	5
2.0 RECORDS REVIEW	6
2.1 PROPERTY RECORDS	6
2.1.1 Title Report/Ownership	6
2.1.2 Environmental Liens and Activity Use Limitations	6
2.2 USER KNOWLEDGE OF PROPERTY	6
3.0 RECORDS REVIEW	7
3.1 PREVIOUS ENVIRONMENTAL REPORTS.....	7
3.2 HISTORICAL RECORD SOURCES	8
3.2.1 Historical Topographic Maps	8
3.2.2 Aerial Photographs	9
3.2.3 Fire Insurance Maps	10
3.2.4 City Directory.....	10
3.3 ENVIRONMENTAL RECORD SOURCES	10
3.3.1 Standard Environmental Records	11
3.3.1.1 Subject Property	11
3.3.1.2 Other Properties	11
3.3.2 Additional Environmental Records	11
3.3.2.1 Subject Property	11
3.3.2.2 Other Properties	11
3.4 REGULATORY AGENCY FILES AND RECORDS	12
4.0 SITE RECONNAISSANCE.....	13
4.1 METHODOLOGY.....	13
4.2 GENERAL SITE SETTING	13
4.3 SITE OBSERVATIONS.....	14
4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT	14
4.5 INDOOR AIR QUALITY	15
5.0 EVALUATION	15
5.1 OPINIONS AND DATA GAPS	15
5.2 FINDINGS AND CONCLUSIONS.....	15

REFERENCES

TABLE OF CONTENTS (Continued)

FIGURES

APPENDIX A – Environmental Data Resources, Inc., Radius Map Report

APPENDIX B – Environmental Data Resources, Inc., Sanborn Map Report

APPENDIX C – Environmental Data Resources, Inc., Historical Topographic Map Report

APPENDIX D – First American Title Company, Preliminary Title Report

APPENDIX E – Environmental Data Resources, Inc., Aerial Photo Decade Package

APPENDIX F – Environmental Data Resources, Inc., City Directory

APPENDIX G – Environmental Site Assessment Questionnaires (2)

APPENDIX H – Qualifications of Environmental Professional

DRAFT

EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property located at 1180 Cypress Road in Oakley, California (Property). The Property is approximately 27 acres in area and is identified by Assessor's Parcel Number (APN) 032-081-025.

The Property is primarily undeveloped grazing land, with the exception of perimeter fencing, overhead electric transmission lines along the northern perimeter, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. Additional interior fencing was observed within the southern portion of the site, near a gravel driveway. The interior fencing appeared to be constructed as a corral for cattle. At the end of the driveway, a cattle feeding area, above-ground storage tank, concrete foundations, metal shed, and water troughs were observed. The above-ground storage tank contained water that supplied one of the water troughs. The concrete foundations appear to be related to the former modular residence that existed on the Property. The shed contained a water well and pump that supplied water to two water troughs located adjacent to the shed.

At the time of our site reconnaissance, the majority of the Property was covered with shrubs and grasses. Several trees were observed near the cattle feeding area. Adjoining properties consist of cattle grazing land to the west, residential and commercial properties to the south, and agricultural land to the north.

Historically, the Property has been used for cattle grazing. Review of historic aerial photographs and topographic maps indicate that a residential structure existed near the southern perimeter of the Property from at least 1914 to sometime prior to 1968. The residence was demolished and removed from the Property by 1968. By 1981, a modular home was placed on the Property near the location of the remaining concrete foundations. The modular home was removed prior to 1999.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

Former Dry Gas Well

One abandoned dry gas production well is located near the western perimeter of the Property. Although there is no record of a release on the Property, it is conceivable that subsurface impacts associated with the historic gas production may have occurred. The following is recommended to address the historic gas production activities:

- If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the Property, specifically in the vicinity of the abandoned gas well, the impacted area(s) should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of contaminants of concern and comparison with applicable regulatory residential screening levels. If soil contamination concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of off site at a licensed landfill facility.

Former Residences

Based on our review of available information, it is possible that a septic system was installed to support the historic residences that existed on the Property. Given the age of the structures, there is a potential for near-surface soil impacts due to past pesticide applications and lead-based paint.

Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with county and state regulations prior to the development of the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.1 of this report.

- ENGEO recommends a limited subsurface assessment be undertaken to determine if the historic gas well operations have impacted site soil, soil gas, and/or groundwater. This assessment should include the recovery of soil, groundwater, and soil gas samples.
- ENGEO recommends that near-surface soil sampling be performed within the area of former residences to address potential impacts due to pesticides and lead-based paint.

1.0 INTRODUCTION

1.1 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at 1180 East Cypress Road in Oakley, California (Figures 1 and 2). The approximately 27-acre Property is identified as APN 032-081-025 (Figure 3) and is primarily undeveloped grazing land.

1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The Property is primarily undeveloped grazing land, with the exception of perimeter fencing, overhead electric transmission lines along the northern perimeter, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. Additional interior fencing was observed within the southern portion of the site, near a gravel driveway. The interior fencing appeared to be constructed as a corral for cattle. At the end of the driveway, a cattle feeding area, above-ground storage tank, concrete foundations, metal shed, and water troughs were observed. The above-ground storage tank contained water that supplied one of the water troughs. The concrete foundations appear to be related to the former modular residence that existed on the Property. The shed contained a water well and pump that supplied water to two water troughs located adjacent to the shed.

At the time of our site reconnaissance, the majority of the Property was covered with shrubs and grasses. Several trees were observed near the cattle feeding area. Adjoining properties consist of cattle grazing land to the west, residential and commercial properties to the south, and agricultural land to the north.

Historically, the Property has been used for cattle grazing. Review of historic aerial photographs and topographic maps indicate that a residential structure existed near the southern perimeter of the Property from at least 1914 to sometime prior to 1968. The residence was demolished and removed from the Property by 1968. By 1981, a modular home was placed on the Property near the location of the remaining concrete foundations. The modular home was removed prior to 1999.

1.3 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property ranges in elevation from approximately 4 feet above mean sea level (msl) in the northeast to approximately 9 feet above msl to the southwest. Review of the Dibblee Geologic Map (2006) found that the majority of the Property is underlain by surficial clay deposits (Qsjc). A portion of the western half of the Property is underlain by sand dunes (Qd) and the north perimeter of the Property is underlain by artificial fill (af).

In December 2019, ENGEO prepared a geotechnical report for the Property. The report included a summary of the previous geotechnical explorations that ENGEO has performed at the Property. Soil samples were collected from the explorations for visual classification and laboratory testing. The soils encountered in the 2019 explorations generally consisted of hard, lean to fat clay and medium dense sand underlain by medium dense to dense sand with varying amounts of silt and clay. Near-surface soils generally consisted of moderately to highly expansive clays.

As noted in Section 3, Kleinfelder conducted a geotechnical exploration on the Property in 2005. The exploration included drilling five borings within the Property. Soil samples were collected at frequent intervals for visual classification and laboratory testing. The soils encountered generally

consisted of soft fat and lean clay and loose to medium dense sand. This surficial layer of clay and sand was underlain by interbedded layers of sandy clay and sand with varying amounts of silt and clay to the maximum depth explored of approximately 31½ feet below existing grade. Based on the laboratory testing, the surficial soils have medium to high swell/shrink potential.

Geocheck – Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated 5 Federal United States Geological Survey (USGS) wells, 2 State Database wells, and 20 State Oil/Gas wells are located within 1 mile of the Property. The USGS well data indicates that the historic depth to groundwater ranges from 12 to 15 feet below ground surface.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website identified three wells within 1 mile of the Property. The well data indicates that recent depth to groundwater ranges from 0 to 10 feet below ground surface.

During Kleinfelder's 2005 exploration, static groundwater was observed in three borings, B-2, B-3, and B-4. Depth to groundwater ranged from approximately 2 to 4 feet below the ground surface. During ENGEО's 2019 explorations, static groundwater was observed in one test pit, TP-5. Groundwater was encountered in TP-5 at a depth of approximately 5½ feet below the ground surface.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. Twenty wells were mapped within 1 mile of the Property.

1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of WestGate Venture Funds III, LLC for the purpose of environmental due diligence during property acquisition. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.5 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.

- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Written/oral interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.6 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.7 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, WestGate Ventures Fund III, LLC. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil, soil gas, or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 RECORDS REVIEW

2.1 PROPERTY RECORDS

2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by First American Title Company and dated December 2, 2019, was provided for our review. The Property title is vested in *CITY OF OAKLEY, A CALIFORNIA MUNICIPAL CORPORATION*.

Notifications of easement/right-of-ways for pipelines, including sanitary sewer pipelines, are listed in the report. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix D.

2.1.2 Environmental Liens and Activity Use Limitations

The Preliminary Title Report was used to determine if there are any environmental liens and/or activity use limitations on the Property. Review of the Preliminary Title Report indicated that no environmental liens or activity use restrictions apply to the Property.

2.2 USER KNOWLEDGE OF PROPERTY

Mr. Bryan Montgomery, City Manager for the City of Oakley, completed two environmental site assessment questionnaires pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. In the questionnaires, Mr. Montgomery indicated the Property had historically consisted of pasture used for agricultural purposes since at least the early 1900s. Mr. Montgomery did not identify potential environmentally related issues with the Property. The questionnaires are presented in their entirety in Appendix G.

3.0 RECORDS REVIEW

3.1 PREVIOUS ENVIRONMENTAL REPORTS

ENGEO, Phase One Environmental Site Assessment, Emerson and Burroughs Properties, Cypress Corridor, Oakley, California, August 23, 1999, Project No. 4603.3.001.01.

In 1999, ENGEO prepared a Phase I Environmental Site Assessment (ESA) for an approximate 1,100-acre site located north of Cypress Road and east of Jersey Island Road in Oakley, California. The site includes the entirety of the 27-acre subject Property, as well as adjoining parcels to the west and north. At the time of this report, the subject Property was identified with APN 032-081-008.

The site reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no record of hazardous materials violations or discharge on the Property. A review of aerial photographs and available historical records found the Property has historically been used for pasture. In addition, a residence was noted in pre-1996 photographs. However, at the time of the site reconnaissance, the residence was not observed.

Based on the findings of this assessment, ENGEO provided the following recommendation for the Property.

- *Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with county/state regulations.*

ENGEO, Environmental Site Assessment Update, Emerson/Burroughs Properties, Cypress Avenue, Oakley, California, August 8, 2002, Project No. 4603.3.001.02.

Following the aforementioned ESA, ENGEO prepared an ESA update for the 1,100-acre site, including the entirety of the subject Property. For the ESA update, ENGEO performed a field reconnaissance of the Property, reviewed available aerial photographs, topographic maps, and regulatory databases, and interviewed persons knowledgeable about the site use history. Based on the finding of this assessment, ENGEO concluded that the condition of the site had not changed significantly since the 1999 ESA was conducted.

ENGEO provided the following recommendation for the Property.

- *Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with county/state regulations.*

ENGEO, Phase One Environmental Site Assessment, Burroughs Property (City Parcels), Cypress Road, Oakley, California, January 31, 2003, Project No. 4603.1.005.01.

In 2003, ENGEO prepared a phase I ESA for two subject parcels allocated to the City of Oakley which encompassed approximately 35 acres. The subject area included the entirety of the Property, which was identified by APN 032-081-008-08. At the time of the report, the improvements on the Property included a modular home, an irrigation well, septic system, and ancillary structures.

A review of aerial photographs and available historical records found the Property has historically been used for pasture. In addition, a residence was noted from at least 1953 to prior to 1968. The residence was demolished and removed from the Property by 1968. The modular home was placed on the Property by at least 1981. The remaining portion of the Property had been used as pasture land from at least 1953 to 2003. An inactive gas well site was identified near the western boundary of the Property. If a significant hazardous material release had occurred at this well, it is conceivable that groundwater at the Property may have been impacted.

The site reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no record of hazardous materials violations or discharge on the Property.

Based on the findings of this assessment, ENGEO provided the following recommendations for the Property.

- *A groundwater sampling and analyses program should be undertaken if the groundwater beneath the Property is to be used for domestic or irrigation purposes, or if dewatering is anticipated in association with future developments.*
- *An environmental professional should view the Property at the time of demolition and pre-grading activities, to observe areas that may have been obscured by structures or debris. Additional recommendations for subsurface assessments may be provided at the time of demolition.*
- *Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with county/state regulations.*

3.2 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.2.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix C.

TABLE 3.2.1-1: Historical Topographic Maps

QUAD	YEAR	DESCRIPTION
		<u>Property:</u> The Property appears as relatively level land. One structure is shown on the southern portion of the Property. An unimproved road is shown in the western portion of the Property, trending north to south.
Jersey/ Brentwood/ Byron	1910/1914/ 1916	<u>Adjoining:</u> A paved road is shown along the southern perimeter of the Property, trending west to east. Adjoining properties appear to be primarily undeveloped, with the exception of a few structures along the existing roads. Iron Horse School is visible to the west of the Property. A marsh is mapped to the southeast and intermittent streams are shown to the north, east, and south.
		<u>Property:</u> The Property appears unchanged from previous maps.
Byron	1940/1943	<u>Adjoining:</u> A levee is now shown along the northern perimeter of the Property. The levee separates the Property from Contra Costa Canal, which generally trends northwest to southeast. The road along the southern perimeter of the Property is now labeled as Cypress Road. Additional structures and roads are visible in the general vicinity of the Property. Agricultural land is shown to the southwest.
		<u>Property:</u> A second structure is now shown on the Property, southeast of the structure visible on previous maps.
Jersey Island/ Brentwood	1952/1954/ 1968	<u>Adjoining:</u> Additional structures and roads are visible in the general vicinity of the Property. Agricultural land is shown to the southwest.
		<u>Property:</u> The structures are no longer visible. Two wells are now visible near the eastern perimeter of the Property.
Jersey Island/ Brentwood	1978	<u>Adjoining:</u> Two wells are now visible on the adjoining property to the west.
		<u>Property:</u> Individual structures and wells are no longer visible on the 2012 map. The Property appears unchanged from previous maps.
Jersey Island/ Brentwood	2012	<u>Adjoining:</u> The surrounding area has been developed to a greater extent when compared with previous maps. Areas to the southwest appear to have been developed into large-scale residential developments, with major and minor arterial roads.

3.2.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

TABLE 3.2.2-1: Aerial Photographs

YEAR	DESCRIPTION
1939 to 1966	<u>Property</u> : The Property appears to be undeveloped land used for cattle grazing. A grouping of trees and two structures are visible in the southern portion of the Property, southeast of the grouping of trees. The structures appear to consist of a residence and an ancillary structure.
	<u>Adjoining</u> : The adjoining property to the west appears to be used for cattle grazing as well. Properties to the north, east, and south appear to be used for agriculture. A canal is visible along the northern perimeter of the Property, trending northwest to southeast.
1972 to 1979	<u>Property</u> : The structures are no longer visible.
	<u>Adjoining</u> : The surrounding areas appear unchanged from previous photographs.
1982 to 1984	<u>Property</u> : A new structure is visible in the southern portion of the Property, near the grouping of trees.
	<u>Adjoining</u> : The surrounding areas appear unchanged from previous photographs.
1993 to 2016	<u>Property</u> : The structure is no longer visible.
	<u>Adjoining</u> : The surrounding area appears unchanged from previous photographs.

3.2.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties. The Sanborn search summary is presented in Appendix B.

3.2.4 City Directory

City Directories, published since the 18th century for major towns and cities, list the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. The listings associated with the current address, 1180 East Cypress Road, associated with the Property is presented in Table 3.2.4-1 below.

TABLE 3.2.4-1: City Directory

YEAR	LISTING
2005	Occupant Unknown

3.3 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.3.1 Standard Environmental Records

3.3.1.1 Subject Property

The Property is not listed on the Standard Environmental Record source databases.

3.3.1.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

TABLE 3.3.1.2-1

FACILITY	STREET	DATABASES
VALUE PLUMBING INC	1571 E CYPRESS RD	AST
BLUE STAR GAS	1541 E CYPRESS RD	LUST
GAS N SAVE	1541 E CYPRESS RD	UST
BALDOCCHI PROPERTY	6390 SELLERS AVE	ENVIROSTOR

3.3.2 Additional Environmental Records

3.3.2.1 Subject Property

The Property is not listed on the Additional Environmental Record source databases.

3.3.2.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

TABLE 3.3.2.2-1

FACILITY	STREET	DATABASES
MARQUEZ ENERGY LLC	JERSEY ISLAND RD & CYPRESS RD	CONTRA COSTA CO. SITE LIST
CA RESOURCES PROD CORP – TAD 4, TAD 5	JERSEY ISLAND RD & CYPRESS RD	CONTRA COSTA CO. SITE LIST
VALUE PLUMBING INC	1571 E CYPRESS RD	CERS HAZ WASTE, CERS TANKS, CONTRA COSTA CO. SITE LIST, CERS
BLUE STAR GAS	1541 E CYPRESS RD	CERS
MISSION BAIT	1541 E CYPRESS RD	CERS HAZ WASTE, SWEEPS UST, CERS TQANKS, CONTRA COSTA CO. SITE LIST, CERS
GHAFOOR ABDUL	1541 E CYPRESS RD	EDR HIST AUTO
CCC PUBLIC WORKS	CYPRESS RD & SELLERS AVE	CONTRA COSTA CO. SITE LIST
ERSKINE ACRES	4310 KNIGHTSEN AVE	CONTRA COSTA CO. SITE LIST
BALDOCCHI PROPERTY	6390 SELLERS AVE	VCP

Blue Star Gas / Gas N Save / Mission Bait / Ghafoor Abdul

The adjoining property to the south of the subject Property is listed on the LUST and CERS databases as Blue Star Gas. The same site is listed on the UST database under the name Gas N Save and on additional environmental databases under the names Mission Bait and Ghafoor Abdul. According to the information provided, an unauthorized gasoline leak from an underground storage tank was detected at Blue Star Gas in March 2004. The leak was stopped immediately upon discovery. Following the gasoline leak, a LUST cleanup case was opened for the site and overseen by the Central Valley Regional Water Quality Control Board (CVRWQCB). The site investigation included a soil and groundwater investigation and groundwater monitoring to evaluate the extent of gasoline impacts to soil and groundwater. Corrective actions were completed in accordance with CVRWQCB directions. On August 30, 2011, a No Further Action letter was issued by the CVRWQCB and the case was closed on the LUST database. This site would not be expected to pose an environmental risk to the Property.

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. Properties that are on the “Orphan Summary” list are listed below.

TABLE 3.3.2-2

FACILITY	STREET	DATABASES
N/A	E SELLERS AVE & E CYPRESS RD	CDL
CITY OF OAKLEY	W CYPRESS RD	HAZNET

3.4 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

TABLE 3.4-1: Regulatory Agency Records

NAME OF AGENCY	RECORDS REVIEWED
City of Oakley City Clerk	The City of Oakley City Clerk was contacted regarding files for the Property. The City Clerk did not have any files pertaining to the Property.
East Contra Costa County Fire Protection District	The East Contra Costa County Fire Protection District (FPD) was contacted regarding files for the Property. The FPD did not have any files pertaining to the Property.
Contra Costa County Department of Environmental Health	The Contra Costa County Department of Environmental Health was contacted regarding files for the Property. The Department of Environmental Health provided several documents for the Property related to drilling permits obtained in 2005 for a geotechnical exploration conducted by Kleinfelder. The documents included a figure of the geotechnical exploration locations and the associated boring logs.
Contra Costa County Hazardous Materials Program	The Contra Costa County Hazardous Materials Program was contacted regarding files for the Property. The Hazardous Materials Program did not have any information regarding the Property.

NAME OF AGENCY	RECORDS REVIEWED
Contra Costa County Assessor's Office	The Contra Costa County Assessor's Office was contacted regarding files for the Property. The Assessor's Office did not have any files pertaining to the Property.
Division of Oil, Gas, and Geothermal Resources	The Division of Oil, Gas, and Geothermal Resources' (DOGGR) online database of wells, Well Finder, was reviewed for files pertaining to the Property. No wells were identified on the Property. One well was identified on the adjacent property immediately to the west. A summary of the DOGGR records for this well is provided below.

TABLE 3.4-2: DOGGR Records

WELL NO.	STATUS/TYPE	DEPTH (FT)	DATE DRILLED	DATE ABANDONED	SEAL (DEPTH BGS, FT)
5-5	Plugged and Abandoned/Dry Gas	7700	1964	2004	6971

As noted in Table 3.4-2, the dry gas well was plugged and abandoned in general accordance with DOGGR requirements in 2004. A well leak test was conducted by DOGGR on August 15, 2007. The leak test did not find any hazardous or damaged well conditions.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on December 9, 2019. The reconnaissance was performed by Victoria Drake, a Project Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

4.2 GENERAL SITE SETTING

The Property is primarily undeveloped grazing land, with the exception of perimeter fencing, overhead electric transmission lines along the northern perimeter, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. Additional interior fencing was observed within the southern portion of the site, near a gravel driveway. The interior fencing appeared to be constructed as a corral for cattle. At the end of the driveway, a cattle feeding area, above-ground storage tank, concrete foundations, metal shed, and water troughs were observed. The above-ground storage tank contained water that supplied one of the water troughs. The concrete foundations appear to be related to a single-family residence or similar structure that once existed on the Property. The shed contained a water well and pump that supplied water to two water troughs located adjacent to the shed.

At the time of our site reconnaissance, the majority of the Property was covered with shrubs and grasses. Several trees were observed near the cattle feeding area. Adjoining properties consist of cattle grazing land to the west, residential and commercial properties to the south, and agricultural land to the north.

Historically, the Property has been used for cattle grazing. Review of historic aerial photographs and topographic maps indicate that a residential structure existed near the southern perimeter of the Property from at least 1914 to sometime prior to 1968. The residence was demolished and removed from the Property by 1968. By 1981, a modular home was placed on the Property near the location of the remaining concrete foundations. The modular home was removed prior to 1999.

4.3 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance.

TABLE 4.3-1: Site Observations

FEATURE TYPE	OBSERVATIONS
Structures	A metal shed was observed within the southwest portion of the Property at the time of the reconnaissance. The shed contained a well that supplied water to troughs located adjacent to the shed.
Hazardous Substances and Petroleum Products/Containers	No hazardous substances were observed during the site reconnaissance.
Storage Tanks (underground and above-ground)	One above-ground storage tank was observed during the site reconnaissance. The tank was located near the cattle feeding area in the southern portion of the Property. The tank supplies water to an adjacent trough.
Odors	No odors were detected during the site reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of potentially hazardous liquids were observed during the site reconnaissance.
Drums	No drums were observed during the site reconnaissance.
Polychlorinated Biphenyls (PCBs)	No evidence of any PCBs was observed during the site reconnaissance.
Pits, Ponds, and Lagoons	No pits, ponds, or lagoons were observed during the reconnaissance.
Stained Soil/Pavement	No stained soil or pavement was observed during the reconnaissance.
Stressed Vegetation	No signs of stressed vegetation were observed during the site reconnaissance.
Solid Waste/Debris	A small amount of trash was observed along the fence at the southern perimeter of the Property.
Stockpiles/Fill Material	No stockpiles were observed during the site reconnaissance.
Wastewater	No evidence of any wastewater systems were observed during the site reconnaissance.
Wells	One well was observed within the Property during the site reconnaissance. The well was located in the shed in the southwest portion of the Property.
Septic Systems	No visual evidence of any septic systems were observed on the Property during the site reconnaissance. It is likely a septic system was utilized for the former residence.

4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment.

4.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 3 tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter (pCi/L¹).

In accordance with ASTM E2600-15 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); there is one potential petroleum hydrocarbon source for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) source within 1/3 mile of the Property. The potential petroleum hydrocarbon source for vapor intrusion is related to the Blue Star Gas cleanup site. The site is also listed under the following names: Gas N Save; Mission Bait; Ghafoor Abdul. The cleanup site is listed as closed. For additional information regarding the site, refer to Section 3.3.2.2. This site would not be expected to pose a vapor intrusion concern.

5.0 EVALUATION

5.1 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. No data gaps were encountered during our assessment.

5.2 FINDINGS AND CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials; and interview with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or

¹ California Department of Public Health – Radon Program–
(<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf>).

observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

Former Dry Gas Well

One abandoned dry gas production well is located near the western perimeter of the Property. Although there is no record of a release on the Property, it is conceivable that subsurface impacts associated with the historic gas production may have occurred. The following is recommended to address the historic gas production activities:

- If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the Property, specifically in the vicinity of the abandoned gas well, the impacted area(s) should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of contaminants of concern and comparison with applicable regulatory residential screening levels. If soil contamination concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of off site at a licensed landfill facility.

Former Residences

Based on our review of available information, it is possible that a septic system was installed to support the historic residences that existed on the Property. Given the age of the structures, there is a potential for near-surface soil impacts due to past pesticide applications and lead-based paint.

Existing septic systems and domestic/irrigation wells should be removed/abandoned in accordance with county and state regulations prior to the development of the Property.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.1 of this report.

- ENGEO recommends a limited subsurface assessment be undertaken to determine if the historic gas well operations have impacted site soil and/or groundwater. This assessment should include the recovery of soil, groundwater, and soil gas samples.
- ENGEO recommends that near-surface soil sampling be performed within the area of former residences to address potential impacts due to pesticides and lead-based paint.

SELECTED REFERENCES

- California Department of Conservation (DOGGR) (<http://maps.conservation.ca.gov/doms/doms-app.html>)
- California Department of Public Health – Radon Program–
(<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf>).
- California Department of Water Resources (<http://www.water.ca.gov/waterdatalibrary/>)
- Dibblee, T.W., 2006, Geologic Map of the Antioch South and Brentwood Quadrangles, Contra Costa County, California; Dibblee Geology Center map, 1:24,000.
- ENGEO, Environmental Site Assessment Update, Emerson/Burroughs Properties, Cypress Avenue, Oakley, California, August 8, 2002, Project No. 4603.3.001.02.
- ENGEO, Phase One Environmental Site Assessment, Emerson and Burroughs Properties, Cypress Corridor, Oakley, California, August 23, 1999, Project No. 4603.3.001.01.
- ENGEO, Phase One Environmental Site Assessment, Burroughs Property (City Parcels), Cypress Road, Oakley, California, January 31, 2003, Project No. 4603.1.005.01.
- First American Title Company, 2019, Preliminary Title Report, APN 032-081-025, Oakley, California, December 2, 2019.



DRAFT

FIGURES

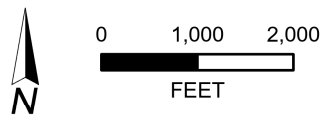
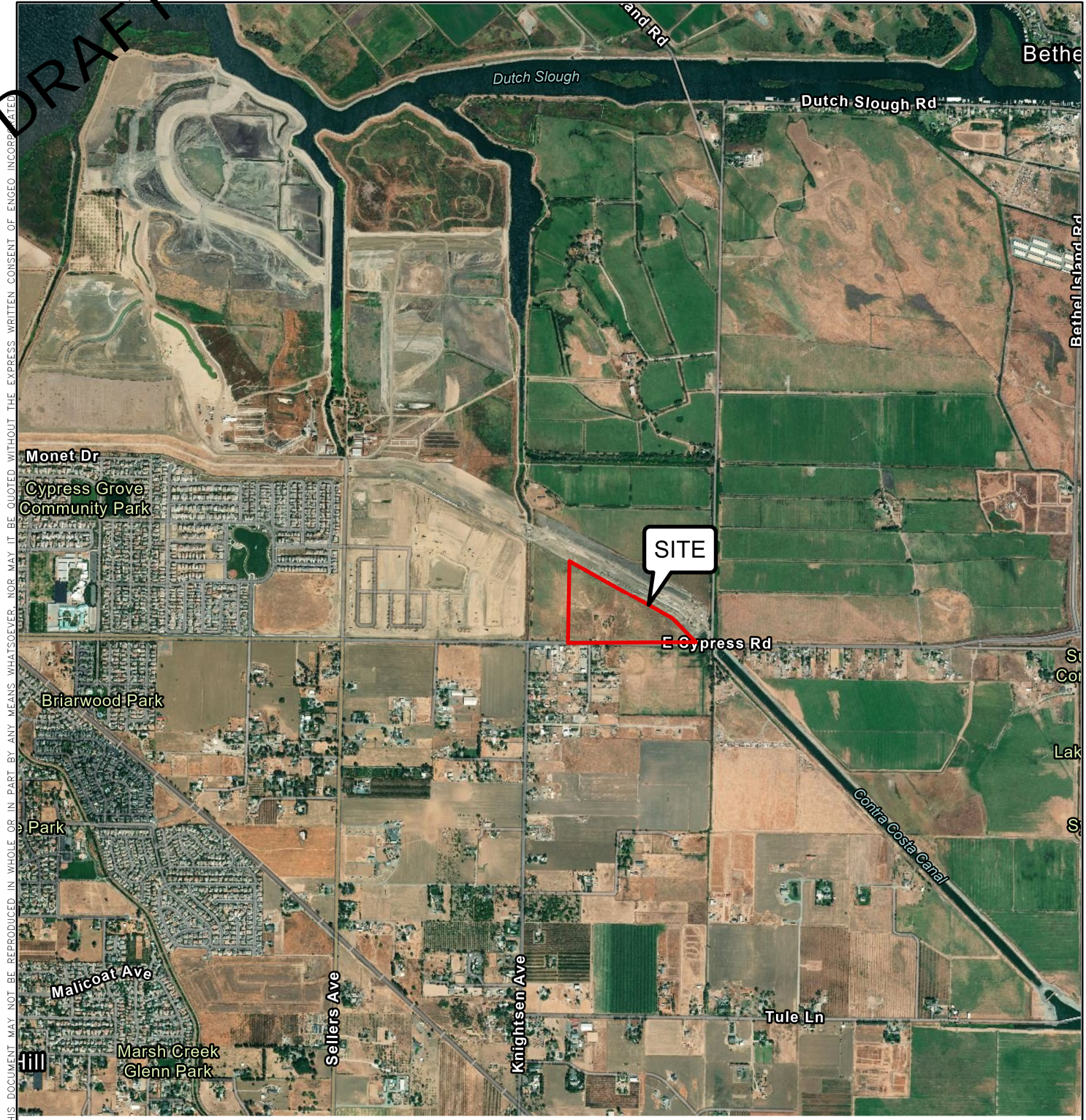
FIGURE 1: Vicinity Map

FIGURE 2: Site Plan

FIGURE 3: Assessor's Parcel Map

FIGURE 4: Site Photographs

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BASEMAP SOURCE: ESRI MAPPING SERVICE 2017



VICINITY MAP
 CITY OF OAKLEY PROPERTY
 OAKLEY, CALIFORNIA

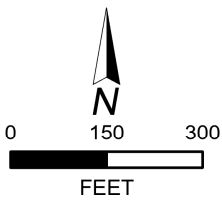
PROJECT NO. : 16836.000.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
1

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

-  PROJECT SITE
-  APPROX. FOOTPRINT OF EXISTING SHED
-  APPROX. LOCATION OF CONCRETE FOUNDATIONS
-  APPROX. LOCATION OF HISTORIC STRUCTURES (C. 1939 TO 1968)
-  ABANDONED DRY GAS WELL
-  APPROX. LOCATION OF EXISTING WELL

BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

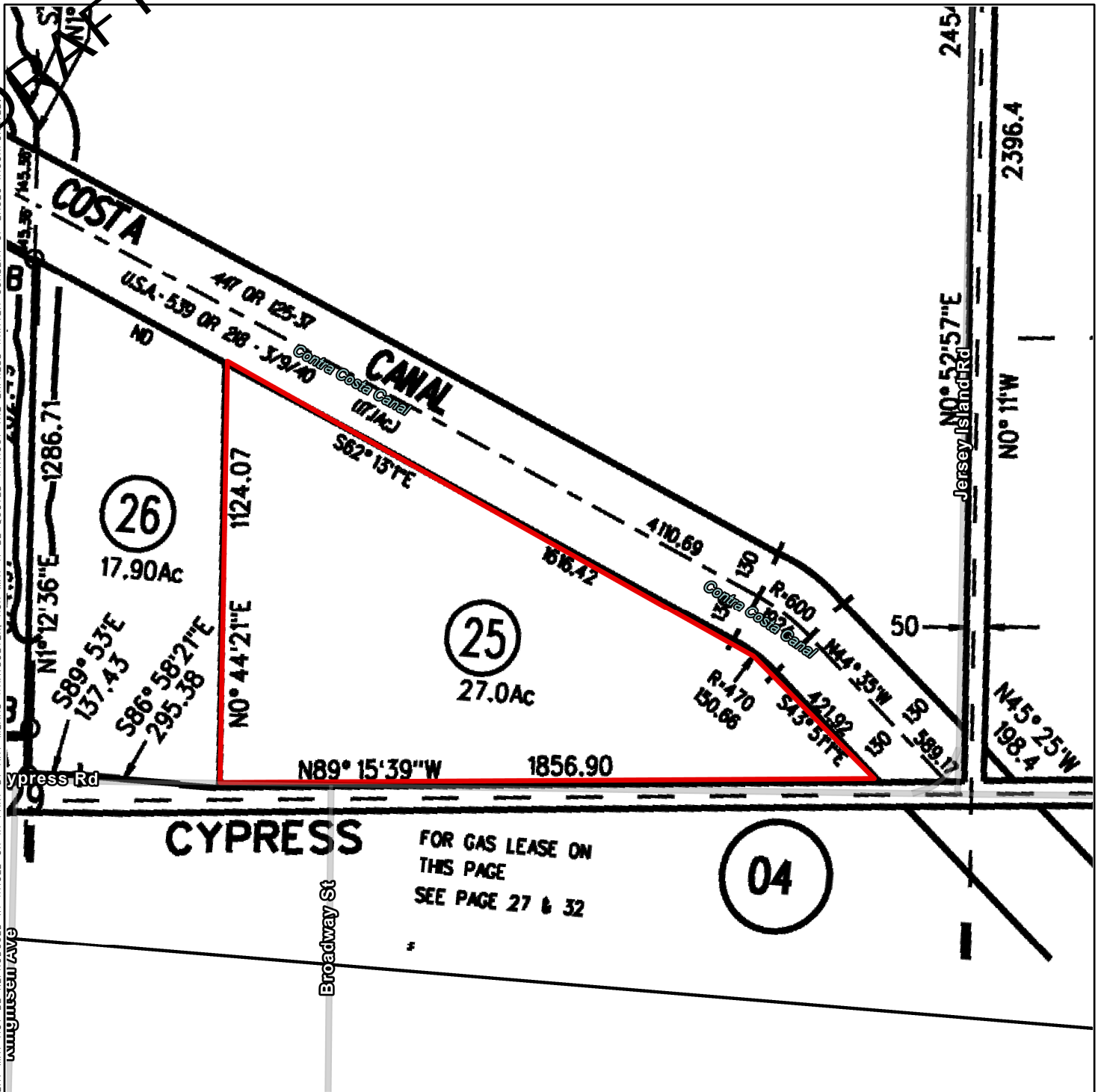


SITE PLAN
 CITY OF OAKLEY PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
2

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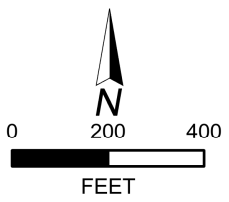


FOR GAS LEASE ON THIS PAGE SEE PAGE 27 & 32

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

 PROJECT SITE



BASEMAP SOURCE: CONTRA COSTA COUNTY ASSESSOR



ASSESSOR'S PARCEL MAP
CITY OF OAKLEY PROPERTY
OAKLEY, CALIFORNIA

PROJECT NO. :	16836.000.000
SCALE:	AS SHOWN
DRAWN BY:	QRL
CHECKED BY:	SPM

FIGURE NO.
3

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PHOTO 1
VIEW OF WELL PUMP LOCATED IN SHED.



PHOTO 2
VIEW OF WATER TROUGHS AND SHED, LOOKING EAST.



PHOTO 3
VIEW OF ABOVE-GROUND STORAGE TANK, WATER TROUGH,
AND CONCRETE FOUNDATIONS, LOOKING NORTH.



PHOTO 4
VIEW FROM SOUTHEAST CORNER OF THE PROPERTY, LOOKING
NORTHWEST.



PHOTO 5
VIEW FROM SOUTHEAST CORNER OF THE PROPERTY, LOOKING
WEST.



PHOTO 6
VIEW FROM SOUTHERN PERIMETER OF THE PROPERTY,
LOOKING NORTHWEST.

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SITE PHOTOGRAPHS
CITY OF OAKLEY PROPERTY
OAKLEY, CALIFORNIA

PROJECT NUMBER:	16836.000.000
SCALE:	NO SCALE
DRAWN BY:	QRL
CHECKED BY:	SPM

FIGURE NO.
4A

ORIGINAL FIGURE PRINTED IN COLOR

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PHOTO 7
VIEW FROM SOUTHERN PERIMETER OF THE PROPERTY,
LOOKING NORTH.



PHOTO 8
VIEW FROM SOUTHERN PERIMETER OF THE PROPERTY,
LOOKING EAST.



PHOTO 9
VIEW OF DRIVEWAY LEADING TO CATTLE FEEDING AREA,
LOOKING NORTH.



PHOTO 10
VIEW OF CORRAL LOCATED IN THE SOUTHWEST PORTION OF
THE PROPERTY, LOOKING WEST.



PHOTO 11
VIEW OF CONCRETE FOUNDATIONS NEAR CATTLE FEEDING
AREA, LOOKING NORTHEAST.



PHOTO 12
VIEW OF WATER TROUGH AND SHED, LOOKING NORTH.

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SITE PHOTOGRAPHS
CITY OF OAKLEY PROPERTY
OAKLEY, CALIFORNIA

PROJECT NUMBER: 16836.000.000	
SCALE:	NO SCALE
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
4B

ORIGINAL FIGURE PRINTED IN COLOR



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APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

City of Oakley Property

1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 05892895.2r
December 04, 2019

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	55
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1180 E. CYPRESS ROAD
OAKLEY, CA 94561

COORDINATES

Latitude (North): 37.9918360 - 37° 59' 30.60"
Longitude (West): 121.6642830 - 121° 39' 51.41"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 617290.9
UTM Y (Meters): 4205545.0
Elevation: 9 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5640376 BRENTWOOD, CA
Version Date: 2012

North Map: 5629060 JERSEY ISLAND, CA
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140606
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 1180 E. CYPRESS ROAD
 OAKLEY, CA 94561

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	VALUE PLUMBING INC	1571 CYPRESS RD E	AST	Higher	25, 0.005, SW
A2	MARQUEZ ENERGY LLC	JERSEY ISLAND RD & C	CONTRA COSTA CO. SITE LIST	Higher	183, 0.035, ESE
A3	CA RESOURCES PROD CO	JERSEY ISLAND & CYPR	CONTRA COSTA CO. SITE LIST	Higher	183, 0.035, ESE
B4	VALUE PLUMBING INC	1571 E CYPRESS RD	AST, CERS HAZ WASTE, CERS TANKS, CONTRA COSTA CO.	Higher	229, 0.043, WSW
B5	BLUE STAR GAS	1541 CYPRESS ROAD, E	LUST, CERS	Higher	321, 0.061, WSW
B6	GHAFOOR ABDUL	1541 E CYPRESS RD	EDR Hist Auto	Higher	421, 0.080, WSW
B7	GAS N SAVE	1541 E CYPRESS RD	UST	Higher	421, 0.080, WSW
B8	MISSION BAIT	1541 E CYPRESS RD	CERS HAZ WASTE, SWEEPS UST, CERS TANKS, CONTRA...	Higher	421, 0.080, WSW
9	CCC PUBLIC WORKS	CYPRESS RD & SELLERS	CONTRA COSTA CO. SITE LIST	Higher	1297, 0.246, West
10	ERSKINE ACRES	4310 KNIGHTSEN AVE	CONTRA COSTA CO. SITE LIST	Higher	1314, 0.249, SW
11	BALDOCCHI PROPERTY	6390 SELLERS AVENUE	ENVIROSTOR, VCP	Higher	3222, 0.610, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database

EXECUTIVE SUMMARY

SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
PFAS.....	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

HIST UST.....	Hazardous Substance Storage Container Database
CA FID UST.....	Facility Inventory Database

Local Land Records

LIENS.....	Environmental Liens Listing
LIENS 2.....	CERCLA Lien Information
DEED.....	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
FUDS.....	Formerly Used Defense Sites
DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program

EXECUTIVE SUMMARY

UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
EMI.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HAZNET.....	Facility and Manifest Data
ICE.....	ICE
HIST CORTESE.....	Hazardous Waste & Substance Site List
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
Notify 65.....	Proposition 65 Records
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
CIWQS.....	California Integrated Water Quality System
CERS.....	CERS
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)
MINES MRDS.....	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
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EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/29/2019 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>BALDOCCHI PROPERTY</i> Status: Active Facility Id: 60000650	<i>6390 SELLERS AVENUE</i>	<i>WSW 1/2 - 1 (0.610 mi.)</i>	<i>11</i>	<i>49</i>

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>BLUE STAR GAS</i> Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 09/09/2019	<i>1541 CYPRESS ROAD, E</i>	<i>WSW 0 - 1/8 (0.061 mi.)</i>	<i>B5</i>	<i>27</i>

EXECUTIVE SUMMARY

Status: Completed - Case Closed
Global Id: T0601389417

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GAS N SAVE Database: UST, Date of Government Version: 09/09/2019 Facility Id: 07-000-771132 Facility Id: 771132	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B7	35

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC Database: AST, Date of Government Version: 07/06/2016	1571 CYPRESS RD E	SW 0 - 1/8 (0.005 mi.)	1	9
VALUE PLUMBING INC Database: AST, Date of Government Version: 07/06/2016	1571 E CYPRESS RD	WSW 0 - 1/8 (0.043 mi.)	B4	10

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 08/14/2019 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC	1571 E CYPRESS RD	WSW 0 - 1/8 (0.043 mi.)	B4	10
MISSION BAIT	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B8	35

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION BAIT Status: A Tank Status: A Comp Number: 71132	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B8	35

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 08/14/2019 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC	1571 E CYPRESS RD	WSW 0 - 1/8 (0.043 mi.)	B4	10
MISSION BAIT	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B8	35

Other Ascertainable Records

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 08/20/2019 has revealed that there are 6 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MARQUEZ ENERGY LLC Facility Id: FA0029049	JERSEY ISLAND RD & C	ESE 0 - 1/8 (0.035 mi.)	A2	9
CA RESOURCES PROD CO Facility Id: FA0028817	JERSEY ISLAND & CYPR	ESE 0 - 1/8 (0.035 mi.)	A3	10
VALUE PLUMBING INC Facility Id: FA0029397	1571 E CYPRESS RD	WSW 0 - 1/8 (0.043 mi.)	B4	10
MISSION BAIT Facility Id: FA0027908	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B8	35
CCC PUBLIC WORKS Facility Id: FA0028708	CYPRESS RD & SELLERS	W 1/8 - 1/4 (0.246 mi.)	9	49
ERSKINE ACRES Facility Id: FA0029498	4310 KNIGHTSEN AVE	SW 1/8 - 1/4 (0.249 mi.)	10	49

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GHAFOOR ABDUL	1541 E CYPRESS RD	WSW 0 - 1/8 (0.080 mi.)	B6	34

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

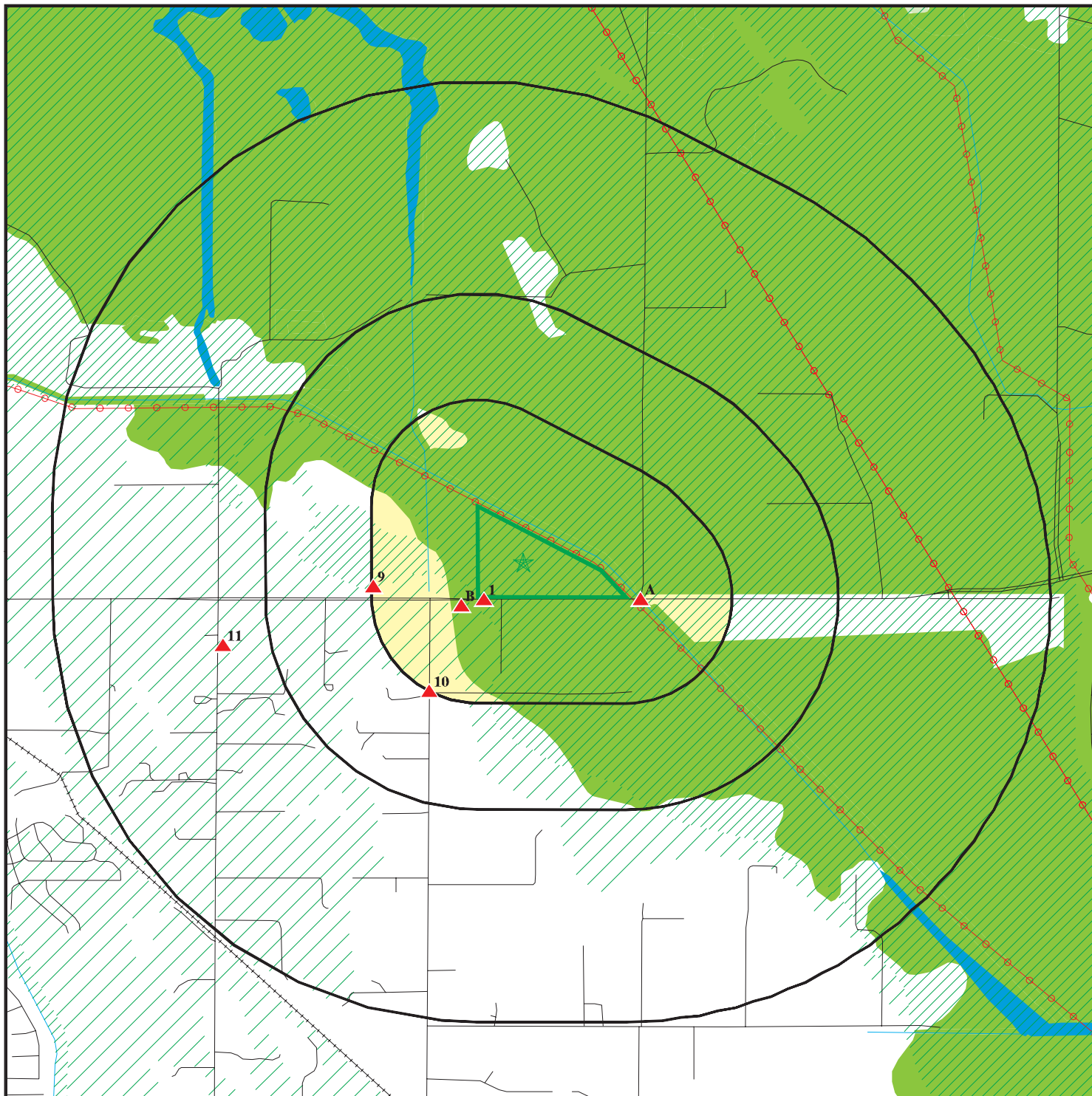
Site Name

Database(s)


CITY OF OAKLEY


CDL
HAZNET

OVERVIEW MAP - 05892895.2R



 Target Property

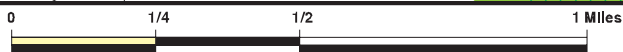
 Sites at elevations higher than or equal to the target property

 Sites at elevations lower than the target property


 Manufactured Gas Plants

 National Priority List Sites


 Dept. Defense Sites



 Indian Reservations BIA

 Areas of Concern

 Power transmission lines

 Special Flood Hazard Area (1%)

 0.2% Annual Chance Flood Hazard

 National Wetland Inventory

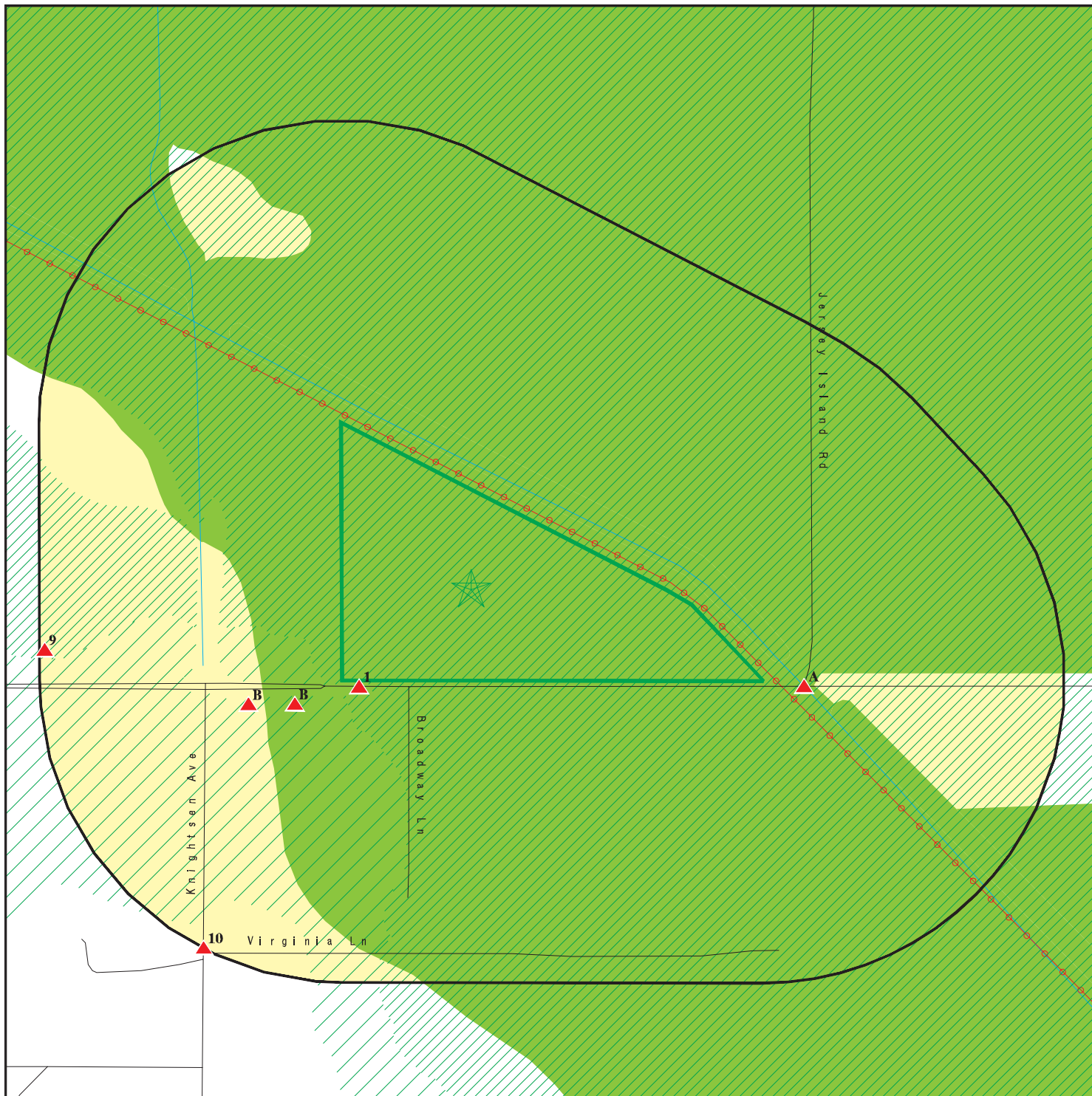
 State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.991836 / 121.664283

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892895.2r
 DATE: December 04, 2019 3:11 pm

DETAIL MAP - 05892895.2R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

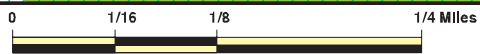
Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.991836 / 121.664283

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892895.2r
 DATE: December 04, 2019 3:12 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		0	0	0	1	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		2	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		2	0	NR	NR	NR	2
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		2	0	NR	NR	NR	2
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
CONTRA COSTA CO. SITE	0.250		4	2	NR	NR	NR	6
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0

- Totals --		0	14	2	0	1	0	17
-------------	--	---	----	---	---	---	---	----

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
-----------------	--	----------------------------	-----------------	------------------	------------------	----------------	---------------	--------------------------

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
SW
< 1/8
0.005 mi.
25 ft.

VALUE PLUMBING INC
1571 CYPRESS RD E
OAKLEY, CA

AST S103464371
N/A

Relative:
Higher
Actual:
9 ft.

AST:
Name: VALUE PLUMBING INC
Address: 1571 CYPRESS RD E
City/Zip: OAKLEY,
Certified Unified Program Agencies: Contra Costa
Owner: Not reported
Total Gallons: 1,320
CERSID: Not reported
Facility ID: Not reported
Business Name: Not reported
Phone: Not reported
Fax: Not reported
Mailing Address: Not reported
Mailing Address City: Not reported
Mailing Address State: Not reported
Mailing Address Zip Code: Not reported
Operator Name: Not reported
Operator Phone: Not reported
Owner Phone: Not reported
Owner Mail Address: Not reported
Owner State: Not reported
Owner Zip Code: Not reported
Owner Country: Not reported
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported
Property Owner Country: Not reported
EPAID: Not reported

A2
ESE
< 1/8
0.035 mi.
183 ft.

MARQUEZ ENERGY LLC
JERSEY ISLAND RD & CYPRES
OAKLEY, CA 94561

CONTRA COSTA CO. SITE LIST S10666507
N/A

Site 1 of 2 in cluster A

Relative:
Higher
Actual:
9 ft.

CONTRA COSTA CO. SITE LIST:
Name: MARQUEZ ENERGY LLC
Address: JERSEY ISLAND RD & CYPRES
City: OAKLEY
Facility ID: FA0029049
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >10K-100K LBS, 0-19 EMPLOYEES
Region: CONTRA COSTA
Cupa Number: 772349

Name: MARQUEZ ENERGY LLC
Address: JERSEY ISLAND RD & CYPRES
City: OAKLEY
Facility ID: FA0029049
Billing Status: INACTIVE, NON-BILLABLE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MARQUEZ ENERGY LLC (Continued)

S10666507

Program Status: CONTRA COSTA CO. SITE LIST
 Program/Elements: HWG: LESS THAN 5 TONS/YEAR
 Region: CONTRA COSTA
 Cupa Number: 772349

A3
ESE
 < 1/8
 0.035 mi.
 183 ft.

CA RESOURCES PROD CORP - TAD 4, TAD 5
JERSEY ISLAND & CYPRESS RD
OAKLEY, CA 94561

CONTRA COSTA CO. SITE LIST

S118399527
N/A

Site 2 of 2 in cluster A

Relative:
Higher
Actual:
9 ft.

CONTRA COSTA CO. SITE LIST:

Name: CA RESOURCES PROD CORP - TAD 4, TAD 5
 Address: JERSEY ISLAND & CYPRESS RD
 City: OAKLEY
 Facility ID: FA0028817
 Billing Status: INACTIVE, NON-BILLABLE
 Program Status: CONTRA COSTA CO. SITE LIST
 Program/Elements: HMBP: >10K-100K LBS, 0-19 EMPLOYEES
 Region: CONTRA COSTA
 Cupa Number: 772103

Name: CA RESOURCES PROD CORP - TAD 4, TAD 5
 Address: JERSEY ISLAND & CYPRESS RD
 City: OAKLEY
 Facility ID: FA0028817
 Billing Status: INACTIVE, NON-BILLABLE
 Program Status: CONTRA COSTA CO. SITE LIST
 Program/Elements: HWG: LESS THAN 5 TONS/YEAR
 Region: CONTRA COSTA
 Cupa Number: 772103

B4
WSW
 < 1/8
 0.043 mi.
 229 ft.

VALUE PLUMBING INC
1571 E CYPRESS RD
OAKLEY, CA 94561

AST
CERS HAZ WASTE
CERS TANKS
CONTRA COSTA CO. SITE LIST
CERS

S109934459
N/A

Site 1 of 5 in cluster B

Relative:
Higher
Actual:
9 ft.

AST:

Name: VALUE PLUMBING INC
 Address: 1571 E CYPRESS RD
 City/Zip: OAKLEY,94561
 Certified Unified Program Agencies: Not reported
 Owner: Todd Mullins
 Total Gallons: Not reported
 CERSID: 10015906
 Facility ID: 07-000-772717
 Business Name: VALUE PLUMBING INC
 Phone: 925-679-3829
 Fax: Not reported
 Mailing Address: 1571 E Cypress Rd
 Mailing Address City: Oakley
 Mailing Address State: CA
 Mailing Address Zip Code: 94561
 Operator Name: Bill Partridge
 Operator Phone: 925-679-3829

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Owner Phone: 925-679-3829
Owner Mail Address: 1571 E Cypress Rd
Owner State: CA
Owner Zip Code: 94561
Owner Country: United States
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported
Property Owner Country: Not reported
EPAID: CAL000313948

CERS HAZ WASTE:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Hazardous Waste Generator

CERS TANKS:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Aboveground Petroleum Storage

CONTRA COSTA CO. SITE LIST:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY
Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: APSA: <10K GALLONS
Region: CONTRA COSTA
Cupa Number: 772717

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY
Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >10K-100K LBS, 20+ EMPLOYEES
Region: CONTRA COSTA
Cupa Number: 772717

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY
Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: 5 - <12 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 772717

CERS:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 12/08/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.
Violation Notes: Returned to compliance on 04/25/2019. OBSERVATION: Failure to maintain the facility SPCC plan onsite. The facility representative could not locate the SPCC Plan at time of inspection. CORRECTIVE ACTION: Locate the facility tier 1 SPCC plan developed in 2015/2016 and implement and maintain the plan on site.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-17-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 05-09-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Section(s) Multiple
Business Plan Program - Administration/Documentation - General
Returned to compliance on 05/16/2016.
Violation Description: Contra Costa County Health Services Department
Violation Notes: HMRRP
Violation Division: CERS
Violation Program: CERS
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 04-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: AS OF APRIL 1, 2019, CCHSHMP HAS NOT RECEIVED/ACCEPTED A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) SUBMITTAL FOR THE FOLLOWING SUBMITTAL ELEMENT(S): Facility Information AND/OR Hazardous Materials Inventory AND/OR Emergency Response/Training Plans
CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (<https://cers.calepa.ca.gov/>) AND SUBMIT COMPLETE/CORRECT Facility Information AND OR Hazardous Materials Inventory AND/OR Emergency Response/Training Plans.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 10/05/2018. OBSERVATION: The business failed to provide annual training to all employees on the emergency response plan in the last 12 months and maintain training records for a minimum of three years. CORRECTIVE ACTION: Conduct and document employee training on the facility consolidated emergency response plan, and provide CCHS-HMP with a copy of the training documentation.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 01/15/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 03-27-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/30/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-22-2015
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 01/24/2017.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 01-15-2019
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.
Violation Notes: Returned to compliance on 04/25/2019. OBSERVATION: Failure to maintain an SPCC Plan onsite. The facility was unable to locate the Tier 1 SPCC Plan developed in January 2016 during the 9/28/18 inspection. CORRECTIVE ACTION: Locate and maintain the 2016 Tier 1 SPCC plan onsite or develop and complete a new SPCC Plan. Provide CCHS-HMP notification / documentation that the plan has been located or a new plan has been completed.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 06-24-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 06-24-2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 12/08/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-17-2014
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: The business failed to electronically submit chemical inventory information for all reportable hazardous materials on site above reportable quantities. Two cylinders of compressed Oxygen equal to 406 cubic feet (largest container of 281 cubic feet) and two cylinders of compressed Acetylene equal to 264 cubic feet (largest container of 132 cubic feet) were observed on site during the inspection. These stored chemical are missing in the facility 2018 CERS submittal. CORRECTIVE ACTION: Add the missing Oxygen and Acetylene stored inventory to the chemical inventory in a new CERS submittal.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-17-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

<p>Violation Description: Violation Notes: Violation Division: Violation Program: Violation Source:</p>	<p>Business Plan Program - Administration/Documentation - General Returned to compliance on 10/21/2014. Contra Costa County Health Services Department HMRRP CERS</p>
<p>Site ID: Site Name: Violation Date: Citation:</p>	<p>165802 VALUE PLUMBING INC 09-28-2018 HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)</p>
<p>Violation Description: Violation Notes:</p>	<p>Failure to conduct spill prevention briefing for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan. Returned to compliance on 04/23/2019. OBSERVATION: Failure to schedule and conduct spill prevention briefings at least once a year. The facility has not conducted an SPCC spill prevention briefing in the last year. CORRECTIVE ACTION: Conduct an SPCC spill prevention briefing and provide CCHS-HMP with documentation of the briefing. Maintain records of the briefings in the future on site.</p>
<p>Violation Division: Violation Program: Violation Source:</p>	<p>Contra Costa County Health Services Department APSA CERS</p>
<p>Site ID: Site Name: Violation Date: Citation:</p>	<p>165802 VALUE PLUMBING INC 06-24-2014 HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple</p>
<p>Violation Description: Violation Notes: Violation Division: Violation Program: Violation Source:</p>	<p>APSA Program - Administration/Documentation - General Returned to compliance on 10/21/2014. Contra Costa County Health Services Department APSA CERS</p>
<p>Site ID: Site Name: Violation Date: Citation:</p>	<p>165802 VALUE PLUMBING INC 04-01-2019 HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)</p>
<p>Violation Description: Violation Notes:</p>	<p>Failure to report program data electronically. Returned to compliance on 04/23/2019. OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (https://cers.calepa.ca.gov/) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.</p>
<p>Violation Division: Violation Program: Violation Source:</p>	<p>Contra Costa County Health Services Department HW CERS</p>
<p>Site ID: Site Name: Violation Date: Citation:</p>	<p>165802 VALUE PLUMBING INC 12-08-2015 HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple</p>
<p>Violation Description:</p>	<p>APSA Program - Administration/Documentation - General</p>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Violation Notes: Not reported
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)

Violation Description: Failure to comply with one or more of the following requirements: 1. Have record of inspections and integrity tests signed by the appropriate supervisor or inspector. 2. Keep written procedures and records of inspections and integrity tests for at least three years. 3. Keep comparison records.

Violation Notes: Returned to compliance on 10/05/2018. OBSERVATION: Failure to document and sign periodic petroleum storage inspection logs. CORRECTIVE ACTION: Complete and sign the monthly petroleum storage inspection logs as defined in the facility SPCC Plan. Provide CCHS-HMP with documentation of a completed, signed inspection log for October, 2018. Maintain all inspection logs on site for three years.

Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Evaluation:

Eval General Type: Other/Unknown
Eval Date: 01-15-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-15-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-24-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-23-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-23-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-26-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-05-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-05-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-22-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Enforcement Action:
Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 01-15-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UNSPEC
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 05-09-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-22-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Coordinates:

Site ID: 165802
Facility Name: VALUE PLUMBING INC
Env Int Type Code: HWG
Program ID: 10015906
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.990005
Longitude: -121.666954

Affiliation:

Affiliation Type Desc: Document Preparer
Entity Name: Melissa Santiago
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Melissa Santiago
Entity Title: Office Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Todd Mullins
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94517
Affiliation Phone: (925) 679-3829

Affiliation Type Desc: Parent Corporation
Entity Name: VALUE PLUMBING INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: MELISSA SANTIAGO
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94517
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94517
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: Gary Mullins
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 679-3829

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

B5
WSW
< 1/8
0.061 mi.
321 ft.

BLUE STAR GAS
1541 CYPRESS ROAD, E
OAKLEY, CA 94561

Site 2 of 5 in cluster B

LUST S106229770
CERS N/A

Relative:
Higher

LUST REG 5:

Actual:
10 ft.

Name: BLUE STAR GAS
Address: 1541 CYPRESS ROAD, E
City: OAKLEY
Region: 5
Status: Not reported
Case Number: 070108
Case Type: Other ground water affected
Substance: GASOLINE
Staff Initials: PMV
Lead Agency: Regional
Program: LUST
MTBE Code: N/A

LUST:

Name: BLUE STAR GAS
Address: 1541 CYPRESS ROAD, E
City,State,Zip: OAKLEY, CA 94561
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5S)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0601389417
Global Id: T0601389417
Latitude: 37.99042
Longitude: -121.667293333333
Status: Completed - Case Closed
Status Date: 08/30/2011
Case Worker: VJF
RB Case Number: 070108
Local Agency: CONTRA COSTA COUNTY
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Site History: The case was opened following an unauthorized release from an underground storage tank system at the subject site. Corrective action is underway as directed by the CVRWQCB. Corrective action may consist of preliminary site investigation, planning and implementation of remedial action, verification monitoring, or a combination thereof. A summary of the site history is available by clicking on either the

LUST:

Global Id: T0601389417
Contact Type: Local Agency Caseworker
Contact Name: JERRY YOSHIOKA
Organization Name: CONTRA COSTA COUNTY
Address: 4333 PACHECO BLVD
City: MARTINEZ
Email: Not reported
Phone Number: Not reported

Global Id: T0601389417
Contact Type: Regional Board Caseworker
Contact Name: VERA J. FISCHER
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: vera.fischer@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/01/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 03/03/2011
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/28/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/19/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/21/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/22/2009
Action: Technical Correspondence / Assistance / Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	08/18/2009
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	09/30/2010
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	10/15/2010
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	09/09/2010
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	Other
Date:	03/15/2004
Action:	Leak Discovery
Global Id:	T0601389417
Action Type:	RESPONSE
Date:	07/06/2004
Action:	Other Workplan
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	09/05/2006
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/05/2007
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	11/20/2007
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	01/31/2007
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	05/16/2007
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Date: 08/30/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/15/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/16/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/19/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: Other
Date: 03/15/2004
Action: Leak Stopped

Global Id: T0601389417
Action Type: RESPONSE
Date: 03/30/2005
Action: Other Workplan

Global Id: T0601389417
Action Type: REMEDIATION
Date: 03/15/2004
Action: Not reported

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 01/31/2008
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/08/2008
Action: Staff Letter

Global Id: T0601389417
Action Type: Other
Date: 04/04/2004
Action: Leak Reported

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/26/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/19/2006
Action: Technical Correspondence / Assistance / Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/22/2008
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	08/31/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/17/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	01/30/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/24/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	03/02/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	11/23/2004
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	02/04/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	10/24/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	08/28/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	10/02/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Date: 12/08/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 11/05/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/28/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/01/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/29/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 04/16/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 07/10/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 01/31/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/15/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 02/24/2009
Action: 13267 Requirement

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/18/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 06/22/2007
Action: Staff Letter

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 12/05/2009
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 04/22/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/05/2004
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 02/18/2005
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/18/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/30/2011
Action: Closure/No Further Action Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/17/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/24/2009
Action: Technical Correspondence / Assistance / Other

LUST:

Global Id: T0601389417
Status: Open - Case Begin Date
Status Date: 03/15/2004

Global Id: T0601389417
Status: Open - Site Assessment
Status Date: 09/11/2008

Global Id: T0601389417
Status: Open - Verification Monitoring
Status Date: 10/01/2010

Global Id: T0601389417
Status: Completed - Case Closed
Status Date: 08/30/2011

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BLUE STAR GAS (Continued)

S106229770

CERS:

Name: BLUE STAR GAS
 Address: 1541 CYPRESS ROAD, E
 City,State,Zip: OAKLEY, CA 94561
 Site ID: 205337
 CERS ID: T0601389417
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
 Entity Name: VERA J. FISCHER - CENTRAL VALLEY RWQCB (REGION 5S)
 Entity Title: Not reported
 Affiliation Address: 11020 SUN CENTER DRIVE #200
 Affiliation City: RANCHO CORDOVA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: JERRY YOSHIOKA - CONTRA COSTA COUNTY
 Entity Title: Not reported
 Affiliation Address: 4333 PACHECO BLVD
 Affiliation City: MARTINEZ
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: Not reported

B6
WSW
< 1/8
0.080 mi.
421 ft.

GHAFOOR ABDUL
1541 E CYPRESS RD
OAKLEY, CA 94561

EDR Hist Auto 1020709704
N/A

Site 3 of 5 in cluster B

Relative: EDR Hist Auto
Higher

Actual:
12 ft.

Year:	Name:	Type:
1995	MISSION BAIT	Sporting Goods And Bicycle Shops
1996	MISSION BAIT	Sporting Goods And Bicycle Shops
1997	MISSION BAIT	Sporting Goods And Bicycle Shops
1998	MISSION BAIT	Sporting Goods And Bicycle Shops
2000	GHAFOOR ABDUL	Convenience Stores
2006	VALERO GAS STATION	Gasoline Service Stations
2007	GHAFOOR ABDUL	Convenience Stores
2007	VALERO GAS STATION	Gasoline Service Stations
2008	GHAFOOR ABDUL	Convenience Stores
2008	VALERO GAS STATION	Gasoline Service Stations
2009	GHAFOOR ABDUL	Convenience Stores
2009	GAS & SAVE	Gasoline Service Stations
2009	VALERO GAS STATION	Gasoline Service Stations
2010	GAS & SAVE	Gasoline Service Stations
2010	GHAFOOR ABDUL	Convenience Stores
2010	VALERO GAS STATION	Gasoline Service Stations
2011	VALERO GAS STATION	Gasoline Service Stations
2011	GHAFOOR ABDUL	Convenience Stores
2011	GAS & SAVE	Gasoline Service Stations

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

GHAFOOR ABDUL (Continued)

1020709704

2012	GHAFOOR ABDUL	Convenience Stores
2012	GAS & SAVE	Gasoline Service Stations
2012	VALERO GAS STATION	Gasoline Service Stations
2013	GHAFOOR ABDUL	Convenience Stores
2013	GAS & SAVE	Gasoline Service Stations
2013	VALERO GAS STATION	Gasoline Service Stations
2014	GAS & SAVE	Gasoline Service Stations
2014	VALERO GAS STATION	Gasoline Service Stations
2014	GHAFOOR ABDUL	Convenience Stores

B7
WSW
 < 1/8
 0.080 mi.
 421 ft.

GAS N SAVE
1541 E CYPRESS RD
OAKLEY, CA 94561
 Site 4 of 5 in cluster B

UST U003784376
N/A

Relative:
Higher
Actual:
12 ft.

UST:
 Name: GAS N SAVE
 Address: 1541 E CYPRESS RD
 City,State,Zip: OAKLEY, CA 94561
 Facility ID: 07-000-771132
 Permitting Agency: Contra Costa County Health Services Department
 Latitude: 37.990009
 Longitude: -121.667679

Name: BLUE STAR GAS MART
 Address: 1541 E CYPRESS RD
 City,State,Zip: OAKLEY, CA 94561
 Facility ID: 771132
 Permitting Agency: CONTRA COSTA COUNTY
 Latitude: 37.991352
 Longitude: -121.66632

B8
WSW
 < 1/8
 0.080 mi.
 421 ft.

MISSION BAIT
1541 E CYPRESS RD
OAKLEY, CA 94561
 Site 5 of 5 in cluster B

CERS HAZ WASTE S106929457
SWEEPS UST N/A
CERS TANKS
CONTRA COSTA CO. SITE LIST
CERS

Relative:
Higher
Actual:
12 ft.

CERS HAZ WASTE:
 Name: GAS N SAVE
 Address: 1541 E CYPRESS RD
 City,State,Zip: OAKLEY, CA 94561
 Site ID: 393703
 CERS ID: 10011439
 CERS Description: Hazardous Waste Generator

SWEEPS UST:
 Name: MISSION BAIT
 Address: 1541 E CYPRESS RD
 City: OAKLEY
 Status: Active
 Comp Number: 71132
 Number: 3
 Board Of Equalization: Not reported
 Referral Date: 04-29-91

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000001
Tank Status: A
Capacity: 10000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Name: MISSION BAIT
Address: 1541 E CYPRESS RD
City: OAKLEY
Status: Active
Comp Number: 71132
Number: 3
Board Of Equalization: Not reported
Referral Date: 04-29-91
Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000002
Tank Status: A
Capacity: 5000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Name: MISSION BAIT
Address: 1541 E CYPRESS RD
City: OAKLEY
Status: Active
Comp Number: 71132
Number: 3
Board Of Equalization: Not reported
Referral Date: 04-29-91
Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000003
Tank Status: A
Capacity: 5000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CERS TANKS:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 393703

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

CERS ID: 10011439
CERS Description: Underground Storage Tank

CONTRA COSTA CO. SITE LIST:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >100K-250K LBS, 0-19 EMPLOYEES
Region: CONTRA COSTA
Cupa Number: 771132

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: REPORTED ZERO
Region: CONTRA COSTA
Cupa Number: 771132

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE
Region: CONTRA COSTA
Cupa Number: 771132

CERS:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 393703
CERS ID: 10011439
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-02-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 01/08/2019. OBSERVATION: Site map needs to be updated with new state required elements: north orientation, loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment. CORRECTIVE ACTION: Complete and electronically submit a site map with all required content.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 06-09-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only

Violation Notes: Returned to compliance on 06/22/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 04-01-2019
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286

Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violation Notes: Returned to compliance on 04/08/2019. OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) UNDERGROUND STORAGE TANK (UST) SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (<https://cers.calepa.ca.gov/>) AND SUBMIT A COMPLETE/CORRECT UST SUBMITTAL ELEMENT.

Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-04-2016
Citation: HSC 6.7 Multiple - California Health and Safety Code, Chapter 6.7, Section(s) Multiple

Violation Description: UST Program - Administration/Documentation - General - Must include violation description, proper statute and regulation citation in the "comment" section.

Violation Notes: Returned to compliance on 08/04/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-03-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/03/2017.

Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site Name: GAS N SAVE
Violation Date: 08-06-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/06/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 05-01-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 05/26/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 03-27-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/29/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 03-27-2018
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 04/27/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-04-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/04/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-08-2013
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/08/2013.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 05-01-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 06/22/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-08-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-01-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-01-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-09-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-02-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-02-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-03-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Date: 08-03-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-03-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-04-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-04-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-06-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 05-01-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 05-01-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-09-2015
Enf Action Type: Notice of Violation (Unified Program)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-02-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-03-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-04-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-04-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-06-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-08-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

Site ID: 393703
Facility Name: GAS N SAVE
Env Int Type Code: HMBP
Program ID: 10011439
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.990002
Longitude: -121.667671

Affiliation:

Affiliation Type Desc: Document Preparer
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: GURMEJ SINGH
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94561
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Affiliation Type Desc: Parent Corporation
Entity Name: GAS N SAVE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: 1541 e cypress rd
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 325-8364

Affiliation Type Desc: Operator
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 625-6055

Affiliation Type Desc: Property Owner
Entity Name: TARLOK THIND
Entity Title: Not reported
Affiliation Address: 1541 E Cypress Rd
Affiliation City: Oakley
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 529-0901

Affiliation Type Desc: UST Tank Operator
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-6055

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco Blvd Suite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94561
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: GURINDER SINGH
Entity Title: MANAGER
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: GURINDER SINGH
Entity Title: PRESIDENT
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 529-0901

Affiliation Type Desc: UST Property Owner Name
Entity Name: TARLOK SINGH THIND
Entity Title: Not reported
Affiliation Address: 10 MERGANSER CT
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-2448

Affiliation Type Desc: UST Tank Owner
Entity Name: TARLOK SINGH THIND
Entity Title: Not reported
Affiliation Address: 10 MERGANSER CT
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-6055

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

9 West 1/8-1/4 0.246 mi. 1297 ft.	CCC PUBLIC WORKS CYPRESS RD & SELLERS AVE OAKLEY, CA 94561	CONTRA COSTA CO. SITE LIST	S102261382 N/A
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Relative: CONTRA COSTA CO. SITE LIST:
Higher

Actual: 12 ft.

Name: CCC PUBLIC WORKS
 Address: CYPRESS RD & SELLERS AVE
 City: OAKLEY
 Facility ID: FA0028708
 Billing Status: INACTIVE, NON-BILLABLE
 Program Status: CONTRA COSTA CO. SITE LIST
 Program/Elements: UNDERGROUND STORAGE TANK SITE
 Region: CONTRA COSTA
 Cupa Number: 771982

10 SW 1/8-1/4 0.249 mi. 1314 ft.	ERSKINE ACRES 4310 KNIGHTSEN AVE KNIGHTSEN, CA 94548	CONTRA COSTA CO. SITE LIST	S103894539 N/A
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Relative: CONTRA COSTA CO. SITE LIST:
Higher

Actual: 12 ft.

Name: ERSKINE ACRES
 Address: 4310 KNIGHTSEN AVE
 City: KNIGHTSEN
 Facility ID: FA0029498
 Billing Status: INACTIVE, NON-BILLABLE
 Program Status: CONTRA COSTA CO. SITE LIST
 Program/Elements: HWG: LESS THAN 5 TONS/YEAR
 Region: CONTRA COSTA
 Cupa Number: 772820

11 WSW 1/2-1 0.610 mi. 3222 ft.	BALDOCCHI PROPERTY 6390 SELLERS AVENUE OAKLEY, CA 94561	ENVIROSTOR VCP	S108649760 N/A
--	--	--------------------------	--------------------------

Relative: ENVIROSTOR:
Higher

Actual: 13 ft.

Name: BALDOCCHI PROPERTY
 Address: 6390 SELLERS AVENUE
 City,State,Zip: OAKLEY, CA 94561
 Facility ID: 60000650
 Status: Active
 Status Date: 05/31/2019
 Site Code: 202256
 Site Type: Voluntary Cleanup
 Site Type Detailed: Voluntary Cleanup
 Acres: 23
 NPL: NO
 Regulatory Agencies: SMBRP
 Lead Agency: SMBRP
 Program Manager: Allan Fone
 Supervisor: Julie Pettijohn
 Division Branch: Cleanup Berkeley
 Assembly: 11

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Senate: 07
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.98961
Longitude: -121.6752
APN: 032010002
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: Chlordane DDT Lead
Confirmed COC: Chlordane DDT Lead
Potential Description: SOIL
Alias Name: 032010002
Alias Type: APN
Alias Name: 110033617076
Alias Type: EPA (FRS #)
Alias Name: 201746
Alias Type: Site Code - Historical
Alias Name: 202256
Alias Type: Project Code (Site Code)
Alias Name: 60000650
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/10/2013
Comments: DTSC has sent a letter to the City of Oakley with our concerns about the contamination on the property that has not been remediated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 04/30/2013
Comments: NFCRA approved 10/3/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/17/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 10/25/2007
Comments: No comments received on NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Completed Date: 06/28/2007
Comments: VCA signed 06/28/2007

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/29/2007
Comments: Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/21/2007
Comments: Community Profile approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 05/17/2019
Comments: Brownfields coordinator determined that DTSC would continue to lead agency for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/25/2010
Comments: Letter sent to Ryder Homes.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/10/2009
Comments: Spoke to Tim Saunders about the site. There is no possibility that

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

this project will restart due to the housing market in the next 3-5 years.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 12/15/2019
Schedule Revised Date: Not reported

VCP:

Name: BALDOCCHI PROPERTY
Address: 6390 SELLERS AVENUE
City,State,Zip: OAKLEY, CA 94561
Facility ID: 60000650
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 23
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Allan Fone
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Site Code: 202256
Assembly: 11
Senate: 07
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 05/31/2019
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.98961 / -121.6752
APN: 032010002
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: 30004, 30008, 30013
Confirmed COC: 30004,30008,30013
Potential Description: SOIL
Alias Name: 032010002
Alias Type: APN
Alias Name: 110033617076
Alias Type: EPA (FRS #)
Alias Name: 201746
Alias Type: Site Code - Historical
Alias Name: 202256
Alias Type: Project Code (Site Code)
Alias Name: 60000650
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Completed Document Type: Correspondence
Completed Date: 06/10/2013
Comments: DTSC has sent a letter to the City of Oakley with our concerns about the contamination on the property that has not been remediated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 04/30/2013
Comments: NFCRA approved 10/3/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/17/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 10/25/2007
Comments: No comments received on NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 06/28/2007
Comments: VCA signed 06/28/2007

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/29/2007
Comments: Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/21/2007
Comments: Community Profile approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/18/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 05/17/2019
Comments: Brownfields coordinator determined that DTSC would continue to lead agency for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/25/2010
Comments: Letter sent to Ryder Homes.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/10/2009
Comments: Spoke to Tim Saunders about the site. There is no possibility that this project will restart due to the housing market in the next 3-5 years.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 12/15/2019
Schedule Revised Date: Not reported

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
OAKLEY	S118927792	CITY OF OAKLEY	W. CYPRESS ROAD	94561	HAZNET
OAKLEY	S107538369		E SELLERS RD & E CYPRESS RD	94561	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: EPA
Telephone: N/A
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 800-424-9346
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/24/2019	Source: EPA
Date Data Arrived at EDR: 06/26/2019	Telephone: 800-424-9346
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019	Source: Department of the Navy
Date Data Arrived at EDR: 08/20/2019	Telephone: 843-820-7326
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 09/23/2019

Number of Days to Update: 14

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 09/09/2019

Next Scheduled EDR Contact: 01/06/2020

Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/29/2019

Date Data Arrived at EDR: 07/31/2019

Date Made Active in Reports: 10/08/2019

Number of Days to Update: 69

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 10/29/2019

Next Scheduled EDR Contact: 02/10/2020

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/29/2019

Date Data Arrived at EDR: 07/31/2019

Date Made Active in Reports: 10/08/2019

Number of Days to Update: 69

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 10/29/2019

Next Scheduled EDR Contact: 02/10/2020

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/12/2019

Date Data Arrived at EDR: 08/13/2019

Date Made Active in Reports: 10/09/2019

Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 11/12/2019

Next Scheduled EDR Contact: 02/24/2020

Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: see region list
Date Made Active in Reports: 10/31/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3372
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-6597
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-8677
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/08/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 07/30/2019	Telephone: 312-886-7439
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 07/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 10/16/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 8	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6271
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/11/2019	Source: EPA Region 1
Date Data Arrived at EDR: 07/29/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019
Date Data Arrived at EDR: 08/28/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 75

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 09/06/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-327-7844
Date Made Active in Reports: 10/31/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-5092
Date Made Active in Reports: 09/19/2016	Last EDR Contact: 09/12/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 12/30/2019
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 9
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3368
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6137
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-7591
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 5
Date Data Arrived at EDR: 07/29/2019	Telephone: 312-886-6136
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-9424
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 07/29/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/11/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 07/30/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/30/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 59

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/01/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/13/2019	Telephone: 202-307-1000
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 11/20/2019
Number of Days to Update: 82	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/29/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/31/2019	Telephone: 916-323-3400
Date Made Active in Reports: 10/08/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/16/2019	Telephone: 916-255-6504
Date Made Active in Reports: 09/24/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/11/2019
Number of Days to Update: 70

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/03/2019	Source: DTSC and SWRCB
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-323-3400
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 06/26/2019	Telephone: 202-366-4555
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019	Source: Office of Emergency Services
Date Data Arrived at EDR: 06/24/2019	Telephone: 916-845-8400
Date Made Active in Reports: 08/21/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Quality Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 05/21/2019	Telephone: 202-528-4285
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/07/2019
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/08/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 106

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/23/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 202-564-6023
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019	Source: EPA
Date Data Arrived at EDR: 04/10/2019	Telephone: 202-566-0500
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/07/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 06/20/2019	Telephone: 301-415-7169
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 11/06/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/25/2019
Number of Days to Update: 251	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 11/06/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 11/12/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 85

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2019
Next Scheduled EDR Contact: 01/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/21/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 82

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/15/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 09/17/2019
Date Data Arrived at EDR: 09/18/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 76

Source: DOL, Mine Safety & Health Administration
Telephone: 202-693-9424
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/27/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 76

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 37

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/10/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/20/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 07/06/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/09/2019	Telephone: 202-564-2280
Date Made Active in Reports: 10/02/2019	Last EDR Contact: 10/08/2019
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/19/2019	Source: EPA
Date Data Arrived at EDR: 08/20/2019	Telephone: 800-385-6164
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/23/2019	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 09/24/2019	Telephone: 916-323-3400
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 05/14/2019	Telephone: 925-454-2361
Date Made Active in Reports: 07/17/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 60

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/18/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/30/2019
Next Scheduled EDR Contact: 02/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/16/2019	Source: California Integrated Waste Management Board
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-341-6066
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 05/29/2019	Telephone: 916-255-1136
Date Made Active in Reports: 07/22/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/19/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/20/2019	Telephone: 877-786-9427
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/19/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-323-3400
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/07/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/08/2019	Telephone: 916-440-7145
Date Made Active in Reports: 11/07/2019	Last EDR Contact: 10/08/2019
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/09/2019	Source: Department of Conservation
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-322-1080
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 07/19/2019	Source: Department of Public Health
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-558-1784
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/12/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/13/2019	Telephone: 916-445-9379
Date Made Active in Reports: 10/16/2019	Last EDR Contact: 11/12/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/03/2019	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-445-4038
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/09/2019	Source: Department of Conservation
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-323-3836
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/16/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/18/2019	Telephone: 916-445-3846
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/16/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/30/2019
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 08/20/2019	Source: Department of Conservation
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-445-2408
Date Made Active in Reports: 11/18/2019	Last EDR Contact: 08/20/2019
Number of Days to Update: 90	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 09/09/2019	Source: State Water Resource Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 07/11/2018	Telephone: 559-445-5577
Date Made Active in Reports: 09/13/2018	Last EDR Contact: 10/11/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 11/14/2019
Number of Days to Update: 9	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 09/19/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 62

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 10/03/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 08/05/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/23/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/23/2019
Date Made Active in Reports: 10/22/2019
Number of Days to Update: 60

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List

Cupa Facility list

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List

CUPA facility list.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/12/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/11/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 07/08/2019
Date Data Arrived at EDR: 07/10/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 72

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/30/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/15/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/12/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/26/2019
Date Data Arrived at EDR: 10/04/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 34

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2019
Date Data Arrived at EDR: 07/17/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 71

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/16/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012	Source: Los Angeles County Department of Public Works
Date Data Arrived at EDR: 04/17/2019	Telephone: 626-458-6973
Date Made Active in Reports: 05/29/2019	Last EDR Contact: 10/18/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/15/2019	Source: Community Health Services
Date Data Arrived at EDR: 07/17/2019	Telephone: 323-890-7806
Date Made Active in Reports: 08/05/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 19	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 10/09/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 04/23/2019	Telephone: 562-570-2563
Date Made Active in Reports: 06/27/2019	Last EDR Contact: 10/17/2019
Number of Days to Update: 65	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 07/30/2019	Telephone: 310-618-2973
Date Made Active in Reports: 10/02/2019	Last EDR Contact: 10/17/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/22/2019	Source: Madera County Environmental Health
Date Data Arrived at EDR: 08/26/2019	Telephone: 559-675-7823
Date Made Active in Reports: 10/29/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 09/25/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/29/2019	Source: Merced County Environmental Health
Date Data Arrived at EDR: 05/30/2019	Telephone: 209-381-1094
Date Made Active in Reports: 07/22/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA MONO: CUPA Facility List CUPA Facility List

Date of Government Version: 08/21/2019
Date Data Arrived at EDR: 09/03/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 58

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/25/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 50

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/30/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List CUPA facility list.

Date of Government Version: 07/23/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/09/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 61

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/05/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/05/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 61

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 74

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/06/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/07/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/08/2019
Number of Days to Update: 38

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 62

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/11/2019
Next Scheduled EDR Contact: 12/29/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List Cupa Facility List.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SANTA CLARA: Cupa Facility List Cupa facility list

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SOLANO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 06/18/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 29

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 07/18/2019
Date Data Arrived at EDR: 07/18/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 70

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 09/03/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 64

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA TEHAMA: CUPA Facility List Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List Cupa facility list

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 64

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/14/2019	Telephone: 860-424-3375
Date Made Active in Reports: 08/05/2019	Last EDR Contact: 11/11/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 10/02/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/01/2019	Telephone: 518-402-8651
Date Made Active in Reports: 06/21/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 51	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/19/2019	Telephone: 717-783-8990
Date Made Active in Reports: 09/10/2019	Last EDR Contact: 10/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/07/2020
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017	Source: Department of Environmental Management
Date Data Arrived at EDR: 02/23/2018	Telephone: 401-222-2797
Date Made Active in Reports: 04/09/2018	Last EDR Contact: 11/14/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/19/2019	Telephone: N/A
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 09/06/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CITY OF OAKLEY PROPERTY
1180 E. CYPRESS ROAD
OAKLEY, CA 94561

TARGET PROPERTY COORDINATES

Latitude (North):	37.991836 - 37° 59' 30.61"
Longitude (West):	121.664283 - 121° 39' 51.42"
Universal Transverse Mercator:	Zone 10
UTM X (Meters):	617290.9
UTM Y (Meters):	4205545.0
Elevation:	9 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
North Map:	5629060 JERSEY ISLAND, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

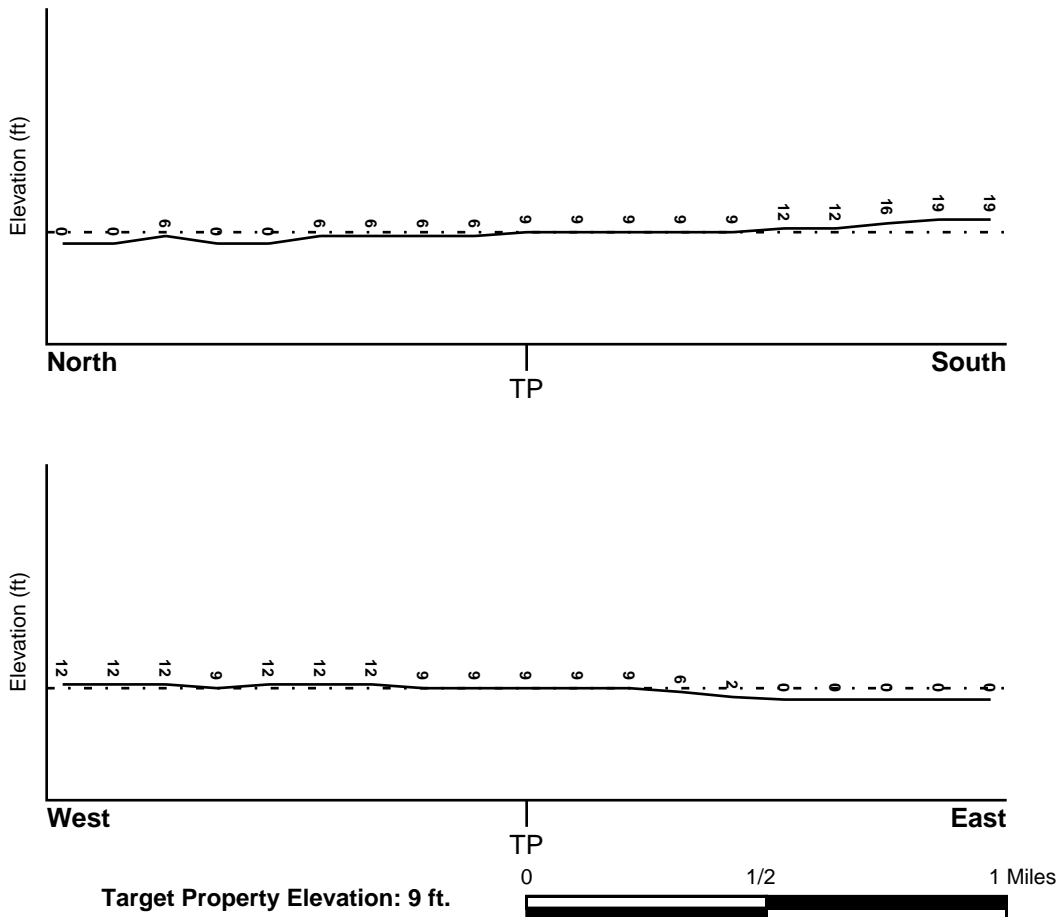
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06013C0360F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06013C0170F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
BRENTWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

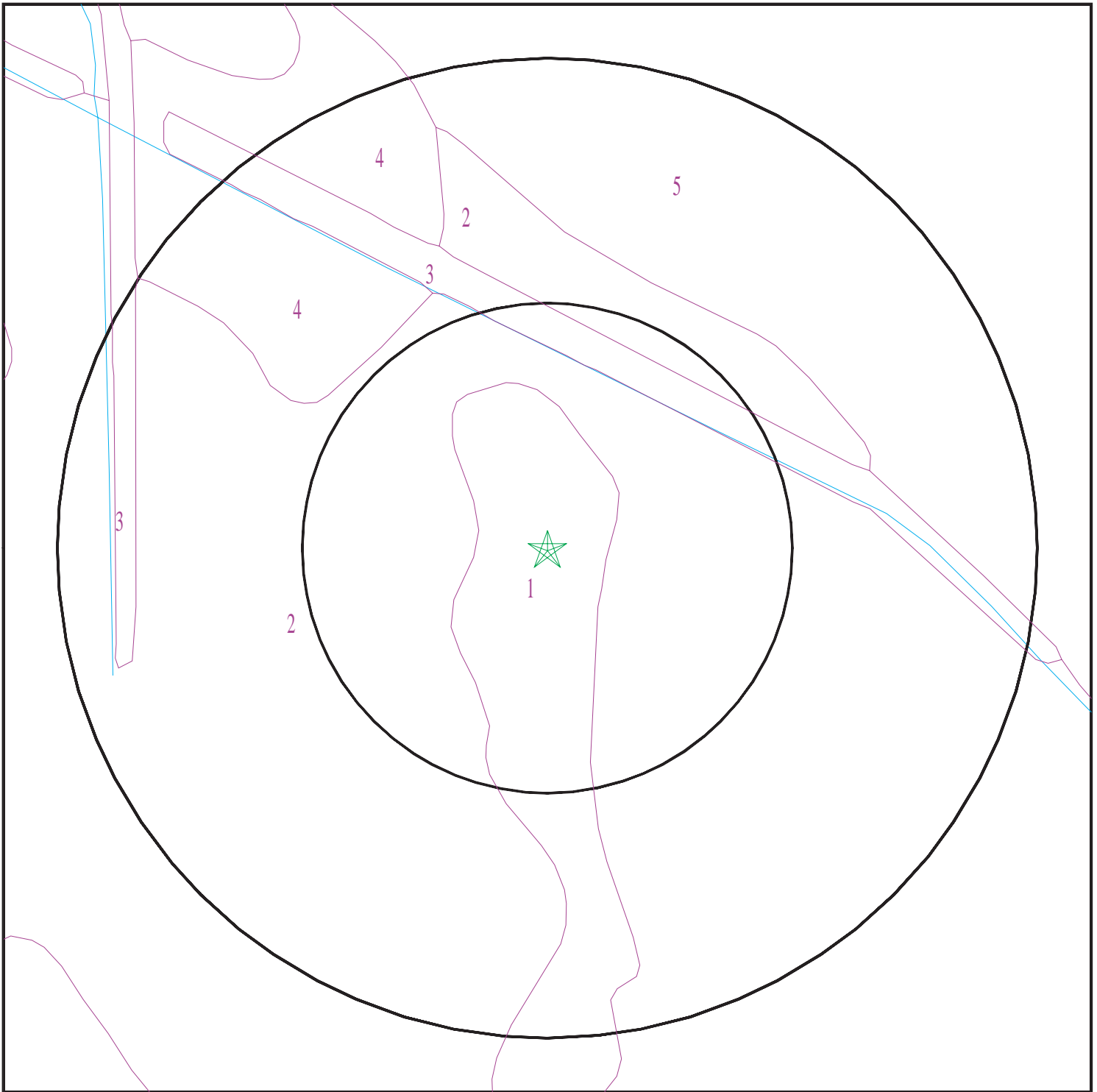
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 05892895.2r



- ★ Target Property
- SSURGO Soil
- Water

0 1/16 1/8 1/4 Miles



SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley CA 94561
LAT/LONG: 37.991836 / 121.664283

CLIENT: Engeo Inc.
CONTACT: Victoria Drake
INQUIRY #: 05892895.2r
DATE: December 04, 2019 3:12 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: DELHI

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6
2	5 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: MARCUSE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 115 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9
2	9 inches	37 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9
3	37 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: PIPER

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 114 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4
2	9 inches	38 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	38 inches	59 inches	stratified sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4

Soil Map ID: 5

Soil Component Name: SACRAMENTO

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	18 inches	40 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	40 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000186425	0 - 1/8 Mile SSW
3	USGS40000186390	1/2 - 1 Mile South
4	USGS40000186468	1/2 - 1 Mile North
5	USGS40000186410	1/2 - 1 Mile WSW
7	USGS40000186455	1/2 - 1 Mile NW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

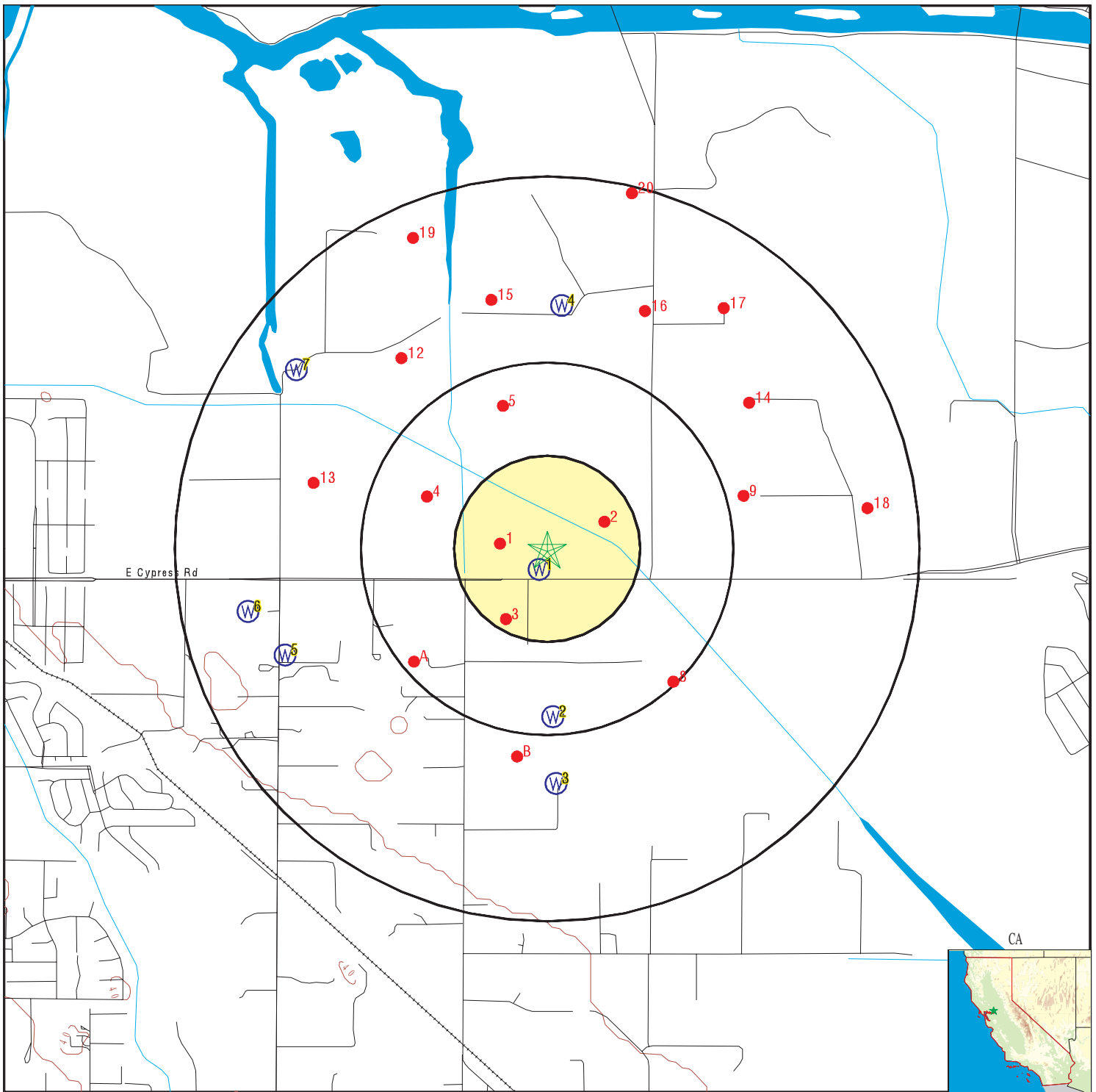
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	CADWR8000036881	1/4 - 1/2 Mile South
6	CADWR8000036891	1/2 - 1 Mile WSW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG13000084127	1/8 - 1/4 Mile West
2	CAOG13000084086	1/8 - 1/4 Mile ENE
3	CAOG13000084116	1/8 - 1/4 Mile SSW
4	CAOG13000084117	1/4 - 1/2 Mile WNW
5	CAOG13000084126	1/4 - 1/2 Mile NNW
A6	CAOG13000084118	1/4 - 1/2 Mile SW
A7	CAOG13000084139	1/4 - 1/2 Mile SW
8	CAOG13000084115	1/4 - 1/2 Mile SE
9	CAOG13000084114	1/2 - 1 Mile ENE
B10	CAOG13000084147	1/2 - 1 Mile South
B11	CAOG13000084119	1/2 - 1 Mile South
12	CAOG13000084125	1/2 - 1 Mile NW
13	CAOG13000084122	1/2 - 1 Mile WNW
14	CAOG13000084113	1/2 - 1 Mile NE
15	CAOG13000084131	1/2 - 1 Mile NNW
16	CAOG13000084097	1/2 - 1 Mile NNE
17	CAOG13000084137	1/2 - 1 Mile NE
18	CAOG13000084098	1/2 - 1 Mile East
19	CAOG13000084123	1/2 - 1 Mile NNW
20	CAOG13000084128	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 05892895.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.991836 / 121.664283

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892895.2r
 DATE: December 04, 2019 3:12 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
SSW
0 - 1/8 Mile
Higher

FED USGS USGS40000186425

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E29G001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19760622	Well Depth:	237
Well Depth Units:	ft	Well Hole Depth:	245
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-06-22
Feet below surface:	15.00	Feet to sea level:	Not Reported
Note:	Not Reported		

2
South
1/4 - 1/2 Mile
Higher

CA WELLS CADWR8000036881

State Well #:	02N03E29Q999M	Station ID:	48685
Well Name:	MW 5-39	Well Use:	Observation
Well Type:	Single Well	Well Depth:	20
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

3
South
1/2 - 1 Mile
Higher

FED USGS USGS40000186390

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E32A001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19760123	Well Depth:	105
Well Depth Units:	ft	Well Hole Depth:	110
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-01-23
Feet below surface:	12.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

4
North
1/2 - 1 Mile
Lower

FED USGS USGS40000186468

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E20R001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19611116	Well Depth:	350
Well Depth Units:	ft	Well Hole Depth:	428
Well Hole Depth Units:	ft		

5
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000186410

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E29M001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvial Fan Deposits	Aquifer Type:	Not Reported
Construction Date:	19760526	Well Depth:	88
Well Depth Units:	ft	Well Hole Depth:	100
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-05-26
Feet below surface:	12.00	Feet to sea level:	Not Reported
Note:	Not Reported		

6
WSW
1/2 - 1 Mile
Higher

CA WELLS CADWR8000036891

State Well #:	02N03E30J999M	Station ID:	48681
Well Name:	MW 5-33	Well Use:	Observation
Well Type:	Single Well	Well Depth:	20
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
7	NW	1/2 - 1 Mile	Lower	FED USGS	USGS40000186455

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E20N001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19591219	Well Depth:	333
Well Depth Units:	ft	Well Hole Depth:	610
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

West
1/8 - 1/4 Mile

OIL_GAS CAOG13000084127

API #:	0401300115	Well #:	5-5
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 5
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/22/1964

2

ENE
1/8 - 1/4 Mile

OIL_GAS CAOG13000084086

API #:	0401300011	Well #:	7-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation	Lease Name:	Tract 7
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/22/1966

3

SSW
1/8 - 1/4 Mile

OIL_GAS CAOG13000084116

API #:	0401300104	Well #:	9-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 9
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/05/1965

4

WNW
1/4 - 1/2 Mile

OIL_GAS CAOG13000084117

API #:	0401300105	Well #:	8-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 8
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/16/1964

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

5

NNW

1/4 - 1/2 Mile

OIL_GAS

CAOG13000084126

API #:	0401300114	Well #:	5-4
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 5	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/19/1964		

A6

SW

1/4 - 1/2 Mile

OIL_GAS

CAOG13000084118

API #:	0401300106	Well #:	8-2
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 8
GIS Source:	hud	Area Name:	Any Area
Directionally Drilled:	N	Confidential Well:	N
		SPUD Date:	08/11/1964

A7

SW

1/4 - 1/2 Mile

OIL_GAS

CAOG13000084139

API #:	0401300005	Well #:	8-4
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 8
GIS Source:	hud	Area Name:	Any Area
Directionally Drilled:	N	Confidential Well:	N
		SPUD Date:	01/10/1967

8

SE

1/4 - 1/2 Mile

OIL_GAS

CAOG13000084115

API #:	0401300103	Well #:	28-1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Transamerica	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/02/1964		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

9

ENE
1/2 - 1 Mile

OIL_GAS CAOG13000084114

API #:	0401300102	Well #:	6
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Chevron U.S.A. Inc.	Lease Name:	TA Development Co.
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/13/1964

B10

South
1/2 - 1 Mile

OIL_GAS CAOG13000084147

API #:	0401320372	Well #:	4
Well Status:	Plugged	Well Type:	DH
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 10	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	06/23/2007		

B11

South
1/2 - 1 Mile

OIL_GAS CAOG13000084119

API #:	0401300107	Well #:	10-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 10
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/22/1964

12

NW
1/2 - 1 Mile

OIL_GAS CAOG13000084125

API #:	0401300113	Well #:	4-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 4
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/10/1965

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

13
WNW
1/2 - 1 Mile

OIL_GAS CAOG13000084122

API #:	0401300110	Well #:	8-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 8
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/28/1964

14
NE
1/2 - 1 Mile

OIL_GAS CAOG13000084113

API #:	0401300101	Well #:	5
Well Status:	Active	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	TA Development Co.	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/18/1964		

15
NNW
1/2 - 1 Mile

OIL_GAS CAOG13000084131

API #:	0401300119	Well #:	3-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 3	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/08/1964		

16
NNE
1/2 - 1 Mile

OIL_GAS CAOG13000084097

API #:	0401320330	Well #:	6-2
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Burroughs	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/26/1995		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

17
NE
1/2 - 1 Mile

OIL_GAS CAOG13000084137

API #:	0401300007	Well #:	4
Well Status:	Active	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	TA Development Co.	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	09/01/1964		

18
East
1/2 - 1 Mile

OIL_GAS CAOG13000084098

API #:	0401320342	Well #:	2-28
Well Status:	Plugged	Well Type:	DH
Operator Name:	Tonka Energy, Inc.		
Field Name:	Dutch Slough Gas	Lease Name:	TA
Area Name:	Any Area	Confidential Well:	N
GIS Source:	hud	SPUD Date:	08/03/1997
Directionally Drilled:	Y		

19
NNW
1/2 - 1 Mile

OIL_GAS CAOG13000084123

API #:	0401300111	Well #:	4-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 4
Area Name:	Any Area	Confidential Well:	N
GIS Source:	GPS	SPUD Date:	09/08/1964
Directionally Drilled:	N		

20
NNE
1/2 - 1 Mile

OIL_GAS CAOG13000084128

API #:	0401300116	Well #:	6-1
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 6	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/11/1966		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94561	3	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

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DRAFT

APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report



City of Oakley Property
1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892895.3

December 04, 2019

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/04/19

Site Name:

City of Oakley Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892895.3

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 26EA-4785-BF03
PO # 16836.000.000
Project City of Oakley Property

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 26EA-4785-BF03

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

City of Oakley Property
1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892895.4

December 04, 2019

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

12/04/19

Site Name:

City of Oakley Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892895.4

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	16836.000.000	Latitude:	37.991836 37° 59' 31" North
Project:	City of Oakley Property	Longitude:	-121.664283 -121° 39' 51" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	617287.98
		UTM Y Meters:	4205750.84
		Elevation:	9.00' above sea level

Maps Provided:

2012 1910
1978
1968
1952, 1954
1943
1940
1916
1914

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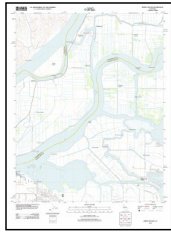
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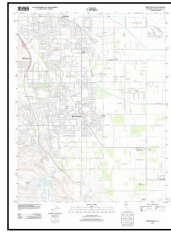
Topo Sheet Key

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2012 Source Sheets

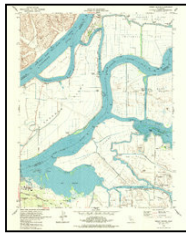


Jersey Island
2012
7.5-minute, 24000

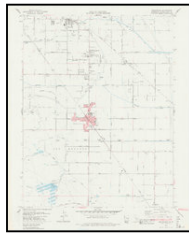


Brentwood
2012
7.5-minute, 24000

1978 Source Sheets

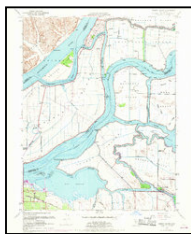


Jersey Island
1978
7.5-minute, 24000
Aerial Photo Revised 1974

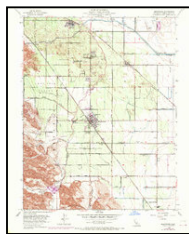


Brentwood
1978
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Aerial Photo Revised 1974

1968 Source Sheets

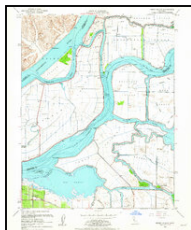


Jersey Island
1968
7.5-minute, 24000
Aerial Photo Revised 1968

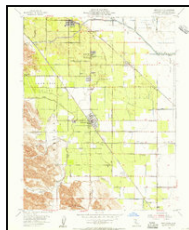


Brentwood
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1952, 1954 Source Sheets



Jersey Island
1952
7.5-minute, 24000
Aerial Photo Revised 1949

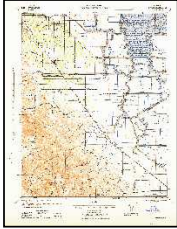


Brentwood
1954
7.5-minute, 24000
Aerial Photo Revised 1949

Topo Sheet Key

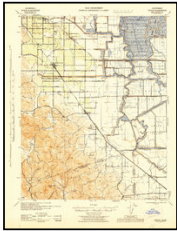
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1943 Source Sheets



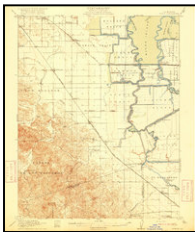
BYRON
1943
15-minute, 62500

1940 Source Sheets



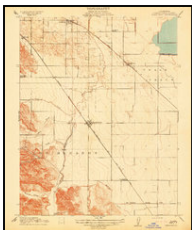
Byron
1940
15-minute, 62500
Aerial Photo Revised 1940

1916 Source Sheets



Byron
1916
15-minute, 62500

1914 Source Sheets



Brentwood
1914
7.5-minute, 31680

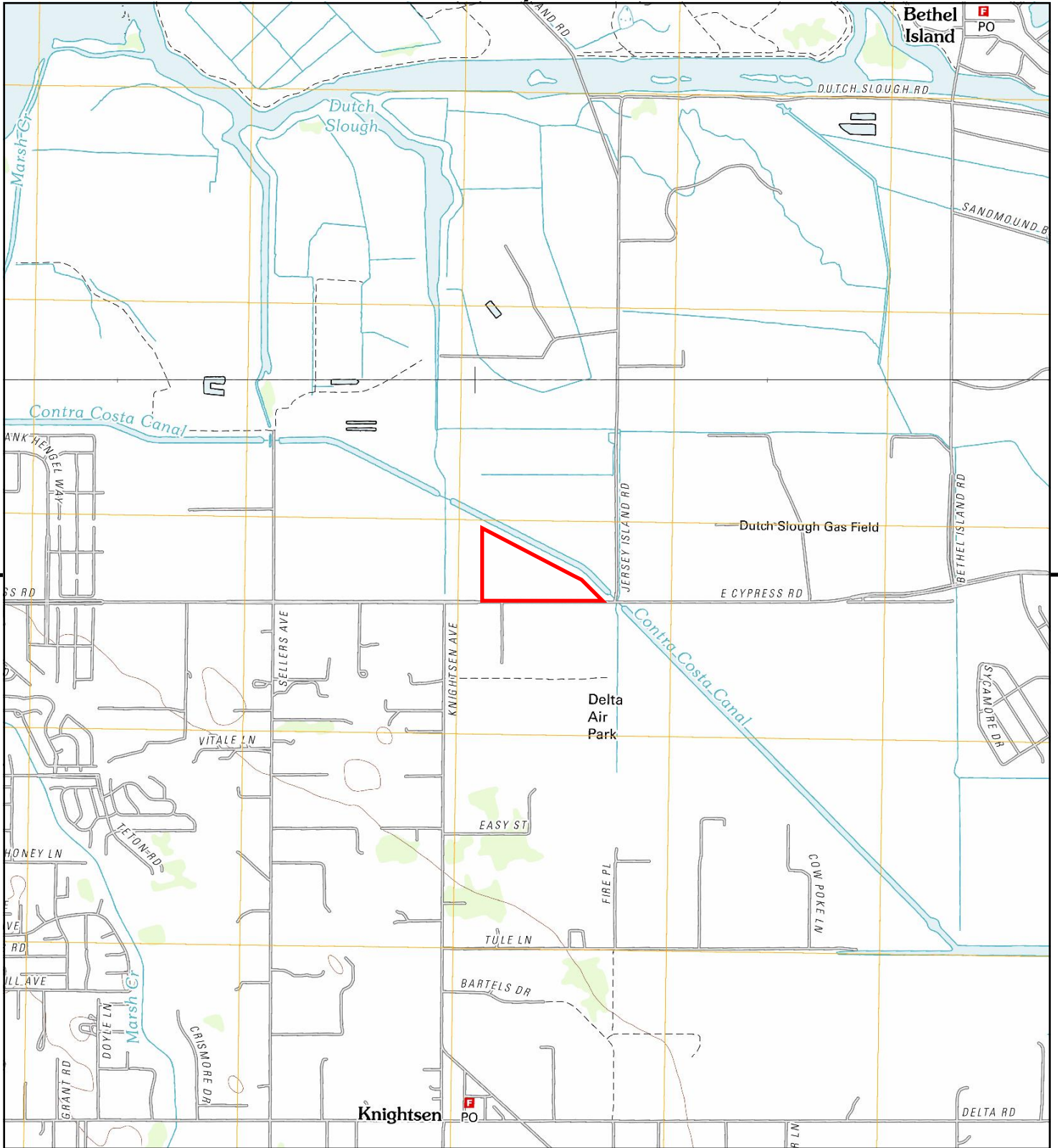
Topo Sheet Key

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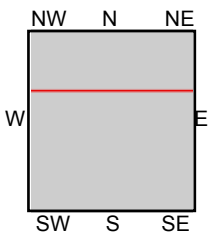
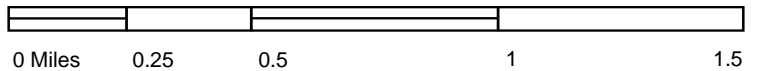
1910 Source Sheets



Jersey
1910
7.5-minute, 31680



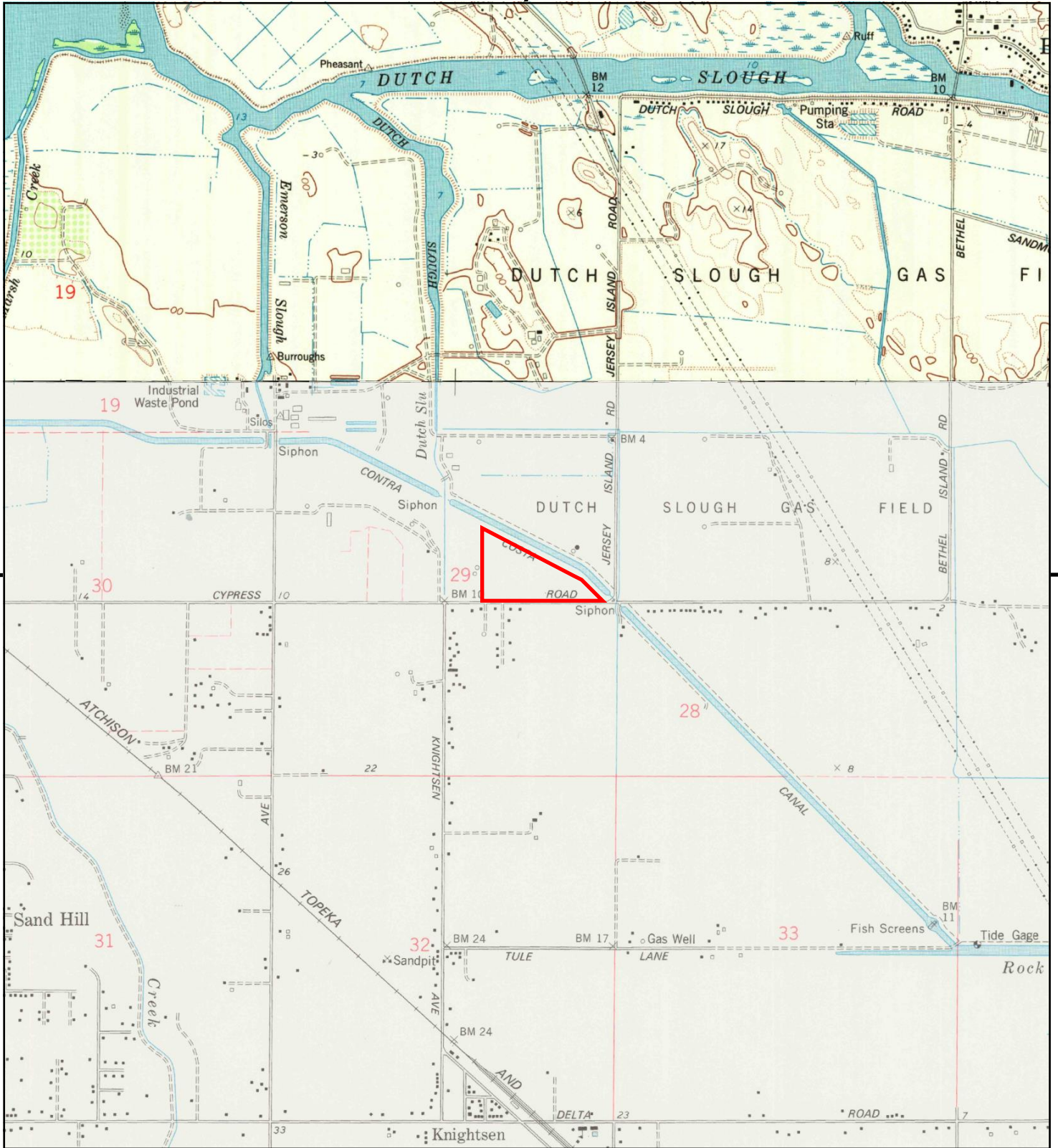
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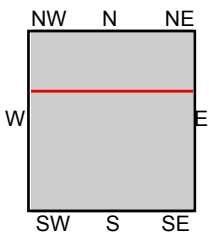
TP, Brentwood, 2012, 7.5-minute
N, Jersey Island, 2012, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





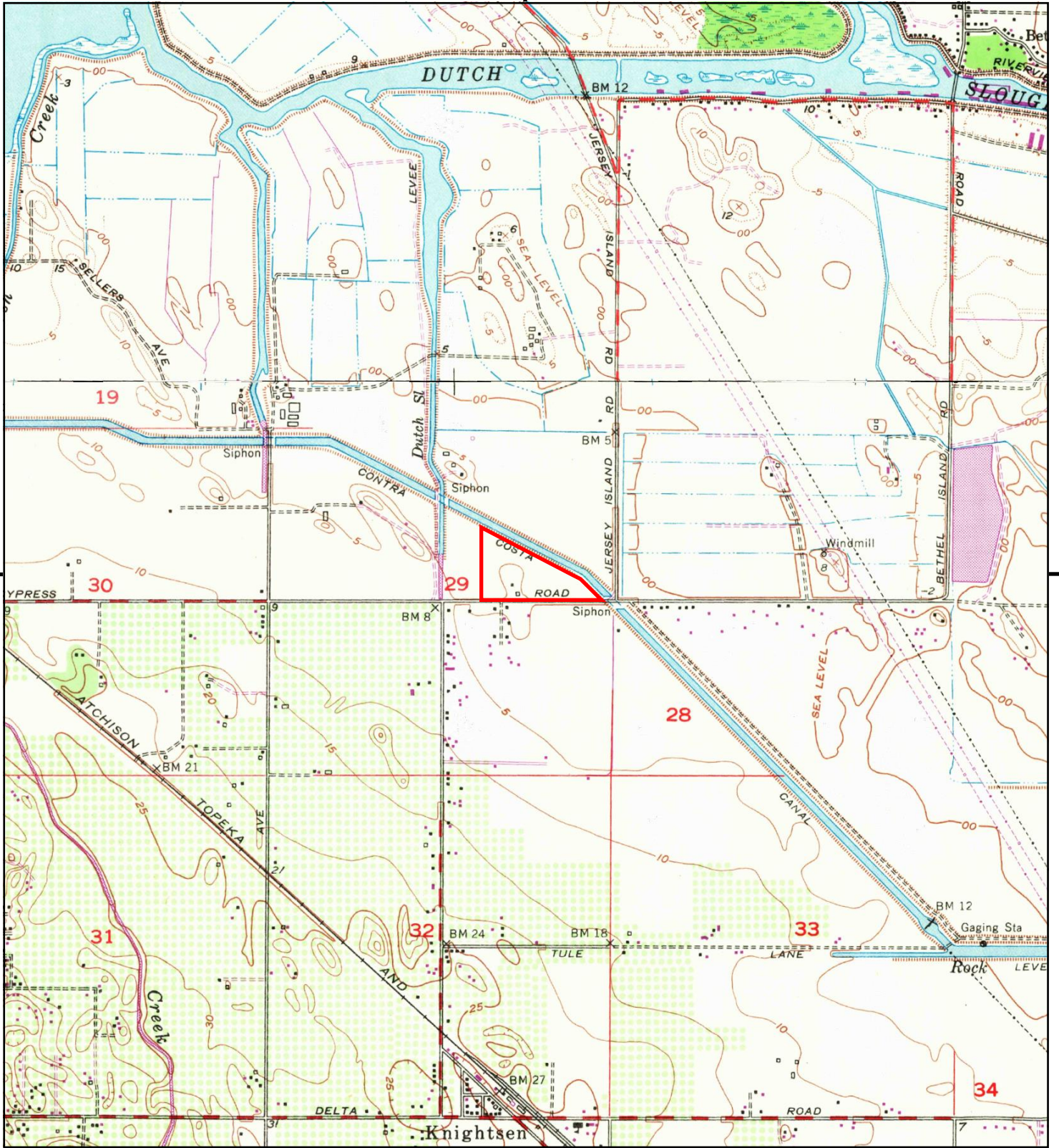
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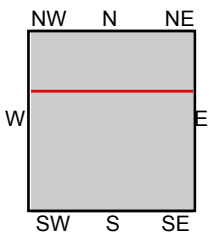
TP, Brentwood, 1978, 7.5-minute
N, Jersey Island, 1978, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





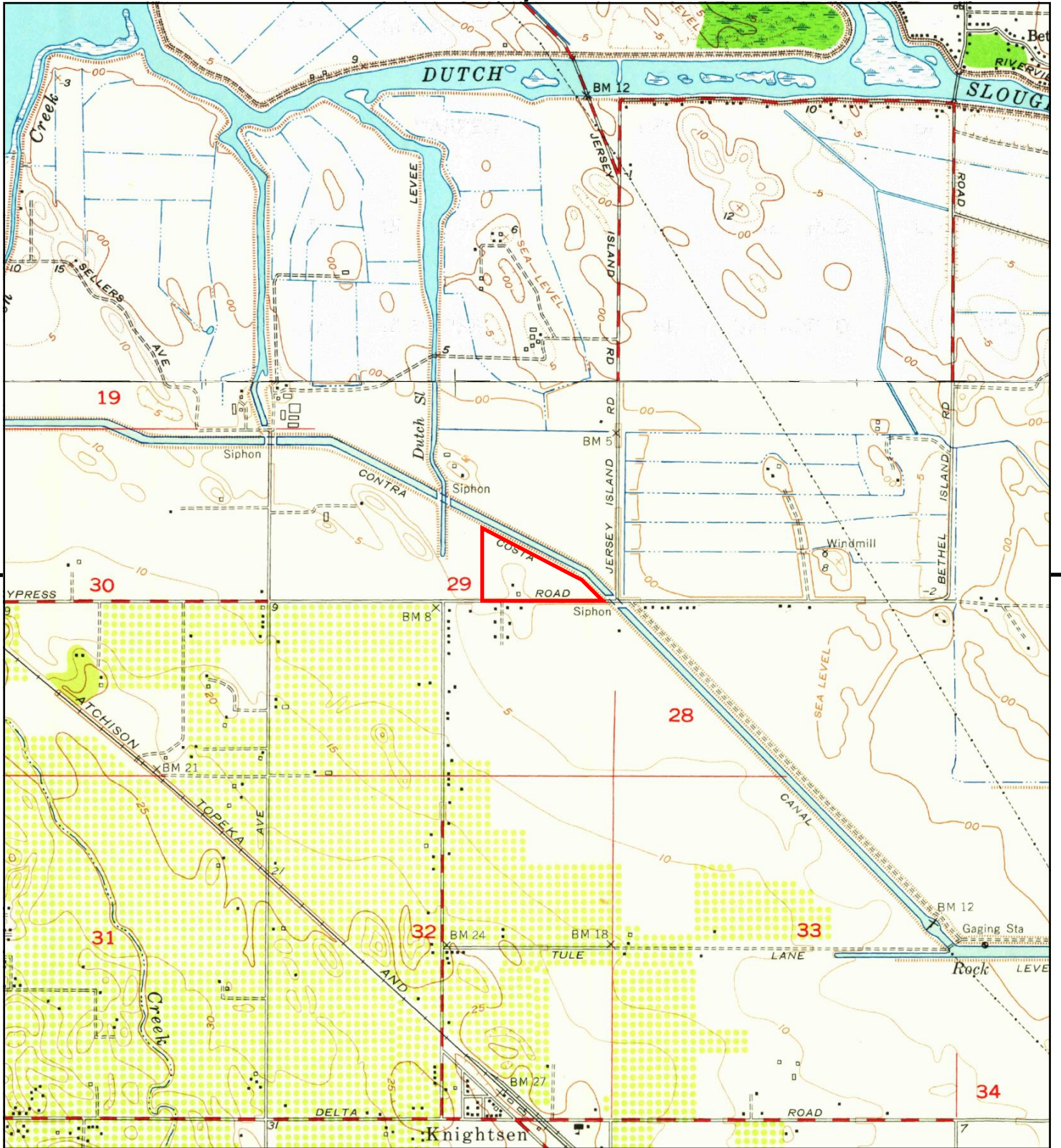
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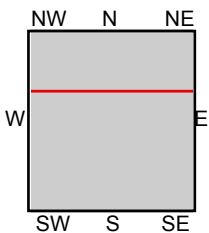
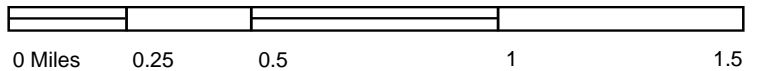
TP, Brentwood, 1968, 7.5-minute
N, Jersey Island, 1968, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





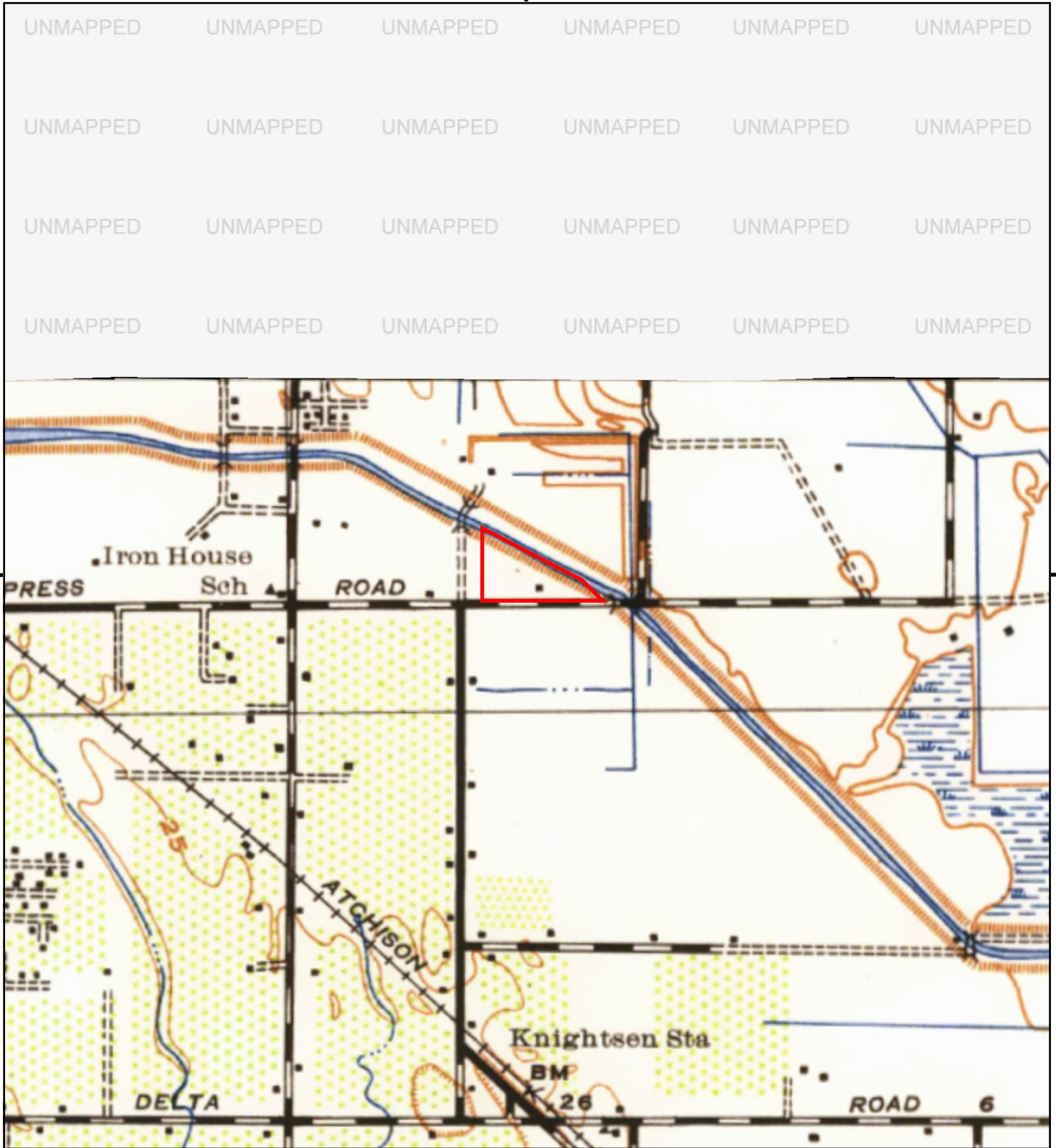
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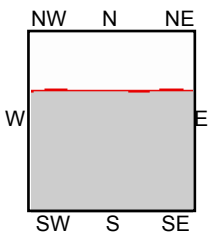
TP, Brentwood, 1954, 7.5-minute
N, Jersey Island, 1952, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





This report includes information from the following map sheet(s).



TP, BYRON, 1943, 15-minute

SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley, CA 94561
 CLIENT: Engeo Inc.

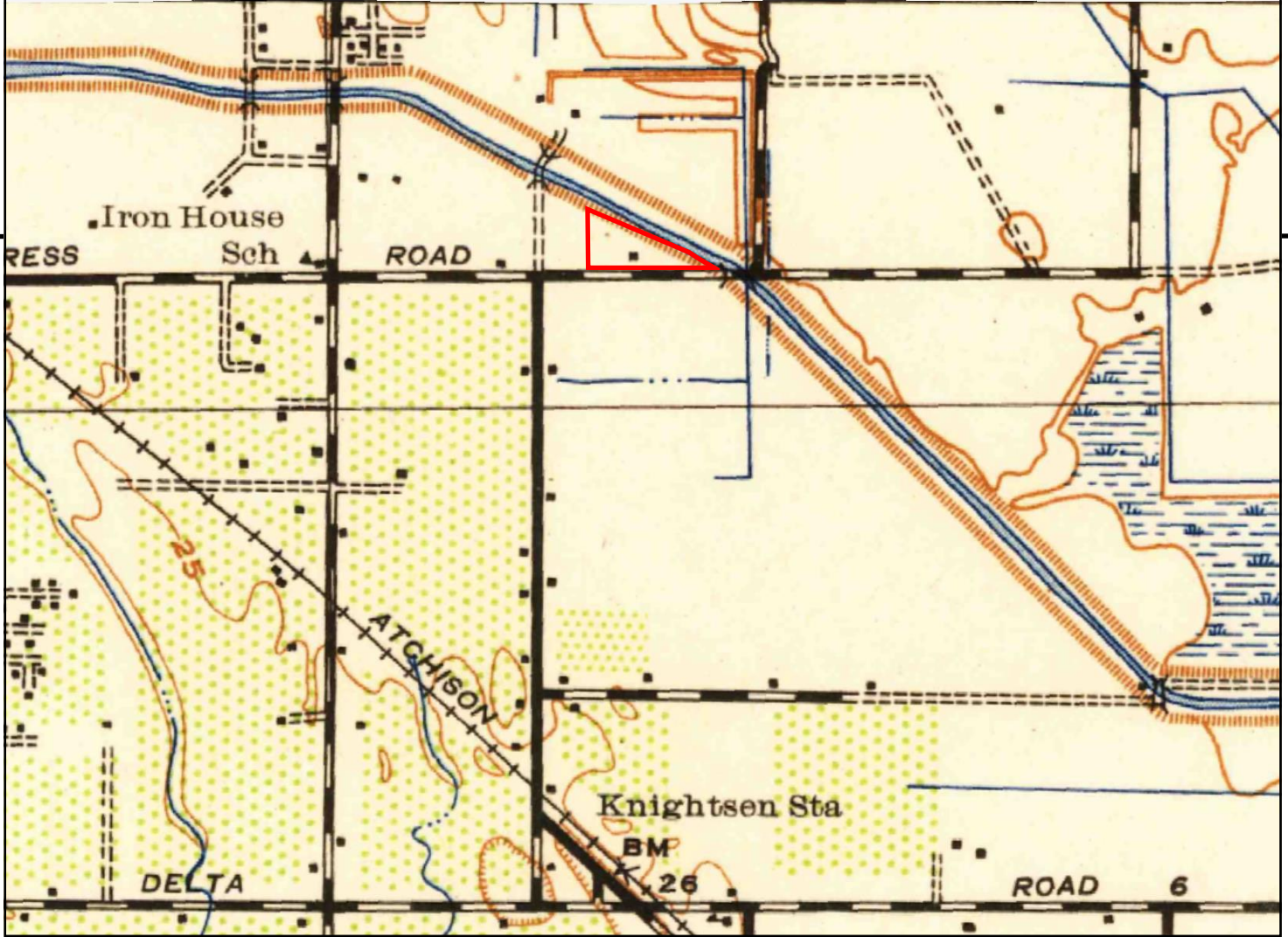


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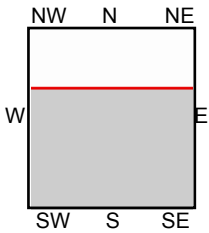
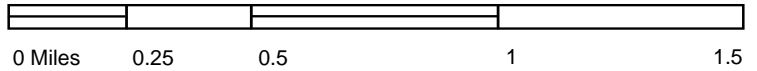
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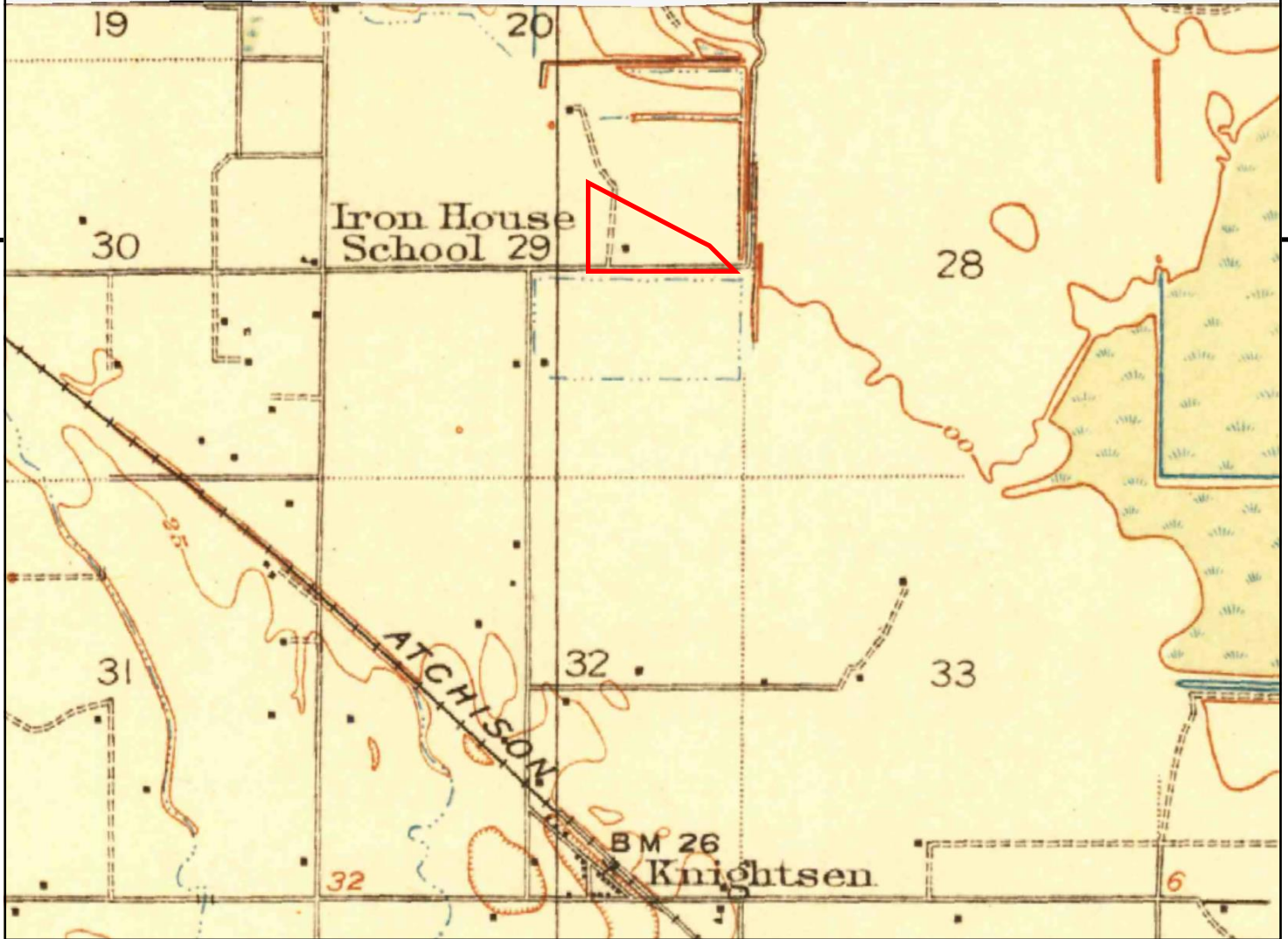
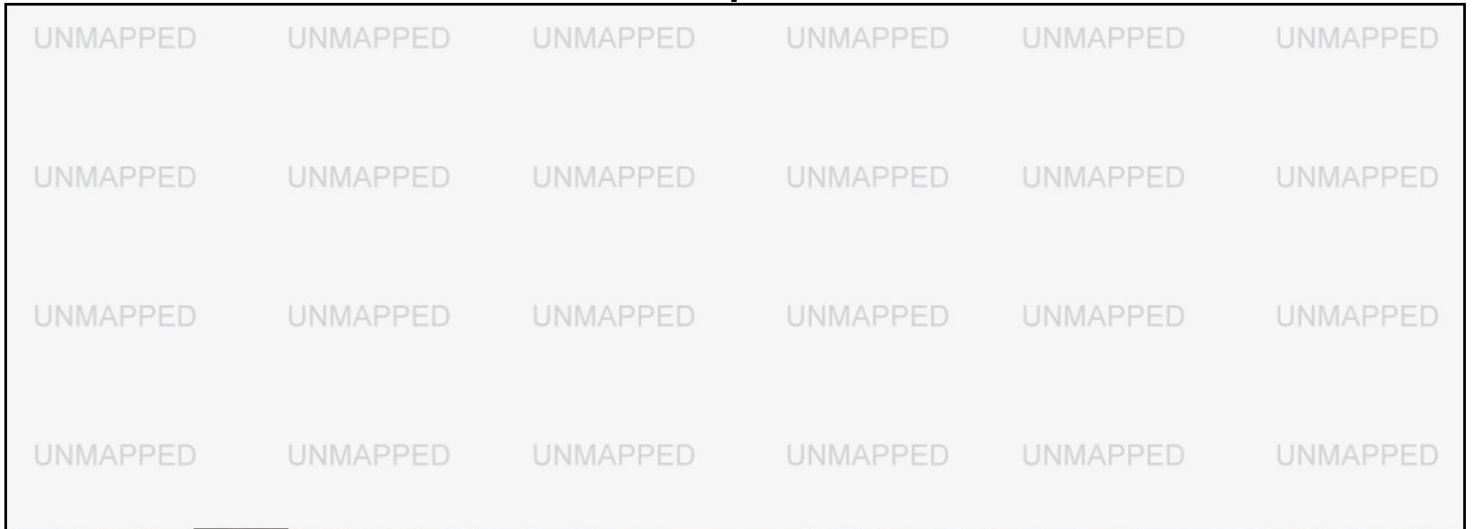
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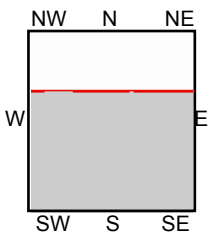
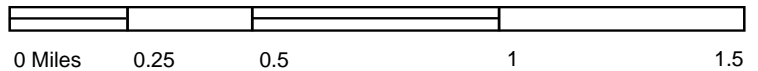
TP, Byron, 1940, 15-minute

SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley, CA 94561
 CLIENT: Engeo Inc.





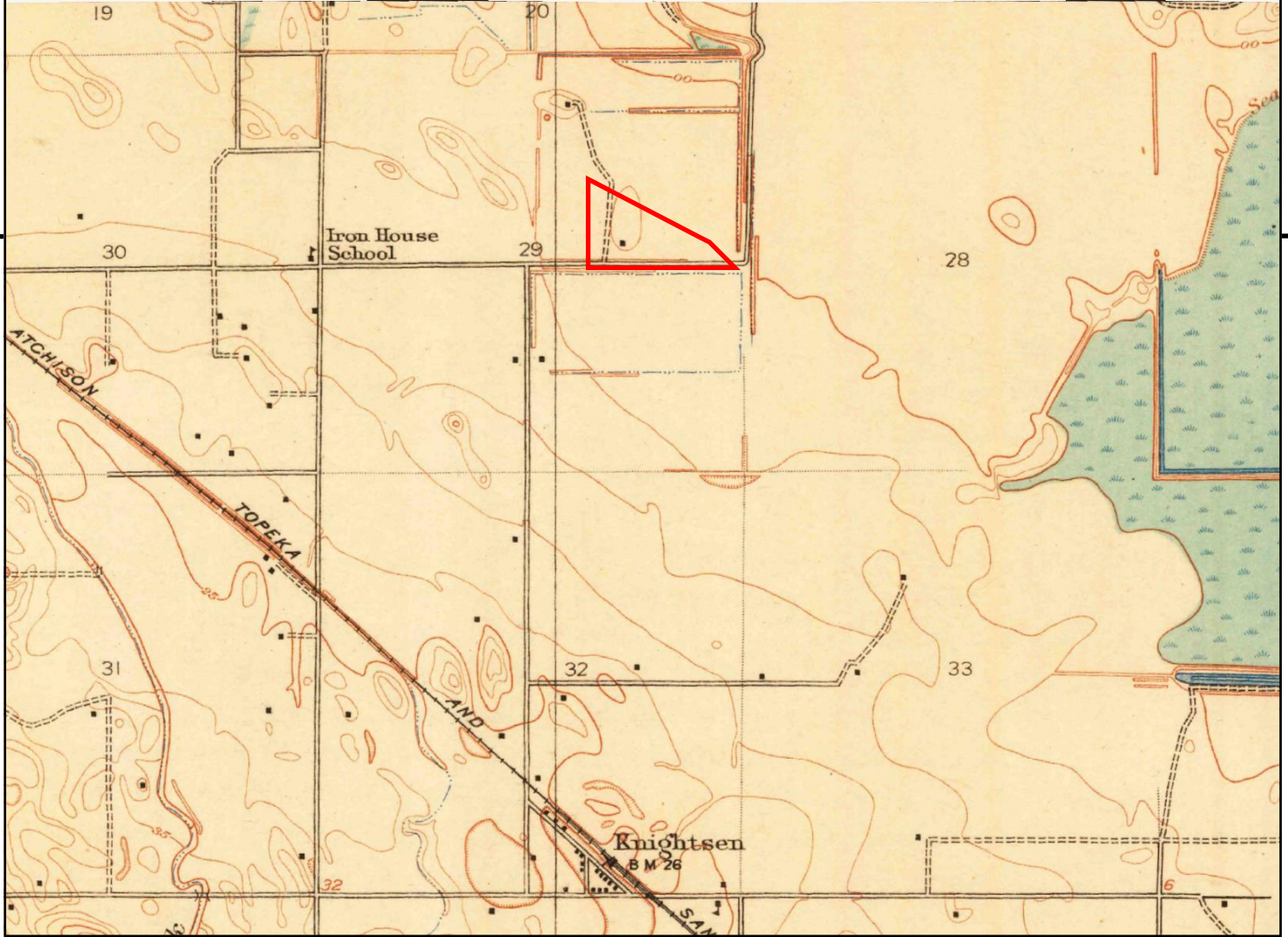
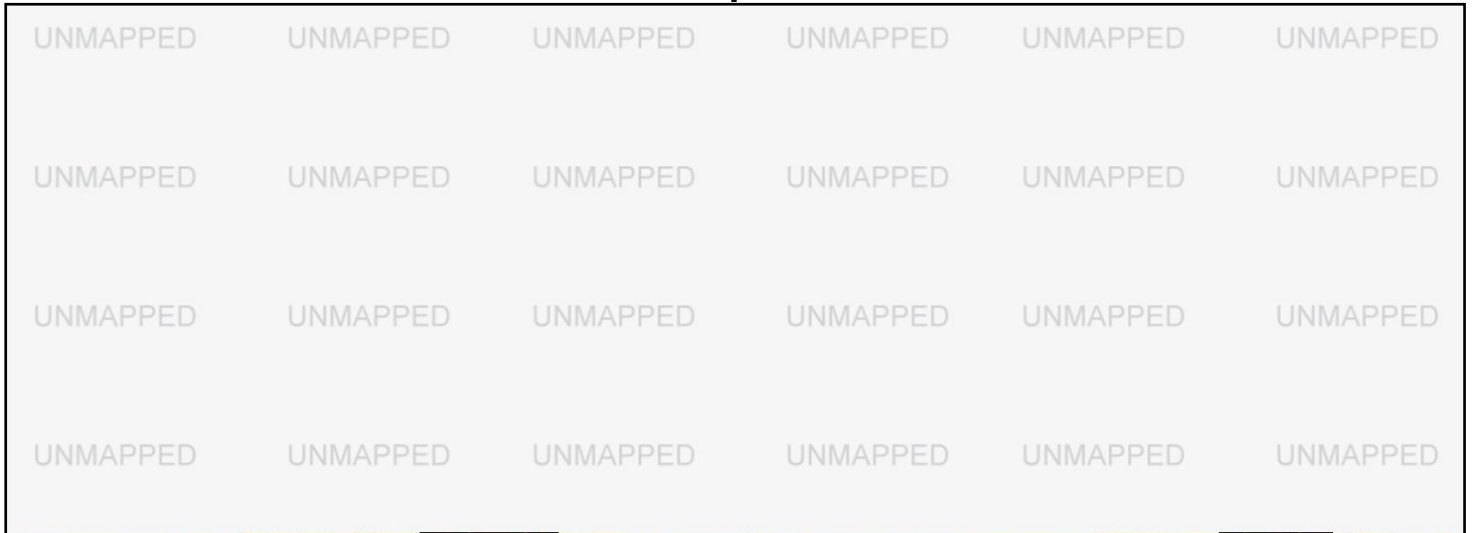
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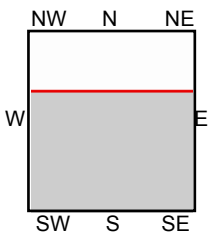
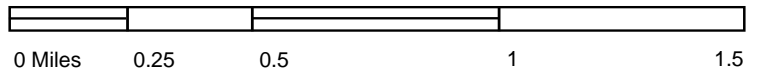
TP, Byron, 1916, 15-minute

SITE NAME: City of Oakley Property
 ADDRESS: 1180 E. Cypress Road
 Oakley, CA 94561
 CLIENT: Engeo Inc.





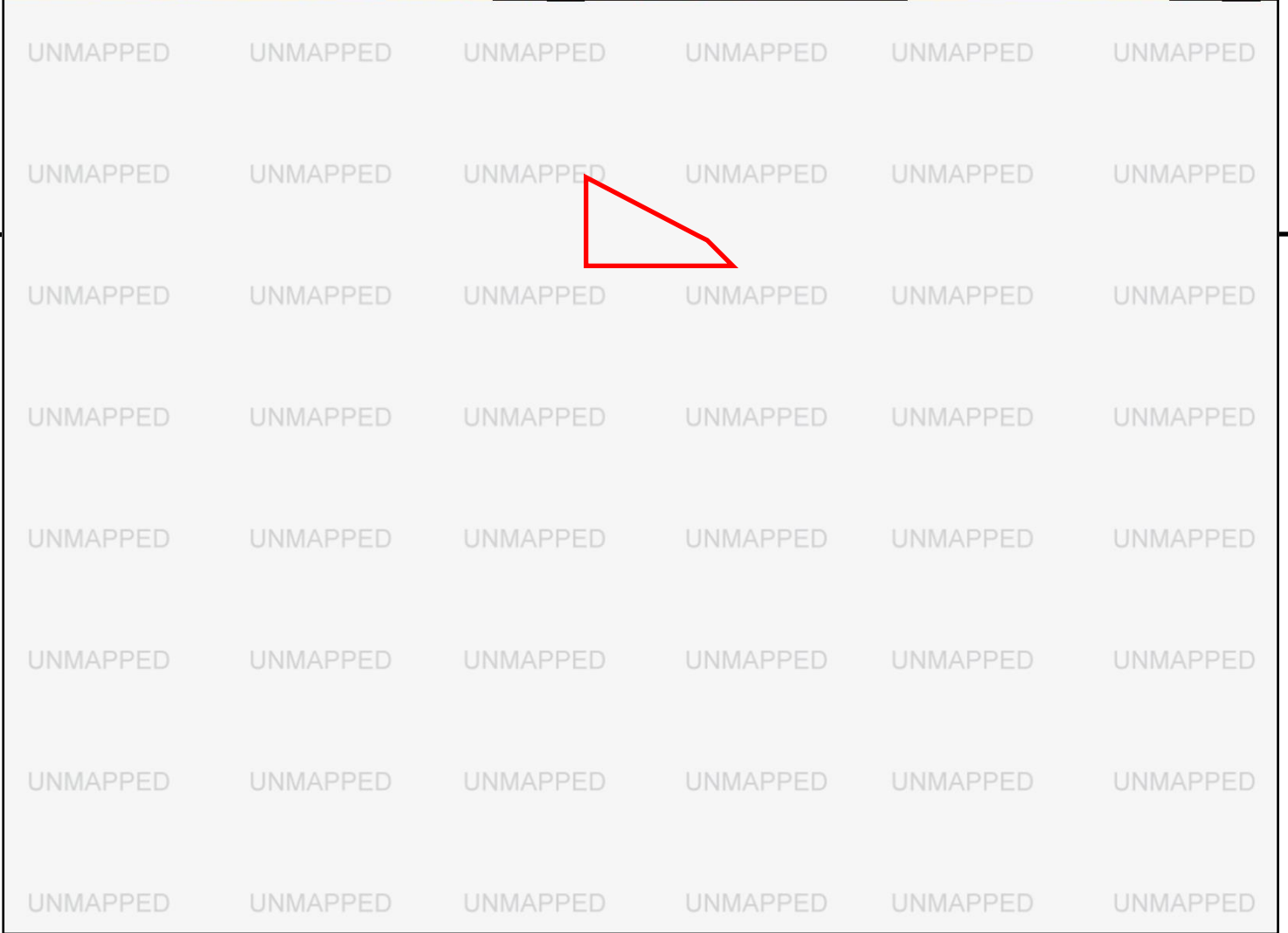
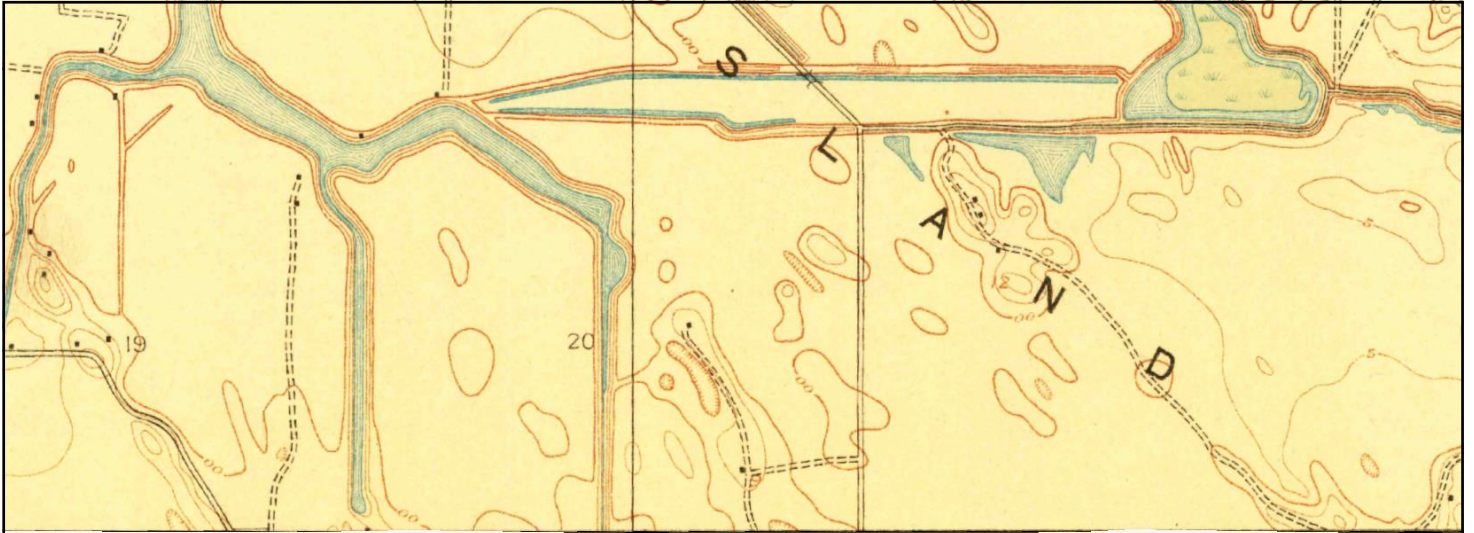
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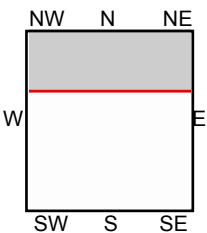
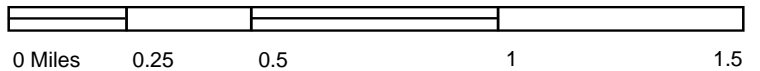
TP, Brentwood, 1914, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





This report includes information from the following map sheet(s).



N, Jersey, 1910, 7.5-minute

SITE NAME: City of Oakley Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





DRAFT

APPENDIX D

FIRST AMERICAN TITLE COMPANY

Preliminary Title Report



First American Title

First American Title Company

4750 Willow Road, Suite 100
Pleasanton, CA 94588

California Department of Insurance License No. 151

Escrow Officer: Diane Burton
Phone: (925)738-4050
Fax No.: (866)648-7806
E-Mail: dburton@firstam.com

Title Officer: Kimberly Speer
Phone: (925)356-7195
Fax No.: (714)689-4257
E-Mail: kspeer@firstam.com

E-Mail Loan Documents to: Lenders please contact the Escrow Officer for email address for sending loan documents.

Buyer: WestGate Ventures
Owner: City of Oakley
Property: APN: 032-081-025-2
Oakley, CA 94561

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

CLTA Preliminary Report Form
(Rev. 11/06)

Order Number: 0131-623787ala
Page Number: 2

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of December 02, 2019 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA Extended Loan Policy - 2006

ALTA Extended Owner Policy - 2006

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

CITY OF OAKLEY, A CALIFORNIA MUNICIPAL CORPORATION

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2019-2020 are exempt.
2. The lien of defaulted taxes for the fiscal year 2017-2018, and any subsequent delinquencies.

Tax Rate Area:	19-061
A. P. No.:	032-081-025-2
Amount to redeem:	\$1,440.27
Valid through:	December 31, 2019
Amount to redeem:	\$1,455.65
Valid through:	January 31, 2020

Please contact the tax office to verify the payoff amount.

3. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.
4. An unrecorded lease dated September 19, 1962, executed by Ernest C. Burroughs, et al as lessor and Signal Oil and Gas Company, a corporation as lessee, as disclosed by a Memorandum of Oil and Gas Lease recorded November 21, 1962 in Book 4247, Page 850 of Official Records.

Defects, liens, encumbrances or other matters affecting the leasehold estate, whether or not shown by the public records are not shown herein.

5. An easement for sanitary sewer pipe of pipe lines and incidental purposes in the document recorded October 9, 1979 in Book 9566, Page 315 of Official Records.
6. The terms and provisions contained in the document entitled "Ordinance No. 97-31 Revision of the Fees for the East County Regional Area of Benefit" recorded August 6, 1997 as Instrument No. 1997-140392 of Official Records.
7. The terms and provisions contained in the document entitled "Development Agreement Between the City of Oakley and B&B Burroughs Revocable Trust, Mary E. Burroughs Revocable Living Trust, Robert C. Burroughs, Ward N. Burroughs, and Katherine Burroughs Treat for the Burroughs Property" recorded September 18, 2003 as Instrument No. 2003-469236 of Official Records.

Document(s) declaring modifications thereof recorded September 04, 2015 as Instrument No. 2015-0186030 of Official Records.

8. The Terms, Provisions and Easement(s) contained in the document entitled "Easement Agreement" recorded May 01, 2006 as Instrument No. 2006-0135341 of Official Records.
9. The terms and provisions contained in the document entitled "Memorandum of Agreement" recorded October 16, 2007 as Instrument No. 2007-0287853 of Official Records.
10. The terms and provisions contained in the document entitled Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement recorded March 29, 2013 as Instrument No. 2013-0078884 of Official Records.

The terms and provisions contained in the document entitled "Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement" recorded November 06, 2015 as Instrument No. 2015-0233806 of Official Records.

The terms and provisions contained in the document entitled "Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement" recorded March 07, 2016 as Instrument No. 2016-0038590 of Official Records.

11. Any claim that the Title is subject to a trust or lien created under The Perishable Agricultural Commodities Act, 1930 (7 U.S.C. §§499a, et seq.) or the Packers and Stockyards Act (7 U.S.C. §§181 et seq.) or under similar state laws.
12. Rights of the public in and to that portion of the land lying within any Road, Street, Alley or Highway.
13. Water rights, claims or title to water, whether or not shown by the public records.
14. Rights of parties in possession.
15. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/NSPS survey.

Prior to the issuance of any policy of title insurance, the Company will require:

16. An ALTA/NSPS survey of recent date which complies with the current minimum standard detail requirements for ALTA/NSPS land title surveys.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. According to the public records, there has been no conveyance of the land within a period of twenty four months prior to the date of this report, except as follows:

A document recorded August 17, 2018 as INSTRUMENT NO. 2018-0131688 OF OFFICIAL RECORDS
From: MRK PROPERTIES, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY, BRUCE R. BURROUGHS
AND BARBARA M. BURROUGHS, TRUSTEES OF THE B&B BURROUGHS REVOCABLE TRUST
UNDER INSTRUMENT DATED JUNE 16, 1994 AND WARD N. BURROUGHS, AS HIS SEPARATE
PROPERTY
To: CITY OF OAKLEY, A CALIFORNIA MUNICIPAL CORPORATION

2. We find no outstanding voluntary liens of record affecting subject property. Disclosure should be made concerning the existence of any unrecorded lien or other indebtedness which could give rise to any possible security interest in the subject property.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

LEGAL DESCRIPTION

Real property in the City of Oakley , County of Contra Costa, State of California, described as follows:

BEING A PORTION OF THAT CERTAIN PARCEL OF LAND GRANTED TO BRUCE R. BURROUGHS AND BARBARA M. BURROUGHS, TRUSTEES OF THE B & B BURROUGHS REVOCABLE TRUST UNDER INSTRUMENT DATED JUNE 16, 1994, BY DEED RECORDED JANUARY 26, 1995, IN SERIES NO. 95-13407 OF OFFICIAL RECORDS IN THE OFFICE OF THE COUNTY RECORDER OF CONTRA COSTA COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST ONE-QUARTER CORNER OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 3 EAST, MOUNT DIABLO MERIDIAN;

THENCE, FROM SAID POINT OF COMMENCEMENT, ALONG THE MID-SECTION LINE OF SAID SECTION 29, NORTH 89°15'39" WEST 210.32 FEET;

THENCE, LEAVING SAID MID-SECTION LINE, NORTH 00°44'21" EAST 30.00 FEET TO A POINT ON THE NORTHERN LINE OF CYPRESS ROAD AND TO THE POINT OF BEGINNING FOR THIS DESCRIPTION;

THENCE, FROM SAID POINT OF BEGINNING, ALONG SAID NORTHERN LINE, NORTH 89°15'39" WEST 1856.90 FEET;

THENCE, LEAVING SAID NORTHERN LINE, NORTH 00°44'21" EAST 1124.07 FEET TO A POINT ON THE SOUTHWESTERN LINE OF THAT CERTAIN PARCEL LAND GRANTED TO CONTRA COSTA WATER DISTRICT BY DEED RECORDED MARCH 9, 1940, IN BOOK 539 OF OFFICIAL RECORDS AT PAGE 218, IN SAID OFFICE OF THE COUNTY RECORDER OF CONTRA COSTA COUNTY;

THENCE, ALONG SAID SOUTHWESTERN LINE, THE FOLLOWING THREE (3) COURSES:

- 1) SOUTH 62°13'01" EAST 1616.42 FEET,
- 2) ALONG THE ARC OF A TANGENT 470.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 18°22'00", AN ARC DISTANCE OF 150.66 FEET, AND
- 3) SOUTH 43°51'01" EAST 421.92 FEET TO SAID POINT OF BEGINNING.

EXCEPTING THEREFROM:

1. AN UNDIVIDED 16/33 INTEREST IN ALL OIL, GAS, MINERALS, AND HYDROCARBONS AS RESERVED IN THE DEED FROM ERNEST C. BURROUGHS AND MARY LOO BURROUGHS RECORDED MAY 21, 1984, BOOK 11798, PAGE 982, SUBJECT TO THE INTEREST DESCRIBED IN THE MINERAL POOLING AGREEMENT RECORDED APRIL 27, 1964, BOOK 4604, PAGE 338.

THE INTEREST IN AND TO THE SURFACE OF THE LAND AND TO A DEPTH OF 500 FEET THEREUNDER HAS BEEN RELINQUISHED BY GRANT DEED (SURFACE RIGHTS) RECORDED OCTOBER 31, 2003 AS INSTRUMENT NO. 2003-540677 OF OFFICIAL RECORDS.

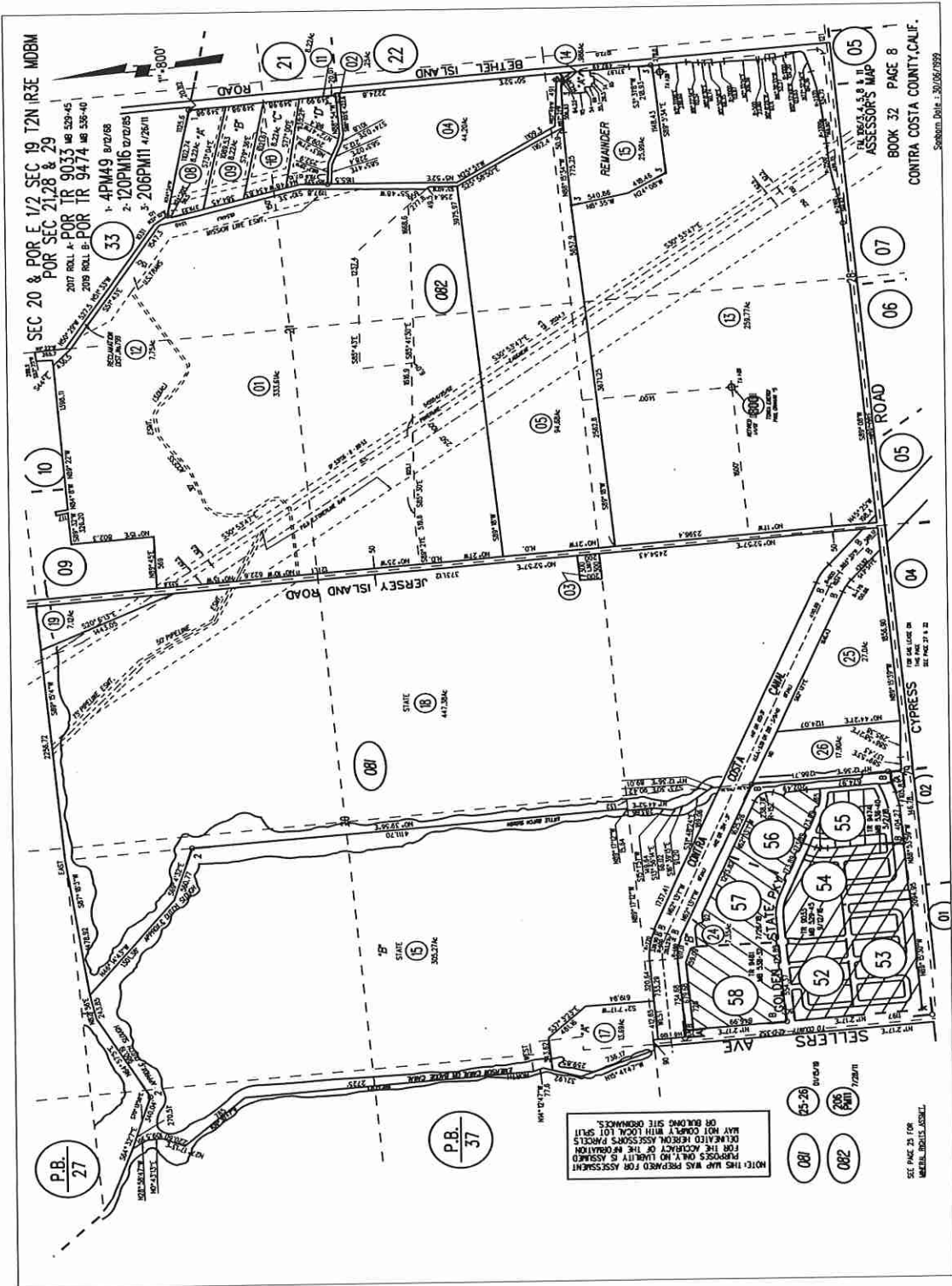
2. RIGHTS GRANTED IN THE DEED TO ERNEST C. AND MARY LOO BURROUGHS, TRUSTEES OF THE BURROUGHS REVOCABLE TRUST, UNDER AGREEMENT DATED NOVEMBER 16, 1982 RECORDED AUGUST 22, 2003 AS INSTRUMENT NO. 2003-418732 OF OFFICIAL RECORDS AS FOLLOWS:

AN UNDIVIDED 16/33 INTEREST IN ALL OIL, GAS, MINERALS AND HYDROCARBONS, SUBJECT TO THE INTEREST DESCRIBED IN THE MINERAL POOLING AGREEMENT RECORDED SEPTEMBER 28, 1962, BOOK 4212, PAGE 144 AND AMENDED MINERAL POOLING AGREEMENT RECORDED APRIL 27, 1964, BOOK 4604, PAGE 338, OFFICIAL RECORDS.

THE INTEREST IN AND TO THE SURFACE OF THE LAND AND TO A DEPTH OF 500 FEET THEREUNDER HAS BEEN RELINQUISHED BY GRANT DEED (SURFACE RIGHTS) RECORDED OCTOBER 31, 2003 AS INSTRUMENT NO. 2003-540677 OF OFFICIAL RECORDS.

3. MINERAL RIGHTS AS DESCRIBED AND GRANTED IN THE GRANT DEED EXECUTED BY ERNEST C. BURROUGHS, ET AL, TO ERNEST C. BURROUGHS, ET AL RECORDED OCTOBER 31, 2003 AS INSTRUMENT NO. 2003-0540678 OFFICIAL RECORDS.

APN: 032-081-025-2



NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

CLTA STANDARD COVERAGE POLICY – 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public, records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
 - a. building;
 - b. zoning;
 - c. land use;

- d. improvements on the Land;
 - e. land division; and
 - f. environmental protection.
- This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
 3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
 4. Risks:
 - a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - c. that result in no loss to You; or
 - d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
 5. Failure to pay value for Your Title.
 6. Lack of a right:
 - a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - b. in streets, alleys, or waterways that touch the Land.
- This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
 8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
 9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$5,000

2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- (c) resulting in no loss or damage to the Insured Claimant;
 (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
 5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
 6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
 7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II, [t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
 5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of: [The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10) EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the

Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.



First American Title

Privacy Information We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.



DRAFT

APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package



City of Oakley Property

1180 E. Cypress Road

Oakley, CA 94561

Inquiry Number: 5892895.8

December 04, 2019

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

12/04/19

Site Name:

City of Oakley Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892895.8

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 21, 1998	USDA
1993	1"=500'	Acquisition Date: June 15, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 29, 1984	USDA
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1972	1"=500'	Flight Date: July 06, 1972	USDA
1966	1"=500'	Flight Date: May 14, 1966	USDA
1963	1"=500'	Flight Date: July 15, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: August 09, 1958	USDA
1939	1"=500'	Flight Date: July 30, 1939	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 5892895.8

YEAR: 2016

— = 500'





INQUIRY #: 5892895.8

YEAR: 2012

— = 500'





INQUIRY #: 5892895.8

YEAR: 2009

— = 500'





INQUIRY #: 5892895.8

YEAR: 2006

— = 500'





INQUIRY #: 5892895.8

YEAR: 1998

— = 500'





INQUIRY #: 5892895.8

YEAR: 1993

— = 500'





INQUIRY #: 5892895.8

YEAR: 1984

— = 500'





INQUIRY #: 5892895.8

YEAR: 1982

— = 500'





INQUIRY #: 5892895.8

YEAR: 1979

— = 500'





INQUIRY #: 5892895.8

YEAR: 1972

— = 500'





INQUIRY #: 5892895.8

YEAR: 1966

— = 500'





INQUIRY #: 5892895.8

YEAR: 1963

— = 500'





INQUIRY #: 5892895.8

YEAR: 1958

— = 500'





INQUIRY #: 5892895.8

YEAR: 1939

— = 500'





DRAFT

APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

City of Oakley Property

1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892895.5
December 09, 2019

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA[®]

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1992	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1980	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1975	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

1180 E. Cypress Road
Oakley, CA 94561

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

E CYPRESS RD

2014	pg A2	EDR Digital Archive
2010	pg A5	EDR Digital Archive
2005	pg A8	EDR Digital Archive
2000	pg A11	EDR Digital Archive
1995	pg A13	EDR Digital Archive
1992	pg A15	EDR Digital Archive
1989	pg A17	Haines Criss-Cross Directory
1989	pg A18	Haines Criss-Cross Directory
1985	pg A19	Haines Criss-Cross Directory
1980	pg A20	Haines Criss-Cross Directory
1975	-	Haines Criss-Cross Directory

Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

Year CD Image Source

KNIGHTSEN AVE

2014	pg. A4	EDR Digital Archive	
2010	pg. A7	EDR Digital Archive	
2005	pg. A10	EDR Digital Archive	
2000	pg. A12	EDR Digital Archive	
1995	pg. A14	EDR Digital Archive	
1992	pg. A16	EDR Digital Archive	
1989	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

E CYPRESS RD 2014

101	ADT 24 HR ALARM SECURITY DLR D ISH1 NETWORK SALES S & S GAS LIQUOR & FOOD
201	BELVAL, BLANCA
211	MORRIS, CHARLES A
251	JAPC INC JMJ RETREAT
551	PEIXOTO, CECILIA G
821	GS HAY SERVICE SWANSON, GLEN A
901	LEGARIA, GUSTAVO
903	OCCUPANT UNKNOWN,
975	ASKINS ENTERPRISES ASKINS, WES PIDGEON RADIO
1541	GAS & SAVE GHAFOOR ABDUL SINGH GURMEJ THIND, TARLOK S VALERO GAS STATION
1571	MULLINS, TODD
1631	REYES, SANTIAGO F
2015	FRAUSTO, PEDRO
2131	WOODWORTH, GARY R
2151	COLE, ANTHONY T
2181	DU MONT BARBARA DUMONT, RICHARD E
2191	WALLACE, TED J
2209	PARODI, JENNIFER
2229	HO, DINH V
2251	MONTERO, DENISE
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2331	FRIESEN, TIMOTHY C
2361	KUN, MICHAEL B
2401	BOX, RODGER B
2421	FEIT, ROBERT J
2441	BAGWELL, EVELYN K
2491	BAGWELL, JIM R
2521	BOYCE, PAMELA
2532	SHELTON, JAY W
2601	DOMINGUEZ, CORRINA KNITTEL LYLE D
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D
2689	SMITH, ISAAC D
2879	FIGUEROA, ABRAHAM P

E CYPRESS RD 2014 (Cont'd)

2901 MELTZER, BRIAN
TEMPLERS AUTO BODY
2921 FRIGARD, FRANCES J
2941 IMOTO, KAZUO
2989 DALPORTO ENTERPRISES
PORTO, JEANENE L
3148 OCCUPANT UNKNOWN,
3150 OCCUPANT UNKNOWN,
3680 COLEMAN, JULIE A
3751 CYPRESS AIR
ROCCONI, LAWRENCE G
3761 OCCUPANT UNKNOWN,

KNIGHTSEN AVE 2014

3437 MECK, ALIIDA
3730 NEWCOMB, ANNETTE G
3731 SOMERHALDER, PHILIP S
3786 MORGAN, CHARLES M
3840 ALEJANDRO, WILLIAM C
3900 PHILPOT, ODELL
3992 ESPINDOLA, MICHAEL W
4100 KIDWELL, JOSEPHINE R
4150 HOLM, CHESTER L
4153 RIVERA, GUADALUPE
4169 FANNING, M
4170 OCHOA, ROGELIO
4185 CHADWICK DENISE
OCCUPANT UNKNOWN,
VECTOR MARKETING
4210 CADENA, CORNELIO C
4277 YOUNGS, TIMOTHY
4300 SWIHART, DONALD R
4308 CROSS, ARCHIE G
4310 LOCKWOOD, DENNIS J
4340 ERSKINE, ALAN C
4356 GUTIERREZ, JOEL A
4358 RODRIGUEZ, MARIA G
4380 GOLD, BENJAMIN A
4400 NUNEZ, ROBERT
4420 RIOS, DAVID
4440 FANCY HOOFS BY SHARROL
KILLIAN, MICHAEL R

E CYPRESS RD 2010

101	D ISH1 NETWORK SALES S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
201	AVALOS, FELIPE H
211	RUIZ, GILBERT M
251	JAPC INC JMJ RETREAT
821	GS HAY SERVICE OCCUPANT UNKNOWN,
901	BERNHARD, DAVID E JAMES L HOLDERMAN
903	LEGARIA, GUSTAVO
975	ASKINS ENTERPRISES ASKINS, WES PIDGEON RADIO
1541	GAS & SAVE GHAFOOR ABDUL SINGH, GURINDER THIND SURJIT SINGH U-HAUL CO VALERO GAS STATION
1571	VALUE PLUMBING
1631	REYES, SANTIAGO
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY R
2151	COLE, THOMAS J
2181	DARST, DONALD DU MONT BARBARA
2191	WALLACE, TED J
2221	KEELING, WAYNE L
2229	OCCUPANT UNKNOWN,
2251	MENDIVIL-MONTERO, THERESA L
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2331	FRIESEN TIMOTHY FRIESEN, TIMOTHY C
2361	MARTINS, BILL R
2401	BARAJAS, ENRIQUE
2421	FEIT, ROBERT J
2441	BAGWELL, EVELYN K
2491	BAGWELL, JIM R
2521	BOYCE, P
2532	MARTINS, JENNIFER
2601	OCCUPANT UNKNOWN,
2619	BURNETT, BARBARA L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D

E CYPRESS RD 2010 (Cont'd)

2689 SMITH, ISAAC D
2879 FIGUEROA, ABRAHAM P
2901 ALVES, ANTHONY
2921 FRIGARD, FRANCES J
2989 DALPORTO ENTERPRISES
OCCUPANT UNKNOWN,
3148 OCCUPANT UNKNOWN,
3150 OCCUPANT UNKNOWN,
3680 COLEMAN, CARL
3751 ROCCONI, LAWRENCE G
3761 OCCUPANT UNKNOWN,

KNIGHTSEN AVE 2010

3407	BUENROSTRO, ROSA I
3437	PEREZ, ROGELIO Y
3731	SOMERHALDER, PHILIP S
3786	MORGAN, CHARLES M
3840	ALEJANDRO, WILLIAM C
3900	PHILPOT, ODELL
3992	ESPINDOLA, MICHAEL W
4100	DOMINGUEZ, C
4150	SICKELS, ESSIE
4153	OCCUPANT UNKNOWN,
4169	CHUQUIYAURI, YOLANDA
4170	RENTERIA, FILOMENO
4180	RIVERA, CARLOS J
4185	CHADWICK DENISE OCCUPANT UNKNOWN, VECTOR MARKETING
4210	GARCIA, RAMON V PATIENT PNIES FOR SPICAL POPLE
4300	SWIHART, DONALD R
4308	CROSS, RONALD S
4310	ERSKINE, NORMAN
4340	AC ERSKINE & ASSOC ERSKINE, ALAN C
4356	GUTIERREZ, JOEL A
4358	RODRIGUEZ, MARIA
4380	ESPINOSA, JOSE M
4400	BAYSIDE HOMES RLTY INVESTMENTS NUNEZ, ROBERT SALVATION ANGEL FOUNDATION INC
4420	RIOS, DAVID
4440	FANCY HOOFS BY SHARROL KILLIAN, MICHAEL R

E CYPRESS RD 2005

100	M & L TRUE VALUE HARDWARE
101	S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
211	RUIZ, GILBERT V
251	JAPC INC JMJ RETREAT
551	PEIXOTO, MANUEL S
821	GS HAY SERVICE SWANSON, RONALD K
901	OBRYAN, ANNABELLE
975	ASKINS, JOHN W
1180	OCCUPANT UNKNOWN,
1541	FLETCHER, YVONNE PARTNERSHIP CONSISTING JOHN
1631	OCCUPANT UNKNOWN,
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY R
2151	COLE, THOMAS J
2181	DARST, DONALD DU MONT BARBARA
2191	WALLACE, TED J
2209	RAY, VERNON L
2221	RAY, BILLY L
2229	OCCUPANT UNKNOWN,
2251	MONTERO, THERESA M
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2311	OCCUPANT UNKNOWN,
2331	REYNOLDS, ZETTA J
2361	MARTINS, BILL R
2401	DMH ELECTRIC INC OCCUPANT UNKNOWN,
2421	FEIT, ROBERT J
2441	BAGWELL, JESSIE E
2461	OCCUPANT UNKNOWN,
2491	BAGWELL, JIM R
2521	BOYCE, PAM S
2532	SHELTON, JAY W
2601	FARR, JAMES H
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D
2689	SMITH, ISAAC
2879	FIGUEROA, ABRAHAM P
2921	FRIGARD, LOWELL D
2941	IMOTO, KAZUO
2989	DALPORTO, DAVID D

E CYPRESS RD 2005 (Cont'd)

3148 OCCUPANT UNKNOWN,
3150 COLEMAN, JAMES C
3611 BRADY, JOANN A
3671 RANDAZZO, JOHN
3680 LIVELY, BARBARA
3751 OCCUPANT UNKNOWN,
3761 HERNANDEZ, MIKE A

KNIGHTSEN AVE 2005

3427	MURPHY, DONNA
3437	PEREZ, ROGELIO
3490	THOMAS, RONALD
3730	NEWCOMB, HARRY A
3731	SOMERHALDER, PHILIP S
3786	MORGAN, CHARLES M
3900	PHILPOT, ODELL
3992	ESPINDOLA, MIKE W
4100	KIDWELL, JOSEPHINE R
4150	SICKELS, ESSIE
4153	RIVERA, GUADALUPE
4169	HAYWOOD, FRANK
4170	LEE, LARRY
4180	SOTO, JOSE R
4185	OCCUPANT UNKNOWN,
4201	JESSIE, VINCENT
4210	DERUYTE, WAYNE F
	PATIENT PNIES FOR SPCIAL POPLE
4277	PAGANO, DOUGLAS W
4281	OCCUPANT UNKNOWN,
4287	MAYBERRY, JOVIANN
4310	ERSKINE, NORMAN
4340	AC ERSKINE & ASSOC
	ERSKINE, ALAN C
4380	ALVAREZ, ALONZO L
4400	FLORES, CARLO
4420	RIOS, DAVID
4440	KILLIAN, MICHAEL R

E CYPRESS RD 2000

100	M & L TRUE VALUE HARDWARE
101	S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
201	FERNANDEZ, LUCIA
211	OCCUPANT UNKNOWN,
219	OCCUPANT UNKNOWN,
251	CHONG, SHUGEN S
263	MARTIN, LINDA K
551	OCCUPANT UNKNOWN,
610	JOHNSON, WILLIAM H
801	ROSEL, GLEN T
810	BLEVINS, RODNEY K
821	SWANSON, RICHARD
901	HOYT, BERNICE
975	ASKINS, JOHN W
1541	DELTA WATERCRAFT GHAFOOR ABDUL
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY
2151	COLE, THOMAS J
2181	DARST, DONALD
2191	FOSTER, CHARLES
2209	RAY, VERNON
2221	RAY, DARLENE M
2251	MONTERO, FRANK L
2291	ELORME, RICHARD
2311	FRIEDMAN, VINCENT E
2331	REYNOLDS, LARRY N
2361	MARTINS, BILL
2401	BOX, RODGER B
2421	FEIT, ROBERT J
2441	BAGWELL, JESSIE
2461	OCCUPANT UNKNOWN,
2491	OCCUPANT UNKNOWN,
2532	OCCUPANT UNKNOWN,
2601	DUDGEON, FLOYD A
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	OLLER, J
2689	SMITH, ISAAC T
2879	FIGUEROA, ABRAHAM P
2901	OCCUPANT UNKNOWN,
2921	FRIGARD, LOWELL D
2941	EASTMAN, LEO O
3150	COLEMAN, F A

KNIGHTSEN AVE 2000

3407 SARMENTO, ALVIN
3900 OCCUPANT UNKNOWN,
3992 OCCUPANT UNKNOWN,
4100 KIDWELL, GEORGE
4185 PALMER, GREGORY
4201 JESSIE, VINCENT
4210 DERUYTE, WAYNE
KLINE, JACK
REGIER, BARBARA J
4287 WILLIAMS, L M
4300 OCCUPANT UNKNOWN,
4310 OCCUPANT UNKNOWN,
4340 ERSKINE, CHARLES A
4356 OCCUPANT UNKNOWN,
4380 MURPHY, ROBERTA
4400 OMO, OREN M

E CYPRESS RD 1995

100	M & L TRUE VALUE HARDWARE
101	S & S GAS LIQUOR & FOOD
120	DOMINGO, FRANK
189	CONCORD ROOF SERVICE
194	PROFESSIONAL INVESTMENT REALTY
1541	MISSION BAIT
1571	FRANKS TRUCKING
2015	HERNANDEZ, EULALIA
2131	WOODWORTH, GARY
2251	MONTERO, THERESA
2361	MARTINS, BILL
2461	CARUTHERS, FANNIE
2601	DUDGEON, FLOYD A
2639	POHL, DAVID
2689	SMITH, ISAAC T
3611	BRADY, DELMONT
3680	NEWCOMER, CATHY
3761	UNGA, HALOTI

KNIGHTSEN AVE 1995

3437 SMITH, E
4100 TEJADA, SILVIA
4169 GORMAN, NICOLE
4201 JESSIE, VINCENT
4210 LAZY R RANCH
4356 MCWILLIAMS, STEPHEN
4358 YODA, JANIS
4380 PARKHURST, BILL

E CYPRESS RD 1992

810 BLEVINS, RODNEY
820 GRILLI, DAVE
830 HENDRICKS, JEFFREY
925 OWENS, RICHARD J
950 VREONIS, MELVYN
951 GRAY, M
960 LOVE, CLINT
972 SINGER, SEYMOUR H
974 JACQUEZ, DOUG
984 RODGERS, ROY A
988 KAFETAS, NICK
990 RAMIREZ, MANUEL
992 SPINELLI, ANGELO
1541 MISSION BAIT
2109 REEVES, ARLEY
2491 CARUTHERS, ROSE
2639 POHL, DAVID
3150 MERRYTIME KENNELS
3611 BRADY, DELMONT

KNIGHTSEN AVE 1992

4100 KIDWELL, J
4169 GORMAN, NICOLE
4380 PARKHURST, BILL

E CYPRESS RD 1989

CYPRESS RD 94561		OAKLEY	
100	XXXX	00	
189	★CONCORD ROOF SV	635	
270A	BILBO L J	625-0526	
355	VALENTINE L E	625-2751	
3680	HEARSUM Helen A	625-2931	+9
810	BLEVINS Rodney	684-2306	+9
820	GRILLI Brenda	625-3909	2
	GRILLI Dave	625-1802	
830	HENDRICKS Jeffery	625-1802	8
840	XXXX	625-0533	+9
900	MOORE Robt E	00	
921	XXXX	625-0577	8
925	★ACCENTS IN WOOD	00	
	★JUST FOR KIDS CENTR	625-1813	6
	OWENS June	625-1813	5
	OWENS Richard J	625-1813	5
929	VANAKEN Greg	625-0179	4
930	XXXX	00	
933	CROSS Bob	625-2390	
	CROSS Jo	625-2390	
940	XXXX	00	
950	VREONIS Melvyn	625-9458	+9
964	XXXX	00	
968	XXXX	00	
972	SINGER Seymour H	625-1123	1
974	JACQUEZ Doug	625-2213	
	JACQUEZ Kathy	625-2213	8
976	XXXX	00	
978	XXXX	00	

ES & CO. INC. INFORMATION ON THIS PAGE MAY NO

E CYPRESS RD 1989

.CYPRESS RD		94561 CONT.
2	980 XXXX	00
	982 JERLOW Scott A	625-0097
	984 RODGERS Roy A	625-1441
+9	986 XXXX	00
8	988 KAFETAS Nick	625-1539 +1
6	990 RAMIREZ Manuel	625-4822
+9	992 SPINELLI Angelo	625-0737
	994 XXXX	00
+9	998 XXXX	00
+9	1760 XXXX	00
	1784 XXXX	00
	1820 BISAHA R A	625-1870
	1832 XXXX	00
8	1868 GUBLER Roger E	625-1673 1
9	1880 LANPHER Mark	625-0023 3
8	1892 XXXX	00
	1900 STANEK Donna	625-4153 +6
	STANEK Wesley	625-4153 +6
4	1909 DORAMUS Harold E	625-4330 +6
9	1910 LANGLOIS Roger	625-9471 +6
9	LANGLOIS Susan	625-9471 +6
9	1916 NICHOLSON Charles	625-2970
9	NICHOLSON Lori	625-2970 7
7	1928 OAKES Thos	625-2672 6
4	1933 KAMLOS G N	625-1399 +9
7	1940 XXXX	00
	1963 GUTHREY Edgar	625-1723 +8
	GUTHREY Edith	625-1723 +8
	1988 XXXX	00
	NO # ASKINS John A	625-0669 +9
	NO # ASKINS John Wesley	625-1989 5
	NO # BAGWELL Jessie	684-2479
	NO # BANUELOS Donna	625-2871
	NO # BANUELOS Manuel G	625-2871
9	NO # BARNEY Russell D	625-0120
7	NO # BARTELS Antone	625-2925
7	NO # BEAL Louise	625-3869
8	NO # BENNETT Leroy H	625-8068 6
	NO # BENTLEY Roger F	625-0303 8
	NO # BENTLEYSONS CONTR	625-3000 8
9	NO # BIG DAK MOBILE HM	625-2238 3
	NO # BLANSETT Willene	625-1317 8
	NO # BORRAYO Rafael	625-0841 +9
6	NO # BRADY Delmont	684-3339 5
	NO # BROUSSARD Geo Jr	625-3526
7	NO # BYER Lenny T	625-2520
	NO # COCHRAN Earnest	625-3558
	NO # COE Jim	625-9820 8
	NO # COPPING Russell	625-9260 +9
	NO # CUNHA Joe	625-2706
8	NO # DARST John	625-4494 8
	NO # DAWSON Keith	625-2595
4	NO # DEPIAZZA Anne	625-0522 0
	NO # DOMINGO Frank Sr	625-2342 0
0	NO # DOUGLAS William E	625-1412 1
7	NO # DRAKE Donald	625-1767 +9
1	NO # DYSON Paul A	625-1631 5
	NO # *EAST CO CHMNY SWP	625-3341 2
	NO # FASSKE Alvin R	625-9041 +9
9	NO # FEIT Robt	684-3797 1
	NO # FENOLIO Gwan	625-0150
	NO # FENOLIO Jeffery	625-2183
	NO # FRAZIER Fred	625-2581
	NO # FRAZIER Virginia	625-2581
	NO # *G&M YACHT MNTNC	625-1400 +9
	NO # *GEORGES ELECTRIC	625-3901
	NO # GIANNOTTI Joe	625-2540
2	NO # GINGER Dennis	625-4849 6
	NO # GONCALVES Manuel L	625-2730
	NO # GRAY Marshall	625-2580
	NO # GREEN Michele	625-9587 +9
9	NO # GUERRA Robt L	625-3121
	NO # GULLION Philip L	625-3968 +9
5	NO # GUTIERREZ Renee	625-9632 8
	NO # HARRINGTON Wm M	625-4336 +9
	NO # HAVENS E	625-2712
	NO # HINMAN Stephen	625-1214 1
	NO # HYDER Juan	625-3311 2
7	NO # JONES Myrl	684-2730
	NO # KIRKWOOD Chuck	625-3808
	NO # KRUGER Nick	625-9543 +9
	NO # KRUGER Olive	625-9543 +9
9	NO # LUNA D	625-2068 3
	NO # LUNA David M	625-2183
4	NO # MASSONI Leo R	625-2334
	NO # MCCORMICK Sylvia F	625-3488 6
	NO # MENDIOLA Henry	625-2856
	NO # NEWMAN Shirley	684-2246 5
	NO # ONEAL Jim L	625-0911 +9
	NO # PERDUJE Howard L	625-2603
	NO # PRESTON Loyle	625-3559 +9
	NO # PROCTOR Roger T	625-3020
	NO # RAY Vernon	684-2621
1	NO # REEVES Arley	684-2228
	NO # RENSHAW Jas	625-0339
	NO # ROBINSON Glenn	625-3639
5	NO # *RUSSELL REAL ESTATE	625-2238
	NO # SILVEIRA Joao	625-9682 +9
6	NO # SIZEMORE Paul W	625-2584
	NO # SMITH Paul R	625-2326
	NO # SURNEY John Jr	625-0225 2
	NO # SWAFFORD Eddie	625-1486
	NO # SWAFFORD Lorie	625-1486 8
	NO # T J COCKTAIL LNG	625-1520 +9
	NO # TAYLOR Rupert	625-3462 +9
8	NO # TERRA Jose	625-2721 2
	NO # TIPTON Kerry	625-2233
	NO # TIPTON Ted	625-2180
	NO # TOBIN Irene	625-2320 8
	NO # TOWNSEND Naomi	625-0291 3
	NO # VALLES Armando	625-0896 6
9	NO # VELEZ Gelasia	625-3480
	NO # WELDON Wm	625-1036 3
	NO # WHITE George N	625-4457 8
	NO # ZIMMERMAN Billie E	684-2137
	NO # ZIMMERMAN N	684-2137
	* 10 BUS 136 RES 29 NEW	
+CYPRESS RD E (89)		
94561 OAKLEY		
	1541 *MISSN BAIT	625-3900
	2521 MEREDITH Mary	684-3566
	2639 POHL David	684-2041
	POHL Lori	684-2041
	* 1 BUS 3 RES 4 NEW	

E CYPRESS RD 1985

CYPRESS RD 94561 OAKLEY		
189	AUSMUS ROD	625-4109 +5
	CONCORD ROOF BV	625-0526 9
270A	BILBO L J	625-2751
A	MEDLEY DARRELL J	625-0419 4
355	VALENTINE L E	625-2931
810	BLEVINS ROONEY	625-3909 2
820	CARNES TIM	625-3071 4
830	FARIA JAS M	625-3922 3
900	XXXX	00
921	XXXX	00
925	JUST 4 KIDS PLAY CT	625-1813 +5
	OWENS JUNE	625-1813 +5
	OWENS RICHARD J	625-1813 +5
929	VANAKEN GREG	625-0179 4
930	XXXX	00
940	SANCHEZ JOSE	625-0078 2
964	MURPHY BOB L	625-0599 4
968	XXXX	00
972	SINGER SEYMOUR H	625-1123 1
974	XXXX	00
976	COOMBS MICHAEL A	625-0779 1
978	XXXX	00
980	MORRISSEY DEAN	625-3478 3
982	SANCHEZ JAS	625-1611 1
984	RODGERS ROY A	625-1441 1
986	REBELES JOHN	625-4053 +5
988	WETZEL RANDALL E	625-0632 +5
990	ROWE DONALD V	625-0335 4
992	SPINELLI ANGELO	625-0737 1
994	KAMMERER JOHN L	625-0763 1
996	XXXX	00
1760	XXXX	00
1796	CAVALLAS TED	625-3582 +5
1808	XXXX	00
1820	BISAHA R A	625-1670 1
1832	XXXX	00
1868	GUBLER ROGER E	625-1673 1
1880	LANPHER MARK	625-0023 3
1892	XXXX	00
1916	DOLLE HENRY F	625-1295 1
1940	XXXX	00
1988	XXXX	00
NO #	ASKINS JOHN WESLEY	625-1969 +5
NO #	BAGWELL JESSIE	684-2479
NO #	BANUELOS MANUEL G	625-2871
NO #	BARNEY RUSSELL D	625-0120 8
NO #	BARTELS ANTONE	625-2925
NO #	BATES RUSSELL E	625-2278 +5
NO #	BEAL ROBT L	625-3869
NO #	BIG OAK CASINO CARD	625-1513 1
NO #	BIG OAK COCKTL LNGE	625-1520 1
NO #	BIG OAK MOBILE HM	625-2238 3
NO #	BRADY DELMONT	684-3339 +5
NO #	BRAZIL WM	625-4042 +5
NO #	BROUSSARD GEO JR	625-3526
NO #	BURGIO LEO D	625-1565 1
NO #	BYER LENNY T	625-2920
NO #	COCHRAN EARNEST	625-3558
NO #	COZBY MARVIN	625-0752 +5
NO #	CUNHA JOE	625-2706
NO #	DARST DONALD	684-3106
NO #	DAWSON KEITH	625-2595
NO #	DELTA CLAM	625-3411 0
NO #	DEPIAZA ANNE	625-0522 0
NO #	DOMINGO FRANK SR	625-2342 0
NO #	DOUGLAS WILLIAM E	625-1412 1
NO #	DUBOIS E R	625-3452
NO #	DYSON PAUL A	625-1631 +5
NO #	EAST CO CHIMNY SWP	625-3341 2
NO #	ELLIOTT KEVIN	625-2292 +5
NO #	FEIT ROBT	684-3797 1
NO #	FENOLIO JEFFERY	625-0150 0
NO #	FRAZIER FRED	625-2581 +5
NO #	GASTON LESTER A	625-0215 1
NO #	GEORGES ELECTRIC	625-3901 6
NO #	GIANNOTTI JOE	625-2540
NO #	GONSALVES MANUEL L	625-2730
NO #	GRAY MARSHALL	625-2580
NO #	GUERRA ROBT	625-3121
NO #	HAVENS E	625-2712
NO #	HEARSUM GAYELLA	684-0160 +5
NO #	HECKMAN R G	625-2815 +5
NO #	HINMAN STEPHEN	625-1214 1
NO #	HUDDLESTON W D	625-2514 6
NO #	HYDER JUAN	625-3311 2
NO #	JAMES DUANE ELWELL	625-2896
NO #	JIMENEZ RAFAEL C	625-1758 2
NO #	JONES MYRL	684-2730 8
NO #	KIRKWOOD CHUCK	625-3808
NO #	KNOX WARD	625-3145 7
NO #	LORENZETTI MARY	625-2855
NO #	LUNA D	625-2069 3
NO #	LUNA DAVID M	625-2183
NO #	MASSONI LEO R	625-2334
NO #	MCCAUSLAND RUSSELL	625-2862 +5
NO #	MEHAFFEY D CAPT USM	625-2797
NO #	MENDIOLA HENRY	625-2856
NO #	MIGUEL MANUEL	684-3487 +5
NO #	MISSION BAIT	625-3900 7
NO #	NEWMAN SHIRLEY	684-2246 +5
NO #	OWEN GINA	625-0915 +5
NO #	PERDUE HOWARD L	625-2603
NO #	PROCTOR ROGER T	625-3090 3
NO #	RAY VERNON	684-2621
NO #	REEVES ARLEY	684-2228
NO #	RENSHAW JAS	625-0339 9
NO #	ROBINSON G	625-0359 0
NO #	ROBINSON GLENN	625-3639
NO #	RUSSELL REAL ESTATE	625-2238 9
NO #	SIZEMORE PAUL W	625-2584 7
NO #	SMITH PAUL R	625-2326
NO #	STINEBAUGH DAVE	625-4191 +5
NO #	SURNEY JOHN JR	625-0225 2
NO #	TERRA JOSE	625-2721 2
NO #	TIPTON TEDRY	625-2233 9
NO #	TOWNSEND NAOMI	625-0290 3
NO #	VELEZ GELASIA	625-3480 3
NO #	VISCIA GEO A	625-3901
NO #	WELDON WM	625-1036
NO #	WOLLEN BILL	625-1946 +
NO #	ZIMMERMAN BILLIE E	684-2137 4
* 11 BUS 112 RES 23 NEW		

E CYPRESS RD 1980

CYPRESS RD 94561 OAKLEY			
189★	CONCORD ROOF SV	625-0526	9
270A	BILBO L J	625-2751	
355	VALENTINE R E	625-2931	
NO #	BANUELOS MANUEL G	625-2871	4
NO #	BARNEY RUSSELL D	625-0120	8
NO #	BARTELS ANTONE	625-2925	
NO #	BORRAYO RAFAEL	625-0280	8
NO #	BRIGGS G	625-3391	9
NO #	BROUSSARD GEO	625-3526	
NO #	BYER LENNY T	625-2520	
NO #	COCHRAN EARNEST	625-3558	
NO #	CORGIAT G P	625-2737	
NO #	CUNHA JOE	625-2706	5
NO #	DARST DONALD	684-3106	4
NO #	DARST JOHNNIE	625-2860	7
NO #	DAWSON KEITH	625-2595	
NO #★	DELTA CLAM	625-3411	+0
NO #	DEPIAZZA ANNE	625-0522	+0
NO #	DEPIAZZA FAY	625-2893	
NO #	DOMINGO FRANK SR	625-2342	+0
NO #	DUBOIS E R	625-3452	
NO #	ELLIOTT MARSHALL M	625-3516	9
NO #	FENOLIO JEFFERY	625-0150	+0
NO #★	GEORGES ELECTRIC	625-3901	6
NO #	GONSALVES MANUEL L	625-2730	
NO #	GRAY MARSHALL	625-2580	
NO #	GUERRA ROBT	625-3121	3
NO #	HAVENS E	625-2712	
NO #	HUDDLESTON W D	625-2514	6
NO #	JAMES DUANE ELWELL	625-2896	
NO #	KAUFMANN VICTOR M	625-2130	7
NO #	KIRKWOOD CHUCK	625-3808	
NO #	KNOX KIM D	625-3145	7
NO #	LAHUE MAURICE	625-2679	5
NO #	LAHUE PHYLISS	625-0429	9
NO #	LOPEZ MIGUEL Q	684-2866	+0
NO #	LORENZETTI MARY	625-2855	
NO #	MASSONI LEO R	625-2334	
NO #	MENDIOLA HENRY	625-2856	
NO #★	MISSION BT&WRM FARM	625-3900	7
NO #	MITCHELL DANNY L	625-3067	5
NO #	PERDUE HOWARD L	625-2603	5
NO #	PROCTOR ROGER T	625-3020	4
NO #	REEVES ARLEY	684-2228	
NO #	RENSHAW JAS	625-0339	9
NO #	ROBINSON G	625-0359	+0
NO #	ROBINSON GLENN	625-3639	
NO #	SIZEMORE PAUL W	625-2584	7
NO #	SMITH PAUL R	625-2326	
NO #	THOMSON IRA	625-0208	7
NO #	TIPTON TERRY	625-2233	5
NO #	TOWNSEND WAYNE	757-4012	1
NO #	TUTTLE JOHN D	625-2434	
NO #	VELEZ MANUEL	625-3480	
NO #	VISCIA GEO A	625-3901	
NO #	YASSER JOHN D	625-2749	
NO #	ZAMORA GERALD	625-3341	
★	4 BUS	53 RES	6 NEW



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APPENDIX G

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRES (2)

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR CLIENT**

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

1180 E. Cypress Road, Contra Costa County, Oakley, CA (APN 032-081-025)

2. Current property owner (name, address, voice/fax number):

City of Oakley
3231 Main Street, Oakley, CA 94561 (925) 625-7025
Attn: Bryan Montgomery, City Manager

3. Date current property owner assumed title of property:

August 2018

4. Current property development/improvements:

Fencing

5. Past property use, development/improvements:

Agricultural uses

6. Neighboring property uses:

Agricultural uses

PART II

1. Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law? Yes No

2. Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law? Yes No

3. Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? Yes No

4. If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*? Yes No

5. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? Yes No N/A

6. Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,
 - (a) do you know of specific chemicals that are present or once were present at the *property*? Yes No
 - (b) do you know of spills or other chemical releases that have taken place at the *property*?
 - (c) do you know of any environmental cleanups that have taken place at the *property*?

7. Based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*? Yes No

If a "Yes" response was provided to any of the above questions, please provide details below:

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Bryan Montgomery, City Manager

Signature: 

Date: 11/19/2019

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR KEY SITE MANAGER**

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):

Same as above

2. Current property owner (name, address, voice/fax number):

3. Date current property owner assumed title of property:

4. Current property development/improvements:

5. Past property use, development/improvements:

6. Neighboring property uses:

PART II - The following questions should be answered to the best of your knowledge.

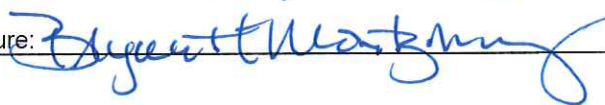
- | | | |
|---|---|--|
| 1. Is/has the <i>property</i> or any adjoining property used/been used for industrial purposes? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 2. Has the <i>property</i> or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 3. Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the <i>property</i> or at the facility? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 4. Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is _____ cubic yards. | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 5. Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 6. Are there currently, or have there been previously, any pits, ponds, or lagoons located on the <i>property</i> in connection with waste treatment or waste disposal? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 7. Is there currently, or has there been previously, any stained soil on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 8. Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 9. Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 10. Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 11. Are there any domestic, irrigation or monitoring wells on the property? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 12. If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 13. Have you been informed of the past or current existence of <i>hazardous substances</i> or <i>petroleum products</i> or environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 14. Have there been any <i>environmental site assessments</i> of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 15. Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 16. Has there been any past agricultural use of the <i>property</i> , such as orchards or seed crop cultivation? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 17. Have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 18. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If a "Yes" response was provided to any of the above questions, please provide details below:

We've been told that the property has primarily been pasture for the past 100+ years

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Bryan Montgomery, City Manager

Signature:  Date: 11/19/19



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APPENDIX H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

SHAWN MUNGER, CHG
Principal Geologist

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 31
Years with Other Firms: 0

**REGISTRATIONS &
CERTIFICATIONS**

Certified Hydrogeologist, CA, 413
8 Hour HAZWOPER Training, CA,
160115576014
Professional Geologist, CA, 5810
Certified Environmental Manager,
NV, 1332
40 Hour HAZWOPER Training, CA,
100830513934

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Shawn has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, Phase I and II Site Assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Select Project Experience

14234 Saratoga Sunnyvale Road—Saratoga, CA

Project Geologist. Shawn performed Principal review of ENGEO's environmental documents. This 2.2-acre townhome site is planned for a new multi-family development comprising up to 20 units in 8 buildings. The site immediately borders Saratoga Creek and contains numerous mature trees, many of which are to be saved. Site challenges include shallow groundwater, creek bank stability, and the potential for liquefaction and lateral spreading.

Lenihan Dam Outlet Modification—Los Gatos, CA

Principal Geologist. Shawn provided technical advice, coordination, consultation, and review of ENGEO's documents to provide quality mitigation measures. The findings were presented to SCVWD and it was concluded that the stockpile was sufficient for transportation. This analysis led to significant project budget savings by avoiding removal and disposal at a solid waste disposal facility. The project consisted of a stockpile approximately 6,000 cubic yards that required profiling as requested by Santa Clara Valley Water District before use of as site backfill.

199 River Oaks Parkway—San Jose, CA

Principal in Charge. Shawn provided principal oversight, data analysis, and consultation regarding site characterization, risk evaluation, and demolition observation plans. The project consists of a proposed six-story podium structure with one level to be constructed below grade. The property is a former semiconductor facility that has received conditional closure from the Regional Water Quality Control Board and is approved for construction.

Riverside Avenue Property—Roseville, CA

Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Assessments and site

characterization. The project site consists of an active auto sales and service facility. The historic use of the facility for industrial purposes resulted in soil and groundwater impacts beneath the site. The City of Roseville revised its plans for acquiring and redeveloping the site due to the identified soil and groundwater impacts.

1301 Standard Oil Ave—Pittsburg, CA

Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Characterization. The property is an abandoned wastewater treatment plant with processing buildings, clarifier tanks, and sludge beds.

Pleasant Hill BART Station—Walnut Creek, CA

Principal in Charge. Shawn provided oversight, data analysis and consultation during the preparation of a Phase II Environmental Site Assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

County Crossings Property—Antioch, CA

Principal in Charge. Shawn provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264-acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

620 North Ninth Street—San Jose, CA

Principal in Charge. Shawn provided oversight of soil, groundwater and soil gas characterizations, risk evaluations and Remedial Action Plan preparation. Shawn also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Westshore—Richmond, CA

Project Manager. Shawn conducted Phase I and II Site Assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Mills Ranch—King City, CA

Principal in Charge. Shawn provided principal oversight of Phase I/II Environmental Site Assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA

Principal in Charge. Shawn provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Arroyo Crossing—Livermore, CA

Principal in Charge. Shawn provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

Renaissance Square—Concord, CA

Project Manager. Shawn provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Union Pacific Railroad Corridor—San Jose, CA

Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former 1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Former SFPP Alignment—Concord, CA

Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. The site was a former ±6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility. Work included the recovery of soil and groundwater samples along the SP right of way.

Hercules Property—Hercules, CA

Project Manager. Shawn provided oversight of a Phase I Environmental Site Assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ±167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi-family residential development with some commercial components.

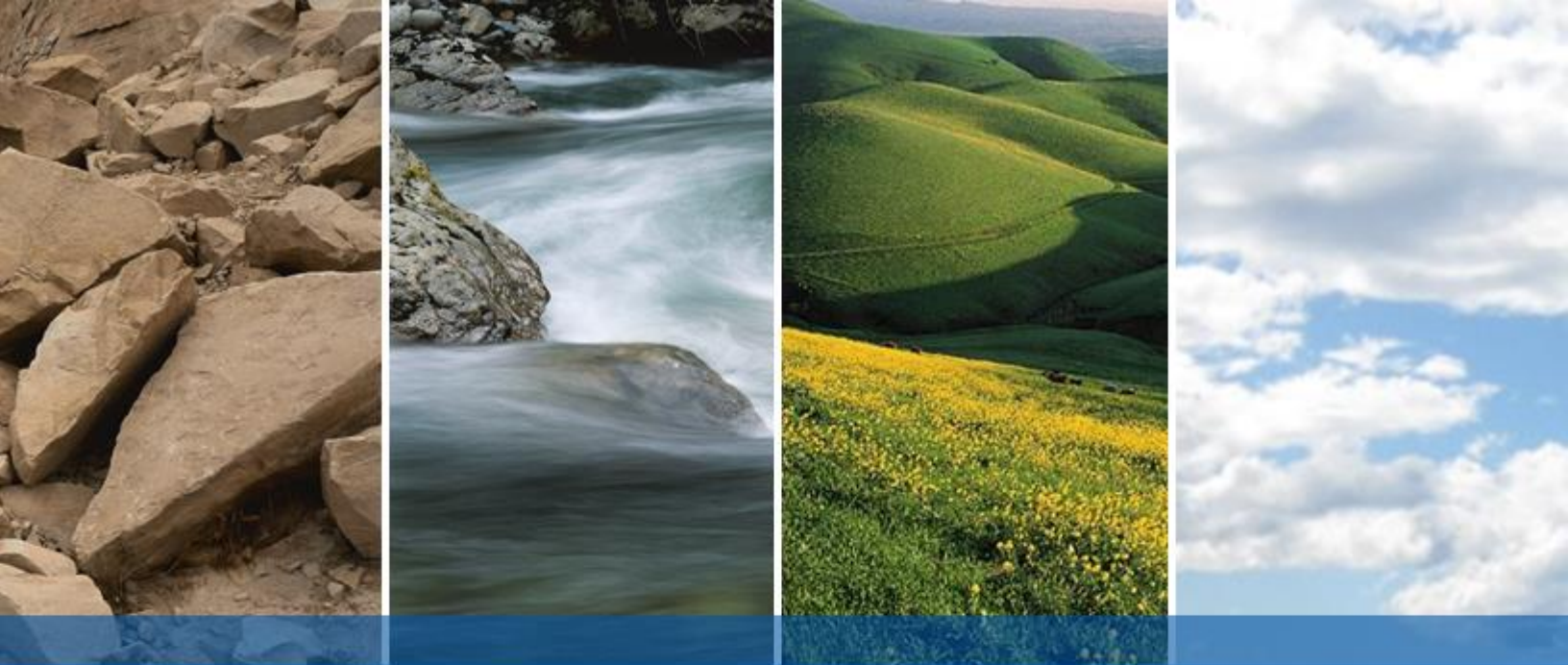
Highlands Ranch—Antioch, CA

Principal in Charge. Shawn provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.



DRAFT

Appendix F
Phase I ESA for the Burroughs Property



BURROUGHS PROPERTY
OAKLEY, CALIFORNIA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SUBMITTED TO
Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

PREPARED BY
ENGEO Incorporated

December 23, 2019

PROJECT NO.
16836.000.000

Project No.
16836.000.000

December 23, 2019

Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Blvd., Suite 224
San Ramon, CA 94583

Subject: Burroughs Property
APN 032-081-026
Oakley, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Tennant:

ENGEO is pleased to present our phase I environmental site assessment of the subject property (Property), located in Oakley, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312 and the American Standard Testing Method (ASTM) Practice E1527-13. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM E1527-13.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Victoria Drake, EIT

Shawn Munger, CHG

vd/sm/cjn

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	3
1.1 SITE LOCATION AND DESCRIPTION	3
1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES	3
1.3 SITE AND VICINITY CHARACTERISTICS	3
1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT	4
1.5 DETAILED SCOPE OF SERVICES.....	4
1.6 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT	5
1.7 SPECIAL TERMS AND CONDITIONS	5
2.0 RECORDS REVIEW	6
2.1 PROPERTY RECORDS	6
2.1.1 Title Report/Ownership	6
2.1.2 Environmental Liens and Activity Use Limitations	6
2.2 USER KNOWLEDGE OF PROPERTY	6
3.0 RECORDS REVIEW	7
3.1 PREVIOUS ENVIRONMENTAL REPORTS	7
3.2 HISTORICAL RECORD SOURCES	8
3.2.1 Historical Topographic Maps	8
3.2.2 Aerial Photographs	9
3.2.3 Fire Insurance Maps	9
3.2.4 City Directory.....	9
3.3 ENVIRONMENTAL RECORD SOURCES	10
3.3.1 Standard Environmental Records	10
3.3.1.1 Subject Property	10
3.3.1.2 Other Properties	10
3.3.2 Additional Environmental Records	10
3.3.2.1 Subject Property	10
3.3.2.2 Other Properties	10
3.4 REGULATORY AGENCY FILES AND RECORDS	11
4.0 SITE RECONNAISSANCE.....	12
4.1 METHODOLOGY.....	12
4.2 GENERAL SITE SETTING	13
4.3 SITE OBSERVATIONS.....	13
4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT	14
4.5 INDOOR AIR QUALITY	14
5.0 EVALUATION	14
5.1 OPINIONS AND DATA GAPS	14
5.2 FINDINGS AND CONCLUSIONS.....	14

TABLE OF CONTENTS (Continued)

REFERENCES

FIGURES

APPENDIX A – Environmental Data Resources, Inc., Radius Map Report

APPENDIX B – Environmental Data Resources, Inc., Sanborn Map Report

APPENDIX C – Environmental Data Resources, Inc., Historical Topographic Map Report

APPENDIX D – First American Title Company, Preliminary Title Report

APPENDIX E – Environmental Data Resources, Inc., Aerial Photo Decade Package

APPENDIX F – Environmental Data Resources, Inc., City Directory

APPENDIX G – Well 5-5 DOGGR Records

APPENDIX H – Qualifications of Environmental Professional

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EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the property located at 1180 Cypress Road in Oakley, California (Property). The Property is approximately 18 acres in area and is identified by Assessor's Parcel Number (APN) 032-081-026.

The Property is currently undeveloped, with the exception of perimeter fencing, overhead electric transmission lines along the western and northern perimeters, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. The majority of the Property was covered with shrubs and grasses. Several trees were observed along the western and southern perimeters. An unmaintained access road was observed along the western perimeter of the Property, trending north to south. Historically, the Property has been used for cattle grazing and gas production, the latter of which has since been abandoned. One abandoned gas well is located within the Property boundaries.

The historic canal along the northern perimeter of the Property has been backfilled; however, the waterway identified as Dutch Slough remains along the western perimeter of the Property. Adjoining properties consisted of cattle grazing land to the east, residential and commercial properties to the south, and a residential development under construction to the west. A Valero gas station was observed directly across from the Property, at the southeast corner of the intersection of Knightsen Avenue and East Cypress Road.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

Former Dry Gas Production Well

One abandoned gas production well is located within the Property boundaries. The 7700- foot deep well was installed in 1964 and ceased production sometime prior to 1985. The well was abandoned and received clearance from the Division of Oil/Gas (DOGGR) in 2004. Although there is no record of a release on the Property, it is conceivable that subsurface impacts associated

with the historic gas production may have occurred. The following is recommended to address the historic gas production activities:

- If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the Property, specifically in the vicinity of the abandoned gas well, the impacted area(s) should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of contaminants of concern and comparison with applicable regulatory residential screening levels. If soil contamination concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility.
- Prior to final map approval, the project applicant shall submit to the City of Oakley Engineering Department, for review and approval, plans which show that future inhabited structures will not be located over the abandoned gas well. The plans should be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems.
- The specific location of the well should be determined and surveyed in the field.
- If grading is proposed proximate to the abandoned well location, DOGGR should be consulted to determine if the wells will require modification in casing height.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.1 of this report.

- ENGEO recommends a limited subsurface assessment be undertaken to determine if the historic gas well operations have impacted site soil and/or groundwater. This assessment should include the recovery of soil, groundwater, and soil gas samples.

1.0 INTRODUCTION

1.1 SITE LOCATION AND DESCRIPTION

ENGEO conducted a phase I environmental site assessment for the Property located at 1180 East Cypress Road in Oakley, California (Figures 1 and 2). The approximately 18-acre Property is identified as APN 032-081-026 (Figure 3) and is primarily undeveloped grazing land.

1.2 CURRENT USE OF PROPERTY AND ADJOINING PROPERTIES

The Property is currently undeveloped, with the exception of perimeter fencing, overhead electric transmission lines along the western and northern perimeters, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. The majority of the Property was covered with shrubs and grasses. Several trees were observed along the western and southern perimeters. An unmaintained access road was observed along the western perimeter of the Property, trending north to south. Historically, the Property has been used for cattle grazing and gas production, the latter of which has since been abandoned. One abandoned gas well is located within the Property boundaries.

The former canal along the northern perimeter of the Property has been backfilled; however, the waterway identified as Dutch Slough remains along the western perimeter of the Property. Adjoining properties consisted of cattle grazing land to the east, residential and commercial properties to the south, and a residential development under construction to the west. A Valero gas station was observed directly across from the Property, at the southeast corner of the intersection of Knightsen Avenue and East Cypress Road.

1.3 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property ranges in elevation from approximately 7 feet above mean sea level (msl) in the northeast to approximately 12 feet above msl to the southwest. Review of the Dibblee Geologic Map (2006) found that the majority of the Property is underlain by surficial clay deposits (Qsjc). A portion of the west and north perimeter of the Property is underlain by artificial fill (af).

In December 2019, ENGEO prepared a geotechnical report for the Property. The report included a summary of the previous geotechnical explorations that ENGEO has performed at the Property. Soil samples were collected from the explorations for visual classification and laboratory testing. The soils encountered in the 2019 explorations generally consisted of hard fat clay underlain by medium dense to dense sand with varying amounts of silt and clay. Near-surface soils generally consisted of highly expansive clays.

As noted in Section 3, Kleinfelder conducted a geotechnical exploration on the Property in 2005. The exploration included drilling two borings within the Property. Soil samples were collected at frequent intervals for visual classification and laboratory testing. The soils encountered generally consisted of soft fat and lean clays with varying amounts of sand and silt to approximately 12 feet below ground surface. This layer of clay was underlain by very loose to medium dense sand with varying amounts of silt and clay to the maximum depth explored of approximately 31½ feet below existing grade. Based on the laboratory testing, the surficial soils have medium to high swell/shrink potential.

Geocheck – Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated 5 Federal United States Geological Survey (USGS) wells, 2 State Database wells, and 21 State Oil/Gas wells are located within 1 mile of the Property. The USGS well data indicates that the historic depth to groundwater ranges from 12 to 15 feet below ground surface.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the Property. The website identified three wells within 1 mile of the Property. The well data indicates that recent depth to groundwater ranges from 0 to 10 feet below ground surface.

During Kleinfelder's 2005 exploration, static groundwater was observed in one boring, B-1. Groundwater was encountered in boring B-1 at a depth of approximately 2 feet below the ground surface. During ENGEO's 2019 explorations, static groundwater was observed in one test pit, TP-8. Groundwater was encountered in TP-8 at a depth of approximately 4 feet below the ground surface.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. Twenty-one wells were mapped within 1 mile of the Property, including one onsite abandoned dry gas production well. Further information regarding the oil and gas wells is provided in Section 3.4.

1.4 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of WestGate Ventures Fund III, LLC for the purpose of environmental due diligence during property acquisition. The objective of this phase I environmental site assessment is to identify Recognized Environmental Conditions (RECs) associated with the Property. As defined in the ASTM Standard Practice E1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.5 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of previous environmental reports prepared for the Property.
- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.

- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Preparation of this report with our findings, opinions, and conclusions.

1.6 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports, and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I environmental site assessment are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I environmental site assessment is not intended to represent a complete soil, soil gas, or groundwater characterization, nor define the depth or extent of soil, soil gas, or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil, soil gas, and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.7 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our client, WestGate Ventures Fund III, LLC. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil, soil gas, or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage, that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 RECORDS REVIEW

2.1 PROPERTY RECORDS

2.1.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by First American Title Company and dated October 25, 2019, was provided for our review. The Property title is vested in:

BRUCE R. BURROUGHS AND BARBARA M. BURROUGHS, TRUSTEES OF THE B&B BURROUGHS REVOCABLE TRUST UNDER INSTRUMENT DATED JUNE 16, 1994, AS TO AN UNDIVIDED 1/5 INTEREST; AND WARD N. BURROUGHS AND ROSE MARIE BURROUGHS AS TRUSTEES OF THE BURROUGHS REVOCABLE TRUST DATED NOVEMBER 20, 2007, AS TO AN UNDIVIDED 1/5 INTEREST; AND MARY E. BURROUGHS, TRUSTEE OF THE MARY E. BURROUGHS REVOCABLE LIVING TRUST, UNDER DECLARATION DATED JUNE 4, 2001, AS TO AN UNDIVIDED 1/5 INTEREST; AND ROBERT O. BURROUGHS, AS HIS SEPARATE PROPERTY, AS TO AN UNDIVIDED 1/5 INTEREST; AND KATHERINE BURROUGHS TREAT, AS HER SEPARATE PROPERTY, AS TO AN UNDIVIDED 1/5 INTEREST, ALL AS TENANTS IN COMMON.

Notifications of easement/right-of-ways for pipelines, including sanitary sewer pipelines, are listed in the report. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix D.

2.1.2 Environmental Liens and Activity Use Limitations

The Preliminary Title Report was used to determine if there are any environmental liens and/or activity use limitations on the Property. Review of the Preliminary Title Report indicated that no environmental liens or activity use restrictions apply to the Property.

2.2 USER KNOWLEDGE OF PROPERTY

We did not receive completed Client-based and Key Site Manager-based environmental site assessment questionnaires for review at the time of report publication.

3.0 RECORDS REVIEW

3.1 PREVIOUS ENVIRONMENTAL REPORTS

ENGEO, Phase One Environmental Site Assessment, Emerson and Burroughs Properties, Cypress Corridor, Oakley, California, August 23, 1999, Project No. 4603.3.001.01.

In 1999, ENGEO prepared a Phase I Environmental Site Assessment (ESA) for an approximately 1,100-acre site located north of Cypress Road and east of Jersey Island Road in Oakley, California. The site included the entirety of the 18-acre subject Property, as well as adjoining parcels to the west, north, and east. At the time of this report, the subject Property was identified with APN 032-081-008.

The site reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no record of hazardous materials violations or discharge on the Property. A review of aerial photographs and available historical records found the Property has historically been used for pasture and natural gas production.

The Conservation Department, Division of Oil and Gas (DOGGR) identified one former gas well located on the Property, as shown in Figure 2, and an additional 18 wells located on adjacent parcels included in the assessment. ENGEO indicated there could be a potential for subsurface impacts associated with former well production activities.

Based on the findings of this assessment, ENGEO provided the following recommendation for the Property.

- *A Phase II assessment of the former gas well site should be undertaken. The assessment should include recovery of soil and groundwater samples with laboratory analysis for petroleum hydrocarbons and metals.*

ENGEO, Environmental Site Assessment Update, Emerson/Burroughs Properties, Cypress Avenue, Oakley, California, August 8, 2002, Project No. 4603.3.001.02.

In August 2002, ENGEO prepared an ESA update for the aforementioned 1,100-acre site, including the entirety of the subject Property. For the ESA update, ENGEO performed a field reconnaissance of the Property, reviewed available aerial photographs, topographic maps, and regulatory databases, and interviewed persons knowledgeable about the site use history. Based on the finding of this assessment, ENGEO concluded that the condition of the site had not changed significantly since the 1999 ESA was conducted.

ENGEO provided the following recommendation for the Property.

- *A Phase II assessment of the former gas well site should be undertaken. The assessment should include recovery of soil and groundwater samples with laboratory analysis for petroleum hydrocarbons and metals.*

3.2 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.2.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix C.

TABLE 3.2.1-1: Historical Topographic Maps

QUAD	YEAR	DESCRIPTION
Jersey/ Brentwood/ Byron	1910/1914/ 1916	<u>Property:</u> The Property appears as relatively level, undeveloped land.
		<u>Adjoining:</u> A paved road is shown along the southern perimeter of the Property, trending west to east. An unpaved road is shown to the east of the Property, trending north to south. Adjoining properties appear to be primarily undeveloped, with the exception of a few structures along the existing roads. Iron Horse School is visible to the west of the Property. A marsh is mapped to the southeast and intermittent streams are shown to the north, east, and south.
Byron	1940/1943	<u>Property:</u> The Property appears unchanged from previous maps.
		<u>Adjoining:</u> A levee is now shown along the northern perimeter of the Property. The levee separates the Property from Contra Costa Canal, which generally trends northwest to southeast. The road along the southern perimeter of the Property is now labeled as Cypress Road. Additional structures and roads are visible in the general vicinity of the Property. Agricultural land is shown to the southwest.
Jersey Island/ Brentwood	1952/1954/ 1968	<u>Property:</u> The Property appears unchanged from previous maps.
		<u>Adjoining:</u> A levee is now shown along the north half of the western perimeter of the Property. The levee separates the Property from Dutch Slough, which generally trends north to south. Additional structures and roads are visible in the general vicinity of the Property. Agricultural land is shown to the southwest.
Jersey Island/ Brentwood	1978	<u>Property:</u> Two wells are now visible near the eastern perimeter of the Property.
		<u>Adjoining:</u> The structures on the adjoining property to the east are no longer visible.

QUAD	YEAR	DESCRIPTION
		<u>Property:</u> Individual structures and wells are no longer visible on the 2012 map. The Property appears unchanged from previous maps.
Jersey Island/ Brentwood	2012	<u>Adjoining:</u> The surrounding area has been developed to a greater extent when compared with previous maps. Areas to the southwest appear to have been developed into large-scale residential developments, with major and minor arterial roads.

3.2.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

TABLE 3.2.2-1: Aerial Photographs

YEAR	DESCRIPTION
	<u>Property:</u> The Property appears to be undeveloped land used for cattle grazing.
1939 to 1963	<u>Adjoining:</u> The adjoining property to the east appears to be used for cattle grazing as well. Properties to the north, west, and south appear to be used for agriculture. A canal is visible along the northern perimeter of the Property, trending northwest to southeast.
1966 to 1984	<u>Property:</u> An unimproved access road trending north to south is visible in the southeast portion of the Property. A small structure, which may be related to the gas production well noted in Section 3.4, is visible at the end of the road.
	<u>Adjoining:</u> The surrounding areas appear unchanged from previous photographs.
1993 to 2006	<u>Property:</u> The structure is no longer visible. The unimproved road appear to be overgrown with vegetation and no longer in use.
	<u>Adjoining:</u> The surrounding area appears unchanged from previous photographs.
2009 to 2016	<u>Property:</u> The remnants of the former road is no longer visible.
	<u>Adjoining:</u> The surrounding area appears unchanged from previous photographs.

3.2.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties. The Sanborn search summary is presented in Appendix B.

3.2.4 City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. The listings associated with the current address, 1180 East Cypress Road, associated with the Property is presented in Table 3.2.4-1 below.

TABLE 3.2.4-1: City Directory

YEAR	LISTING(S)
2005	Occupant Unknown

3.3 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below.

3.3.1 Standard Environmental Records

3.3.1.1 [Subject Property](#)

The Property is not listed on the Standard Environmental Record source databases.

3.3.1.2 [Other Properties](#)

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on Standard Environmental Records sources.

TABLE 3.3.1.2-1

FACILITY	STREET	DATABASE(S)
VALUE PLUMBING INC	1571 E CYPRESS RD	AST
BLUE STAR GAS	1541 E CYPRESS RD	LUST
GAS N SAVE	1541 E CYPRESS RD	UST
BALDOCCHI PROPERTY	6390 SELLERS AVE	ENVIROSTOR

3.3.2 Additional Environmental Records

3.3.2.1 [Subject Property](#)

The Property is not listed on the Additional Environmental Record source databases.

3.3.2.2 [Other Properties](#)

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on the Additional Environmental Record sources.

TABLE 3.3.2.2-1

FACILITY	STREET	DATABASE(S)
VALUE PLUMBING INC	1571 E CYPRESS RD	CERS HAZ WASTE, CERS TANKS, CONTRA COSTA CO. SITE LIST, CERS
BLUE STAR GAS	1541 E CYPRESS RD	CERS

FACILITY	STREET	DATABASE(S)
MISSION BAIT	1541 E CYPRESS RD	CERS HAZ WASTE, SWEEPS UST, CERS TQANKS, CONTRA COSTA CO. SITE LIST, CERS
GHAFOOR ABDUL	1541 E CYPRESS RD	EDR HIST AUTO
CCC PUBLIC WORKS	CYPRESS RD & SELLERS AVE	CONTRA COSTA CO. SITE LIST
ERSKINE ACRES	4310 KNIGHTSEN AVE	CONTRA COSTA CO. SITE LIST
BALDOCCHI PROPERTY	6390 SELLERS AVE	VCP

Blue Star Gas / Gas N Save / Mission Bait / Ghafoor Abdul

The adjoining property to the south of the subject Property is listed on the LUST and CERS databases as Blue Star Gas. The same site is listed on the UST database under the name Gas N Save and on additional environmental databases under the names Mission Bait and Ghafoor Abdul. According to the information provided, an unauthorized gasoline leak from an underground storage tank was detected at Blue Star Gas in March 2004. The leak was stopped immediately upon discovery. Following the gasoline leak, a LUST cleanup case was opened for the site and overseen by the Central Valley Regional Water Quality Control Board (CVRWQCB). The site investigation included a soil and groundwater investigation and groundwater monitoring to evaluate the extent of gasoline impacts to soil and groundwater. Corrective actions were completed in accordance with CVRWQCB directions. On August 30, 2011, a No Further Action letter was issued by the CVRWQCB and the case was closed on the LUST database. This site would not be expected to pose an environmental risk to the Property.

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. Properties that are on the “Orphan Summary” list are listed below.

TABLE 3.3.2.2-2

FACILITY	STREET	DATABASE(S)
GILBERT PROPERTY CONSTRUCTION DEWATERING PROJECT	NE CORNER OF CYPRESS RD & SELLERS AVE	FINDS ECHO
N/A	3211 KNIGHTSEN AVE	CDL
N/A	E SELLERS AVE & E CYPRESS RD	CDL
GILBERT PROPERTY – CYPRESS RD EAST PROJECT	E CYPRESS RD	CIWQS

3.4 REGULATORY AGENCY FILES AND RECORDS

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

TABLE 3.4-1: Regulatory Agency Records

NAME OF AGENCY	RECORDS REVIEWED
City of Oakley City Clerk	The City of Oakley City Clerk was contacted regarding files for the Property. The City Clerk did not have any files pertaining to the Property.
East Contra Costa County Fire Protection District	The East Contra Costa County Fire Protection District (FPD) was contacted regarding files for the Property. The FPD did not have any files pertaining to the Property.
Contra Costa County Department of Environmental Health	The Contra Costa County Department of Environmental Health was contacted regarding files for the Property. The Department of Environmental Health provided several documents for the Property related to drilling permits obtained in 2005 for a geotechnical exploration conducted by Kleinfelder. The documents included a figure of the geotechnical exploration locations and the associated boring logs.
Contra Costa County Hazardous Materials Program	The Contra Costa County Hazardous Materials Program was contacted regarding files for the Property. The Hazardous Materials Program did not have any information regarding the Property.
Contra Costa County Assessor's Office	The Contra Costa County Assessor's Office was contacted regarding files for the Property. The Assessor's Office did not have any files pertaining to the Property.
Division of Oil, Gas, and Geothermal Resources	The Division of Oil, Gas, and Geothermal Resources' (DOGGR) online database of wells, Well Finder, was reviewed for files pertaining to the Property. The database identified one abandoned gas well on the Property. A summary of the DOGGR records for this well is provided below.

TABLE 3.4-2: DOGGR Records

WELL NO.	STATUS/TYPE	DEPTH (FT)	DATE DRILLED	DATE ABANDONED	SEAL (DEPTH BGS, FT)
5-5	Plugged and Abandoned/ Dry Gas	7700	1964	2004	6971

As noted in Table 3.4-2, the dry gas well was plugged and abandoned in general accordance with DOGGR requirements in 2004. A well leak test was conducted by DOGGR on August 15, 2007. The leak test did not find any hazardous or damaged well conditions. Excerpts from the DOGGR files are provided in Appendix G.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on December 9, 2019. The reconnaissance was performed by Victoria Drake, a Project Engineer of ENGEO. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The Property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

4.2 GENERAL SITE SETTING

The Property is currently undeveloped, with the exception of perimeter fencing, overhead electric transmission lines along the western and northern perimeters, and underground water, natural gas, and sanitary sewer lines along the southern perimeter. The majority of the Property was covered with shrubs and grasses. Several trees were observed along the western and southern perimeters. An unmaintained access road was observed along the western perimeter of the Property, trending north to south. Historically, the Property has been used for cattle grazing and gas production. One abandoned gas well is located within the Property boundaries.

The former canal along the northern perimeter of the Property has been backfilled; however, the waterway identified as Dutch Slough remains along the western perimeter of the Property. Adjoining properties consisted of cattle grazing land to the east, residential and commercial properties to the south, and a residential development under construction to the west. A Valero gas station was observed directly across from the Property, at the southeast corner of the intersection of Knightsen Avenue and East Cypress Road.

4.3 SITE OBSERVATIONS

The following table summarizes our observations during the reconnaissance:

TABLE 4.3-1: Site Observations

FEATURE TYPE	OBSERVATIONS
Structures	No structures were observed during the site reconnaissance.
Hazardous Substances and Petroleum Products/Containers	No hazardous substances were observed during the site reconnaissance.
Storage Tanks (underground and above-ground)	No storage tanks were observed during the site reconnaissance.
Odors	No odors were detected during the site reconnaissance.
Pools of Potentially Hazardous Liquid	No pools of potentially hazardous liquids were observed during the site reconnaissance.
Drums	No drums were observed during the site reconnaissance.
Polychlorinated Biphenyls (PCBs)	One pole-mounted transformer was observed along the west perimeter of the Property. No staining was observed beneath the transformer at the time of the reconnaissance.
Pits, Ponds, and Lagoons	No pits, ponds, or lagoons were observed during the reconnaissance.
Stained Soil/Pavement	No stained soil or pavement was observed during the reconnaissance.
Stressed Vegetation	No signs of stressed vegetation were observed during the site reconnaissance.
Solid Waste/Debris	A small amount of trash was observed along the fence at the southern perimeter of the Property.
Stockpiles/Fill Material	No stockpiles were observed during the site reconnaissance.
Wastewater	No evidence of any wastewater systems were observed during the site reconnaissance.
Wells	One abandoned dry gas well exists within the Property. The approximate location of the former well is shown in Figure 2. Details regarding the well are provided in Section 3.4.
Septic Systems	No visual evidence of any septic systems were observed on the Property during the site reconnaissance.

4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

No structures are currently located on the Property.

4.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that three tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter (pCi/L¹).

In accordance with ASTM E2600-15 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); there is one potential petroleum hydrocarbon source for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) source within 1/3 mile of the Property. The potential petroleum hydrocarbon source for vapor intrusion is related to the Blue Star Gas cleanup site. The site is also listed under the following names: Gas N Save; Mission Bait; Ghafoor Abdul. The cleanup site is listed as closed. For additional information regarding this site, refer to Section 3.3.2.2. This site would not be expected to pose a vapor intrusion concern. The abandoned gas well on the Property presents the potential for VOC and/or methane intrusion.

5.0 EVALUATION

5.1 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. The following data gap was encountered during our assessment.

- We did not receive completed Client-based and Key Site Manager-based environmental site assessment questionnaires for review at the time of report publication.

The data gap identified during this process does not affect the conclusions as to the presence or lack of presence of RECs at the Property.

5.2 FINDINGS AND CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources; a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.

The site reconnaissance and records review did not find documentation or physical evidence of soil, soil gas, or groundwater impairments associated with the use of the Property. A review of

¹ California Department of Public Health – Radon Program–
(<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf>).

regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs), no historical RECs, and no controlled RECs were identified for the Property.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below.

Former Dry Gas Production Well

One abandoned gas production well is located within the Property boundaries. The 7700- foot deep well was installed in 1964 and ceased production sometime prior to 1985. The well was abandoned and received clearance from the Division of Oil/Gas (DOGGR) in 2004. The following is recommended to address the historic gas production activities:

- If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered at the Property, specifically in the vicinity of the abandoned gas well, the impacted area(s) should be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of contaminants of concern and comparison with applicable regulatory residential screening levels. If soil contamination concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility.
- Prior to final map approval, the project applicant shall submit to the City of Oakley Engineering Department, for review and approval, plans which show that future inhabited structures will not be located over the abandoned gas well. The plans should be completed in compliance with the DOGGR Construction Site Review Program, which includes guidelines and recommendations for setbacks and mitigation measures for venting systems.
- The specific location of the well should be determined and surveyed in the field.
- If grading is proposed proximate to the abandoned well location, DOGGR should be consulted to determine if the wells will require modification in casing height.

ENGEO has performed a phase I environmental site assessment in general conformance with the scope and limitations of ASTM E1527-13 and the standards and practices of the All Appropriate Inquiry – Final Rule (40 Code of Federal Regulations Part 312). Any exceptions to, or deletions from, this practice are described in Section 5.1 of this report.

- ENGEO recommends a limited subsurface assessment be undertaken to determine if the historic gas well operations have impacted site soil and/or groundwater. This assessment should include the recovery of soil, groundwater, and soil gas samples.

SELECTED REFERENCES

California Department of Conservation (DOGGR) (<http://maps.conservation.ca.gov/doms/doms-app.html>)

California Department of Public Health – Radon Program–
(<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/Radon/Radon%20Test%20Results.pdf>).

California Department of Water Resources (<http://www.water.ca.gov/waterdatalibrary/>)

Dibblee, T.W., 2006, Geologic Map of the Antioch South and Brentwood Quadrangles, Contra Costa County, California; Dibblee Geology Center map, 1:24,000.

ENGEO, Environmental Site Assessment Update, Emerson/Burroughs Properties, Cypress Avenue, Oakley, California, August 8, 2002, Project No. 4603.3.001.02.

ENGEO, Phase One Environmental Site Assessment, Emerson and Burroughs Properties, Cypress Corridor, Oakley, California, August 23, 1999, Project No. 4603.3.001.01.

First American Title Company, 2019, Preliminary Title Report, APN 032-081-026, Oakley, California, October 25, 2019.



DRAFT

FIGURES

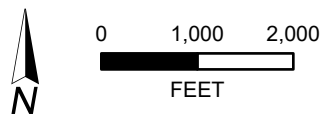
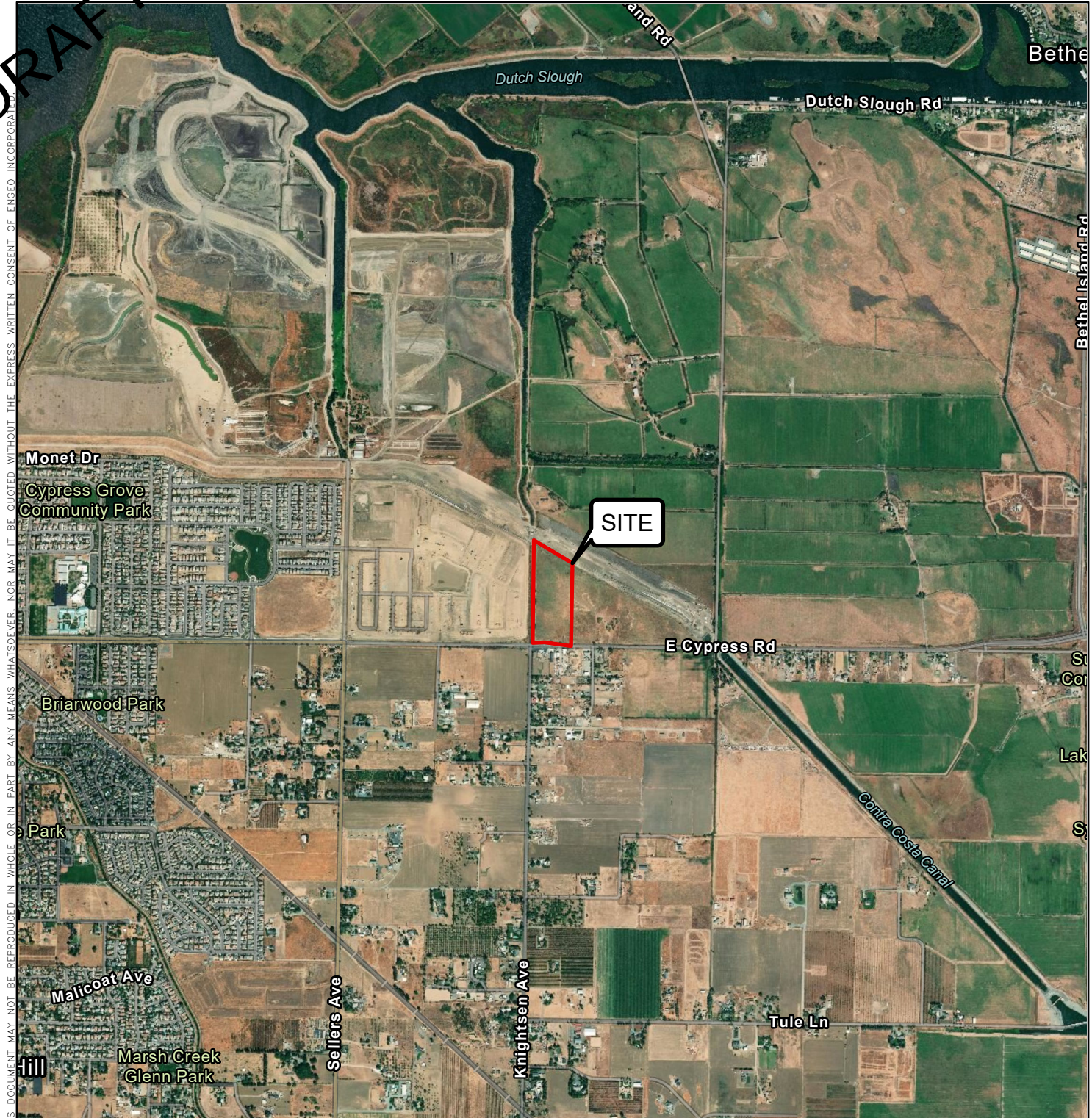
FIGURE 1: Vicinity Map

FIGURE 2: Site Plan

FIGURE 3: Assessor's Parcel Map

FIGURE 4: Site Photographs

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BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

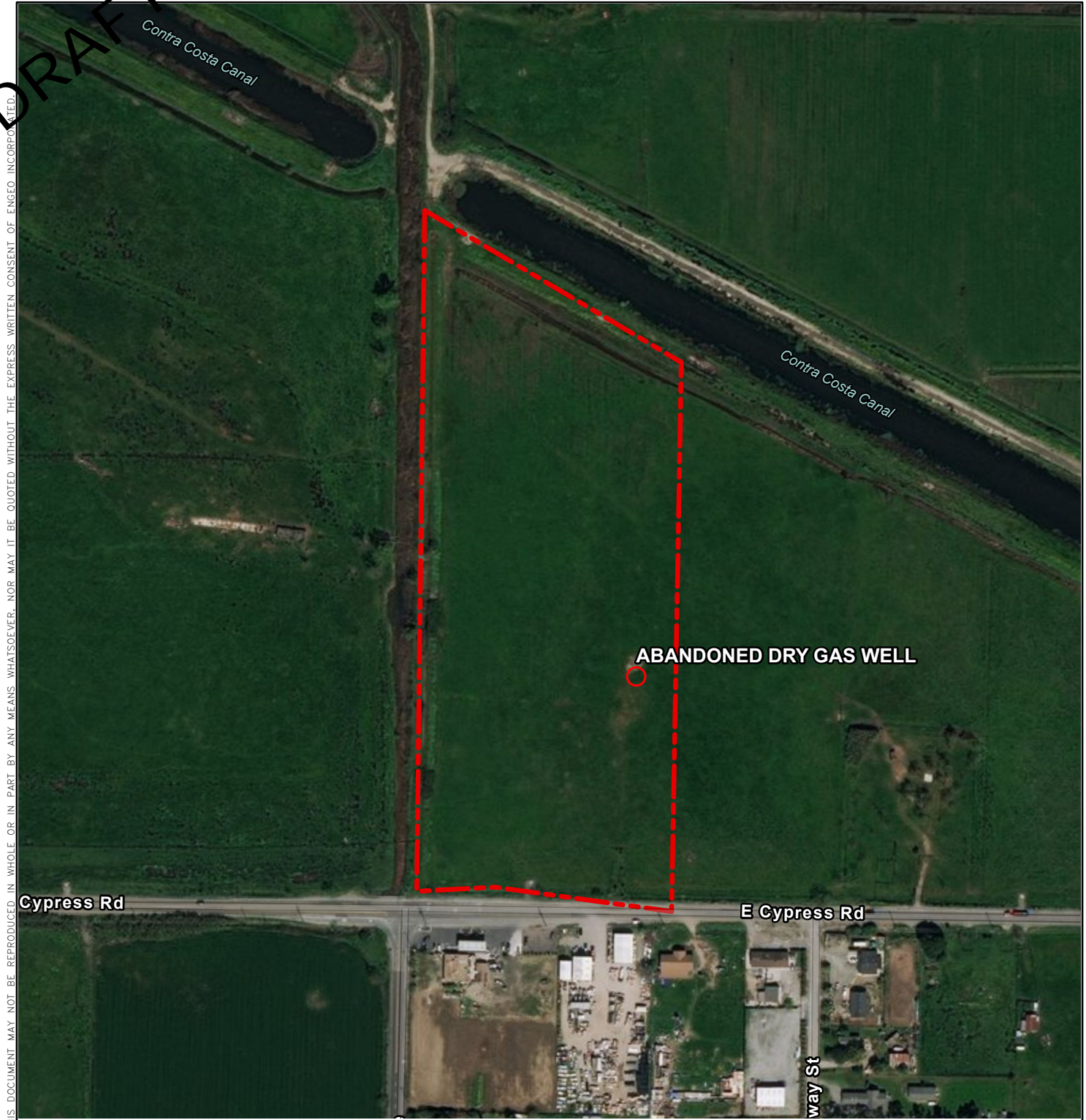


VICINITY MAP
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
1

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ABANDONED DRY GAS WELL



Cypress Rd

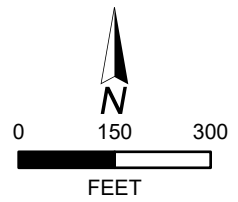
E Cypress Rd

way St

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

-  PROJECT SITE
-  ABANDONED DRY GAS WELL



BASEMAP SOURCE: ESRI MAPPING SERVICE 2017

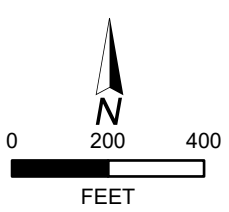
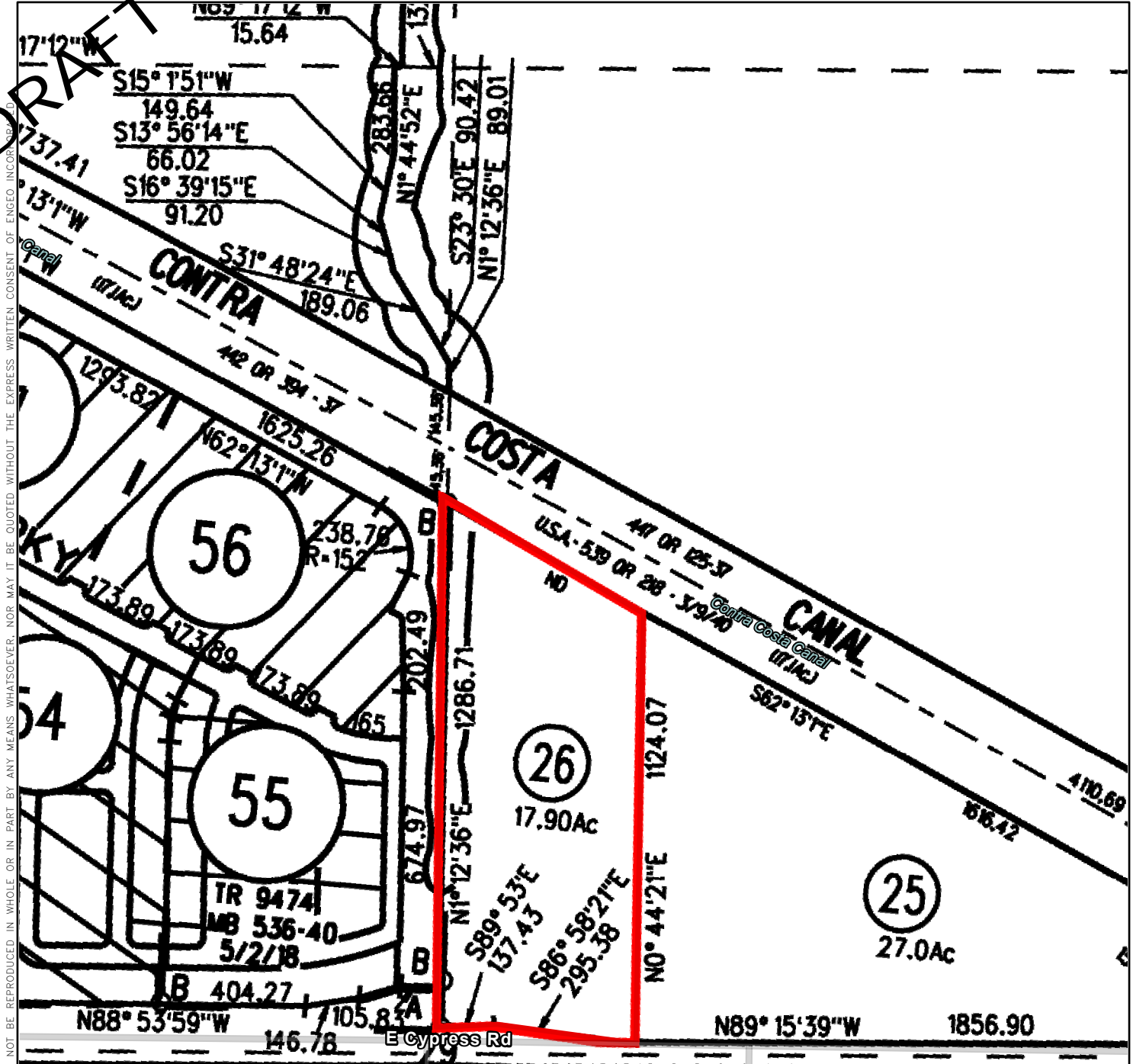


SITE PLAN
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
2

DRAFT



CYPRESS

FOR GAS LEASE ON THIS PAGE
SEE PAGE 27 & 28

EXPLANATION
ALL LOCATIONS ARE APPROXIMATE
 PROJECT SITE

	ASSESSOR'S PARCEL MAP BURROUGHS PROPERTY OAKLEY, CALIFORNIA		PROJECT NO. : 16836.000.000	FIGURE NO. 3
			SCALE: AS SHOWN	
			DRAWN BY: QRL	CHECKED BY: SPM

DRAFT



PHOTO 1
VIEW FROM SOUTHEAST CORNER OF PROPERTY, LOOKING WEST.



PHOTO 2
VIEW OF EAST CYPRESS ROAD ALONG SOUTHERN PERIMETER OF THE PROPERTY



PHOTO 3
VIEW FROM SOUTHERN PERIMETER OF THE PROPERTY, LOOKING NORTH.



PHOTO 4
VIEW OF POLE-MOUNTED TRANSFORMER ALONG WESTERN PERIMETER OF THE PROPERTY.



PHOTO 5
VIEW FROM SOUTHWEST CORNER OF THE PROPERTY, LOOKING NORTH.



PHOTO 6
VIEW FROM SOUTHWEST PORTION OF THE PROPERTY, LOOKING EAST.

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SITE PHOTOGRAPHS
BURROUGHS PROPERTY
OAKLEY, CALIFORNIA

PROJECT NUMBER: 16836.000.000

SCALE: NO SCALE

DRAWN BY: QRL

CHECKED BY: SPM

FIGURE NO.

4A

ORIGINAL FIGURE PRINTED IN COLOR

DRAFT



PHOTO 7
VIEW FROM WESTERN PERIMETER OF THE PROPERTY,
LOOKING EAST.



PHOTO 8
VIEW OF UNMAINTAINED ACCESS ROAD ALONG WESTERN
PERIMETER OF THE PROPERTY, LOOKING NORTH.



PHOTO 9
VIEW OF DUTCH SLOUGH ALONG WESTERN PERIMETER OF THE
PROPERTY, LOOKING NORTHWEST.



PHOTO 10
VIEW FROM NORTHWEST CORNER OF THE PROPERTY,
LOOKING EAST.



PHOTO 11
VIEW FROM NORTHWEST CORNER OF THE PROPERTY,
LOOKING SOUTHEAST.



PHOTO 12
VIEW OF VALERO GAS STATION LOCATED ACROSS FROM THE
SOUTHWEST CORNER OF THE PROPERTY

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SITE PHOTOGRAPHS
BURROUGHS PROPERTY
OAKLEY, CALIFORNIA

PROJECT NUMBER: 16836.000.000

SCALE: NO SCALE

DRAWN BY: QRL

CHECKED BY: SPM

FIGURE NO.

4B

ORIGINAL FIGURE PRINTED IN COLOR



DRAFT

APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 05892883.2r
December 04, 2019

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	54
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1180 E. CYPRESS ROAD
OAKLEY, CA 94561

COORDINATES

Latitude (North): 37.9925120 - 37° 59' 33.04"
Longitude (West): 121.6673090 - 121° 40' 2.31"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 617024.1
UTM Y (Meters): 4205616.5
Elevation: 9 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5640376 BRENTWOOD, CA
Version Date: 2012

North Map: 5629060 JERSEY ISLAND, CA
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140606
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 1180 E. CYPRESS ROAD
 OAKLEY, CA 94561

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	VALUE PLUMBING INC	1571 CYPRESS RD E	AST	Higher	60, 0.011, SSE
A2	VALUE PLUMBING INC	1571 E CYPRESS RD	AST, CERS HAZ WASTE, CERS TANKS, CONTRA COSTA CO.	Higher	96, 0.018, South
A3	BLUE STAR GAS	1541 CYPRESS ROAD, E	LUST, CERS	Higher	111, 0.021, South
A4	MISSION BAIT	1541 E CYPRESS RD	CERS HAZ WASTE, SWEEPS UST, CERS TANKS, CONTRA...	Higher	114, 0.022, South
A5	GAS N SAVE	1541 E CYPRESS RD	UST	Higher	114, 0.022, South
A6	GHAFOOR ABDUL	1541 E CYPRESS RD	EDR Hist Auto	Higher	114, 0.022, South
7	CCC PUBLIC WORKS	CYPRESS RD & SELLERS	CONTRA COSTA CO. SITE LIST	Higher	717, 0.136, WSW
8	ERSKINE ACRES	4310 KNIGHTSEN AVE	CONTRA COSTA CO. SITE LIST	Higher	1176, 0.223, South
9	BALDOCCHI PROPERTY	6390 SELLERS AVENUE	ENVIROSTOR, VCP	Higher	2655, 0.503, WSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database

EXECUTIVE SUMMARY

SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
PFAS.....	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

HIST UST.....	Hazardous Substance Storage Container Database
CA FID UST.....	Facility Inventory Database

Local Land Records

LIENS.....	Environmental Liens Listing
LIENS 2.....	CERCLA Lien Information
DEED.....	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS.....	Hazardous Materials Information Reporting System
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
FUDS.....	Formerly Used Defense Sites
DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program

EXECUTIVE SUMMARY

UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
DRYCLEANERS.....	Cleaner Facilities
EMI.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HAZNET.....	Facility and Manifest Data
ICE.....	ICE
HIST CORTESE.....	Hazardous Waste & Substance Site List
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
Notify 65.....	Proposition 65 Records
UIC.....	UIC Listing
UIC GEO.....	UIC GEO (GEOTRACKER)
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
MILITARY PRIV SITES.....	MILITARY PRIV SITES (GEOTRACKER)
PROJECT.....	PROJECT (GEOTRACKER)
WDR.....	Waste Discharge Requirements Listing
CIWQS.....	California Integrated Water Quality System
CERS.....	CERS
NON-CASE INFO.....	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS.....	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS.....	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT.....	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ.....	Well Stimulation Project (GEOTRACKER)
MINES MRDS.....	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
-------------	--

EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/29/2019 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>BALDOCCHI PROPERTY</i> Status: Active Facility Id: 60000650	<i>6390 SELLERS AVENUE</i>	<i>WSW 1/2 - 1 (0.503 mi.)</i>	<i>9</i>	<i>48</i>

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>BLUE STAR GAS</i> Database: LUST REG 5, Date of Government Version: 07/01/2008 Database: LUST, Date of Government Version: 09/09/2019	<i>1541 CYPRESS ROAD, E</i>	<i>S 0 - 1/8 (0.021 mi.)</i>	<i>A3</i>	<i>26</i>

EXECUTIVE SUMMARY

Status: Completed - Case Closed
Global Id: T0601389417

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GAS N SAVE Database: UST, Date of Government Version: 09/09/2019 Facility Id: 07-000-771132 Facility Id: 771132	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A5	47

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC Database: AST, Date of Government Version: 07/06/2016	1571 CYPRESS RD E	SSE 0 - 1/8 (0.011 mi.)	1	9
VALUE PLUMBING INC Database: AST, Date of Government Version: 07/06/2016	1571 E CYPRESS RD	S 0 - 1/8 (0.018 mi.)	A2	9

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 08/14/2019 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC	1571 E CYPRESS RD	S 0 - 1/8 (0.018 mi.)	A2	9
MISSION BAIT	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A4	33

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION BAIT Status: A Tank Status: A Comp Number: 71132	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A4	33

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 08/14/2019 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC	1571 E CYPRESS RD	S 0 - 1/8 (0.018 mi.)	A2	9
MISSION BAIT	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A4	33

Other Ascertainable Records

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 08/20/2019 has revealed that there are 4 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VALUE PLUMBING INC Facility Id: FA0029397	1571 E CYPRESS RD	S 0 - 1/8 (0.018 mi.)	A2	9
MISSION BAIT Facility Id: FA0027908	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A4	33
CCC PUBLIC WORKS Facility Id: FA0028708	CYPRESS RD & SELLERS	WSW 1/8 - 1/4 (0.136 mi.)	7	48
ERSKINE ACRES Facility Id: FA0029498	4310 KNIGHTSEN AVE	S 1/8 - 1/4 (0.223 mi.)	8	48

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

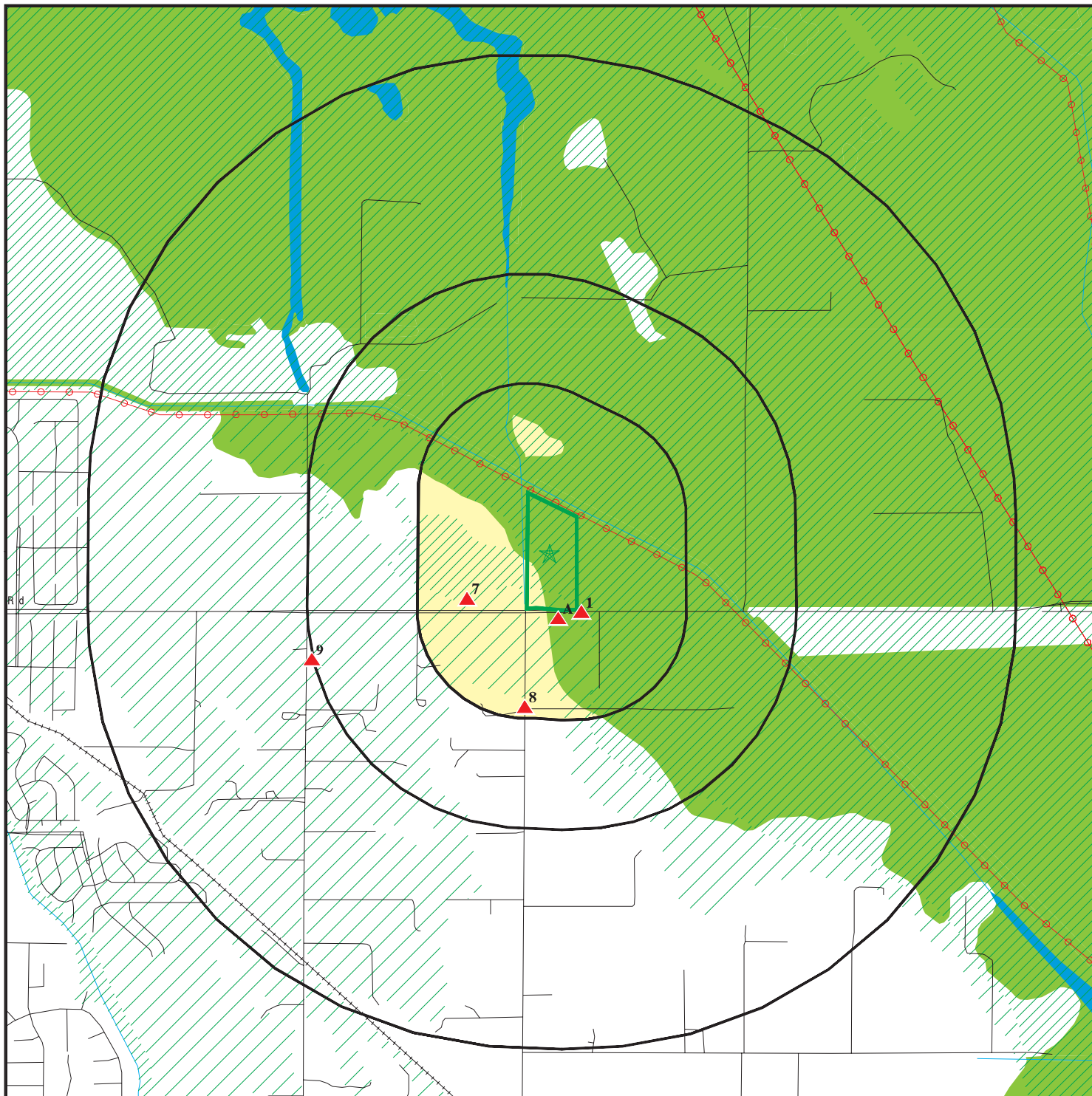
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GHAFOOR ABDUL	1541 E CYPRESS RD	S 0 - 1/8 (0.022 mi.)	A6	47

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

<u>Site Name</u>	<u>Database(s)</u>
GILBERT PROPERTY - CYPRESS ROAD EA	CIWQS CDL CDL
GILBERT PROPERTY CONSTRUCTION DEWA	FINDS, ECHO

OVERVIEW MAP - 05892883.2R



Target Property

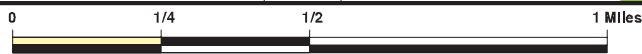
Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites



Indian Reservations BIA

Areas of Concern

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

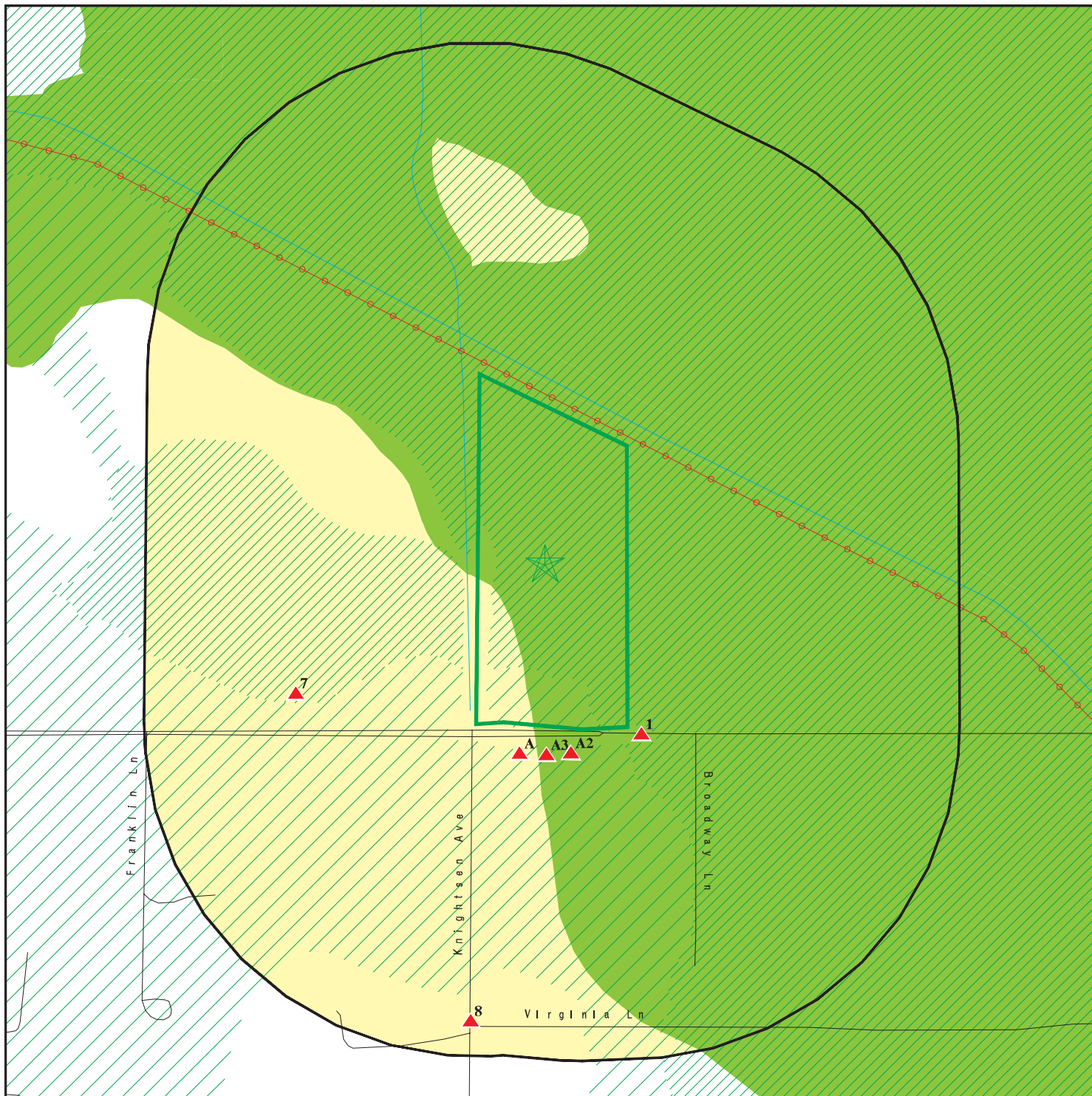
















This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Burroughs Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.992512 / 121.667309

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892883.2r
 DATE: December 04, 2019 3:09 pm

DETAIL MAP - 05892883.2R



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory
-  State Wetlands
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Burroughs Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.992512 / 121.667309

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892883.2r
 DATE: December 04, 2019 3:10 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		0	0	0	1	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		2	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		2	0	NR	NR	NR	2
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		2	0	NR	NR	NR	2
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

1
SSE
< 1/8
0.011 mi.
60 ft.

VALUE PLUMBING INC
1571 CYPRESS RD E
OAKLEY, CA

AST S103464371
N/A

Relative:
Higher
Actual:
9 ft.

AST:
 Name: VALUE PLUMBING INC
 Address: 1571 CYPRESS RD E
 City/Zip: OAKLEY,
 Certified Unified Program Agencies: Contra Costa
 Owner: Not reported
 Total Gallons: 1,320
 CERSID: Not reported
 Facility ID: Not reported
 Business Name: Not reported
 Phone: Not reported
 Fax: Not reported
 Mailing Address: Not reported
 Mailing Address City: Not reported
 Mailing Address State: Not reported
 Mailing Address Zip Code: Not reported
 Operator Name: Not reported
 Operator Phone: Not reported
 Owner Phone: Not reported
 Owner Mail Address: Not reported
 Owner State: Not reported
 Owner Zip Code: Not reported
 Owner Country: Not reported
 Property Owner Name: Not reported
 Property Owner Phone: Not reported
 Property Owner Mailing Address: Not reported
 Property Owner City: Not reported
 Property Owner Stat : Not reported
 Property Owner Zip Code: Not reported
 Property Owner Country: Not reported
 EPAID: Not reported

A2
South
< 1/8
0.018 mi.
96 ft.

VALUE PLUMBING INC
1571 E CYPRESS RD
OAKLEY, CA 94561

AST S109934459
CERS HAZ WASTE
CERS TANKS
CONTRA COSTA CO. SITE LIST
CERS
N/A

Site 1 of 5 in cluster A

Relative:
Higher
Actual:
9 ft.

AST:
 Name: VALUE PLUMBING INC
 Address: 1571 E CYPRESS RD
 City/Zip: OAKLEY,94561
 Certified Unified Program Agencies: Not reported
 Owner: Todd Mullins
 Total Gallons: Not reported
 CERSID: 10015906
 Facility ID: 07-000-772717
 Business Name: VALUE PLUMBING INC
 Phone: 925-679-3829
 Fax: Not reported
 Mailing Address: 1571 E Cypress Rd
 Mailing Address City: Oakley
 Mailing Address State: CA
 Mailing Address Zip Code: 94561

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Operator Name: Bill Partridge
Operator Phone: 925-679-3829
Owner Phone: 925-679-3829
Owner Mail Address: 1571 E Cypress Rd
Owner State: CA
Owner Zip Code: 94561
Owner Country: United States
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported
Property Owner Country: Not reported
EPAID: CAL000313948

CERS HAZ WASTE:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Hazardous Waste Generator

CERS TANKS:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Aboveground Petroleum Storage

CONTRA COSTA CO. SITE LIST:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY
Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: APSA: <10K GALLONS
Region: CONTRA COSTA
Cupa Number: 772717

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY
Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >10K-100K LBS, 20+ EMPLOYEES
Region: CONTRA COSTA
Cupa Number: 772717

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City: OAKLEY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Facility ID: FA0029397
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: 5 - <12 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 772717

CERS:

Name: VALUE PLUMBING INC
Address: 1571 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 165802
CERS ID: 10015906
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.5 Multiple Sections - California Health and Safety Code, Chapter 6.5, Section(s) Multiple Sections
Violation Description: Haz Waste Generator Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 12/08/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.
Violation Notes: Returned to compliance on 04/25/2019. OBSERVATION: Failure to maintain the facility SPCC plan onsite. The facility representative could not locate the SPCC Plan at time of inspection. CORRECTIVE ACTION: Locate the facility tier 1 SPCC plan developed in 2015/2016 and implement and maintain the plan on site.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-17-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Violation Date: 05-09-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 05/16/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 04-01-2019
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: AS OF APRIL 1, 2019, CCHSHMP HAS NOT RECEIVED/ACCEPTED A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) SUBMITTAL FOR THE FOLLOWING SUBMITTAL ELEMENT(S): Facility Information AND/OR Hazardous Materials Inventory AND/OR Emergency Response/Training Plans
CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (<https://cers.calepa.ca.gov/>) AND SUBMIT COMPLETE/CORRECT Facility Information AND OR Hazardous Materials Inventory AND/OR Emergency Response/Training Plans.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 10/05/2018. OBSERVATION: The business failed to provide annual training to all employees on the emergency response plan in the last 12 months and maintain training records for a minimum of three years. CORRECTIVE ACTION: Conduct and document employee training on the facility consolidated emergency response plan, and provide CCHS-HMP with a copy of the training documentation.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 01/15/2016.
Violation Division: Contra Costa County Health Services Department

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 03-27-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/30/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-22-2015
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 01/24/2017.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 01-15-2019
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to maintain a complete copy of the SPCC Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended.
Violation Notes: Returned to compliance on 04/25/2019. OBSERVATION: Failure to maintain an SPCC Plan onsite. The facility was unable to locate the Tier 1 SPCC Plan developed in January 2016 during the 9/28/18 inspection. CORRECTIVE ACTION: Locate and maintain the 2016 Tier 1 SPCC plan onsite or develop and complete a new SPCC Plan. Provide CCHS-HMP notification / documentation that the plan has been located or a new plan has been completed.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 06-24-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 06-24-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 12/08/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-17-2014
Citation: HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description: Haz Waste Generator Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: The business failed to electronically submit chemical inventory information for all reportable hazardous materials on site above reportable quantities. Two cylinders of compressed Oxygen equal to 406 cubic feet (largest container of 281 cubic feet) and two cylinders of compressed Acetylene equal to 264 cubic feet (largest container of 132 cubic feet) were observed on site during the inspection. These stored chemical are missing in the facility 2018 CERS submittal. CORRECTIVE ACTION: Add the missing Oxygen and Acetylene stored inventory to the chemical inventory in a new CERS submittal.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Violation Date: 09-17-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to conduct spill prevention briefing for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: Failure to schedule and conduct spill prevention briefings at least once a year. The facility has not conducted an SPCC spill prevention briefing in the last year. CORRECTIVE ACTION: Conduct an SPCC spill prevention briefing and provide CCHS-HMP with documentation of the briefing. Maintain records of the briefings in the future on site.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 06-24-2014
Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 10/21/2014.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 04-01-2019
Citation: HSC 6.11 25404(e)(4) - California Health and Safety Code, Chapter 6.11, Section(s) 25404(e)(4)
Violation Description: Failure to report program data electronically.
Violation Notes: Returned to compliance on 04/23/2019. OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) FACILITY INFORMATION SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (<https://cers.calepa.ca.gov/>) AND SUBMIT COMPLETE/CORRECT FACILITY INFORMATION SUBMITTAL ELEMENT.
Violation Division: Contra Costa County Health Services Department
Violation Program: HW
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 12-08-2015

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Citation: HSC 6.67 Multiple - California Health and Safety Code, Chapter 6.67, Section(s) Multiple
Violation Description: APSA Program - Administration/Documentation - General
Violation Notes: Not reported
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Violation Date: 09-28-2018
Citation: HSC 6.67 25270.4.5 (a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5 (a)
Violation Description: Failure to comply with one or more of the following requirements: 1. Have record of inspections and integrity tests signed by the appropriate supervisor or inspector. 2. Keep written procedures and records of inspections and integrity tests for at least three years. 3. Keep comparison records.
Violation Notes: Returned to compliance on 10/05/2018. OBSERVATION: Failure to document and sign periodic petroleum storage inspection logs. CORRECTIVE ACTION: Complete and sign the monthly petroleum storage inspection logs as defined in the facility SPCC Plan. Provide CCHS-HMP with documentation of a completed, signed inspection log for October, 2018. Maintain all inspection logs on site for three years.
Violation Division: Contra Costa County Health Services Department
Violation Program: APSA
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-15-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-15-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-24-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Date: 03-27-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-23-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-23-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-26-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-09-2016
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-24-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 09-17-2014
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-05-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 10-05-2018
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 12-08-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 12-22-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: APSA
Eval Source: CERS

Enforcement Action:
Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 01-15-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HMRRP
Enf Action Source:	CERS
Site ID:	165802
Site Name:	VALUE PLUMBING INC
Site Address:	1571 E CYPRESS RD
Site City:	OAKLEY
Site Zip:	94561
Enf Action Date:	03-27-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	UNSPEC
Enf Action Source:	CERS
Site ID:	165802
Site Name:	VALUE PLUMBING INC
Site Address:	1571 E CYPRESS RD
Site City:	OAKLEY
Site Zip:	94561
Enf Action Date:	04-01-2019
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HMRRP
Enf Action Source:	CERS
Site ID:	165802
Site Name:	VALUE PLUMBING INC
Site Address:	1571 E CYPRESS RD
Site City:	OAKLEY
Site Zip:	94561
Enf Action Date:	04-01-2019
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HW
Enf Action Source:	CERS
Site ID:	165802
Site Name:	VALUE PLUMBING INC
Site Address:	1571 E CYPRESS RD
Site City:	OAKLEY
Site Zip:	94561
Enf Action Date:	05-09-2016
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Contra Costa County Health Services Department
Enf Action Program:	HMRRP
Enf Action Source:	CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-24-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-17-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 09-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Enf Action Program: APSA
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-08-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HW
Enf Action Source: CERS

Site ID: 165802
Site Name: VALUE PLUMBING INC
Site Address: 1571 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 12-22-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: APSA
Enf Action Source: CERS

Coordinates:
Site ID: 165802
Facility Name: VALUE PLUMBING INC
Env Int Type Code: HWG
Program ID: 10015906
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.990005
Longitude: -121.666954

Affiliation:
Affiliation Type Desc: Document Preparer
Entity Name: Melissa Santiago
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: Melissa Santiago
Entity Title: Office Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: Todd Mullins
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94517
Affiliation Phone: (925) 679-3829

Affiliation Type Desc: Parent Corporation
Entity Name: VALUE PLUMBING INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: MELISSA SANTIAGO
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94517
Affiliation Phone: Not reported

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 14777 Byron Hwy
Affiliation City: Byron
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94517
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VALUE PLUMBING INC (Continued)

S109934459

Affiliation Type Desc: Operator
Entity Name: Gary Mullins
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 679-3829

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco BlvdSuite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

A3
South
< 1/8
0.021 mi.
111 ft.

BLUE STAR GAS
1541 CYPRESS ROAD, E
OAKLEY, CA 94561
Site 2 of 5 in cluster A

LUST S106229770
CERS N/A

Relative:
Higher
Actual:
10 ft.

LUST REG 5:
Name: BLUE STAR GAS
Address: 1541 CYPRESS ROAD, E
City: OAKLEY
Region: 5
Status: Not reported
Case Number: 070108
Case Type: Other ground water affected
Substance: GASOLINE
Staff Initials: PMV
Lead Agency: Regional
Program: LUST
MTBE Code: N/A

LUST:
Name: BLUE STAR GAS
Address: 1541 CYPRESS ROAD, E
City,State,Zip: OAKLEY, CA 94561
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5S)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0601389417
Global Id: T0601389417
Latitude: 37.99042
Longitude: -121.667293333333
Status: Completed - Case Closed
Status Date: 08/30/2011
Case Worker: VJF
RB Case Number: 070108
Local Agency: CONTRA COSTA COUNTY
File Location: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Local Case Number: Not reported
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: The case was opened following an unauthorized release from an underground storage tank system at the subject site. Corrective action is underway as directed by the CVRWQCB. Corrective action may consist of preliminary site investigation, planning and implementation of remedial action, verification monitoring, or a combination thereof. A summary of the site history is available by clicking on either the

LUST:

Global Id: T0601389417
Contact Type: Local Agency Caseworker
Contact Name: JERRY YOSHIOKA
Organization Name: CONTRA COSTA COUNTY
Address: 4333 PACHECO BLVD
City: MARTINEZ
Email: Not reported
Phone Number: Not reported

Global Id: T0601389417
Contact Type: Regional Board Caseworker
Contact Name: VERA J. FISCHER
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: vera.fischer@waterboards.ca.gov
Phone Number: Not reported

LUST:

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/01/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 03/03/2011
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/28/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/19/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/21/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Action Type: ENFORCEMENT
Date: 10/22/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/18/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/30/2010
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/15/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/09/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: Other
Date: 03/15/2004
Action: Leak Discovery

Global Id: T0601389417
Action Type: RESPONSE
Date: 07/06/2004
Action: Other Workplan

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/05/2006
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 07/05/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 11/20/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 01/31/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/16/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/30/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/15/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/16/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/19/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: Other
Date: 03/15/2004
Action: Leak Stopped

Global Id: T0601389417
Action Type: RESPONSE
Date: 03/30/2005
Action: Other Workplan

Global Id: T0601389417
Action Type: REMEDIATION
Date: 03/15/2004
Action: Not reported

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 01/31/2008
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/08/2008
Action: Staff Letter

Global Id: T0601389417
Action Type: Other
Date: 04/04/2004
Action: Leak Reported

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/26/2006
Action: Technical Correspondence / Assistance / Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	10/19/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/22/2008
Action:	Staff Letter
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	08/31/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/17/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	01/30/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	07/24/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	03/02/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	11/23/2004
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	02/04/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	10/24/2007
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT
Date:	08/28/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0601389417
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Date: 10/02/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 12/08/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 11/05/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/28/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 10/01/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/29/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 04/16/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 07/10/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 01/31/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/15/2007
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 02/24/2009
Action: 13267 Requirement

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/18/2009
Action: Technical Correspondence / Assistance / Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 06/22/2007
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 12/05/2009
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 04/22/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 05/05/2004
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 02/18/2005
Action: Staff Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/18/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/30/2011
Action: Closure/No Further Action Letter

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 08/17/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0601389417
Action Type: ENFORCEMENT
Date: 09/24/2009
Action: Technical Correspondence / Assistance / Other

LUST:

Global Id: T0601389417
Status: Open - Case Begin Date
Status Date: 03/15/2004

Global Id: T0601389417
Status: Open - Site Assessment
Status Date: 09/11/2008

Global Id: T0601389417
Status: Open - Verification Monitoring
Status Date: 10/01/2010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BLUE STAR GAS (Continued)

S106229770

Global Id: T0601389417
Status: Completed - Case Closed
Status Date: 08/30/2011

CERS:

Name: BLUE STAR GAS
Address: 1541 CYPRESS ROAD, E
City,State,Zip: OAKLEY, CA 94561
Site ID: 205337
CERS ID: T0601389417
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: VERA J. FISCHER - CENTRAL VALLEY RWQCB (REGION 5S)
Entity Title: Not reported
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Local Agency Caseworker
Entity Name: JERRY YOSHIOKA - CONTRA COSTA COUNTY
Entity Title: Not reported
Affiliation Address: 4333 PACHECO BLVD
Affiliation City: MARTINEZ
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

A4
South
< 1/8
0.022 mi.
114 ft.

MISSION BAIT
1541 E CYPRESS RD
OAKLEY, CA 94561
Site 3 of 5 in cluster A

CERS HAZ WASTE
SWEEPS UST
CERS TANKS
CONTRA COSTA CO. SITE LIST
CERS
S106929457
N/A

Relative:
Higher

CERS HAZ WASTE:
Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 393703
CERS ID: 10011439
CERS Description: Hazardous Waste Generator

Actual:
12 ft.

SWEEPS UST:

Name: MISSION BAIT
Address: 1541 E CYPRESS RD
City: OAKLEY
Status: Active
Comp Number: 71132
Number: 3
Board Of Equalization: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Referral Date: 04-29-91
Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000001
Tank Status: A
Capacity: 10000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Name: MISSION BAIT
Address: 1541 E CYPRESS RD
City: OAKLEY
Status: Active
Comp Number: 71132
Number: 3
Board Of Equalization: Not reported
Referral Date: 04-29-91
Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000002
Tank Status: A
Capacity: 5000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Name: MISSION BAIT
Address: 1541 E CYPRESS RD
City: OAKLEY
Status: Active
Comp Number: 71132
Number: 3
Board Of Equalization: Not reported
Referral Date: 04-29-91
Action Date: 04-29-91
Created Date: 04-29-91
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-071132-000003
Tank Status: A
Capacity: 5000
Active Date: 04-29-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CERS TANKS:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
CERS ID: 10011439
CERS Description: Underground Storage Tank

CONTRA COSTA CO. SITE LIST:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HMBP: >100K-250K LBS, 0-19 EMPLOYEES
Region: CONTRA COSTA
Cupa Number: 771132

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: REPORTED ZERO
Region: CONTRA COSTA
Cupa Number: 771132

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City: OAKLEY
Facility ID: FA0027908
Billing Status: ACTIVE, BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE
Region: CONTRA COSTA
Cupa Number: 771132

CERS:

Name: GAS N SAVE
Address: 1541 E CYPRESS RD
City,State,Zip: OAKLEY, CA 94561
Site ID: 393703
CERS ID: 10011439
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-02-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 01/08/2019. OBSERVATION: Site map needs to be updated with new state required elements: north orientation, loading area, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shut offs, evacuation staging area, hazardous materials/waste storage areas and emergency response equipment. CORRECTIVE ACTION: Complete and electronically

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

submit a site map with all required content.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 06-09-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 06/22/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 04-01-2019
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 04/08/2019. OBSERVATION: AS OF APRIL 1, 2019, A COMPLETE AND CORRECT CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) UNDERGROUND STORAGE TANK (UST) SUBMITTAL ELEMENT HAS NOT BEEN RECEIVED/ACCEPTED BY CCHSHMP. CORRECTIVE ACTION: IMMEDIATELY LOG ONTO CERS (<https://cers.calepa.ca.gov/>) AND SUBMIT A COMPLETE/CORRECT UST SUBMITTAL ELEMENT.

Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-04-2016
Citation: HSC 6.7 Multiple - California Health and Safety Code, Chapter 6.7, Section(s) Multiple
Violation Description: UST Program - Administration/Documentation - General - Must include violation description, proper statute and regulation citation in the "comment" section.
Violation Notes: Returned to compliance on 08/04/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-03-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/03/2017.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-06-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/06/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 05-01-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 05/26/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 03-27-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 03/29/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 03-27-2018
Citation: HSC 6.7 25284, 25286 - California Health and Safety Code, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 04/27/2018.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-04-2016
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/04/2016.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 08-08-2013
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Administration/Documentation - General
Violation Notes: Returned to compliance on 08/08/2013.
Violation Division: Contra Costa County Health Services Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Violation Date: 05-01-2015
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 06/22/2015.
Violation Division: Contra Costa County Health Services Department
Violation Program: UST
Violation Source: CERS

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 01-08-2019
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 03-27-2018
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 04-01-2019
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-01-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 05-01-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 06-09-2015
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-02-2018
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-02-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-03-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Date: 08-03-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-03-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-04-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-04-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-06-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-07-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: UST
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-08-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Contra Costa County Health Services Department
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 03-27-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 04-01-2019
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 05-01-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 05-01-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 06-09-2015
Enf Action Type: Notice of Violation (Unified Program)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-02-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-03-2017
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-04-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-04-2016
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-06-2015
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: UST
Enf Action Source: CERS

Site ID: 393703
Site Name: GAS N SAVE
Site Address: 1541 E CYPRESS RD
Site City: OAKLEY
Site Zip: 94561
Enf Action Date: 08-08-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Contra Costa County Health Services Department
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:

Site ID: 393703
Facility Name: GAS N SAVE
Env Int Type Code: HMBP
Program ID: 10011439
Coord Name: Not reported
Ref Point Type Desc: Unknown
Latitude: 37.990002
Longitude: -121.667671

Affiliation:

Affiliation Type Desc: Document Preparer
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Environmental Contact
Entity Name: GURMEJ SINGH
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94561
Affiliation Phone: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Affiliation Type Desc: Parent Corporation
Entity Name: GAS N SAVE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: 1541 e cypress rd
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 325-8364

Affiliation Type Desc: Operator
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 625-6055

Affiliation Type Desc: Property Owner
Entity Name: TARLOK THIND
Entity Title: Not reported
Affiliation Address: 1541 E Cypress Rd
Affiliation City: Oakley
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 529-0901

Affiliation Type Desc: UST Tank Operator
Entity Name: GURINDER SINGH
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-6055

Affiliation Type Desc: CUPA District
Entity Name: Contra Costa County Health Services Department
Entity Title: Not reported
Affiliation Address: 4585 Pacheco Blvd Suite 100
Affiliation City: Martinez
Affiliation State: CA
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION BAIT (Continued)

S106929457

Affiliation Zip: 94553
Affiliation Phone: (925) 335-3200

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1541 E CYPRESS RD
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 94561
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: GURINDER SINGH
Entity Title: MANAGER
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: UST Permit Applicant
Entity Name: GURINDER SINGH
Entity Title: PRESIDENT
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (925) 529-0901

Affiliation Type Desc: UST Property Owner Name
Entity Name: TARLOK SINGH THIND
Entity Title: Not reported
Affiliation Address: 10 MERGANSER CT
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-2448

Affiliation Type Desc: UST Tank Owner
Entity Name: TARLOK SINGH THIND
Entity Title: Not reported
Affiliation Address: 10 MERGANSER CT
Affiliation City: OAKLEY
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94561
Affiliation Phone: (925) 625-6055

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

A5
South
< 1/8
0.022 mi.
114 ft.

GAS N SAVE
1541 E CYPRESS RD
OAKLEY, CA 94561

Site 4 of 5 in cluster A

UST **U003784376**
N/A

Relative:
Higher

Actual:
12 ft.

UST:

Name:	GAS N SAVE
Address:	1541 E CYPRESS RD
City,State,Zip:	OAKLEY, CA 94561
Facility ID:	07-000-771132
Permitting Agency:	Contra Costa County Health Services Department
Latitude:	37.990009
Longitude:	-121.667679

Name:	BLUE STAR GAS MART
Address:	1541 E CYPRESS RD
City,State,Zip:	OAKLEY, CA 94561
Facility ID:	771132
Permitting Agency:	CONTRA COSTA COUNTY
Latitude:	37.991352
Longitude:	-121.66632

A6
South
< 1/8
0.022 mi.
114 ft.

GHAFOOR ABDUL
1541 E CYPRESS RD
OAKLEY, CA 94561

Site 5 of 5 in cluster A

EDR Hist Auto **1020709704**
N/A

Relative:
Higher

Actual:
12 ft.

EDR Hist Auto

Year:	Name:	Type:
1995	MISSION BAIT	Sporting Goods And Bicycle Shops
1996	MISSION BAIT	Sporting Goods And Bicycle Shops
1997	MISSION BAIT	Sporting Goods And Bicycle Shops
1998	MISSION BAIT	Sporting Goods And Bicycle Shops
2000	GHAFOOR ABDUL	Convenience Stores
2006	VALERO GAS STATION	Gasoline Service Stations
2007	GHAFOOR ABDUL	Convenience Stores
2007	VALERO GAS STATION	Gasoline Service Stations
2008	GHAFOOR ABDUL	Convenience Stores
2008	VALERO GAS STATION	Gasoline Service Stations
2009	GHAFOOR ABDUL	Convenience Stores
2009	GAS & SAVE	Gasoline Service Stations
2009	VALERO GAS STATION	Gasoline Service Stations
2010	GAS & SAVE	Gasoline Service Stations
2010	GHAFOOR ABDUL	Convenience Stores
2010	VALERO GAS STATION	Gasoline Service Stations
2011	VALERO GAS STATION	Gasoline Service Stations
2011	GHAFOOR ABDUL	Convenience Stores
2011	GAS & SAVE	Gasoline Service Stations
2012	GHAFOOR ABDUL	Convenience Stores
2012	GAS & SAVE	Gasoline Service Stations
2012	VALERO GAS STATION	Gasoline Service Stations
2013	GHAFOOR ABDUL	Convenience Stores
2013	GAS & SAVE	Gasoline Service Stations
2013	VALERO GAS STATION	Gasoline Service Stations
2014	GAS & SAVE	Gasoline Service Stations
2014	VALERO GAS STATION	Gasoline Service Stations
2014	GHAFOOR ABDUL	Convenience Stores

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

7
WSW
1/8-1/4
0.136 mi.
717 ft.

CCC PUBLIC WORKS
CYPRESS RD & SELLERS AVE
OAKLEY, CA 94561

CONTRA COSTA CO. SITE LIST

S102261382
N/A

Relative:
Higher
Actual:
12 ft.

CONTRA COSTA CO. SITE LIST:
Name: CCC PUBLIC WORKS
Address: CYPRESS RD & SELLERS AVE
City: OAKLEY
Facility ID: FA0028708
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE
Region: CONTRA COSTA
Cupa Number: 771982

8
South
1/8-1/4
0.223 mi.
1176 ft.

ERSKINE ACRES
4310 KNIGHTSEN AVE
KNIGHTSEN, CA 94548

CONTRA COSTA CO. SITE LIST

S103894539
N/A

Relative:
Higher
Actual:
12 ft.

CONTRA COSTA CO. SITE LIST:
Name: ERSKINE ACRES
Address: 4310 KNIGHTSEN AVE
City: KNIGHTSEN
Facility ID: FA0029498
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: HWG: LESS THAN 5 TONS/YEAR
Region: CONTRA COSTA
Cupa Number: 772820

9
WSW
1/2-1
0.503 mi.
2655 ft.

BALDOCCHI PROPERTY
6390 SELLERS AVENUE
OAKLEY, CA 94561

ENVIROSTOR
VCP

S108649760
N/A

Relative:
Higher
Actual:
13 ft.

ENVIROSTOR:
Name: BALDOCCHI PROPERTY
Address: 6390 SELLERS AVENUE
City,State,Zip: OAKLEY, CA 94561
Facility ID: 60000650
Status: Active
Status Date: 05/31/2019
Site Code: 202256
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 23
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Allan Fone
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Assembly: 11

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Senate: 07
Special Program: Voluntary Cleanup Program
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 37.98961
Longitude: -121.6752
APN: 032010002
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: Chlordane DDT Lead
Confirmed COC: Chlordane DDT Lead
Potential Description: SOIL
Alias Name: 032010002
Alias Type: APN
Alias Name: 110033617076
Alias Type: EPA (FRS #)
Alias Name: 201746
Alias Type: Site Code - Historical
Alias Name: 202256
Alias Type: Project Code (Site Code)
Alias Name: 60000650
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 06/10/2013
Comments: DTSC has sent a letter to the City of Oakley with our concerns about the contamination on the property that has not been remediated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 04/30/2013
Comments: NFCRA approved 10/3/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/17/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 10/25/2007
Comments: No comments received on NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Completed Date: 06/28/2007
Comments: VCA signed 06/28/2007

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/29/2007
Comments: Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/21/2007
Comments: Community Profile approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 05/17/2019
Comments: Brownfields coordinator determined that DTSC would continue to lead agency for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/25/2010
Comments: Letter sent to Ryder Homes.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/10/2009
Comments: Spoke to Tim Saunders about the site. There is no possibility that

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

this project will restart due to the housing market in the next 3-5 years.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 12/15/2019
Schedule Revised Date: Not reported

VCP:

Name: BALDOCCHI PROPERTY
Address: 6390 SELLERS AVENUE
City,State,Zip: OAKLEY, CA 94561
Facility ID: 60000650
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 23
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Allan Fone
Supervisor: Julie Pettijohn
Division Branch: Cleanup Berkeley
Site Code: 202256
Assembly: 11
Senate: 07
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 05/31/2019
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 37.98961 / -121.6752
APN: 032010002
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: 30004, 30008, 30013
Confirmed COC: 30004,30008,30013
Potential Description: SOIL
Alias Name: 032010002
Alias Type: APN
Alias Name: 110033617076
Alias Type: EPA (FRS #)
Alias Name: 201746
Alias Type: Site Code - Historical
Alias Name: 202256
Alias Type: Project Code (Site Code)
Alias Name: 60000650
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Completed Document Type: Correspondence
Completed Date: 06/10/2013
Comments: DTSC has sent a letter to the City of Oakley with our concerns about the contamination on the property that has not been remediated.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Form 1479 - Site and Collections Summary
Completed Date: 04/30/2013
Comments: NFCRA approved 10/3/2013.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 07/17/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 10/25/2007
Comments: No comments received on NOE.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 06/28/2007
Comments: VCA signed 06/28/2007

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/29/2007
Comments: Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 09/21/2007
Comments: Community Profile approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 09/18/2007
Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/18/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALDOCCHI PROPERTY (Continued)

S108649760

Comments: 30-Day public comment period scheduled to begin on Sept. 24, 2007.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 05/17/2019
Comments: Brownfields coordinator determined that DTSC would continue to lead agency for this site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 03/25/2010
Comments: Letter sent to Ryder Homes.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 09/10/2009
Comments: Spoke to Tim Saunders about the site. There is no possibility that this project will restart due to the housing market in the next 3-5 years.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 12/15/2019
Schedule Revised Date: Not reported

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
KNIGHTSEN	S107532794		3211 KNIGHTSEN AVE	94548	CDL
OAKLEY	1024231104	GILBERT PROPERTY CONSTRUCTION DEWA	NORTHEAST CORNER OF CYPRESS RO	94561	FINDS, ECHO
OAKLEY	S124422228	GILBERT PROPERTY - CYPRESS ROAD EA	EAST CYPRESS ROAD	94561	CIWQS
OAKLEY	S107538369		E SELLERS RD & E CYPRESS RD	94561	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: N/A
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: EPA
Telephone: N/A
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 800-424-9346
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/24/2019	Source: EPA
Date Data Arrived at EDR: 06/26/2019	Telephone: 800-424-9346
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/13/2019	Source: Department of the Navy
Date Data Arrived at EDR: 08/20/2019	Telephone: 843-820-7326
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/19/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/20/2019	Telephone: 703-603-0695
Date Made Active in Reports: 08/26/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 09/23/2019

Number of Days to Update: 14

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 09/09/2019

Next Scheduled EDR Contact: 01/06/2020

Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/29/2019

Date Data Arrived at EDR: 07/31/2019

Date Made Active in Reports: 10/08/2019

Number of Days to Update: 69

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 10/29/2019

Next Scheduled EDR Contact: 02/10/2020

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/29/2019

Date Data Arrived at EDR: 07/31/2019

Date Made Active in Reports: 10/08/2019

Number of Days to Update: 69

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 10/29/2019

Next Scheduled EDR Contact: 02/10/2020

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/12/2019

Date Data Arrived at EDR: 08/13/2019

Date Made Active in Reports: 10/09/2019

Number of Days to Update: 57

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 11/12/2019

Next Scheduled EDR Contact: 02/24/2020

Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: see region list
Date Made Active in Reports: 10/31/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3372
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-6597
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-8677
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/08/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 07/30/2019	Telephone: 312-886-7439
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 07/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 10/16/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 8	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/29/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6271
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/11/2019	Source: EPA Region 1
Date Data Arrived at EDR: 07/29/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019
Date Data Arrived at EDR: 08/28/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 75

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/11/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 09/06/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-327-7844
Date Made Active in Reports: 10/31/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 52	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-5092
Date Made Active in Reports: 09/19/2016	Last EDR Contact: 09/12/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 12/30/2019
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 9
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3368
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 8
Date Data Arrived at EDR: 10/22/2019	Telephone: 303-312-6137
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/01/2019	Source: EPA Region 6
Date Data Arrived at EDR: 07/29/2019	Telephone: 214-665-7591
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 5
Date Data Arrived at EDR: 07/29/2019	Telephone: 312-886-6136
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/12/2019	Source: EPA Region 4
Date Data Arrived at EDR: 07/29/2019	Telephone: 404-562-9424
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 12/03/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2019	Source: EPA Region 7
Date Data Arrived at EDR: 07/29/2019	Telephone: 913-551-7003
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/11/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 07/30/2019	Telephone: 617-918-1313
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/16/2019	Source: EPA Region 10
Date Data Arrived at EDR: 07/30/2019	Telephone: 206-553-2857
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/29/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 43

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 59

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 34

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/01/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/13/2019	Telephone: 202-307-1000
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 11/20/2019
Number of Days to Update: 82	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/29/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/31/2019	Telephone: 916-323-3400
Date Made Active in Reports: 10/08/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 69	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2018	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 07/16/2019	Telephone: 916-255-6504
Date Made Active in Reports: 09/24/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing Aboveground storage tank sites

Date of Government Version: 08/01/2019	Source: San Francisco County Department of Public Health
Date Data Arrived at EDR: 08/02/2019	Telephone: 415-252-3896
Date Made Active in Reports: 10/11/2019	Last EDR Contact: 10/31/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 08/14/2019	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 08/14/2019	Telephone: 916-323-2514
Date Made Active in Reports: 08/21/2019	Last EDR Contact: 10/22/2019
Number of Days to Update: 7	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/29/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/30/2019	Telephone: 916-323-3400
Date Made Active in Reports: 10/29/2019	Last EDR Contact: 12/02/2019
Number of Days to Update: 60	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 10/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/07/2019	Telephone: 202-564-6023
Date Made Active in Reports: 11/20/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/03/2019	Source: DTSC and SWRCB
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-323-3400
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 06/26/2019	Telephone: 202-366-4555
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 05/15/2019	Source: Office of Emergency Services
Date Data Arrived at EDR: 06/24/2019	Telephone: 916-845-8400
Date Made Active in Reports: 08/21/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Quality Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/24/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/26/2019	Telephone: (415) 495-8895
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 10/28/2019
Number of Days to Update: 113	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/15/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 05/21/2019	Telephone: 202-528-4285
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/07/2019
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/24/2019
Date Data Arrived at EDR: 06/26/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/24/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/08/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 09/30/2018
Date Data Arrived at EDR: 04/24/2019
Date Made Active in Reports: 08/08/2019
Number of Days to Update: 106

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/23/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2019	Source: EPA
Date Data Arrived at EDR: 11/07/2019	Telephone: 202-564-6023
Date Made Active in Reports: 11/21/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 14	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019	Source: EPA
Date Data Arrived at EDR: 04/10/2019	Telephone: 202-566-0500
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/07/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/20/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 06/20/2019	Telephone: 301-415-7169
Date Made Active in Reports: 08/08/2019	Last EDR Contact: 10/25/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 11/06/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/25/2019
Number of Days to Update: 251	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/30/2017	Telephone: 202-566-0517
Date Made Active in Reports: 12/15/2017	Last EDR Contact: 11/06/2019
Number of Days to Update: 15	Next Scheduled EDR Contact: 02/17/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 11/12/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 85

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/29/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2019
Next Scheduled EDR Contact: 01/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/21/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 82

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/15/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 11/07/2019
Date Made Active in Reports: 11/20/2019
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust.

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 09/17/2019
Date Data Arrived at EDR: 09/18/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 76

Source: DOL, Mine Safety & Health Administration
Telephone: 202-693-9424
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/27/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 76

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/27/2019
Next Scheduled EDR Contact: 12/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 37

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/10/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/20/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 07/06/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/09/2019	Telephone: 202-564-2280
Date Made Active in Reports: 10/02/2019	Last EDR Contact: 10/08/2019
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/19/2019	Source: EPA
Date Data Arrived at EDR: 08/20/2019	Telephone: 800-385-6164
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/23/2019	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 09/24/2019	Telephone: 916-323-3400
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/24/2019
Number of Days to Update: 43	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 05/14/2019	Telephone: 925-454-2361
Date Made Active in Reports: 07/17/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 60

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/28/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 55

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/24/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 59

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/18/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/22/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 66

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/30/2019
Next Scheduled EDR Contact: 02/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/16/2019	Source: California Integrated Waste Management Board
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-341-6066
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/07/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 05/29/2019	Telephone: 916-255-1136
Date Made Active in Reports: 07/22/2019	Last EDR Contact: 10/11/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/19/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/20/2019	Telephone: 877-786-9427
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/19/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-323-3400
Date Made Active in Reports: 10/18/2019	Last EDR Contact: 11/19/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/07/2019	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/08/2019	Telephone: 916-440-7145
Date Made Active in Reports: 11/07/2019	Last EDR Contact: 10/08/2019
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/09/2019	Source: Department of Conservation
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-322-1080
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 07/19/2019	Source: Department of Public Health
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-558-1784
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/12/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/13/2019	Telephone: 916-445-9379
Date Made Active in Reports: 10/16/2019	Last EDR Contact: 11/12/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/03/2019	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 09/04/2019	Telephone: 916-445-4038
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/04/2019
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/16/2019
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/09/2019	Source: Department of Conservation
Date Data Arrived at EDR: 09/09/2019	Telephone: 916-323-3836
Date Made Active in Reports: 11/05/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 57	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/16/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/18/2019	Telephone: 916-445-3846
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 09/16/2019
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/30/2019
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 08/20/2019	Source: Department of Conservation
Date Data Arrived at EDR: 08/20/2019	Telephone: 916-445-2408
Date Made Active in Reports: 11/18/2019	Last EDR Contact: 08/20/2019
Number of Days to Update: 90	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 09/09/2019	Source: State Water Resource Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 07/11/2018	Telephone: 559-445-5577
Date Made Active in Reports: 09/13/2018	Last EDR Contact: 10/11/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 11/14/2019
Number of Days to Update: 9	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 09/19/2019
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 09/09/2019	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/09/2019	Telephone: 866-480-1028
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 09/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 62

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 08/21/2019
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/22/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/01/2019
Number of Days to Update: 53

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 11/01/2019

Number of Days to Update: 53

Source: State Water Resources Control Board

Telephone: 866-480-1028

Last EDR Contact: 09/09/2019

Next Scheduled EDR Contact: 12/23/2019

Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 11/01/2019

Number of Days to Update: 53

Source: State Water Resources Control Board

Telephone: 866-480-1028

Last EDR Contact: 09/09/2019

Next Scheduled EDR Contact: 12/23/2019

Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 09/09/2019

Date Data Arrived at EDR: 09/09/2019

Date Made Active in Reports: 11/01/2019

Number of Days to Update: 53

Source: State Water Resources Control Board

Telephone: 866-480-1028

Last EDR Contact: 09/09/2019

Next Scheduled EDR Contact: 12/23/2019

Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018

Date Data Arrived at EDR: 10/21/2019

Date Made Active in Reports: 10/24/2019

Number of Days to Update: 3

Source: USGS

Telephone: 703-648-6533

Last EDR Contact: 11/22/2019

Next Scheduled EDR Contact: 03/09/2020

Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc.

Telephone: N/A

Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 10/03/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 51

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 08/05/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/23/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/23/2019
Date Made Active in Reports: 10/22/2019
Number of Days to Update: 60

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List

Cupa Facility list

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 68

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List

CUPA facility list.

Date of Government Version: 09/06/2019
Date Data Arrived at EDR: 09/12/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/11/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 07/08/2019
Date Data Arrived at EDR: 07/10/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 72

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/30/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 08/16/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/15/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List Cupa facility list

Date of Government Version: 07/22/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/12/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/26/2019
Date Data Arrived at EDR: 10/04/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 34

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/02/2019
Next Scheduled EDR Contact: 01/20/2020
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2019
Date Data Arrived at EDR: 07/17/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 71

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/16/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/09/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012	Source: Los Angeles County Department of Public Works
Date Data Arrived at EDR: 04/17/2019	Telephone: 626-458-6973
Date Made Active in Reports: 05/29/2019	Last EDR Contact: 10/18/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/25/2019	Telephone: 213-978-3800
Date Made Active in Reports: 08/22/2019	Last EDR Contact: 09/27/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/06/2020
	Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/15/2019	Source: Community Health Services
Date Data Arrived at EDR: 07/17/2019	Telephone: 323-890-7806
Date Made Active in Reports: 08/05/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 19	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/19/2017	Telephone: 310-524-2236
Date Made Active in Reports: 05/10/2017	Last EDR Contact: 10/09/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 01/27/2020
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 04/23/2019	Telephone: 562-570-2563
Date Made Active in Reports: 06/27/2019	Last EDR Contact: 10/17/2019
Number of Days to Update: 65	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 07/30/2019	Telephone: 310-618-2973
Date Made Active in Reports: 10/02/2019	Last EDR Contact: 10/17/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 02/03/2020
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/22/2019	Source: Madera County Environmental Health
Date Data Arrived at EDR: 08/26/2019	Telephone: 559-675-7823
Date Made Active in Reports: 10/29/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 64	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/04/2018	Telephone: 415-473-6647
Date Made Active in Reports: 11/02/2018	Last EDR Contact: 09/25/2019
Number of Days to Update: 29	Next Scheduled EDR Contact: 01/13/2020
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/29/2019	Source: Merced County Environmental Health
Date Data Arrived at EDR: 05/30/2019	Telephone: 209-381-1094
Date Made Active in Reports: 07/22/2019	Last EDR Contact: 11/14/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA MONO: CUPA Facility List CUPA Facility List

Date of Government Version: 08/21/2019
Date Data Arrived at EDR: 09/03/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 58

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/25/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 50

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/30/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List

CUPA facility list.

Date of Government Version: 07/23/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/07/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 63

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/09/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 61

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 08/06/2019
Date Made Active in Reports: 10/09/2019
Number of Days to Update: 64

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/05/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/05/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 61

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/20/2019
Number of Days to Update: 71

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/10/2019
Date Data Arrived at EDR: 07/11/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 74

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/16/2019
Next Scheduled EDR Contact: 12/30/2019
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/06/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 37

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/07/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 11/08/2019
Number of Days to Update: 38

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/16/2019
Date Made Active in Reports: 09/24/2019
Number of Days to Update: 70

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 62

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 09/04/2019
Next Scheduled EDR Contact: 12/16/2019
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/16/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 69

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/11/2019
Next Scheduled EDR Contact: 12/29/2019
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List Cupa Facility List.

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 09/03/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 11/05/2019
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/05/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA SANTA CLARA: Cupa Facility List Cupa facility list

Date of Government Version: 08/14/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/18/2019
Number of Days to Update: 59

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 07/30/2019
Date Data Arrived at EDR: 08/02/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 67

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 10/31/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SOLANO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 08/28/2019
Date Data Arrived at EDR: 08/30/2019
Date Made Active in Reports: 10/29/2019
Number of Days to Update: 60

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 06/18/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 07/24/2019
Number of Days to Update: 29

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 11/07/2019
Number of Days to Update: 36

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/19/2019
Next Scheduled EDR Contact: 01/06/2020
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 07/18/2019
Date Data Arrived at EDR: 07/18/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 70

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/28/2019
Next Scheduled EDR Contact: 01/27/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 08/29/2019
Date Data Arrived at EDR: 09/03/2019
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 64

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA TEHAMA: CUPA Facility List Cupa facilities

Date of Government Version: 05/20/2019
Date Data Arrived at EDR: 05/21/2019
Date Made Active in Reports: 07/18/2019
Number of Days to Update: 58

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/14/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List Cupa facility list

Date of Government Version: 07/19/2019
Date Data Arrived at EDR: 07/23/2019
Date Made Active in Reports: 09/26/2019
Number of Days to Update: 65

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 08/14/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 64

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/04/2019
Next Scheduled EDR Contact: 02/17/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/17/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/07/2019
Next Scheduled EDR Contact: 02/24/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/29/2019
Date Data Arrived at EDR: 07/29/2019
Date Made Active in Reports: 09/30/2019
Number of Days to Update: 63

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/21/2019
Next Scheduled EDR Contact: 02/03/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/09/2019
Next Scheduled EDR Contact: 12/23/2019
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 09/25/2019
Date Data Arrived at EDR: 10/01/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 30

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/25/2019
Next Scheduled EDR Contact: 01/13/2020
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 07/26/2019
Date Data Arrived at EDR: 07/31/2019
Date Made Active in Reports: 10/08/2019
Number of Days to Update: 69

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/25/2019
Next Scheduled EDR Contact: 02/10/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/14/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/14/2019	Telephone: 860-424-3375
Date Made Active in Reports: 08/05/2019	Last EDR Contact: 11/11/2019
Number of Days to Update: 83	Next Scheduled EDR Contact: 02/24/2020
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 10/02/2019
Number of Days to Update: 36	Next Scheduled EDR Contact: 01/20/2020
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/01/2019	Telephone: 518-402-8651
Date Made Active in Reports: 06/21/2019	Last EDR Contact: 10/29/2019
Number of Days to Update: 51	Next Scheduled EDR Contact: 02/10/2020
	Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/19/2019	Telephone: 717-783-8990
Date Made Active in Reports: 09/10/2019	Last EDR Contact: 10/09/2019
Number of Days to Update: 53	Next Scheduled EDR Contact: 12/07/2020
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017	Source: Department of Environmental Management
Date Data Arrived at EDR: 02/23/2018	Telephone: 401-222-2797
Date Made Active in Reports: 04/09/2018	Last EDR Contact: 11/14/2019
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/19/2019	Telephone: N/A
Date Made Active in Reports: 09/03/2019	Last EDR Contact: 09/06/2019
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/23/2019
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BURROUGHS PROPERTY
1180 E. CYPRESS ROAD
OAKLEY, CA 94561

TARGET PROPERTY COORDINATES

Latitude (North):	37.992512 - 37° 59' 33.04"
Longitude (West):	121.667309 - 121° 40' 2.31"
Universal Transverse Mercator:	Zone 10
UTM X (Meters):	617024.1
UTM Y (Meters):	4205616.5
Elevation:	9 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012
North Map:	5629060 JERSEY ISLAND, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

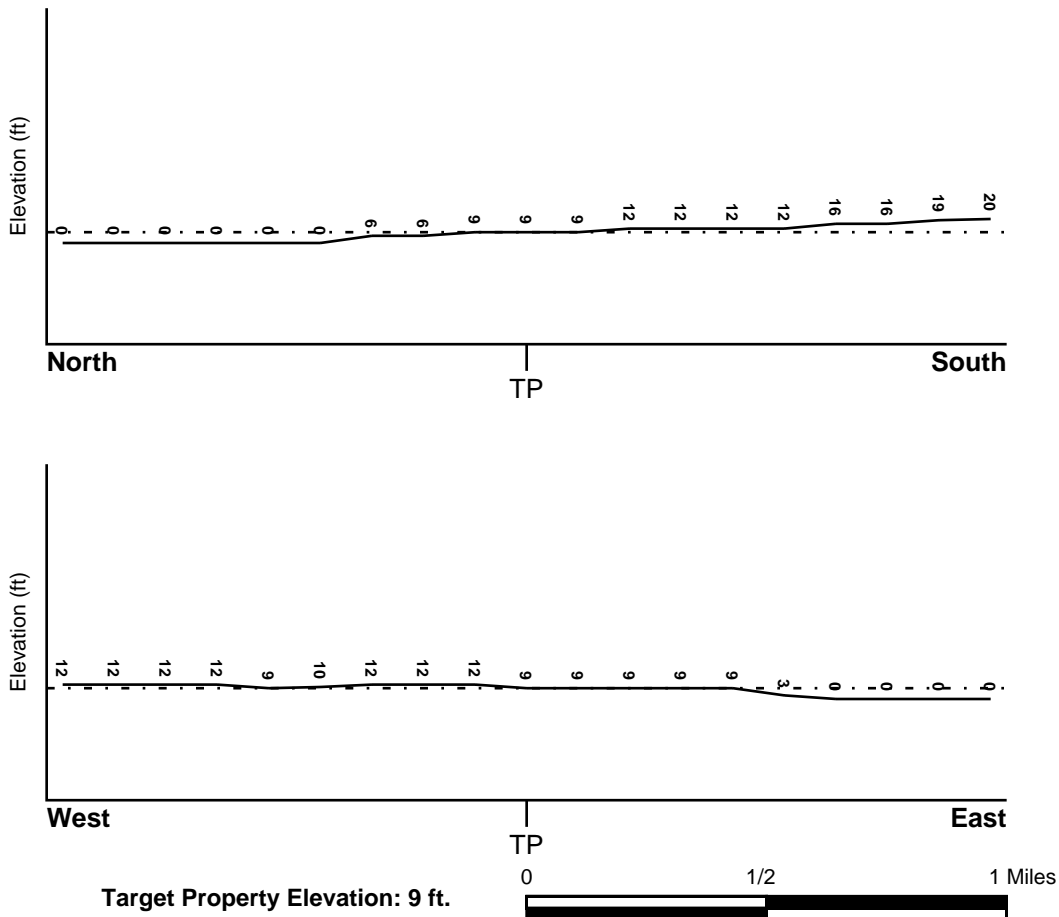
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06013C0360F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06013C0170F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
BRENTWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

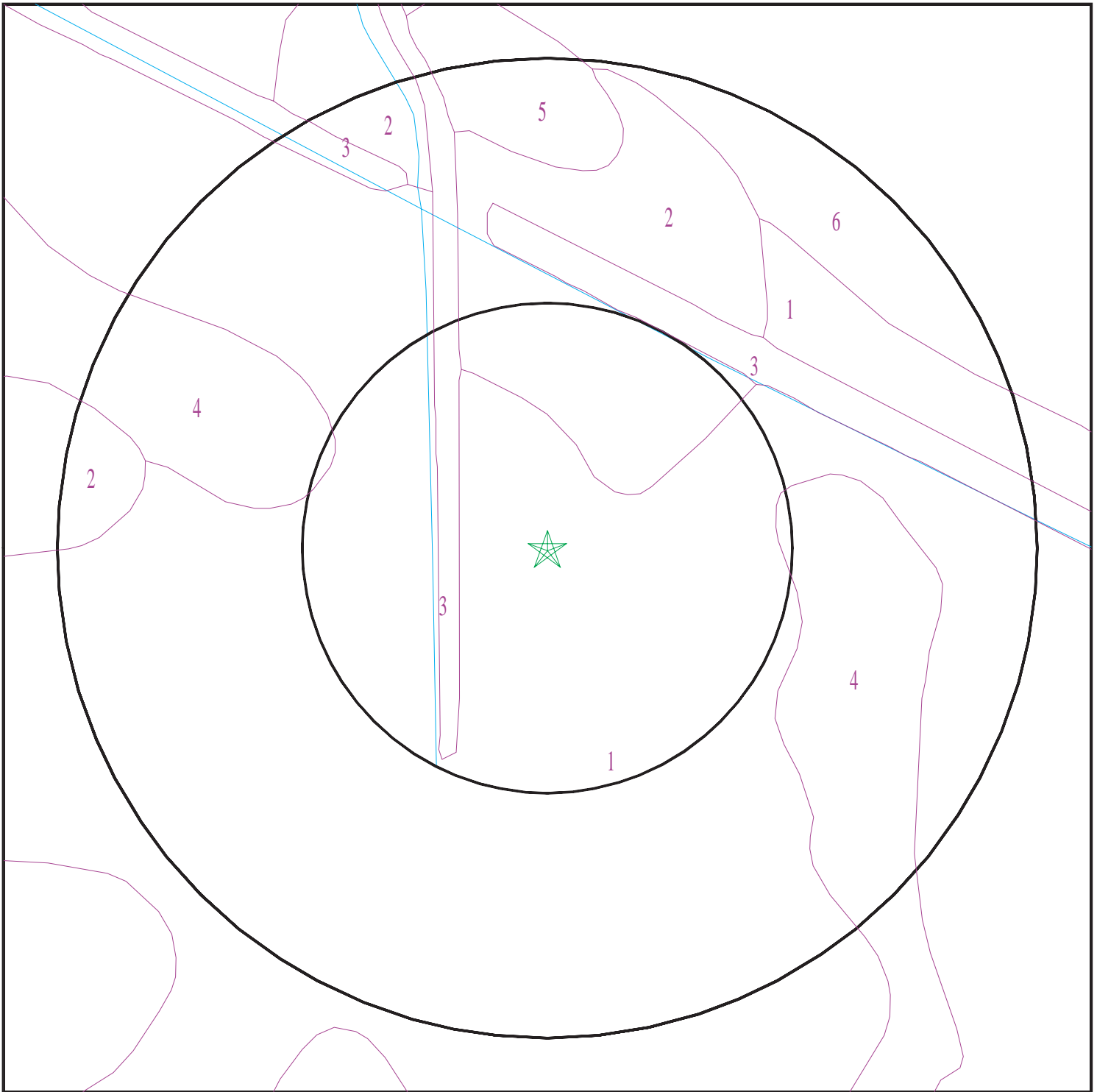
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

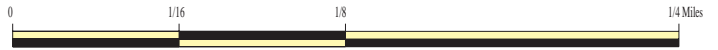
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 05892883.2r



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley CA 94561
LAT/LONG: 37.992512 / 121.667309

CLIENT: Engeo Inc.
CONTACT: Victoria Drake
INQUIRY #: 05892883.2r
DATE: December 04, 2019 3:10 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MARCUSE

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 115 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9
2	9 inches	37 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9
3	37 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 9 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: PIPER

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 114 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4
2	9 inches	38 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4
3	38 inches	59 inches	stratified sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: DELHI

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6
2	5 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: PIPER

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 99 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
2	9 inches	38 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
3	38 inches	59 inches	stratified sand to sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

Soil Map ID: 6

Soil Component Name: SACRAMENTO

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	18 inches	40 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	40 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
_____	_____	_____

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000186425	1/8 - 1/4 Mile SE
3	USGS40000186410	1/2 - 1 Mile WSW
4	USGS40000186468	1/2 - 1 Mile NNE
5	USGS40000186455	1/2 - 1 Mile NW
7	USGS40000186390	1/2 - 1 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

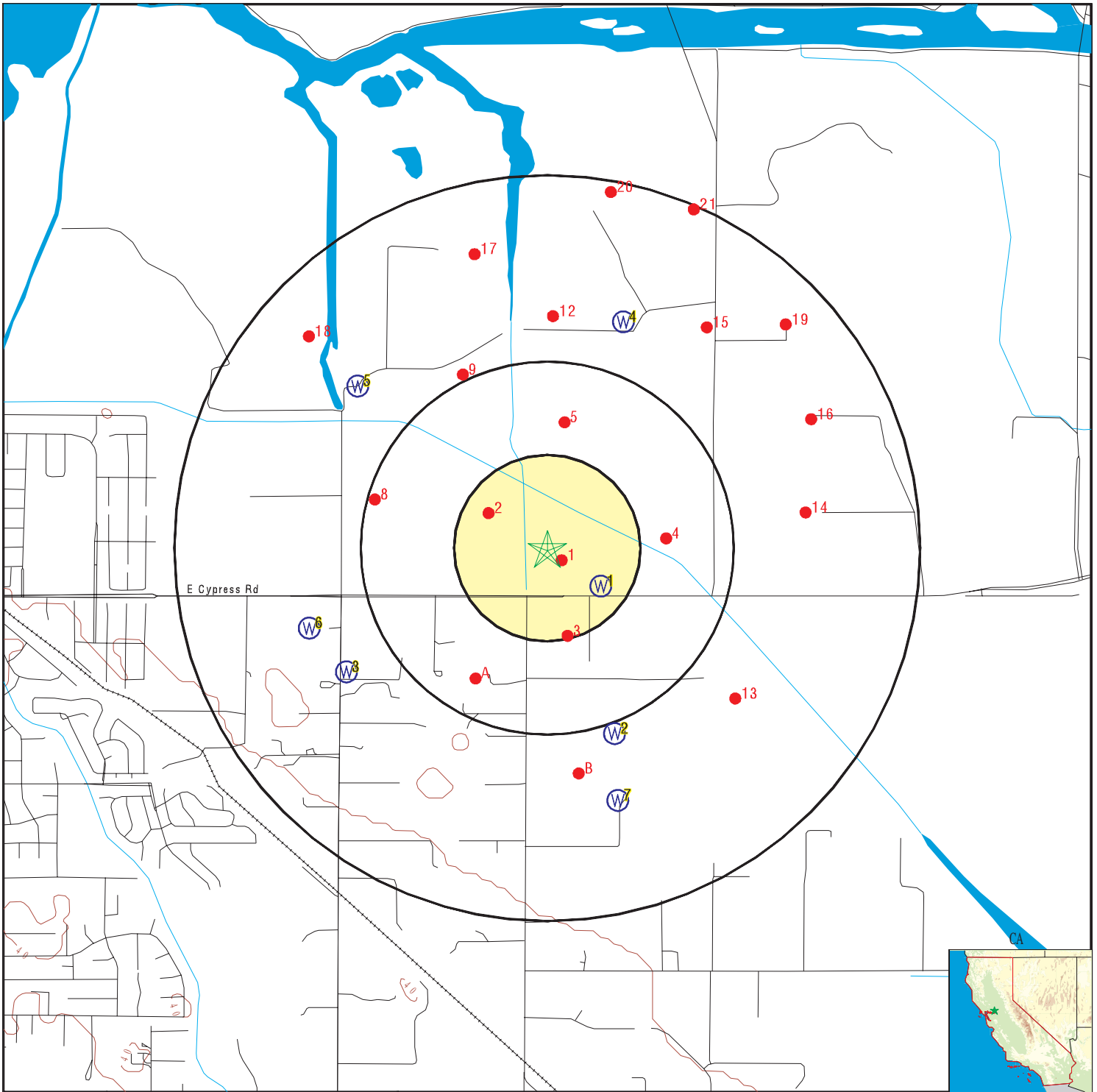
MAP ID	WELL ID	LOCATION FROM TP
2	CADWR8000036881	1/2 - 1 Mile SSE
6	CADWR8000036891	1/2 - 1 Mile WSW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000084127	0 - 1/8 Mile SE
2	CAOG13000084117	1/8 - 1/4 Mile WNW
3	CAOG13000084116	1/8 - 1/4 Mile SSE
4	CAOG13000084086	1/4 - 1/2 Mile East
5	CAOG13000084126	1/4 - 1/2 Mile North
A6	CAOG13000084118	1/4 - 1/2 Mile SSW
A7	CAOG13000084139	1/4 - 1/2 Mile SSW
8	CAOG13000084122	1/4 - 1/2 Mile WNW
9	CAOG13000084125	1/2 - 1 Mile NNW
B10	CAOG13000084119	1/2 - 1 Mile South
B11	CAOG13000084147	1/2 - 1 Mile South
12	CAOG13000084131	1/2 - 1 Mile North
13	CAOG13000084115	1/2 - 1 Mile SE
14	CAOG13000084114	1/2 - 1 Mile East
15	CAOG13000084097	1/2 - 1 Mile NE
16	CAOG13000084113	1/2 - 1 Mile ENE
17	CAOG13000084123	1/2 - 1 Mile NNW
18	CAOG13000007455	1/2 - 1 Mile NW
19	CAOG13000084137	1/2 - 1 Mile NE
20	CAOG13000084130	1/2 - 1 Mile North
21	CAOG13000084128	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 05892883.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Burroughs Property
 ADDRESS: 1180 E. Cypress Road
 Oakley CA 94561
 LAT/LONG: 37.992512 / 121.667309

CLIENT: Engeo Inc.
 CONTACT: Victoria Drake
 INQUIRY #: 05892883.2r
 DATE: December 04, 2019 3:10 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
SE
1/8 - 1/4 Mile
Higher

FED USGS USGS40000186425

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E29G001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19760622	Well Depth:	237
Well Depth Units:	ft	Well Hole Depth:	245
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-06-22
Feet below surface:	15.00	Feet to sea level:	Not Reported
Note:	Not Reported		

2
SSE
1/2 - 1 Mile
Higher

CA WELLS CADWR8000036881

State Well #:	02N03E29Q999M	Station ID:	48685
Well Name:	MW 5-39	Well Use:	Observation
Well Type:	Single Well	Well Depth:	20
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

3
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000186410

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E29M001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvial Fan Deposits	Aquifer Type:	Not Reported
Construction Date:	19760526	Well Depth:	88
Well Depth Units:	ft	Well Hole Depth:	100
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-05-26
Feet below surface:	12.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

4
NNE
1/2 - 1 Mile
Lower **FED USGS** **USGS40000186468**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E20R001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19611116	Well Depth:	350
Well Depth Units:	ft	Well Hole Depth:	428
Well Hole Depth Units:	ft		

5
NW
1/2 - 1 Mile
Lower **FED USGS** **USGS40000186455**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E20N001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19591219	Well Depth:	333
Well Depth Units:	ft	Well Hole Depth:	610
Well Hole Depth Units:	ft		

6
WSW
1/2 - 1 Mile
Higher **CA WELLS** **CADWR8000036891**

State Well #:	02N03E30J999M	Station ID:	48681
Well Name:	MW 5-33	Well Use:	Observation
Well Type:	Single Well	Well Depth:	20
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

7
SSE
1/2 - 1 Mile
Higher **FED USGS** **USGS40000186390**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E32A001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19760123	Well Depth:	105
Well Depth Units:	ft	Well Hole Depth:	110
Well Hole Depth Units:	ft		
Ground water levels,Number of Measurements:	1	Level reading date:	1976-01-23
Feet below surface:	12.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
SE
0 - 1/8 Mile

OIL_GAS CAOG13000084127

API #:	0401300115	Well #:	5-5
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 5
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	10/22/1964

2
WNW
1/8 - 1/4 Mile

OIL_GAS CAOG13000084117

API #:	0401300105	Well #:	8-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 8
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	07/16/1964

3
SSE
1/8 - 1/4 Mile

OIL_GAS CAOG13000084116

API #:	0401300104	Well #:	9-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 9
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/05/1965

4
East
1/4 - 1/2 Mile

OIL_GAS CAOG13000084086

API #:	0401300011	Well #:	7-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation	Field Name:	Dutch Slough Gas
Lease Name:	Tract 7	GIS Source:	GPS
Area Name:	Any Area	Directionally Drilled:	N
Confidential Well:	N	SPUD Date:	09/22/1966

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

5

North
1/4 - 1/2 Mile

OIL_GAS CAOG13000084126

API #:	0401300114	Well #:	5-4
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 5	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/19/1964		

A6
SSW

1/4 - 1/2 Mile

OIL_GAS CAOG13000084118

API #:	0401300106	Well #:	8-2
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 8
GIS Source:	hud	Area Name:	Any Area
Directionally Drilled:	N	Confidential Well:	N
		SPUD Date:	08/11/1964

A7
SSW

1/4 - 1/2 Mile

OIL_GAS CAOG13000084139

API #:	0401300005	Well #:	8-4
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 8
GIS Source:	hud	Area Name:	Any Area
Directionally Drilled:	N	Confidential Well:	N
		SPUD Date:	01/10/1967

8

WNW
1/4 - 1/2 Mile

OIL_GAS CAOG13000084122

API #:	0401300110	Well #:	8-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.		
Field Name:	Dutch Slough Gas	Lease Name:	Tract 8
GIS Source:	hud	Area Name:	Any Area
Directionally Drilled:	N	Confidential Well:	N
		SPUD Date:	09/28/1964

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

9

NNW
1/2 - 1 Mile

OIL_GAS CAOG13000084125

API #:	0401300113	Well #:	4-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 4
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	03/10/1965

B10

South
1/2 - 1 Mile

OIL_GAS CAOG13000084119

API #:	0401300107	Well #:	10-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Phillips Petroleum Co.	Lease Name:	Tract 10
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/22/1964

B11

South
1/2 - 1 Mile

OIL_GAS CAOG13000084147

API #:	0401320372	Well #:	4
Well Status:	Plugged	Well Type:	DH
Operator Name:	California Resources Production Corporation	Lease Name:	Dutch Slough Gas
Field Name:	Tract 10	Area Name:	Any Area
GIS Source:	Any Area	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/23/2007

12

North
1/2 - 1 Mile

OIL_GAS CAOG13000084131

API #:	0401300119	Well #:	3-3
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation	Lease Name:	Tract 3
Field Name:	Tract 3	Area Name:	Any Area
GIS Source:	Any Area	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/08/1964

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

13
SE
1/2 - 1 Mile

OIL_GAS CAOG13000084115

API #:	0401300103	Well #:	28-1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Occidental Petroleum Corporation		
Lease Name:	Transamerica	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/02/1964		

14
East
1/2 - 1 Mile

OIL_GAS CAOG13000084114

API #:	0401300102	Well #:	6
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Chevron U.S.A. Inc.	Lease Name:	TA Development Co.
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	12/13/1964

15
NE
1/2 - 1 Mile

OIL_GAS CAOG13000084097

API #:	0401320330	Well #:	6-2
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Burroughs	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	05/26/1995		

16
ENE
1/2 - 1 Mile

OIL_GAS CAOG13000084113

API #:	0401300101	Well #:	5
Well Status:	Active	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	TA Development Co.	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/18/1964		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

17
NNW
1/2 - 1 Mile

OIL_GAS CAOG13000084123

API #:	0401300111	Well #:	4-1
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 4
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	09/08/1964

18
NW
1/2 - 1 Mile

OIL_GAS CAOG13000007455

API #:	0401320233	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Shoshone Oil Corp.	Lease Name:	Emerson Dairy
Field Name:	Any Field	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	06/13/1984

19
NE
1/2 - 1 Mile

OIL_GAS CAOG13000084137

API #:	0401300007	Well #:	4
Well Status:	Active	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	TA Development Co.	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	09/01/1964		

20
North
1/2 - 1 Mile

OIL_GAS CAOG13000084130

API #:	0401300118	Well #:	3-2
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Tonka Energy, Inc.	Lease Name:	Tract 3
Field Name:	Dutch Slough Gas	Area Name:	Any Area
GIS Source:	GPS	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	11/01/1963

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

21
NNE
1/2 - 1 Mile

OIL_GAS CAOG13000084128

API #:	0401300116	Well #:	6-1
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Tract 6	Field Name:	Dutch Slough Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/11/1966		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94561	3	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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DRAFT

APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report



Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892883.3

December 04, 2019

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/04/19

Site Name:

Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892883.3

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # B102-4465-9E40
PO # 16836.000.000
Project Burroughs Property

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: B102-4465-9E40

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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DRAFT

APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892883.4

December 04, 2019

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

12/04/19

Site Name:

Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892883.4

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Engeo Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	16836.000.000	Latitude:	37.992512 37° 59' 33" North
Project:	Burroughs Property	Longitude:	-121.667309 -121° 40' 2" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	617021.19
		UTM Y Meters:	4205822.04
		Elevation:	9.00' above sea level

Maps Provided:

2012
1978
1968
1952, 1954
1943
1940
1916
1910, 1914

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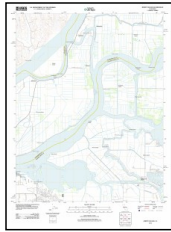
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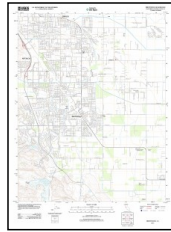
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

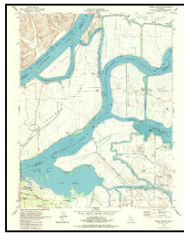


Jersey Island
2012
7.5-minute, 24000

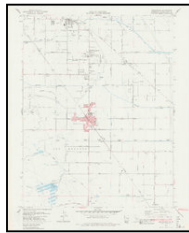


Brentwood
2012
7.5-minute, 24000

1978 Source Sheets

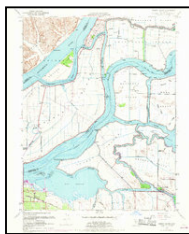


Jersey Island
1978
7.5-minute, 24000
Aerial Photo Revised 1974

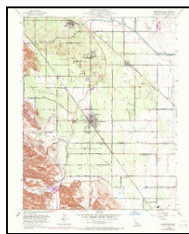


Brentwood
1978
7.5-minute, 24000
Aerial Photo Revised 1974

1968 Source Sheets

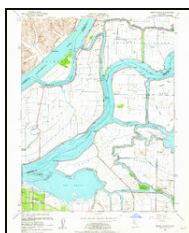


Jersey Island
1968
7.5-minute, 24000
Aerial Photo Revised 1968

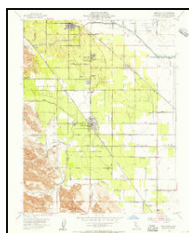


Brentwood
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1952, 1954 Source Sheets



Jersey Island
1952
7.5-minute, 24000
Aerial Photo Revised 1949

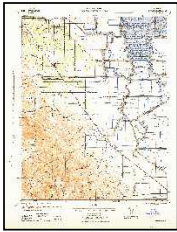


Brentwood
1954
7.5-minute, 24000
Aerial Photo Revised 1949

Topo Sheet Key

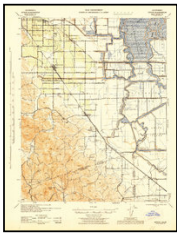
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1943 Source Sheets



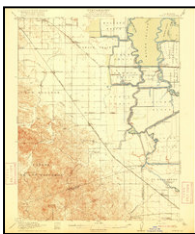
BYRON
1943
15-minute, 62500

1940 Source Sheets



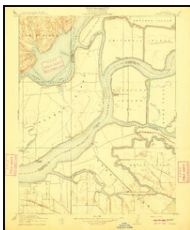
Byron
1940
15-minute, 62500
Aerial Photo Revised 1940

1916 Source Sheets

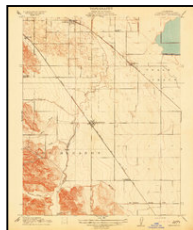


Byron
1916
15-minute, 62500

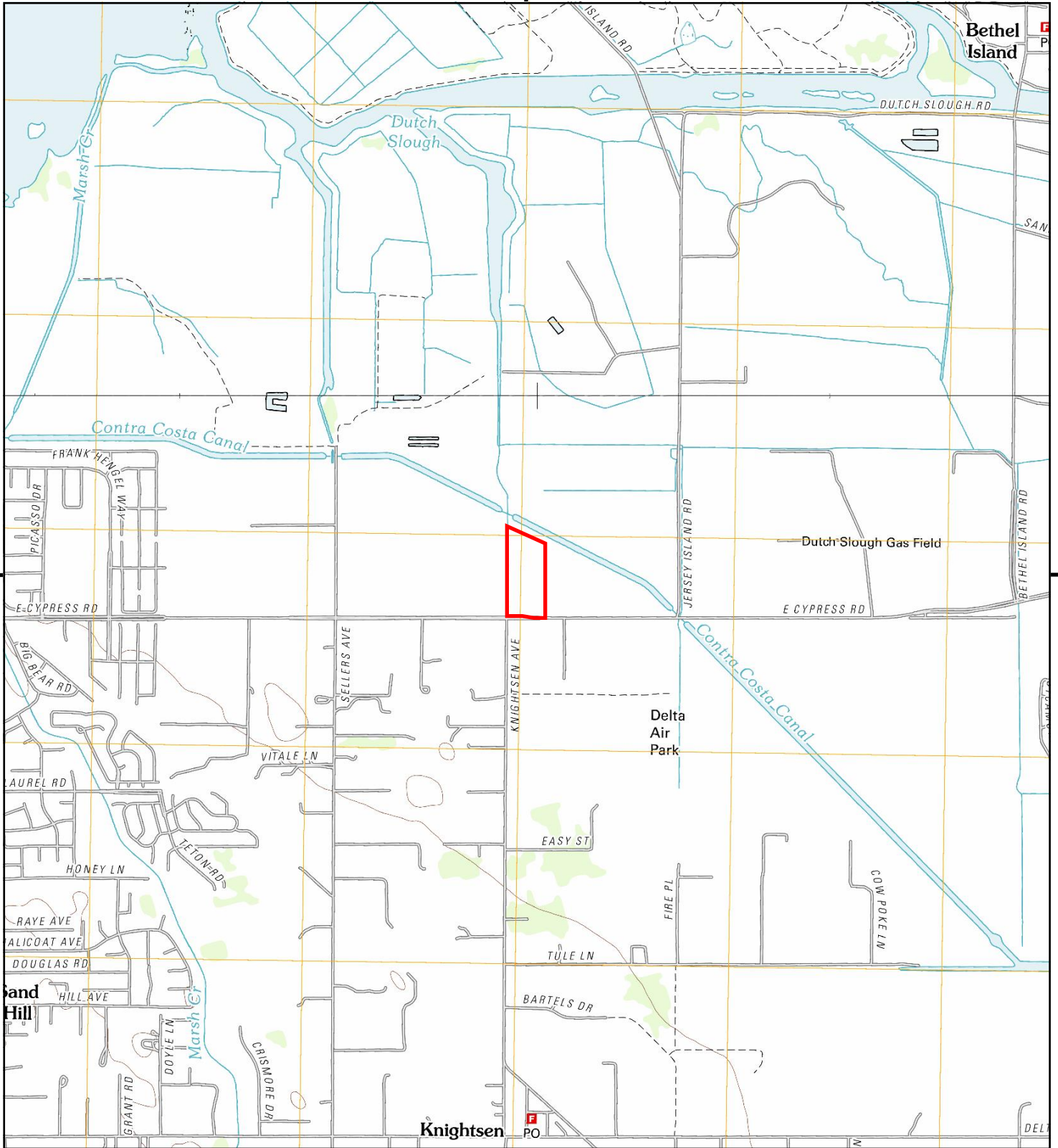
1910, 1914 Source Sheets



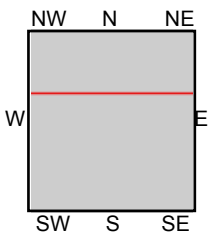
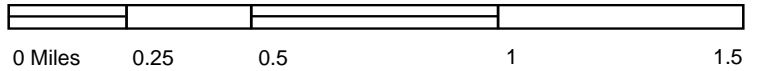
Jersey
1910
7.5-minute, 31680



Brentwood
1914
7.5-minute, 31680



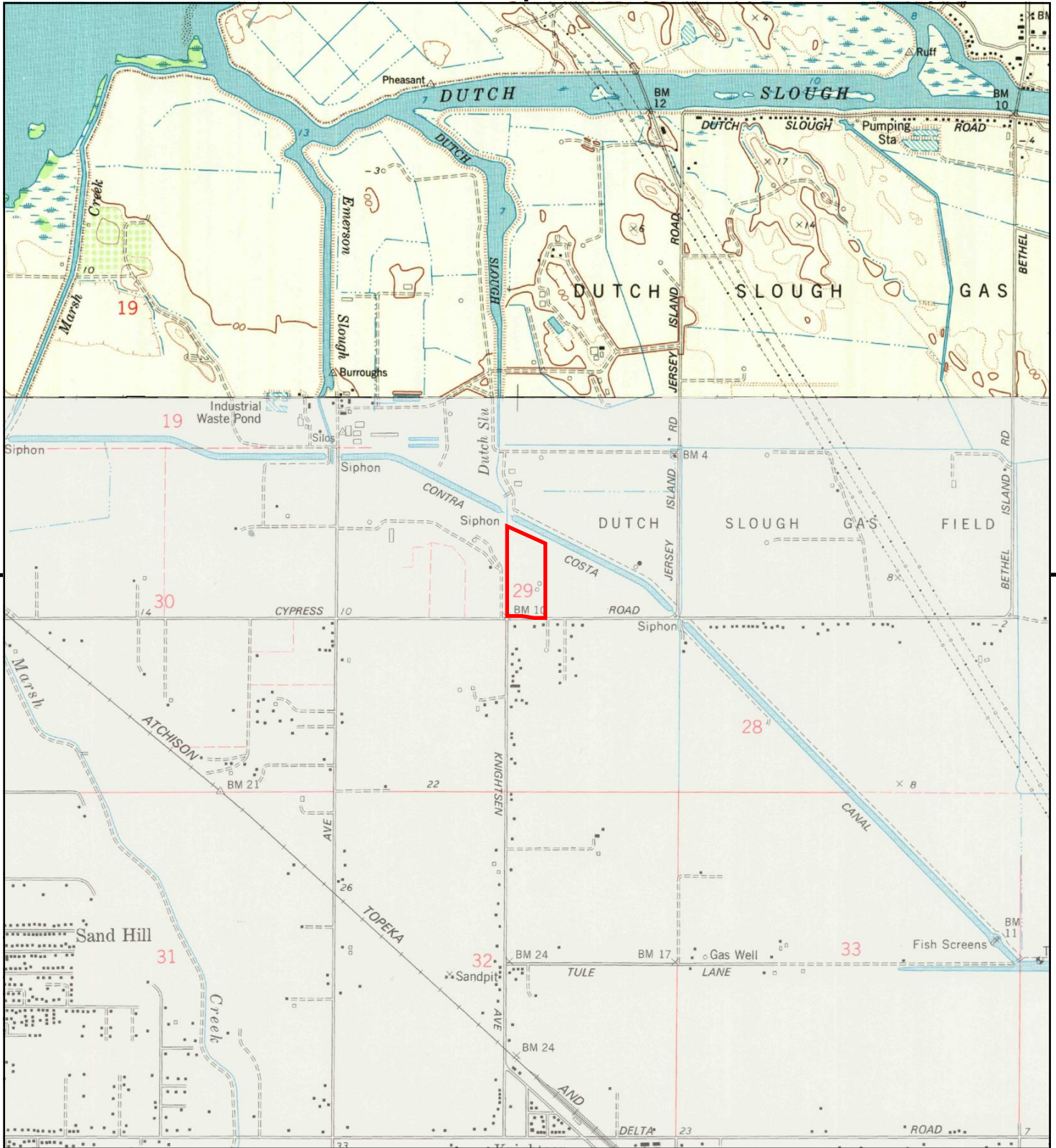
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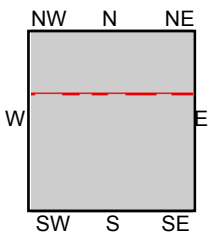
TP, Brentwood, 2012, 7.5-minute
N, Jersey Island, 2012, 7.5-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





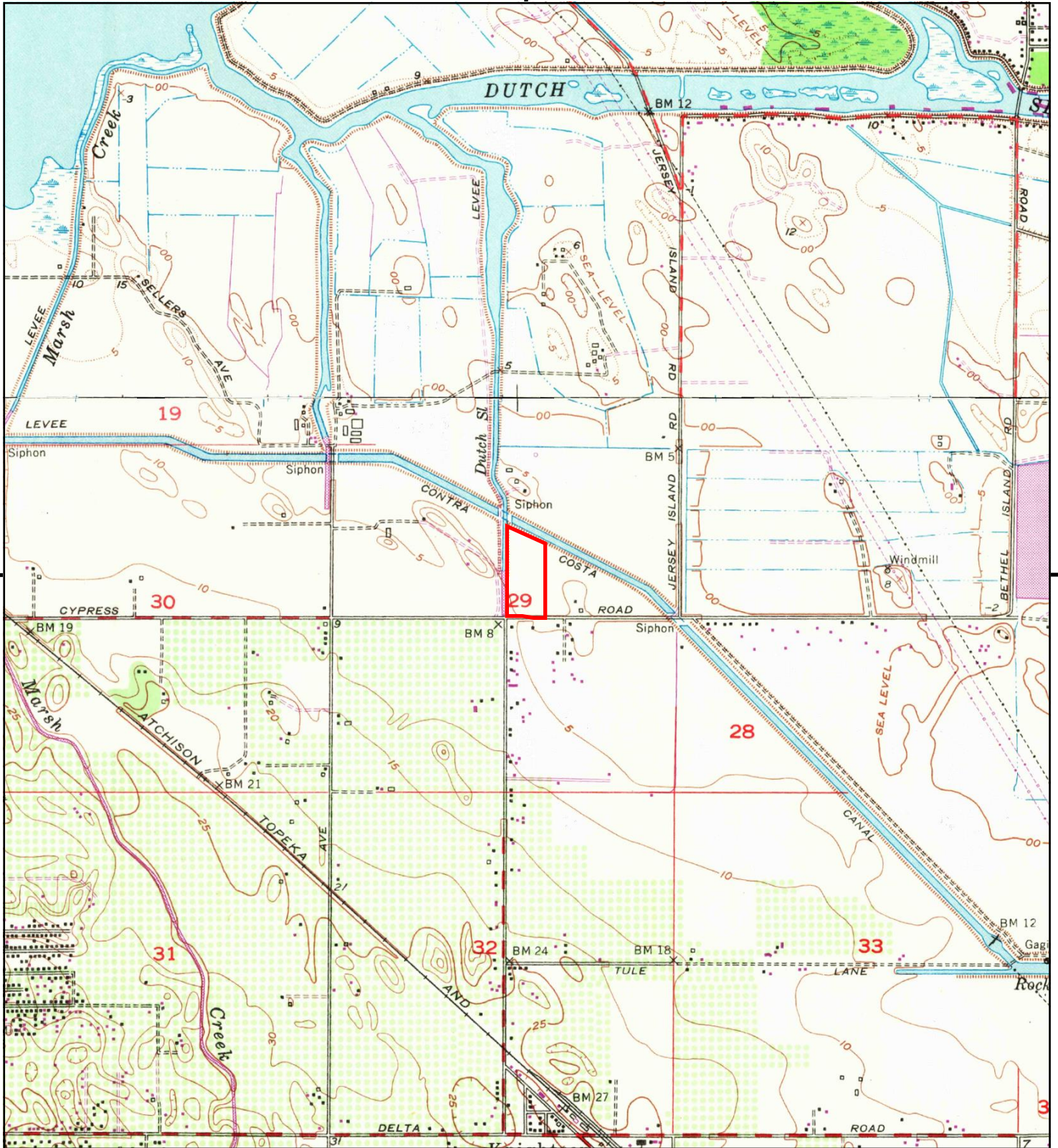
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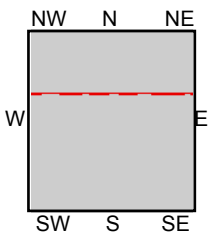
TP, Brentwood, 1978, 7.5-minute
N, Jersey Island, 1978, 7.5-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engco Inc.





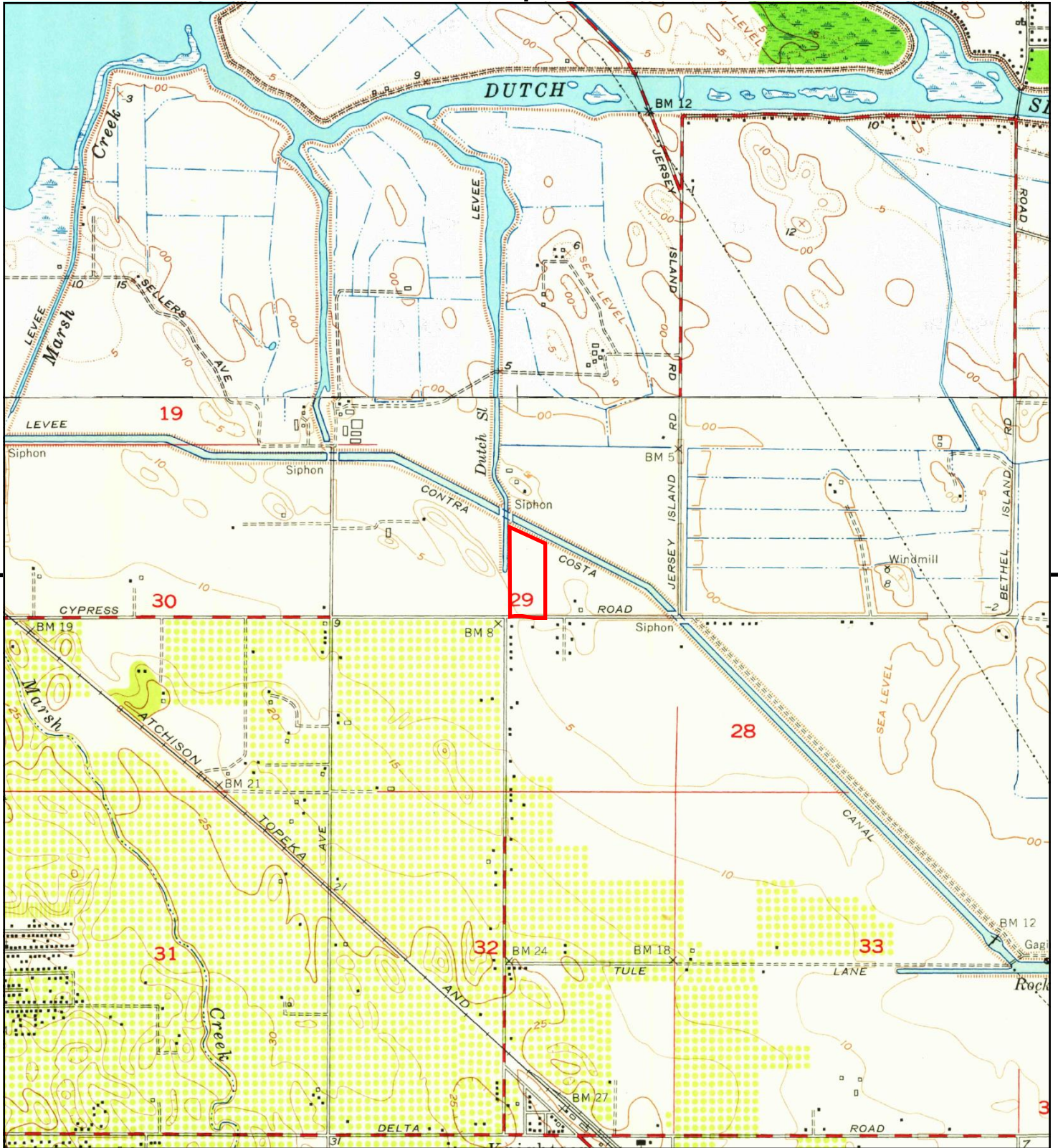
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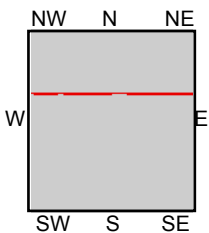
TP, Brentwood, 1968, 7.5-minute
N, Jersey Island, 1968, 7.5-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





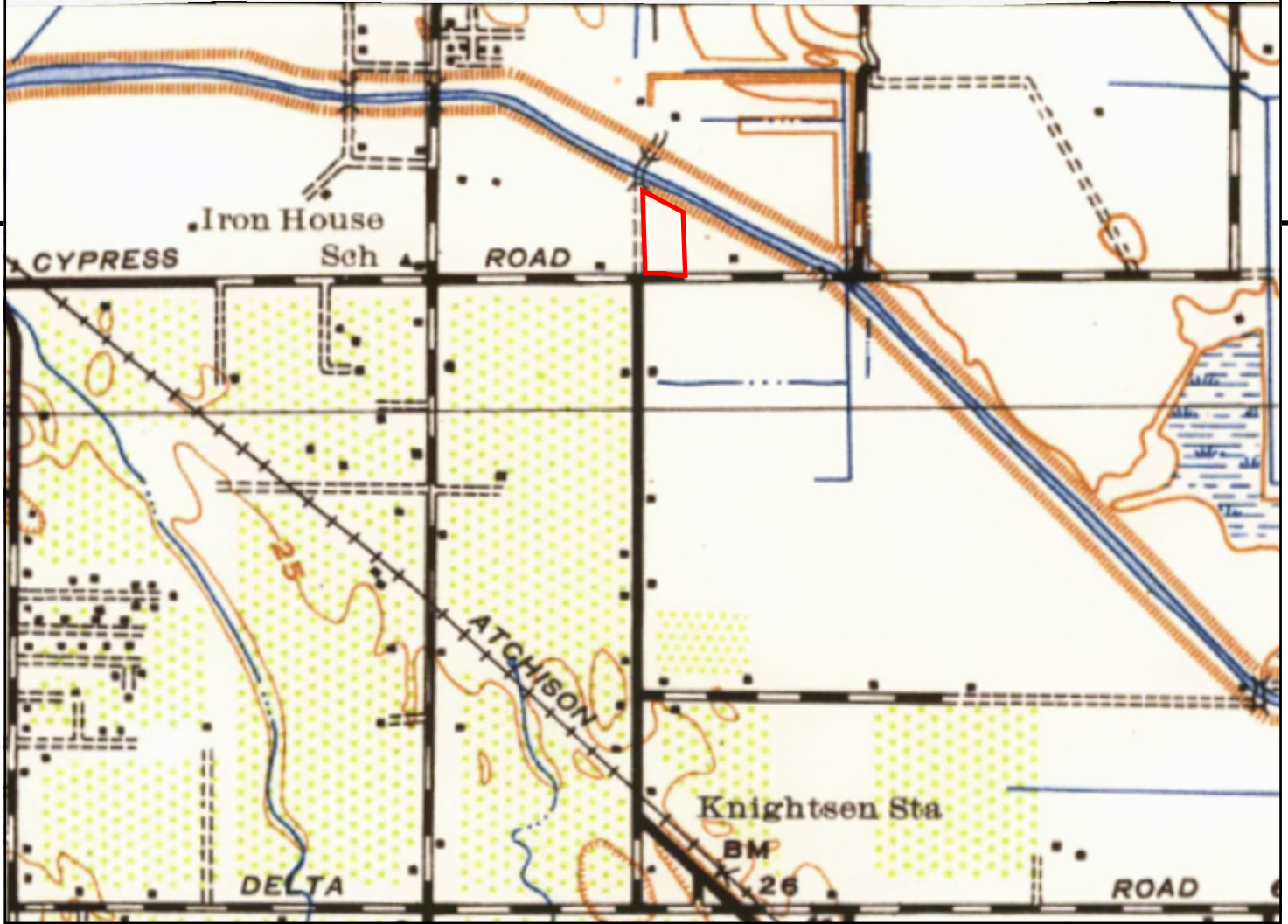
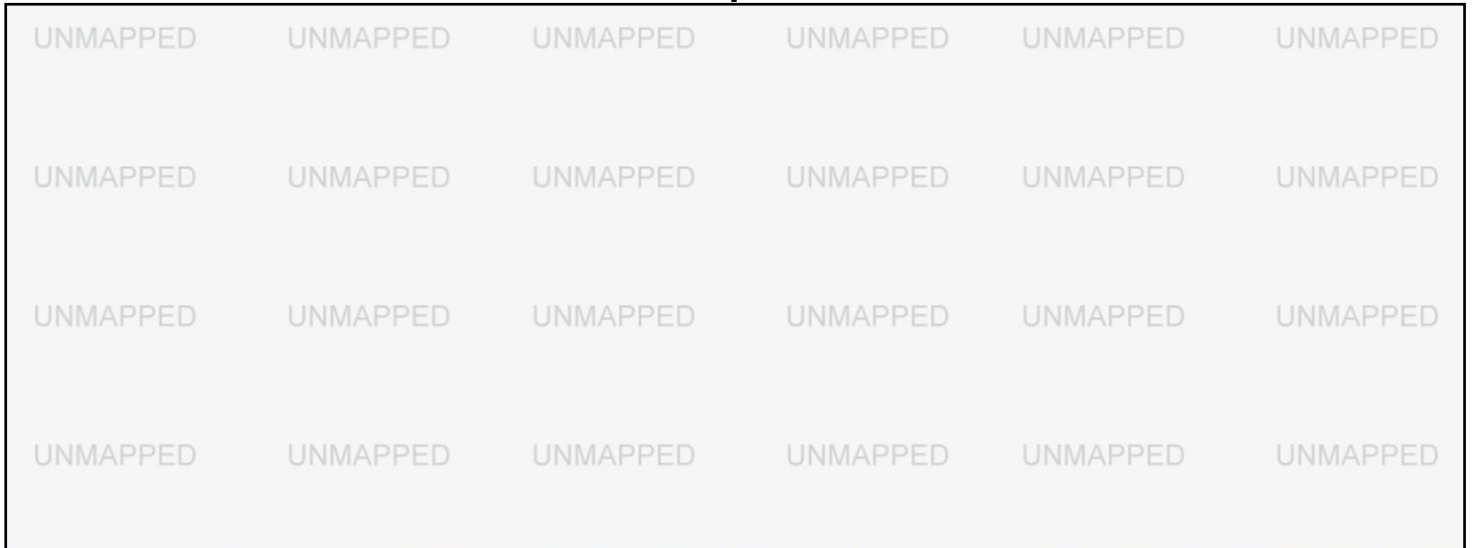
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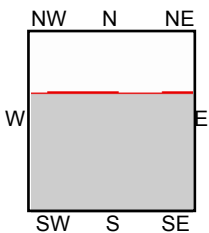
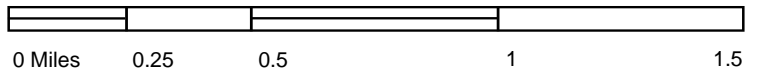
TP, Brentwood, 1954, 7.5-minute
N, Jersey Island, 1952, 7.5-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





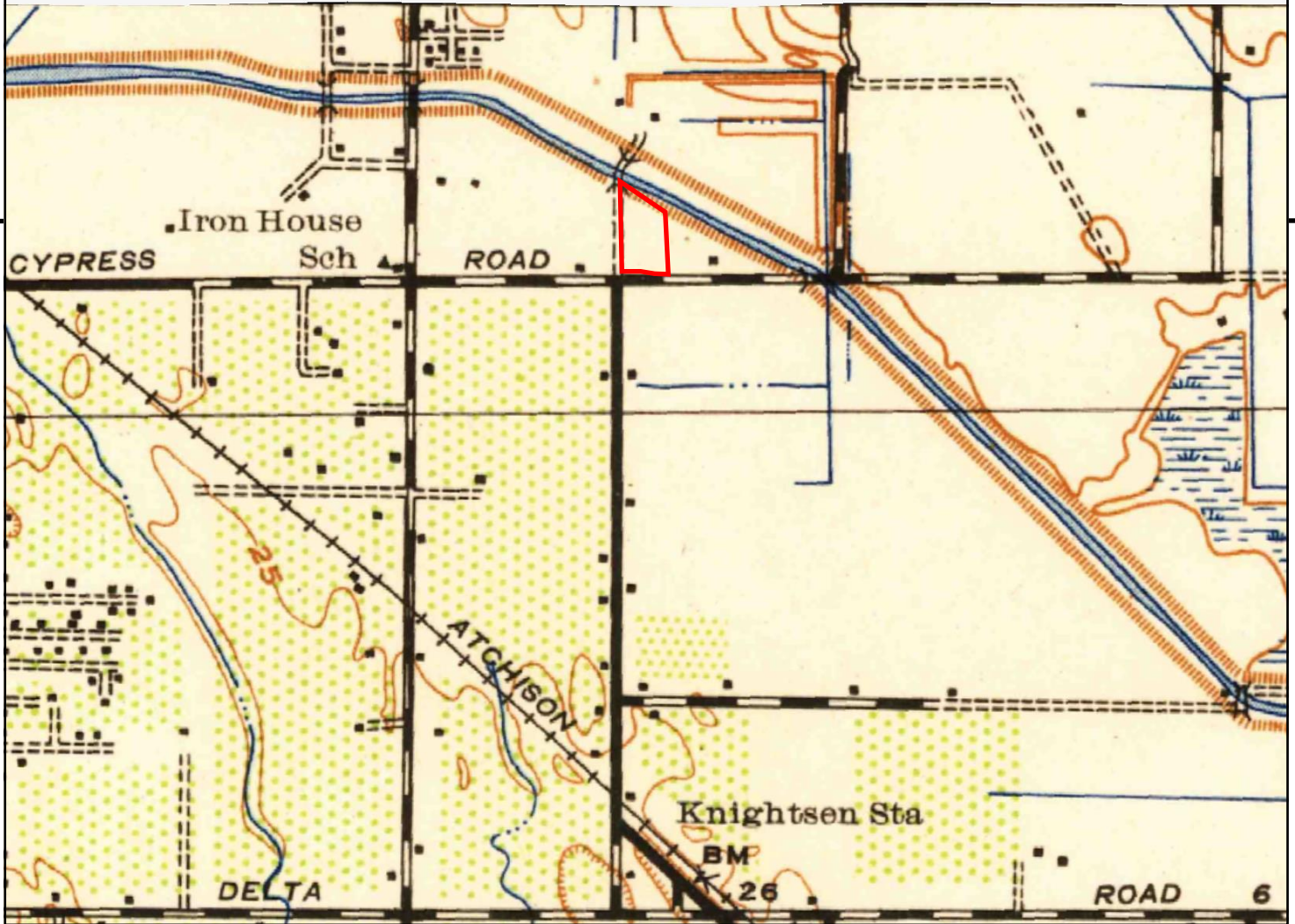
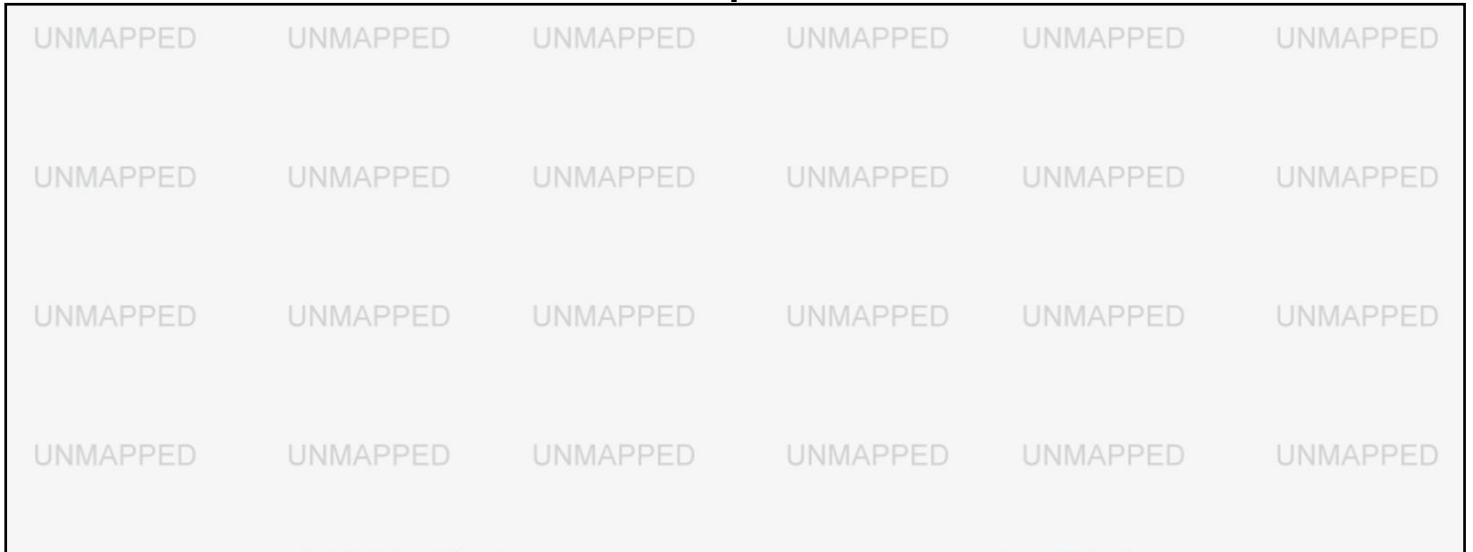
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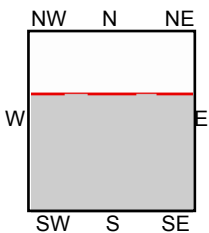
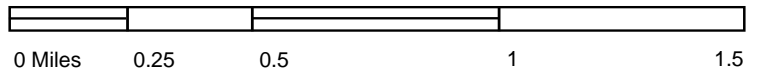
TP, BYRON, 1943, 15-minute

SITE NAME: Burroughs Property
 ADDRESS: 1180 E. Cypress Road
 Oakley, CA 94561
 CLIENT: Engeo Inc.





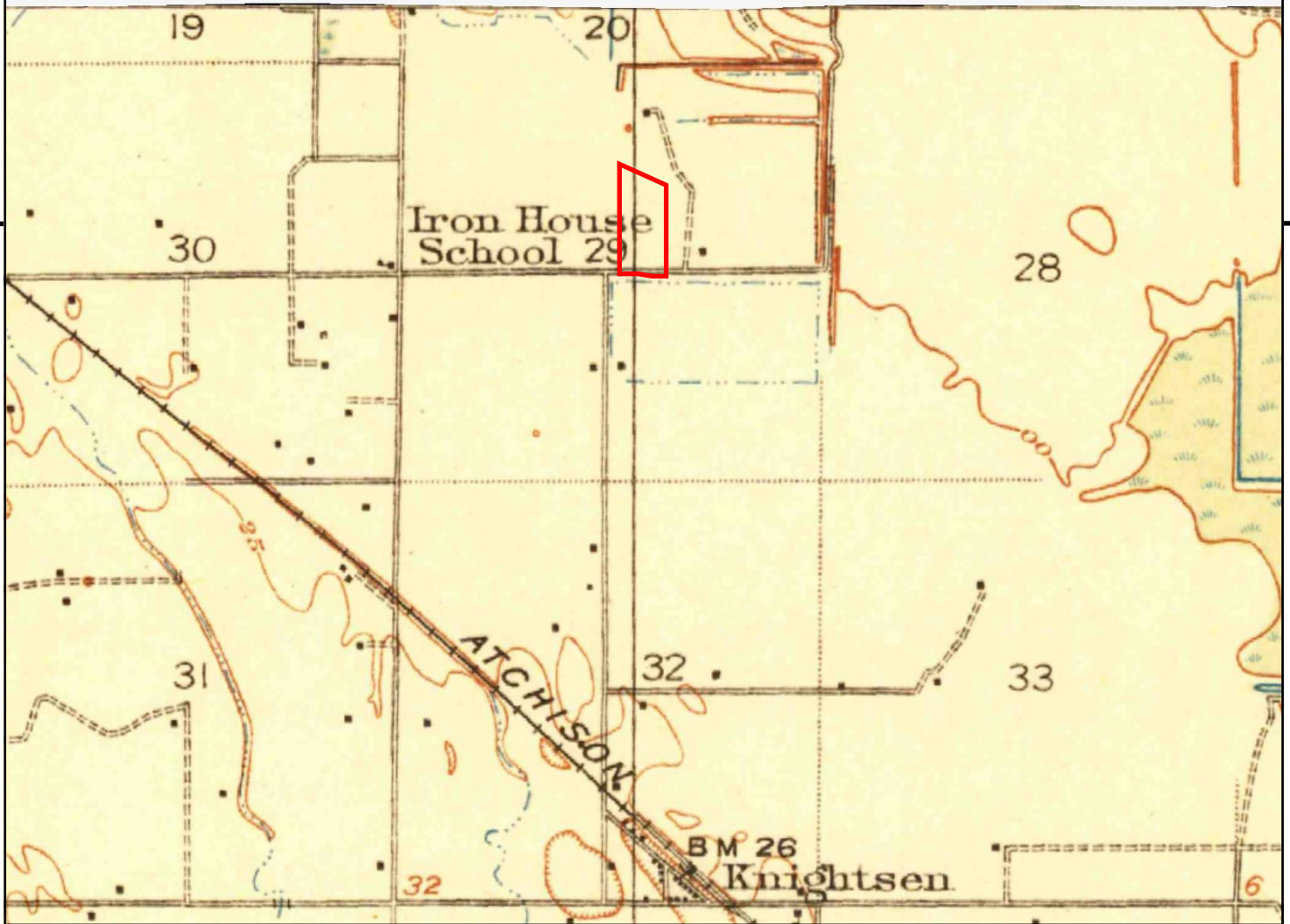
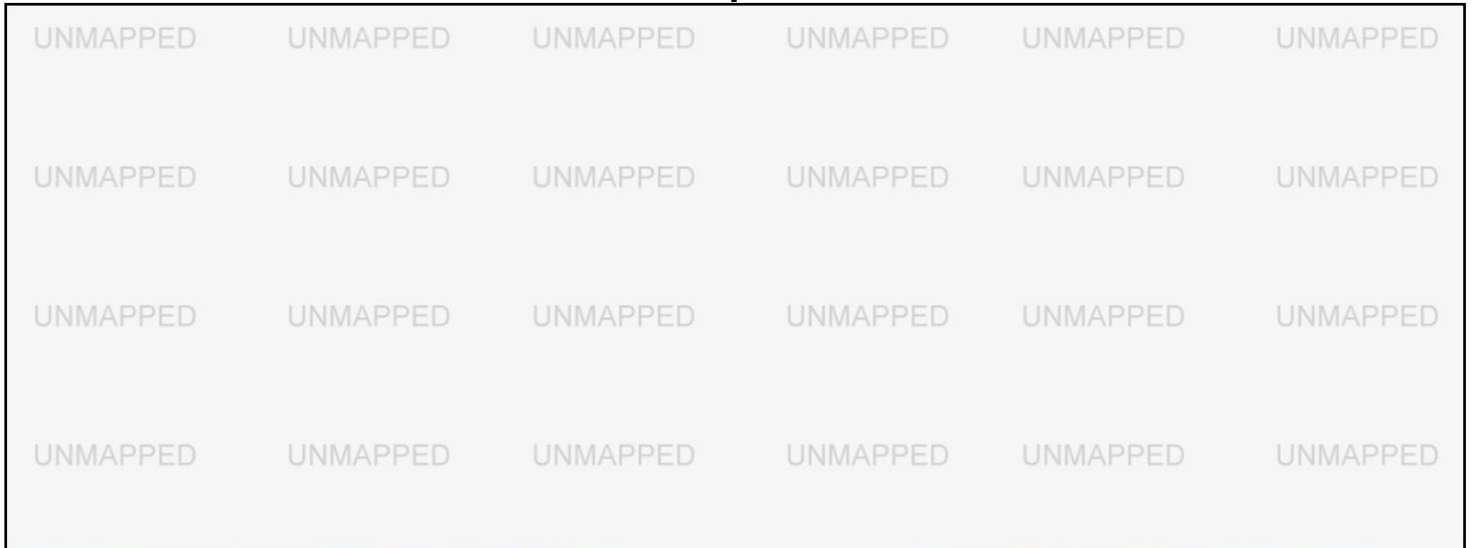
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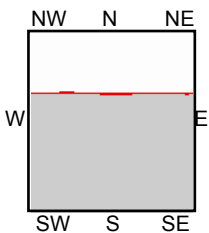
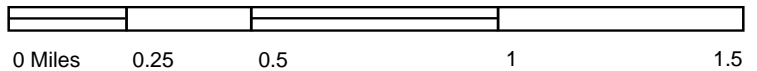
TP, Byron, 1940, 15-minute

SITE NAME: Burroughs Property
 ADDRESS: 1180 E. Cypress Road
 Oakley, CA 94561
 CLIENT: Engeo Inc.





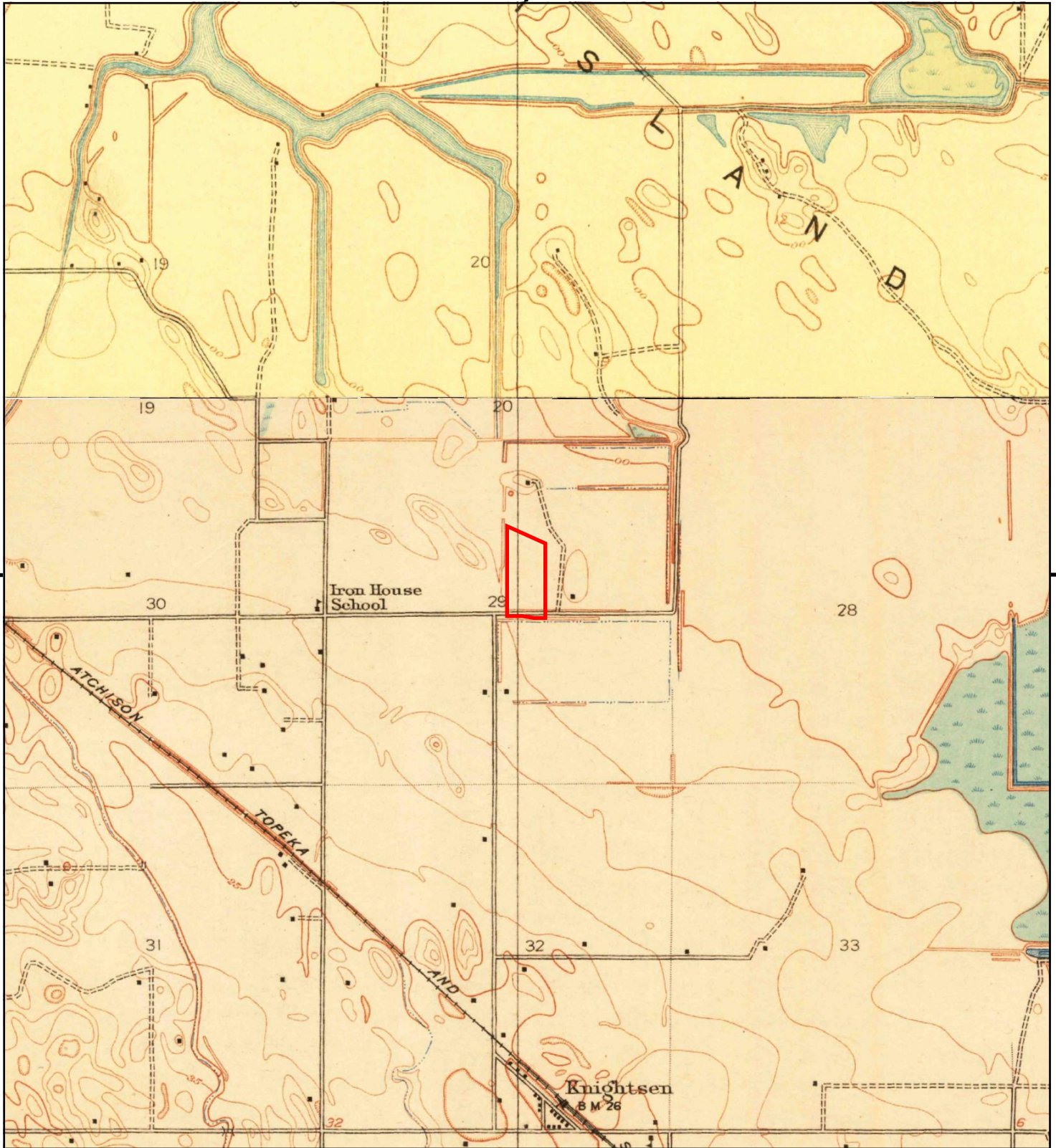
This report includes information from the following map sheet(s).



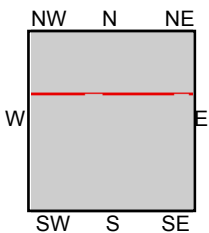
TP, Byron, 1916, 15-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





This report includes information from the following map sheet(s).



TP, Brentwood, 1914, 7.5-minute
N, Jersey, 1910, 7.5-minute

SITE NAME: Burroughs Property
ADDRESS: 1180 E. Cypress Road
Oakley, CA 94561
CLIENT: Engeo Inc.





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APPENDIX D

FIRST AMERICAN TITLE COMPANY

Preliminary Title Report



First American Title

First American Title Company

4750 Willow Road, Suite 100
Pleasanton, CA 94588

Escrow Officer: Diane Burton
Phone: (925)738-4050
Fax No.: (866)648-7806
E-Mail: dburton@firstam.com

Title Officer: Kimberly Speer
Phone: (925)356-7195
Fax No.: (714)689-4257
E-Mail: kspeer@firstam.com

E-Mail Loan Documents to: Lenders please contact the Escrow Officer for email address for sending loan documents.

Buyer: WestGate Ventures Fund III, LLC
Owner: Bruce Burroughs and Barbara M. Burroughs, Trustees of the B & B Burroughs Revoc and Ward N. Burroughs and Rose Marie Burroughs, as Trustees of the Revocable Trust and The Mary E. Burroughs Revocable Living Trust and Robert O. Burroughs and Katherine G. Treat

Property: APN: 032-081-026
Oakley, CA

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of October 25, 2019 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA Extended Loan Policy - 2006

ALTA Extended Owner Policy - 2006

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

BRUCE R. BURROUGHS AND BARBARA M. BURROUGHS, TRUSTEES OF THE B&B BURROUGHS REVOCABLE TRUST UNDER INSTRUMENT DATED JUNE 16, 1994, AS TO AN UNDIVIDED 1/5 INTEREST; AND WARD N. BURROUGHS AND ROSE MARIE BURROUGHS AS TRUSTEES OF THE BURROUGHS REVOCABLE TRUST DATED NOVEMBER 20, 2007, AS TO AN UNDIVIDED 1/5 INTEREST; AND MARY E. BURROUGHS, TRUSTEE OF THE MARY E. BURROUGHS REVOCABLE LIVING TRUST, UNDER DECLARATION DATED JUNE 4, 2001, AS TO AN UNDIVIDED 1/5 INTEREST; AND ROBERT O. BURROUGHS, AS HIS SEPARATE PROPERTY, AS TO AN UNDIVIDED 1/5 INTEREST; AND KATHERINE BURROUGHS TREAT, AS HER SEPARATE PROPERTY, AS TO AN UNDIVIDED 1/5 INTEREST, ALL AS TENANTS IN COMMON

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. The lien of defaulted taxes for the fiscal year 2017-2018, and any subsequent delinquencies.

Tax Rate Area:	19-061
A. P. No.:	032-081-026-0
Amount to redeem:	\$1,424.88
Valid through:	November 2019
Amount to redeem:	\$1,440.27
Valid through:	December 2019

Please contact the tax office to verify the payoff amount.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. An unrecorded lease dated September 19, 1962, executed by Ernest C. Burroughs, et al as lessor and Signal Oil and Gas Company, a corporation as lessee, as disclosed by a Memorandum of Oil and Gas Lease recorded November 21, 1962 in Book 4247, Page 850 of Official Records.

Defects, liens, encumbrances or other matters affecting the leasehold estate, whether or not shown by the public records are not shown herein.

4. An easement for sanitary sewer pipe of pipe lines and incidental purposes in the document recorded October 9, 1979 in Book 9566, Page 315 of Official Records.
5. The terms and provisions contained in the document entitled "Ordinance No. 97-31 Revision of the Fees for the East County Regional Area of Benefit" recorded August 6, 1997 as Instrument No. 1997-140392 of Official Records.
6. An easement for pipe lines and incidental purposes in the document recorded March 3, 1998 as Instrument No. 98-43282 of Official Records.
7. The terms and provisions contained in the document entitled "Development Agreement Between the City of Oakley and B&B Burroughs Revocable Trust, Mary E. Burroughs Revocable Living Trust, Robert C. Burroughs, Ward N. Burroughs, and Katherine Burroughs Treat for the Burroughs Property" recorded September 18, 2003 as Instrument No. 2003-469236 of Official Records.

Document(s) declaring modifications thereof recorded September 04, 2015 as Instrument No. 2015-0186030 of Official Records.

8. The Terms, Provisions and Easement(s) contained in the document entitled "Easement Agreement" recorded May 01, 2006 as Instrument No. 2006-0135341 of Official Records.
9. The terms and provisions contained in the document entitled "Memorandum of Agreement" recorded October 16, 2007 as Instrument No. 2007-0287853 of Official Records.
10. The terms and provisions contained in the document entitled Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement recorded March 29, 2013 as Instrument No. 2013-0078884 of Official Records.

The terms and provisions contained in the document entitled "Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement" recorded November 06, 2015 as Instrument No. 2015-0233806 of Official Records.

The terms and provisions contained in the document entitled "Agreement for Assignment of North Dutch Slough Properties Memorandum of Agreement" recorded March 07, 2016 as Instrument No. 2016-0038590 of Official Records.

11. Any defects, liens, encumbrances or other matters which name parties with the same or similar names as Katherine Burroughs Treat. The name search necessary to ascertain the existence of such matters has not been completed. In order to complete this preliminary report or commitment, we will require a statement of information.
12. This transaction has been identified as having an unknown or Non-Institutional Lender. The company will require additional documents prior to close. Any and all documents required to close this transaction must be signed before a First American approved notary.

13. Any claim that the Title is subject to a trust or lien created under The Perishable Agricultural Commodities Act, 1930 (7 U.S.C. §§499a, et seq.) or the Packers and Stockyards Act (7 U.S.C. §§181 et seq.) or under similar state laws.
14. Any right, title or interest of the spouse (if any) of any married person herein.
15. Any claim that any portion of the land is below the ordinary high water mark where it was located prior to any artificial or avulsive changes in the location of the shoreline or riverbank.
16. Any rights, interests, or easements in favor of the public, which exist or are claimed to exist over any portion of said land covered by water, including a public right of access to the water.
17. Any claim that any portion of the land is or was formerly tidelands or submerged lands.
18. Rights of the public in and to that portion of the land lying within any Road, Street, Alley or Highway.
19. Water rights, claims or title to water, whether or not shown by the public records.
20. Rights of parties in possession.
21. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/NSPS survey.

Prior to the issuance of any policy of title insurance, the Company will require:

22. With respect to the trust referred to in the vesting:
 - a. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
 - b. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
 - c. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.
23. A deed from the spouse of any married person herein be recorded in the public records, or the joinder of the spouse of any married person named herein on any conveyance, encumbrance or lease to be executed by said married person.
24. An ALTA/NSPS survey of recent date which complies with the current minimum standard detail requirements for ALTA/NSPS land title surveys.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. General and special taxes and assessments for the fiscal year 2019-2020.

First Installment:	\$418.48, PAID
Penalty:	\$0.00
Second Installment:	\$418.48, PAID
Penalty:	\$0.00
Tax Rate Area:	19-061
A. P. No.:	032-081-026-0

2. The property covered by this report is vacant land.
3. According to the public records, there has been no conveyance of the land within a period of twenty-four months prior to the date of this report, except as follows:

None
4. We find no outstanding voluntary liens of record affecting subject property. Disclosure should be made concerning the existence of any unrecorded lien or other indebtedness which could give rise to any possible security interest in the subject property.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

LEGAL DESCRIPTION

Real property in the City of Oakley , County of Contra Costa, State of California, described as follows:

ALL THAT PORTION OF THE NORTHEAST ¼ OF SECTION 29, TOWNSHIP 2 NORTH, RANGE 3 EAST, MOUNT DIABLO BASE AND MERIDIAN LYING SOUTHERLY AND SOUTHWESTERLY OF THE PARCEL OF LAND DESCRIBED IN THE JUDGMENT IN FAVOR OF THE UNITED STATES OF AMERICA RECORDED MARCH 9, 1940 IN BOOK 539 OF OFFICIAL RECORDS, PAGE 218.

EXCEPTING THEREFROM:

1. ALL THAT PORTION CONVEYED TO CONTRA COSTA COUNTY BY DEED RECORDED AUGUST 29, 1983 IN BOOK 11408 OF OFFICIAL RECORDS, PAGE 225.

2. AN UNDIVIDED 16/33 INTEREST IN ALL OIL, GAS, MINERALS, AND HYDROCARBONS AS RESERVED IN THE DEED FROM ERNEST C. BURROUGHS AND MARY LOO BURROUGHS RECORDED MAY 21, 1984, BOOK 11798, PAGE 982, SUBJECT TO THE INTEREST DESCRIBED IN THE MINERAL POOLING AGREEMENT RECORDED APRIL 27, 1964, BOOK 4604, PAGE 338.

THE INTEREST IN AND TO THE SURFACE OF THE LAND AND TO A DEPTH OF 500 FEET THEREUNDER HAS BEEN RELINQUISHED BY GRANT DEED (SURFACE RIGHTS) RECORDED OCTOBER 31, 2003 AS INSTRUMENT NO. 2003-540677 OF OFFICIAL RECORDS.

3. RIGHTS GRANTED IN THE DEED TO ERNEST C. AND MARY LOO BURROUGHS, TRUSTEES OF THE BURROUGHS REVOCABLE TRUST, UNDER AGREEMENT DATED NOVEMBER 16, 1982 RECORDED AUGUST 22, 2003 AS INSTRUMENT NO. 2003-418732 OF OFFICIAL RECORDS AS FOLLOWS:

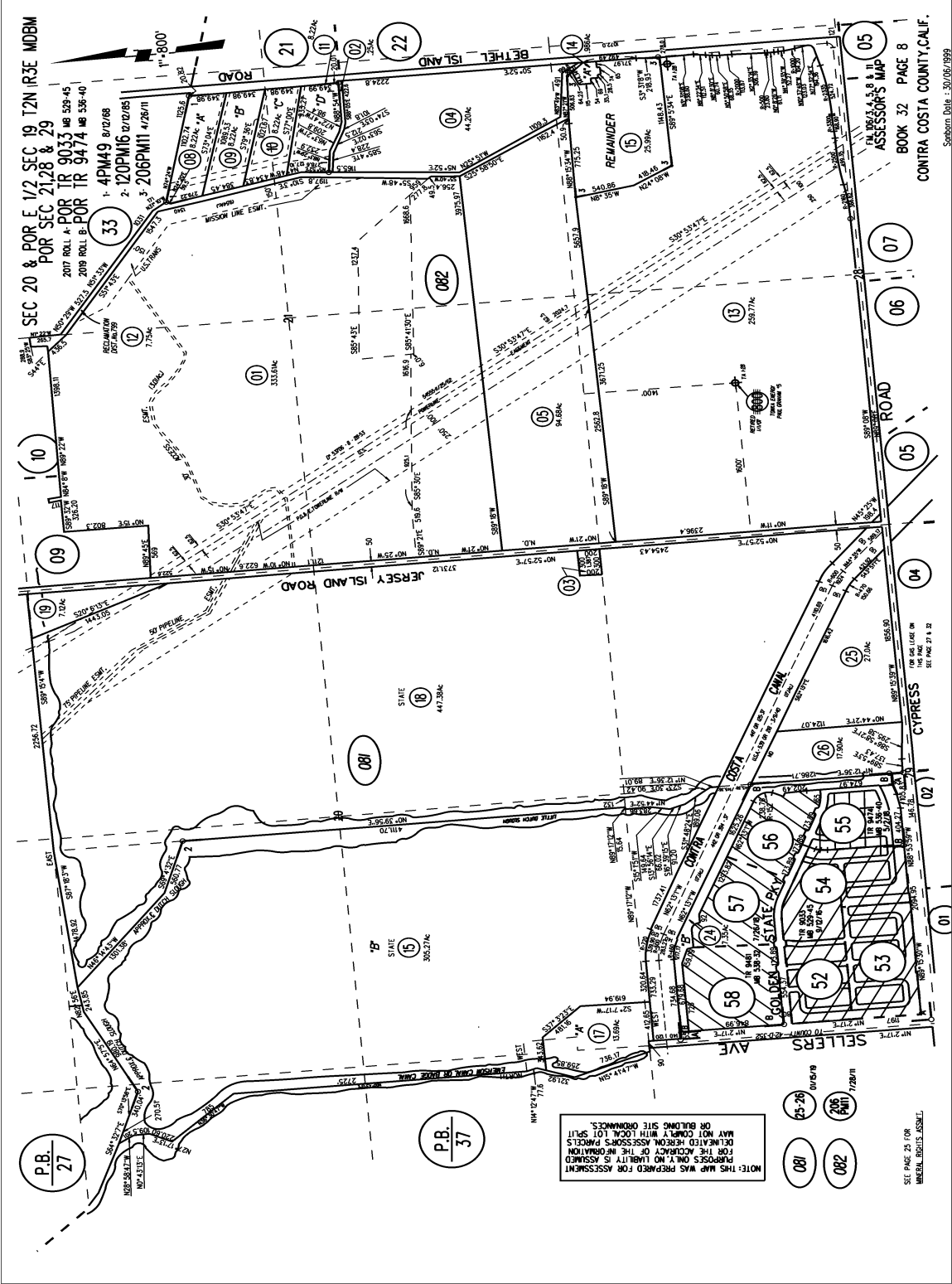
AN UNDIVIDED 16/33 INTEREST IN ALL OIL, GAS, MINERALS AND HYDROCARBONS, SUBJECT TO THE INTEREST DESCRIBED IN THE MINERAL POOLING AGREEMENT RECORDED SEPTEMBER 28, 1962, BOOK 4212, PAGE 144 AND AMENDED MINERAL POOLING AGREEMENT RECORDED APRIL 27, 1964, BOOK 4604, PAGE 338, OFFICIAL RECORDS.

THE INTEREST IN AND TO THE SURFACE OF THE LAND AND TO A DEPTH OF 500 FEET THEREUNDER HAS BEEN RELINQUISHED BY GRANT DEED (SURFACE RIGHTS) RECORDED OCTOBER 31, 2003 AS INSTRUMENT NO. 2003-540677 OF OFFICIAL RECORDS.

4. ANY PORTION OF THE DESCRIBED PREMISES WITHIN THE NATURAL BED OF ANY TIDAL SLOUGH BELOW THE ELEVATION OF ORDINARY HIGH TIDE AS IT EXISTED PRIOR TO ANY MAN MADE OR AVULSIVE CHANGES.

5. ALL THAT PORTION CONVEYED TO CITY OF OAKLEY, A CALIFORNIA MUNICIPAL CORPORATION BY GRANT DEED RECORDED AUGUST 17, 2018 AS INSTRUMENT NO. 2018-0131688 OF OFFICIAL RECORDS.

APN: 032-081-026-0



NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

CLTA STANDARD COVERAGE POLICY – 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the public records at Date of Policy.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
 - a. building;
 - b. zoning;
 - c. land use;

- d. improvements on the Land;
 - e. land division; and
 - f. environmental protection.
- This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
 3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
 4. Risks:
 - a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - c. that result in no loss to You; or
 - d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
 5. Failure to pay value for Your Title.
 6. Lack of a right:
 - a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
 7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
 8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
 9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$5,000

2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
 5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
 6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
 7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II, [t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

- (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
 5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of: [The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material unless such lien is shown by the Public Records at Date of Policy.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the

Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet. In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site. There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.



DRAFT

APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package



Burroughs Property

1180 E. Cypress Road

Oakley, CA 94561

Inquiry Number: 5892883.8

December 04, 2019

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

12/04/19

Site Name:

Burroughs Property
1180 E. Cypress Road
Oakley, CA 94561
EDR Inquiry # 5892883.8

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583
Contact: Victoria Drake



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 21, 1998	USDA
1993	1"=500'	Acquisition Date: June 15, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 29, 1984	USDA
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1972	1"=500'	Flight Date: July 06, 1972	USDA
1966	1"=500'	Flight Date: May 14, 1966	USDA
1963	1"=500'	Flight Date: July 15, 1963	EDR Proprietary Aerial Viewpoint
1958	1"=500'	Flight Date: August 09, 1958	USDA
1939	1"=500'	Flight Date: July 30, 1939	USDA

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INQUIRY #: 5892883.8

YEAR: 2016

— = 500'





INQUIRY #: 5892883.8

YEAR: 2012

— = 500'





INQUIRY #: 5892883.8

YEAR: 2009

— = 500'



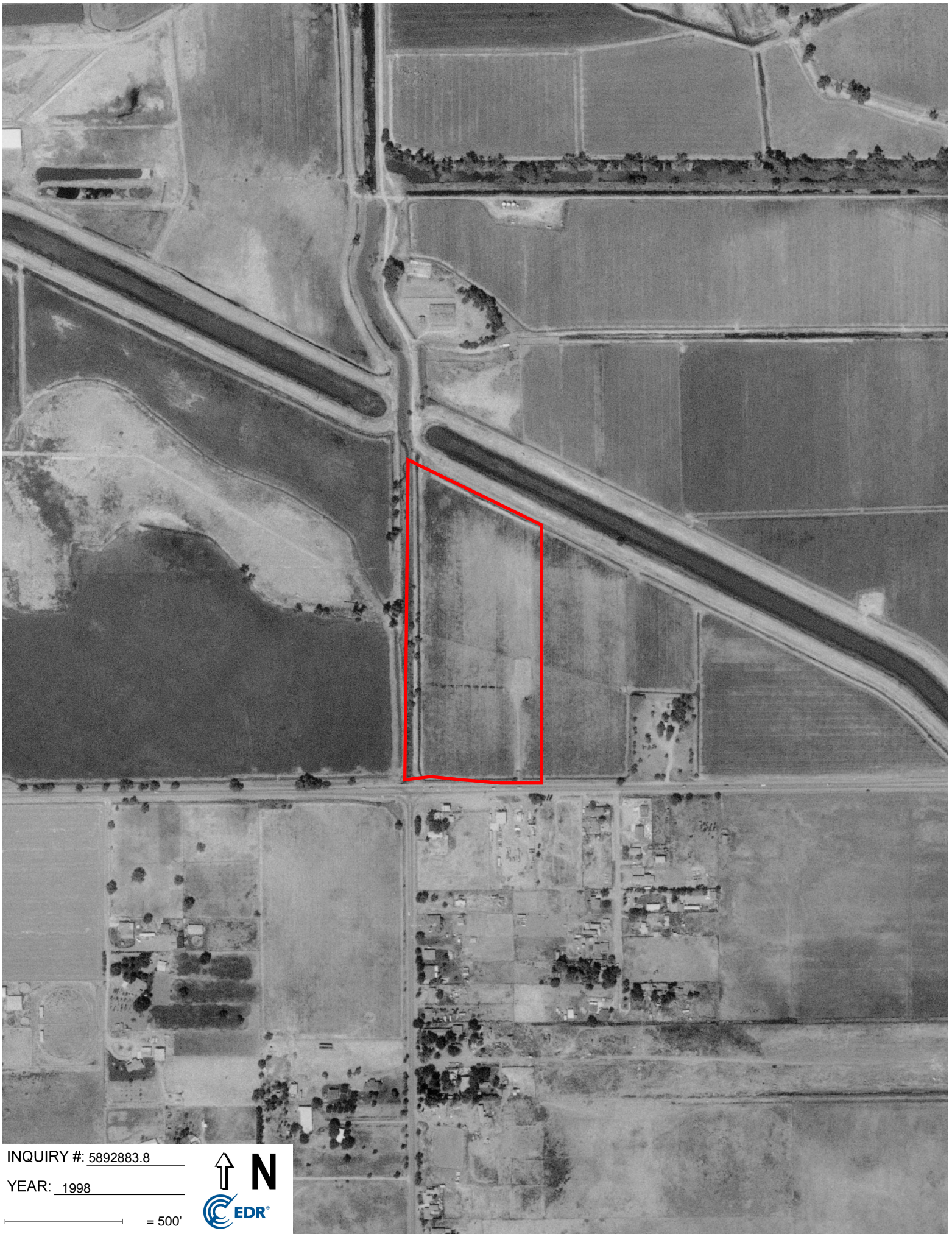


INQUIRY #: 5892883.8

YEAR: 2006

— = 500'





INQUIRY #: 5892883.8

YEAR: 1998

— = 500'





INQUIRY #: 5892883.8

YEAR: 1993

— = 500'





INQUIRY #: 5892883.8

YEAR: 1984

— = 500'



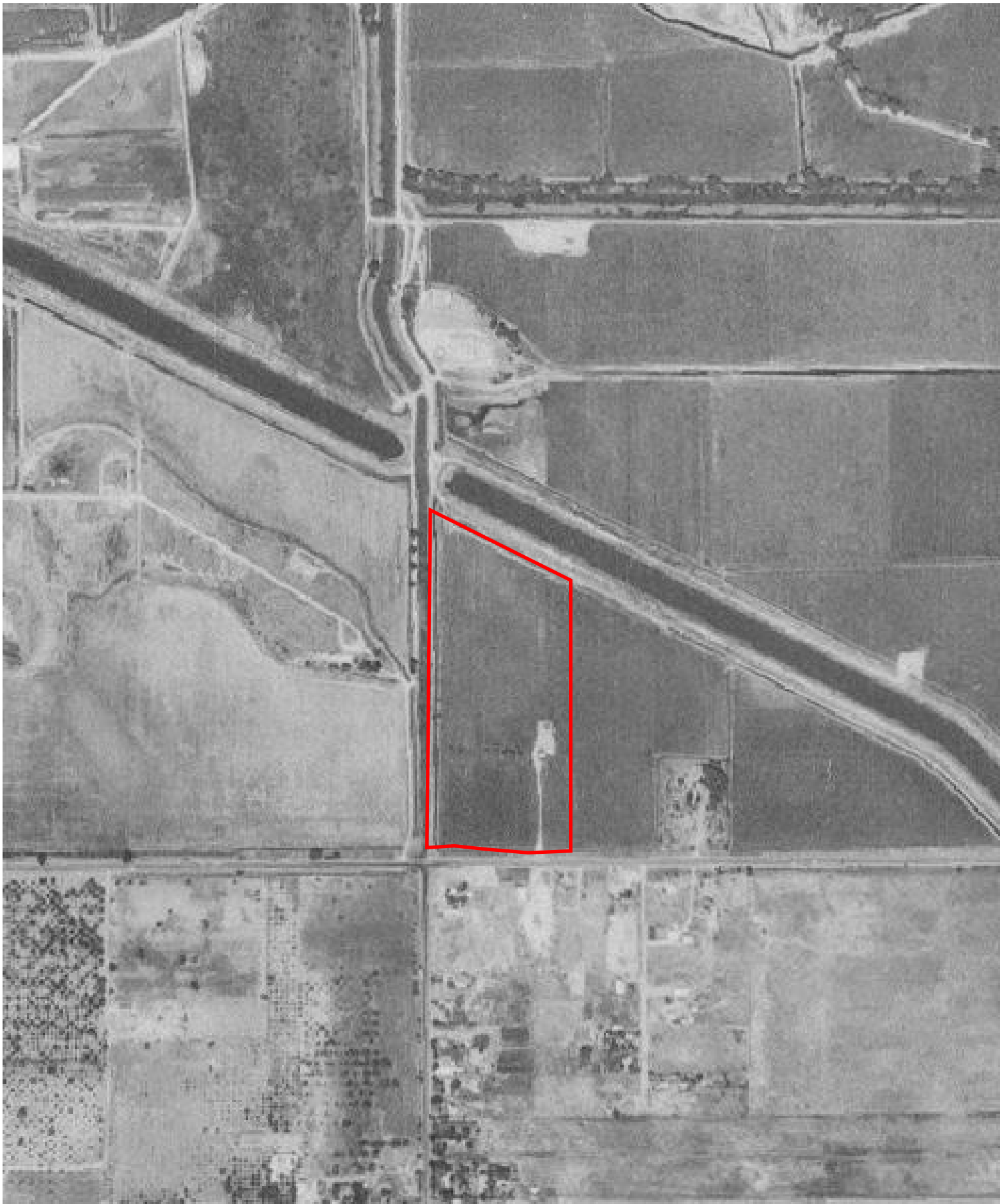


INQUIRY #: 5892883.8

YEAR: 1982

— = 500'





INQUIRY #: 5892883.8

YEAR: 1979

— = 500'





INQUIRY #: 5892883.8

YEAR: 1972

— = 500'



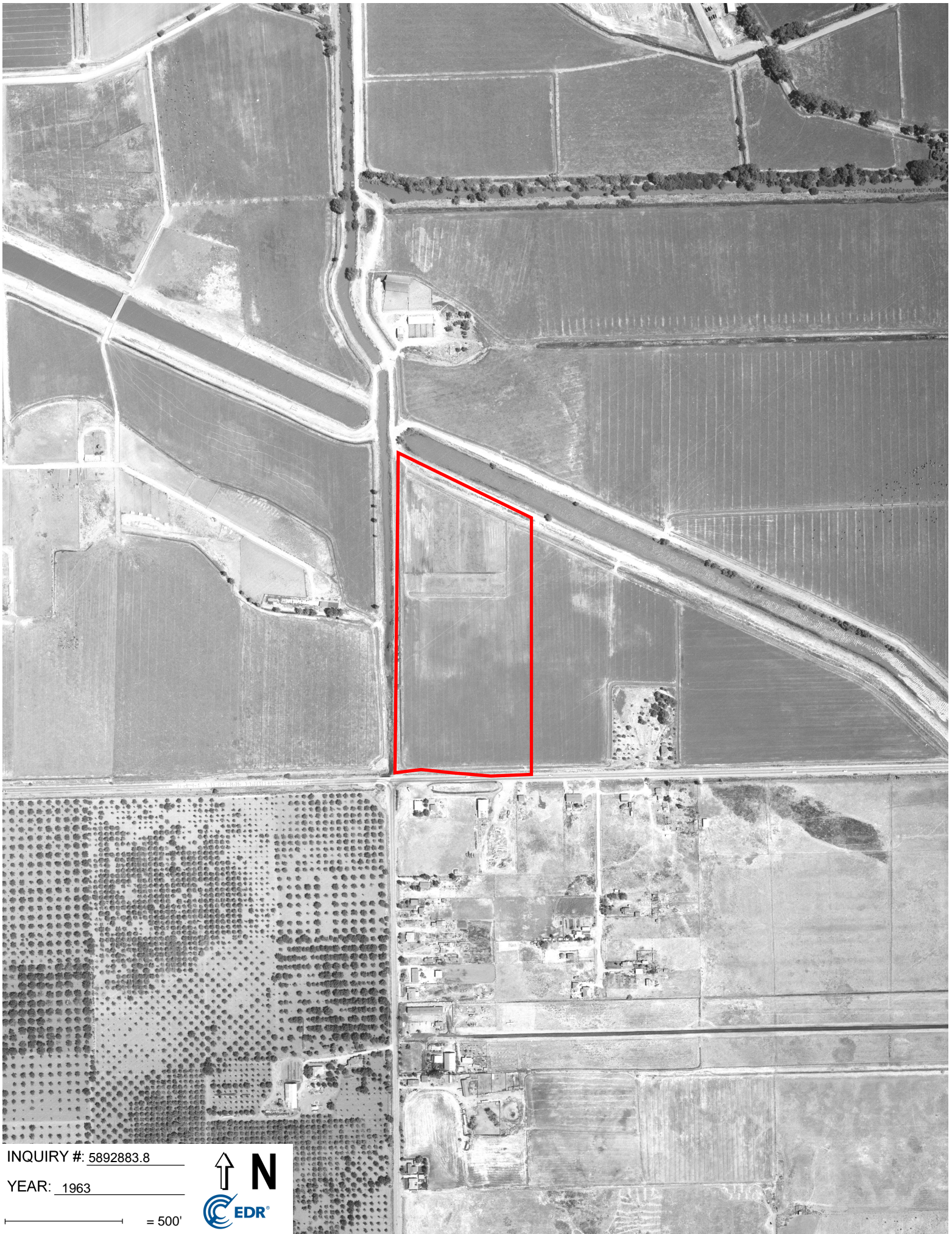


INQUIRY #: 5892883.8

YEAR: 1966

— = 500'





INQUIRY #: 5892883.8

YEAR: 1963

— = 500'





INQUIRY #: 5892883.8

YEAR: 1958

— = 500'





INQUIRY #: 5892883.8

YEAR: 1939

— = 500'





DRAFT

APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

Burroughs Property

1180 E. Cypress Road
Oakley, CA 94561

Inquiry Number: 5892883.5
December 09, 2019

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA[®]

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1992	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1989	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1985	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1980	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory
1975	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

1180 E. Cypress Road
Oakley, CA 94561

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

E CYPRESS RD

2014	pg A2	EDR Digital Archive
2010	pg A5	EDR Digital Archive
2005	pg A8	EDR Digital Archive
2000	pg A11	EDR Digital Archive
1995	pg A13	EDR Digital Archive
1992	pg A15	EDR Digital Archive
1989	pg A17	Haines Criss-Cross Directory
1989	pg A18	Haines Criss-Cross Directory
1985	pg A19	Haines Criss-Cross Directory
1980	pg A20	Haines Criss-Cross Directory
1975	-	Haines Criss-Cross Directory

Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

Year CD Image Source

KNIGHTSEN AVE

2014	pg. A4	EDR Digital Archive	
2010	pg. A7	EDR Digital Archive	
2005	pg. A10	EDR Digital Archive	
2000	pg. A12	EDR Digital Archive	
1995	pg. A14	EDR Digital Archive	
1992	pg. A16	EDR Digital Archive	
1989	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

E CYPRESS RD 2014

101	ADT 24 HR ALARM SECURITY DLR D ISH1 NETWORK SALES S & S GAS LIQUOR & FOOD
201	BELVAL, BLANCA
211	MORRIS, CHARLES A
251	JAPC INC JMJ RETREAT
551	PEIXOTO, CECILIA G
821	GS HAY SERVICE SWANSON, GLEN A
901	LEGARIA, GUSTAVO
903	OCCUPANT UNKNOWN,
975	ASKINS ENTERPRISES ASKINS, WES PIDGEON RADIO
1541	GAS & SAVE GHAFOOR ABDUL SINGH GURMEJ THIND, TARLOK S VALERO GAS STATION
1571	MULLINS, TODD
1631	REYES, SANTIAGO F
2015	FRAUSTO, PEDRO
2131	WOODWORTH, GARY R
2151	COLE, ANTHONY T
2181	DU MONT BARBARA DUMONT, RICHARD E
2191	WALLACE, TED J
2209	PARODI, JENNIFER
2229	HO, DINH V
2251	MONTERO, DENISE
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2331	FRIESEN, TIMOTHY C
2361	KUN, MICHAEL B
2401	BOX, RODGER B
2421	FEIT, ROBERT J
2441	BAGWELL, EVELYN K
2491	BAGWELL, JIM R
2521	BOYCE, PAMELA
2532	SHELTON, JAY W
2601	DOMINGUEZ, CORRINA KNITTEL LYLE D
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D
2689	SMITH, ISAAC D
2879	FIGUEROA, ABRAHAM P

E CYPRESS RD 2014 (Cont'd)

2901 MELTZER, BRIAN
 TEMPLERS AUTO BODY
2921 FRIGARD, FRANCES J
2941 IMOTO, KAZUO
2989 DALPORTO ENTERPRISES
 PORTO, JEANENE L
3148 OCCUPANT UNKNOWN,
3150 OCCUPANT UNKNOWN,
3680 COLEMAN, JULIE A
3751 CYPRESS AIR
 ROCCONI, LAWRENCE G
3761 OCCUPANT UNKNOWN,

KNIGHTSEN AVE 2014

3437 MECK, ALIIDA
3730 NEWCOMB, ANNETTE G
3731 SOMERHALDER, PHILIP S
3786 MORGAN, CHARLES M
3840 ALEJANDRO, WILLIAM C
3900 PHILPOT, ODELL
3992 ESPINDOLA, MICHAEL W
4100 KIDWELL, JOSEPHINE R
4150 HOLM, CHESTER L
4153 RIVERA, GUADALUPE
4169 FANNING, M
4170 OCHOA, ROGELIO
4185 CHADWICK DENISE
OCCUPANT UNKNOWN,
VECTOR MARKETING
4210 CADENA, CORNELIO C
4277 YOUNGS, TIMOTHY
4300 SWIHART, DONALD R
4308 CROSS, ARCHIE G
4310 LOCKWOOD, DENNIS J
4340 ERSKINE, ALAN C
4356 GUTIERREZ, JOEL A
4358 RODRIGUEZ, MARIA G
4380 GOLD, BENJAMIN A
4400 NUNEZ, ROBERT
4420 RIOS, DAVID
4440 FANCY HOOFS BY SHARROL
KILLIAN, MICHAEL R

E CYPRESS RD 2010

101	D ISH1 NETWORK SALES S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
201	AVALOS, FELIPE H
211	RUIZ, GILBERT M
251	JAPC INC JMJ RETREAT
821	GS HAY SERVICE OCCUPANT UNKNOWN,
901	BERNHARD, DAVID E JAMES L HOLDERMAN
903	LEGARIA, GUSTAVO
975	ASKINS ENTERPRISES ASKINS, WES PIDGEON RADIO
1541	GAS & SAVE GHAFOOR ABDUL SINGH, GURINDER THIND SURJIT SINGH U-HAUL CO VALERO GAS STATION
1571	VALUE PLUMBING
1631	REYES, SANTIAGO
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY R
2151	COLE, THOMAS J
2181	DARST, DONALD DU MONT BARBARA
2191	WALLACE, TED J
2221	KEELING, WAYNE L
2229	OCCUPANT UNKNOWN,
2251	MENDIVIL-MONTERO, THERESA L
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2331	FRIESEN TIMOTHY FRIESEN, TIMOTHY C
2361	MARTINS, BILL R
2401	BARAJAS, ENRIQUE
2421	FEIT, ROBERT J
2441	BAGWELL, EVELYN K
2491	BAGWELL, JIM R
2521	BOYCE, P
2532	MARTINS, JENNIFER
2601	OCCUPANT UNKNOWN,
2619	BURNETT, BARBARA L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D

E CYPRESS RD 2010 (Cont'd)

2689	SMITH, ISAAC D
2879	FIGUEROA, ABRAHAM P
2901	ALVES, ANTHONY
2921	FRIGARD, FRANCES J
2989	DALPORTO ENTERPRISES OCCUPANT UNKNOWN,
3148	OCCUPANT UNKNOWN,
3150	OCCUPANT UNKNOWN,
3680	COLEMAN, CARL
3751	ROCCONI, LAWRENCE G
3761	OCCUPANT UNKNOWN,

KNIGHTSEN AVE 2010

3407	BUENROSTRO, ROSA I
3437	PEREZ, ROGELIO Y
3731	SOMERHALDER, PHILIP S
3786	MORGAN, CHARLES M
3840	ALEJANDRO, WILLIAM C
3900	PHILPOT, ODELL
3992	ESPINDOLA, MICHAEL W
4100	DOMINGUEZ, C
4150	SICKELS, ESSIE
4153	OCCUPANT UNKNOWN,
4169	CHUQUIYAURI, YOLANDA
4170	RENTERIA, FILOMENO
4180	RIVERA, CARLOS J
4185	CHADWICK DENISE
	OCCUPANT UNKNOWN,
	VECTOR MARKETING
4210	GARCIA, RAMON V
	PATIENT PNIES FOR SPICAL POPLE
4300	SWIHART, DONALD R
4308	CROSS, RONALD S
4310	ERSKINE, NORMAN
4340	AC ERSKINE & ASSOC
	ERSKINE, ALAN C
4356	GUTIERREZ, JOEL A
4358	RODRIGUEZ, MARIA
4380	ESPINOSA, JOSE M
4400	BAYSIDE HOMES RLTY INVESTMENTS
	NUNEZ, ROBERT
	SALVATION ANGEL FOUNDATION INC
4420	RIOS, DAVID
4440	FANCY HOOFS BY SHARROL
	KILLIAN, MICHAEL R

E CYPRESS RD 2005

100	M & L TRUE VALUE HARDWARE
101	S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
211	RUIZ, GILBERT V
251	JAPC INC JMJ RETREAT
551	PEIXOTO, MANUEL S
821	GS HAY SERVICE SWANSON, RONALD K
901	OBRYAN, ANNABELLE
975	ASKINS, JOHN W
1180	OCCUPANT UNKNOWN,
1541	FLETCHER, YVONNE PARTNERSHIP CONSISTING JOHN
1631	OCCUPANT UNKNOWN,
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY R
2151	COLE, THOMAS J
2181	DARST, DONALD DU MONT BARBARA
2191	WALLACE, TED J
2209	RAY, VERNON L
2221	RAY, BILLY L
2229	OCCUPANT UNKNOWN,
2251	MONTERO, THERESA M
2271	LARSEN, GARY L
2291	DUNCAN, TOM
2311	OCCUPANT UNKNOWN,
2331	REYNOLDS, ZETTA J
2361	MARTINS, BILL R
2401	DMH ELECTRIC INC OCCUPANT UNKNOWN,
2421	FEIT, ROBERT J
2441	BAGWELL, JESSIE E
2461	OCCUPANT UNKNOWN,
2491	BAGWELL, JIM R
2521	BOYCE, PAM S
2532	SHELTON, JAY W
2601	FARR, JAMES H
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	SHERIDAN, SEAN J
2667	CD BODY & FENDER DUGGINS, CLIFFORD D
2689	SMITH, ISAAC
2879	FIGUEROA, ABRAHAM P
2921	FRIGARD, LOWELL D
2941	IMOTO, KAZUO
2989	DALPORTO, DAVID D

E CYPRESS RD 2005 (Cont'd)

3148 OCCUPANT UNKNOWN,
3150 COLEMAN, JAMES C
3611 BRADY, JOANN A
3671 RANDAZZO, JOHN
3680 LIVELY, BARBARA
3751 OCCUPANT UNKNOWN,
3761 HERNANDEZ, MIKE A

KNIGHTSEN AVE 2005

3427	MURPHY, DONNA
3437	PEREZ, ROGELIO
3490	THOMAS, RONALD
3730	NEWCOMB, HARRY A
3731	SOMERHALDER, PHILIP S
3786	MORGAN, CHARLES M
3900	PHILPOT, ODELL
3992	ESPINDOLA, MIKE W
4100	KIDWELL, JOSEPHINE R
4150	SICKELS, ESSIE
4153	RIVERA, GUADALUPE
4169	HAYWOOD, FRANK
4170	LEE, LARRY
4180	SOTO, JOSE R
4185	OCCUPANT UNKNOWN,
4201	JESSIE, VINCENT
4210	DERUYTE, WAYNE F
	PATIENT PNIES FOR SPCIAL POPLE
4277	PAGANO, DOUGLAS W
4281	OCCUPANT UNKNOWN,
4287	MAYBERRY, JOVIANN
4310	ERSKINE, NORMAN
4340	AC ERSKINE & ASSOC
	ERSKINE, ALAN C
4380	ALVAREZ, ALONZO L
4400	FLORES, CARLO
4420	RIOS, DAVID
4440	KILLIAN, MICHAEL R

E CYPRESS RD 2000

100	M & L TRUE VALUE HARDWARE
101	S & S GAS LIQUOR & FOOD
194	PROFESSIONAL INVESTMENT REALTY
201	FERNANDEZ, LUCIA
211	OCCUPANT UNKNOWN,
219	OCCUPANT UNKNOWN,
251	CHONG, SHUGEN S
263	MARTIN, LINDA K
551	OCCUPANT UNKNOWN,
610	JOHNSON, WILLIAM H
801	ROSEL, GLEN T
810	BLEVINS, RODNEY K
821	SWANSON, RICHARD
901	HOYT, BERNICE
975	ASKINS, JOHN W
1541	DELTA WATERCRAFT GHAFOOR ABDUL
2015	FRAUSTO, PEDRO
2109	REEVES, ARLEY
2131	WOODWORTH, GARY
2151	COLE, THOMAS J
2181	DARST, DONALD
2191	FOSTER, CHARLES
2209	RAY, VERNON
2221	RAY, DARLENE M
2251	MONTERO, FRANK L
2291	ELORME, RICHARD
2311	FRIEDMAN, VINCENT E
2331	REYNOLDS, LARRY N
2361	MARTINS, BILL
2401	BOX, RODGER B
2421	FEIT, ROBERT J
2441	BAGWELL, JESSIE
2461	OCCUPANT UNKNOWN,
2491	OCCUPANT UNKNOWN,
2532	OCCUPANT UNKNOWN,
2601	DUDGEON, FLOYD A
2619	BURNETT, JIM L JIM BURNETT TRUCKING
2639	OLLER, J
2689	SMITH, ISAAC T
2879	FIGUEROA, ABRAHAM P
2901	OCCUPANT UNKNOWN,
2921	FRIGARD, LOWELL D
2941	EASTMAN, LEO O
3150	COLEMAN, F A

KNIGHTSEN AVE 2000

3407 SARMENTO, ALVIN
3900 OCCUPANT UNKNOWN,
3992 OCCUPANT UNKNOWN,
4100 KIDWELL, GEORGE
4185 PALMER, GREGORY
4201 JESSIE, VINCENT
4210 DERUYTE, WAYNE
KLINE, JACK
REGIER, BARBARA J
4287 WILLIAMS, L M
4300 OCCUPANT UNKNOWN,
4310 OCCUPANT UNKNOWN,
4340 ERSKINE, CHARLES A
4356 OCCUPANT UNKNOWN,
4380 MURPHY, ROBERTA
4400 OMO, OREN M

E CYPRESS RD 1995

100 M & L TRUE VALUE HARDWARE
101 S & S GAS LIQUOR & FOOD
120 DOMINGO, FRANK
189 CONCORD ROOF SERVICE
194 PROFESSIONAL INVESTMENT REALTY
1541 MISSION BAIT
1571 FRANKS TRUCKING
2015 HERNANDEZ, EULALIA
2131 WOODWORTH, GARY
2251 MONTERO, THERESA
2361 MARTINS, BILL
2461 CARUTHERS, FANNIE
2601 DUDGEON, FLOYD A
2639 POHL, DAVID
2689 SMITH, ISAAC T
3611 BRADY, DELMONT
3680 NEWCOMER, CATHY
3761 UNGA, HALOTI

KNIGHTSEN AVE 1995

3437 SMITH, E
4100 TEJADA, SILVIA
4169 GORMAN, NICOLE
4201 JESSIE, VINCENT
4210 LAZY R RANCH
4356 MCWILLIAMS, STEPHEN
4358 YODA, JANIS
4380 PARKHURST, BILL

E CYPRESS RD 1992

810 BLEVINS, RODNEY
820 GRILLI, DAVE
830 HENDRICKS, JEFFREY
925 OWENS, RICHARD J
950 VREONIS, MELVYN
951 GRAY, M
960 LOVE, CLINT
972 SINGER, SEYMOUR H
974 JACQUEZ, DOUG
984 RODGERS, ROY A
988 KAFETAS, NICK
990 RAMIREZ, MANUEL
992 SPINELLI, ANGELO
1541 MISSION BAIT
2109 REEVES, ARLEY
2491 CARUTHERS, ROSE
2639 POHL, DAVID
3150 MERRYTIME KENNELS
3611 BRADY, DELMONT

KNIGHTSEN AVE 1992

4100 KIDWELL, J
4169 GORMAN, NICOLE
4380 PARKHURST, BILL

E CYPRESS RD 1989

CYPRESS RD 94561		OAKLEY	
100	XXXX	00	
189	★CONCORD ROOF SV	625-	
270A	BILBO L J	625-0526	
355	VALENTINE L E	625-2751	
3680	HEARSUM Helen A	625-2931	+9
810	BLEVINS Rodney	684-2306	+9
820	GRILLI Brenda	625-3909	2
	GRILLI Dave	625-1802	
830	HENDRICKS Jeffery	625-1802	8
840	XXXX	625-0533	+9
900	MOORE Robt E	00	
921	XXXX	625-0577	8
925	★ACCENTS IN WOOD	00	
	★JUST FOR KIDS CENTR	625-1813	6
	OWENS June	625-1813	5
	OWENS Richard J	625-1813	5
929	VANAKEN Greg	625-0179	4
930	XXXX	00	
933	CROSS Bob	625-2390	
	CROSS Jo	625-2390	
940	XXXX	00	
950	VREONIS Melvyn	625-9458	+9
964	XXXX	00	
968	XXXX	00	
972	SINGER Seymour H	625-1123	1
974	JACQUEZ Doug	625-2213	
	JACQUEZ Kathy	625-2213	8
976	XXXX	00	
978	XXXX	00	

ES & CO. INC. INFORMATION ON THIS PAGE MAY NO

E CYPRESS RD 1989

.CYPRESS RD		94561 CONT.
2	980 XXXX	00
	982 JERLOW Scott A	625-0097
	984 RODGERS Roy A	625-1441
+9	986 XXXX	00
8	988 KAFETAS Nick	625-1539 +1
6	990 RAMIREZ Manuel	625-4822
+9	992 SPINELLI Angelo	625-0737
	994 XXXX	00
+9	998 XXXX	00
+9	1760 XXXX	00
	1784 XXXX	00
	1820 BISAHA R A	625-1870
	1832 XXXX	00
8	1868 GUBLER Roger E	625-1673 1
9	1880 LANPHER Mark	625-0023 3
8	1892 XXXX	00
	1900 STANEK Donna	625-4153 +6
	STANEK Wesley	625-4153 +6
4	1909 DORAMUS Harold E	625-4330 +6
9	1910 LANGLOIS Roger	625-9471 +6
9	LANGLOIS Susan	625-9471 +6
9	1916 NICHOLSON Charles	625-2970
9	NICHOLSON Lori	625-2970 7
7	1928 OAKES Thos	625-2672 6
4	1933 KAMILOS G N	625-1399 +9
7	1940 XXXX	00
	1963 GUTHREY Edgar	625-1723 +8
	GUTHREY Edith	625-1723 +8
	1988 XXXX	00
	NO # ASKINS John A	625-0669 +9
	NO # ASKINS John Wesley	625-1989 5
	NO # BAGWELL Jessie	684-2479
	NO # BANUELOS Donna	625-2871
	NO # BANUELOS Manuel G	625-2871
9	NO # BARNEY Russell D	625-0120
7	NO # BARTELS Antone	625-2925
7	NO # BEAL Louise	625-3869
8	NO # BENNETT Leroy H	625-8068 6
	NO # BENTLEY Roger F	625-0303 8
	NO # BENTLEYSONS CONTR	625-3000 8
9	NO # BIG OAK MOBILE HM	625-2238 3
	NO # BLANSETT Willene	625-1317 8
	NO # BORRAYO Rafael	625-0841 +9
6	NO # BRADY Delmont	684-3339 5
	NO # BROUSSARD Geo Jr	625-3526
7	NO # BYER Lenny T	625-2520
	NO # COCHRAN Earnest	625-3558
	NO # COE Jim	625-9820 8
	NO # COPPING Russell	625-9260 +9
	NO # CUNHA Joe	625-2706
8	NO # DARST John	625-4494 8
	NO # DAWSON Keith	625-2595
4	NO # DEPIAZZA Anne	625-0522 0
	NO # DOMINGO Frank Sr	625-2342 0
0	NO # DOUGLAS William E	625-1412 1
7	NO # DRAKE Donald	625-1767 +9
1	NO # DYSON Paul A	625-1631 5
	NO # *EAST CO CHMNY SWP	625-3341 2
	NO # FASSKE Alvin R	625-9041 +9
9	NO # FEIT Robt	684-3797 1
	NO # FENOLIO Gwan	625-0150
	NO # FENOLIO Jeffery	625-2183
	NO # FRAZIER Fred	625-2581
	NO # FRAZIER Virginia	625-2581
	NO # *G&M YACHT MNTNC	625-1400 +9
	NO # *GEORGES ELECTRIC	625-3901
	NO # GIANNOTTI Joe	625-2540
2	NO # GINGER Dennis	625-4849 6
	NO # GONCALVES Manuel L	625-2730
	NO # GRAY Marshall	625-2580
	NO # GREEN Michele	625-9587 +9
9	NO # GUERRA Robt L	625-3121
	NO # GULLION Philip L	625-3968 +9
5	NO # GUTIERREZ Renee	625-9632 8
	NO # HARRINGTON Wm M	625-4336 +9
	NO # HAVENS E	625-2712
	NO # HINMAN Stephen	625-1214 1
	NO # HYDER Juan	625-3311 2
7	NO # JONES Myrl	684-2730
	NO # KIRKWOOD Chuck	625-3808
	NO # KRUGER Nick	625-9543 +9
	NO # KRUGER Olive	625-9543 +9
9	NO # LUNA D	625-2068 3
	NO # LUNA David M	625-2183
4	NO # MASSONI Leo R	625-2334
	NO # MCCORMICK Sylvia F	625-3488 6
	NO # MENDIOLA Henry	625-2856
	NO # NEWMAN Shirley	684-2246 5
	NO # ONEAL Jim L	625-0911 +9
	NO # PERDUJE Howard L	625-2603
	NO # PRESTON Loyle	625-3559 +9
	NO # PROCTOR Roger T	625-3020
	NO # RAY Vernon	684-2621
1	NO # REEVES Arley	684-2228
	NO # RENSHAW Jas	625-0339
	NO # ROBINSON Glenn	625-3639
5	NO # *RUSSELL REAL ESTATE	625-2238
	NO # SILVEIRA Joao	625-9682 +9
6	NO # SIZEMORE Paul W	625-2584
	NO # SMITH Paul R	625-2326
	NO # SURNEY John Jr	625-0225 2
	NO # SWAFFORD Eddie	625-1486
	NO # SWAFFORD Lorie	625-1486 8
	NO # T J COCKTAIL LNG	625-1520 +9
	NO # TAYLOR Rupert	625-3462 +9
8	NO # TERRA Jose	625-2721 2
	NO # TIPTON Kerry	625-2233
	NO # TIPTON Ted	625-2180
	NO # TOBIN Irene	625-2320 8
	NO # TOWNSEND Naomi	625-0291 3
	NO # VALLES Armando	625-0896 6
9	NO # VELEZ Gelasia	625-3480
	NO # WELDON Wm	625-1036 3
	NO # WHITE George N	625-4457 8
	NO # ZIMMERMAN Billie E	684-2137
	NO # ZIMMERMAN N	684-2137
	* 10 BUS 136 RES 29 NEW	
+CYPRESS RD E (89)		
94561 OAKLEY		
	1541 *MISSN BAIT	625-3900
	2521 MEREDITH Mary	684-3566
	2639 POHL David	684-2041
	POHL Lori	684-20
	* 1 BUS 3 RES 4 NEW	

E CYPRESS RD 1985

CYPRESS RD 94561		
OAKLEY		
189	AUSMUS ROD	625-4109 +5
	CONCORD ROOF SV	625-0526 9
270A	BILBO L J	625-2751
A	MEDLEY DARRELL J	625-0419 4
355	VALENTINE L E	625-2931
810	BLEVINS ROONEY	625-3909 2
820	CARNES TIM	625-3071 4
830	FARIA JAS M	625-3922 3
900	XXXX	00
921	XXXX	00
925	JUST 4 KIDS PLAY CT	625-1813 +5
	OWENS JUNE	625-1813 +5
	OWENS RICHARD J	625-1813 +5
929	VANAKEN GREG	625-0179 4
930	XXXX	00
940	SANCHEZ JOSE	625-0078 2
964	MURPHY BOB L	625-0599 4
968	XXXX	00
972	SINGER SEYMOUR H	625-1123 1
974	XXXX	00
976	COOMBS MICHAEL A	625-0779 1
978	XXXX	00
980	MORRISSEY DEAN	625-3478 3
982	SANCHEZ JAS	625-1611 1
984	RODGERS ROY A	625-1441 1
986	REBELES JOHN	625-4053 +5
988	WETZEL RANDALL E	625-0632 +5
990	ROWE DONALD V	625-0335 4
992	SPINELLI ANGELO	625-0737 1
994	KAMMERER JOHN L	625-0763 1
996	XXXX	00
1760	XXXX	00
1796	CAVALLAS TED	625-3582 +5
1808	XXXX	00
1820	BISAHA R A	625-1670 1
1832	XXXX	00
1868	GUBLER ROGER E	625-1673 1
1880	LANPHER MARK	625-0023 3
1892	XXXX	00
1916	DOLLE HENRY F	625-1295 1
1940	XXXX	00
1988	XXXX	00
NO #	ASKINS JOHN WESLEY	625-1989 +5
NO #	BAGWELL JESSIE	684-2479
NO #	BANUELOS MANUEL G	625-2871
NO #	BARNEY RUSSELL D	625-0120 8
NO #	BARTELS ANTONE	625-2925
NO #	BATES RUSSELL E	625-2278 +5
NO #	BEAL ROBT L	625-3869
NO #	BIG OAK CASINO CARD	625-1513 1
NO #	BIG OAK COCKTL LNGE	625-1520 1
NO #	BIG OAK MOBILE HM	625-2238 3
NO #	BRADY DELMONT	684-3339 +5
NO #	BRAZIL WM	625-4042 +5
NO #	BROUSSARD GEO JR	625-3526
NO #	BURGIO LEO D	625-1585 1
NO #	BYER LENNY T	625-2820
NO #	COCHRAN EARNEST	625-3558
NO #	COZBY MARVIN	625-0752 +5
NO #	CUNHA JOE	625-2706
NO #	DARST DONALD	684-3106
NO #	DAWSON KEITH	625-2595
NO #	DELTA CLAM	625-3411 0
NO #	DEPIAZA ANNE	625-0522 0
NO #	DOMINGO FRANK SR	625-2342 0
NO #	DOUGLAS WILLIAM E	625-1412 1
NO #	DUBOIS E R	625-3452
NO #	DYSON PAUL A	625-1631 +5
NO #	EAST CO CHIMNY SWP	625-3341 2
NO #	ELLIOTT KEVIN	625-2292 +5
NO #	FEIT ROBT	684-3797 1
NO #	FENOLIO JEFFERY	625-0150 0
NO #	FRAZIER FRED	625-2581 +5
NO #	GASTON LESTER A	625-0215 1
NO #	GEORGES ELECTRIC	625-3901 6
NO #	GIANNOTTI JOE	625-2540
NO #	GONSALVES MANUEL L	625-2730
NO #	GRAY MARSHALL	625-2580
NO #	GUERRA ROBT	625-3121
NO #	HAVENS E	625-2712
NO #	HEARSUM GAYELLA	684-0160 +5
NO #	HECKMAN R G	625-2815 +5
NO #	HINMAN STEPHEN	625-1214 1
NO #	HUDDLESTON W D	625-2514 6
NO #	HYDER JUAN	625-3311 2
NO #	JAMES DUANE ELWELL	625-2896
NO #	JIMENEZ RAFAEL C	625-1758 2
NO #	JONES MYRL	684-2730 8
NO #	KIRKWOOD CHUCK	625-3808
NO #	KNOX WARD	625-3145 7
NO #	LORENZETTI MARY	625-2855
NO #	LUNA D	625-2069 3
NO #	LUNA DAVID M	625-2183
NO #	MASSONI LEO R	625-2334
NO #	MCCAUSLAND RUSSELL	625-2862 +5
NO #	MENAFFEY D CAPT USM	625-2797
NO #	MENDIOLA HENRY	625-2856
NO #	MIGUEL MANUEL	684-3487 +5
NO #	MISSION BAIT	625-3900 7
NO #	NEWMAN SHIRLEY	684-2246 +5
NO #	OWEN GINA	625-0915 +5
NO #	PERDUE HOWARD L	625-2603
NO #	PROCTOR ROGER T	625-3090 3
NO #	RAY VERNON	684-2621
NO #	REEVES ARLEY	684-2228
NO #	RENSHAW JAS	625-0339 9
NO #	ROBINSON G	625-0359 0
NO #	ROBINSON GLENN	625-3639
NO #	RUSSELL REAL ESTATE	625-2238 9
NO #	SIZEMORE PAUL W	625-2584 7
NO #	SMITH PAUL R	625-2326
NO #	STINEBAUGH DAVE	625-4191 +5
NO #	SURNEY JOHN JR	625-0225 2
NO #	TERRA JOSE	625-2721 2
NO #	TIPTON TEDRY	625-2233 9
NO #	TOWNSEND NAOMI	625-0290 3
NO #	VELEZ GELASIA	625-3480 3
NO #	VISCIA GEO A	625-3901
NO #	WELDON WM	625-1036
NO #	WOLLEN BILL	625-1946 +
NO #	ZIMMERMAN BILLIE E	684-2137 4
*	11 BUS	112 RES 23 NEW

E CYPRESS RD 1980

CYPRESS RD 94561 OAKLEY			
189★	CONCORD ROOF SV	625-0526	9
270A	BILBO L J	625-2751	
355	VALENTINE R E	625-2931	
NO #	BANUELOS MANUEL G	625-2871	4
NO #	BARNEY RUSSELL D	625-0120	8
NO #	BARTELS ANTONE	625-2925	
NO #	BORRAYO RAFAEL	625-0280	8
NO #	BRIGGS G	625-3391	9
NO #	BROUSSARD GEO	625-3526	
NO #	BYER LENNY T	625-2520	
NO #	COCHRAN EARNEST	625-3558	
NO #	CORGIAT G P	625-2737	
NO #	CUNHA JOE	625-2706	5
NO #	DARST DONALD	684-3106	4
NO #	DARST JOHNNIE	625-2860	7
NO #	DAWSON KEITH	625-2595	
NO #★	DELTA CLAM	625-3411	+0
NO #	DEPIAZZA ANNE	625-0522	+0
NO #	DEPIAZZA FAY	625-2893	
NO #	DOMINGO FRANK SR	625-2342	+0
NO #	DUBOIS E R	625-3452	
NO #	ELLIOTT MARSHALL M	625-3516	9
NO #	FENOLIO JEFFERY	625-0150	+0
NO #★	GEORGES ELECTRIC	625-3901	6
NO #	GONSALVES MANUEL L	625-2730	
NO #	GRAY MARSHALL	625-2580	
NO #	GUERRA ROBT	625-3121	3
NO #	HAVENS E	625-2712	
NO #	HUDDLESTON W D	625-2514	6
NO #	JAMES DUANE ELWELL	625-2896	
NO #	KAUFMANN VICTOR M	625-2130	7
NO #	KIRKWOOD CHUCK	625-3808	
NO #	KNOX KIM D	625-3145	7
NO #	LAHUE MAURICE	625-2679	5
NO #	LAHUE PHYLISS	625-0429	9
NO #	LOPEZ MIGUEL Q	684-2866	+0
NO #	LORENZETTI MARY	625-2855	
NO #	MASSONI LEO R	625-2334	
NO #	MENDIOLA HENRY	625-2856	
NO #★	MISSION BT&WRM FARM	625-3900	7
NO #	MITCHELL DANNY L	625-3067	5
NO #	PERDUE HOWARD L	625-2603	5
NO #	PROCTOR ROGER T	625-3020	4
NO #	REEVES ARLEY	684-2228	
NO #	RENSHAW JAS	625-0339	9
NO #	ROBINSON G	625-0359	+0
NO #	ROBINSON GLENN	625-3639	
NO #	SIZEMORE PAUL W	625-2584	7
NO #	SMITH PAUL R	625-2326	
NO #	THOMSON IRA	625-0208	7
NO #	TIPTON TERRY	625-2233	5
NO #	TOWNSEND WAYNE	757-4012	1
NO #	TUTTLE JOHN D	625-2434	
NO #	VELEZ MANUEL	625-3480	
NO #	VISCIA GEO A	625-3901	
NO #	YASSER JOHN D	625-2749	
NO #	ZAMORA GERALD	625-3341	
★	4 BUS	53 RES	6 NEW



DRAFT

APPENDIX G

WELL 5-5 DOGGR RECORDS

Well Review Program
WELL LEAK TEST

Division Reference Name/Number : City of Oakley 2007-1

Field: Dutch Slough Gas County: Contra Costa Sec. 29 T. 2N R. 3E M.D. B & M

Development representative: Derek Pampe Phone: (925) 685-0110

Location (major cross streets): NorthEast of Sellers & Cypress

Division Map Number: 608

Latitude (degree decimal / NAD 27): 37.992116971 Longitude (degree decimal / NAD 27): -121.665539873

How the location was determined: Measured Surveyed Other

Describe: Excavation

Well Name and Number: "Tract 5" 5-5 API #: 013-00115

Operator: Tonka Energy, Inc.

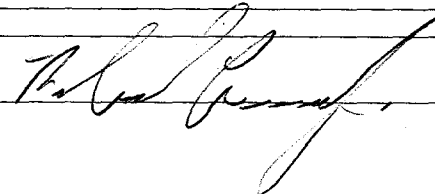
SAFETY PRECAUTIONS AND UNSAFE EXCAVATIONS

CAUTION! Oil and gas wells may produce hydrogen sulfide gas, which is highly poisonous and will accumulate and concentrate in low areas such as excavations. Before entering an excavation area, test to ensure that there is sufficient oxygen and that the flammable/toxic gas readings are within safe limits.

INSPECTIONS	1	Initials Date	2	Initials Date	3	Initials Date	4	Initials Date
Excavation size	20' x 20' x 10'	RL 8/13/2007						
Picture No.								
Picture direction								
Visible casing size(s) (or comment)	18"x113/4" x 7"	SPT: 5'						
Fluid leaks (Y/N)*	N							
Amount (est.)								
Gas leaks (Y/N)*	N							
Amount (est.)								
Gas detector (N/Y)	N							
Bubble test (Y/N)	Y							

*Leak location(s): None.

Describe hazardous or damaged well condition(s): None.

Report by: R. Loverne DOGGR 

Date: 8/15/2007

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF WELL PLUGGING AND ABANDONMENT

Sacramento, California

February 6, 2004

Michael L. Phillips, Agent

TONKA ENERGY, INC.

P.O. Box 102

Sutter, CA 95982

Your report of the plugging and abandonment of well "Tract 5" 5-5,
A.P.I. No. 013-00115, Section 29, T 2N, R 3E, M.D. B. & M.,
Dutch Slough Gas field, Contra Costa County, dated 10/04/03, received 10/10/03
has been examined in conjunction with records filed in this office. We have determined that
all of the requirements of this Division have been fulfilled relative to plugging and
abandonment of the well, removal of well equipment and junk, and filing of well records.

- NOTES:** 1. Surface plugging completed on 2/5/04.
2. Site inspection made and approved 3/18/04.

BOND: Blanket

STATUS:

Hal Bopp
State Oil and Gas Supervisor

By



Robert S. Habel
District Deputy

RSH/sdl

DISTRICT -WELL RECORDS CHECK LIST

COMPANY: Tonka Energy, Inc.
 API: 013-0018

WELL NO.: "Tract 5" 5-5
 NOTICE FOR: drill rd rw abd
 P-date(s) 10/4/03

RECORDS RECEIVED

	DATE	OK	Copies to IHS	NEEDS	NORD	REMARKS
Well Summary (OG100)...						
History (OG103)	<u>3/28/04</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Directional Survey.....						
E-logs (2").....						
E-logs (5").....						
MUD Logs.....						
CBL.....						
Other						

CONFIDENTIAL
 RELEASE DATE _____

Bond Release _____ Date _____

STATUS

- | | |
|----------------------------|-------------------------|
| Producing—Oil _____ | Water Disposal _____ |
| Idle—Oil _____ | Waterflood _____ |
| Abandoned—Oil _____ | Steamflood _____ |
| Drilling—Idle _____ | Fire Flood _____ |
| Abandoned—Dry hole _____ | Air Injection _____ |
| Producing—Gas _____ | Gas Injection _____ |
| Idle—Gas _____ | CO2 Injection _____ |
| Abandoned—Gas _____ | LPG Injection _____ |
| Gas—Open to Oil Zone _____ | Observation _____ |
| Gas Storage _____ | Waterflood Source _____ |

DATE _____

REMARKS: _____

9/16/04

ABANDONMENTS

Map Made for Surface Inspection _____

Surface Inspection NEEDED
 Completed JLS

Final Letter NEEDED
 Completed ~~_____~~ 3/26/04 (SK)

MAP # 606 BY: _____ DATE _____
 DATABASE BY: MFC DATE _____

RECORDS APPROVED
 BY: MFC DATE 3/24/04

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
HISTORY OF OIL OR GAS WELL

Operator Tonka Energy Field Dutch Slough Gas County Contra Costa
 Well DSGU 5-5 Sec. 29 T. 2N R. 3E MD B.&M.
 A P I No 013-00115 Name Michael Phillips Title Agent
(Person submitting report) (President, Secretary, or Agent)
 Date 2/24/04
(Month, day, year)
 Address PO Box 3034 Yuba City CA 95992 Telephone Number 530 674-8121

Signature *Michael Phillips*

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Date	
1/22/04	MIRU KDY rig #2. Pump 150 bbl water in short string. Well dead.
1/23/04	Tear out tree NU BOPE. Pull & lay down short string. Pull long string free. Pull 10 std.
1/26/04	POH & lay down packer. RIH OE to 7450'. Mix & pump 90 sx neat cmt. Reverse clean. Change hole over to 72# mud.
1/27/04	RIH & tag zone plug @ 6971'. Lay down long string. Shoot 4 holes @ 450'. Establish circ in annulus. Mix & pump 110 sx "A" cmt + 3% CaCl2 cmt down 7" & up 11 1/4" csg. Tag FWP @ 285'. RDMO.
2 5 04	Dos Rios crew dug out concrete cellar. Laid plug from 30' to surface w redimix concrete. Capped csg stub with steel plate @ 6". Backfilled cellar & rough graded location.

Div. of Oil & Gas
RECEIVED

MAR 25 2004

Sacramento, California

No. T 604-009

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

**DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
REPORT ON OPERATIONS**

District 6, (916) 322-1110

Michael L. Phillips, Agent

TONKA ENERGY, INC.

P.O. Box 102

Sutter, CA 95982

Sacramento, California

February 9, 2004

Your operations at well "Tract 5" 5-5 . API No. 013-00115 .
Sec. 29 , T. 2N , R. 3E , M.D. B. & M. Dutch Slough Gas
field in Contra Costa County .
were witnessed on 1/27/04 . Pam Ceccarelli , representative of
the supervisor, was present from 1400 to 1630 .

There was also present Ken Young, Contract Foreman
Present condition of the well: 11-3/4" cem 815'; 7" cem 7633', cp 450', perms 7445'-7386',
7379'-7346', 7262'-7238', 7201'-7185', 7179'-7172', perf 7144' (wso). TD 7700'. Plugged
w/cem below retainer @ 7450', plugged w/cem 7450'-6971' and 440'-314'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

NOTE:

BOND: Blanket

STATUS:

RSH/sdl

Hal Bopp
State Oil and Gas Supervisor

By



Deputy Supervisor

Robert S. Habel

PERMIT TO CONDUCT WELL OPERATIONS

218
(field code)
00
(area code)
--
(new pool code)
00
(old pool code)

Michael L. Phillips, Agent
TONKA ENERGY, INC.
P.O. Box 102
Sutter, CA 95982

Sacramento, California
October 10, 2003

Your Abandon proposal to well "Tract 5" 5-5
A.P.I. No. 01300115, Section 29, T. 2N, R. 3E, MD B.&M.
Dutch Slough Gas field, No Pool Breakdown area pool
Contra Costa County, dated 10/4/03, received 10/10/03 has been examined in conjunction with records
filed in this office.

filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to Class "II" 3M requirements is installed on the 7" casing and maintained in operating condition at all times. The equipment shall be operated by a nonmanual activating system. See Manual M07 and attached sheet.
2. Wire line operations are conducted through at least a 3M lubricator.
3. All portions of the hole not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft and a minimum gel-strength (10 min.) of 20 lbs./100 sq. ft.
4. The hole is plugged with cement from 7450' to 7044'.
5. The 7" casing is perforated at 450' and a minimum of 118 ft³ (300 linear feet) of cement shall be squeezed through the perforations.
6. The hole is plugged with cement from 450' to 350', and from 30' to 5'.
7. All annuluses between casings are filled with cement from 30' to 5'.

ENVIRONMENTAL INFORMATION

DATE 3/18/04
APPROVED JLS

THIS DIVISION IS NOTIFIED:

- a. To witness the location and hardness of the cement plug at 7044'.
- b. To witness the mudding of the hole.
- c. To witness the cement squeeze and hardness of the cement plug at 350'.
- d. To witness the placing of the surface plug.

Note:

1. All casing must be removed from at least 5 feet below ground level.
2. The cleanup of the wellsite must be approved by the Division before the Report of Final Well Abandonment (OG159) can be issued. **Please contact this office for site inspection after the wellsite cleanup work has been completed. PURSUANT TO THE CALIFORNIA CODE OF REGULATIONS, WELL SITE RESTORATION MUST BE COMPLETED WITHIN 60 DAYS FOLLOWING PLUGGING AND ABANDONMENT OF THE WELL.**

Engineer Tim Kustic
Phone (916) 322-1110
TK/tyh

Hal Bopp, State Oil and Gas Supervisor
By Robert S. Habel
Robert S. Habel, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.
Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

Div. of Oil & Gas - Dist. 6
RECEIVED

OCT 10 2003

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CARDS

BOND 411

OGD114 411

OGD121

Notice of Intention to Abandon Well

File in Duplicate

Sacramento, California

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well Tract 5, Well 5-5 API No. 04 013 00115 Sec. 29 T. 2N R. 3E M.D.B.&M.

Dutch SloughField Contra Costa County, starting work on

The present condition of the well is

- 1. Total depth: 7700'
- 2. Complete casing record, with plugs and perforations (present hole):
11 3/4" 47# J-55 @ 815'
7" 23# J-55 @ 7633'
Perfs: 7144' (WSO), 7172-79', 7185-7201', 7238-62', 7346-79' 7386-7445',
CICR @ 7450', 7465' (Squeezed), 7494-99' (Squeezed), Cmt plug @ 7567'
- 3. Date last produced or injected:

Additional data for dry hole (show depths)

- 1. Oil or gas shows:
- 2. Stratigraphic markers:
- 3. Formation and age at total depth:
- 4. Base of freshwater sands: 400'

Is this a critical well according to the definition on the reverse side of this form (or on page 2 if you are using the internet)?

Yes No

The proposed work is as follows:

- 1. Equalize cmt plug from 7445' to 7072'.
- 2. Fill hole with 68# mud.
- 3. Perforate circulating holes at 450'.
- 4. Equalize cmt plug inside and out of 7" csg from 450' to 350'.
- 5. Set cmt plug inside and out of 7" csg from 30' to surface.
- 6. Cut & weld plate on csg 5' below ground level.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address PO Box 3034 (Street)

Tonka Energy (Name of Operator)

Yuba City 95992 (City) (State) (Zip)

By Michael Phillips (Print Name)

Telephone Number 530 674 8121 (Area Code) (Number)

[Signature] 10-9-03 (Signature) (Date)

Dos Rios, Inc
PO Box 3034
Yuba City CA 95992

To: Robert S. Habel
From: Michael Phillips
RE: Long term idle wells

October 4, 2003
1 page

Div. of Oil & Gas - Dist. 6
RECEIVED
OCT 10 2003
Sacramento, California

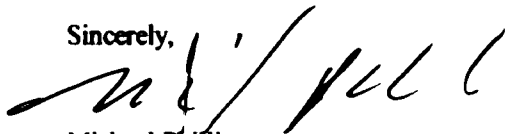
Message:

Enclosed you will find notices of intent to P&A the DSGU wells 5-5 & 4-2 referred to in your 9/30/03 inquiry.

We will be abandoning these and many other wells in the DSGU this fall, beginning as soon as we can procure a suitable workover rig.

Should you need any additional information please call me anytime at (530) 674-8121.

Sincerely,



Michael Phillips
Agent, Tonka Energy

enc: DOG letter



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

Div. of Oil & Gas - Dist. 6
RECEIVED

September 30, 2003

OCT 10 2003

Sacramento, California

DIVISION OF OIL,
GAS, & GEOTHERMAL
RESOURCES

■ ■ ■

801 K STREET
MS 20-22
SACRAMENTO
CALIFORNIA
95814-3530

PHONE
916/322-1110

FAX
916/322-1201

TDD
916/324-2555

INTERNET
consrv.ca.gov

■ ■ ■

GRAY DAVIS
GOVERNOR

Michael L. Phillips, Agent
TONKA ENERGY, INC.
P.O. Box 102
Sutter, CA 95982

CERTIFIED MAIL

Subject: Long Term Idle Wells

On June 20, 2003 the Division of Oil, Gas, and Geothermal Resources (Division) sent you a letter (see enclosed) regarding your long-term idle wells "Tract 4" 4-2 (013-00112) and "Tract 5" 5-5 (013-00115). The Division has not received a response, which could be considered as further evidence of desertion.

Under the provisions of Section 3237 of the Public Resources Code, the Division of Oil, Gas, and Geothermal Resources may order the abandonment of any well that has been deserted, whether or not any damage is occurring or threatened by such well.

Please provide information to this office by October 31, 2003, regarding future plans for these wells and a time schedule for completion of your plans. If the Division does not receive a written response, or the response does not provide adequate justification for maintaining the wells, the Division may order the wells plugged and abandoned, and/or issue a civil penalty.

If you have any questions, please call me at (916) 322-1110.

Sincerely,

Robert S. Habel
District Deputy

Enclosure



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

September 30, 2003

DIVISION OF OIL,
GAS, & GEOTHERMAL
RESOURCES

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If you have any questions, please call me at (916) 322-1110.

Sincerely,

Robert S. Habel
District Deputy

Enclosure



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

June 20, 2003

DIVISION OF OIL,
GAS, & GEOTHERMAL
RESOURCES

■ ■ ■

801 K STREET
MS 20-22
SACRAMENTO
CALIFORNIA
95814-3530

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P.O. Box 102
Sutter, CA 95982

Subject: Long Term Idle Wells

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Prior to ordering the abandonment of any well, it is the policy of the Division to encourage the operator to voluntarily abandon those wells that have been idle for many years and have no apparent future use.

Below is a list of your wells that, according to our records, have been idle for over twenty years.

"Tract 4" 4-2	013-00112
"Tract 5" 5-5	013-00115

Please provide information to this office by July 18, 2003 regarding future plans for each well and a time schedule for completion of the plans.

If you have any questions regarding this program, please call either Pam Ceccarelli or me at (916) 322-1110.

Sincerely,

Robert S. Habel
District Deputy



DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

June 20, 2003

DIVISION OF OIL,
GAS, & GEOTHERMAL
RESOURCES

■ ■ ■

801 K STREET
MS 20-22
SACRAMENTO
CALIFORNIA
95814-3530

PHONE
916/322-1110

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■ ■ ■

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P.O. Box 102
Sutter, CA 95982

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Sincerely,

Robert S. Habel
District Deputy

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Sacramento, California

Attn: Michael Phillips

October 11, 1996

P. O. Box 102

Sutter, CA 95982

In accordance with section 3203, of the Public Resources Code.

the following change pertaining to your well "Tract 5" 5-5
(Well designation)
Dutch Slough Gas field, Contra Costa County,
Sec. 29, T. 2N, R. 3E, M.D. B. & M., is being made in our records:

The corrected location is

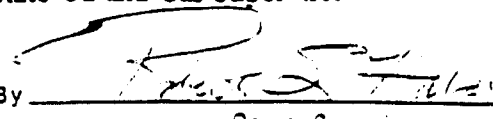
The corrected elevation is

Report No. _____, dated _____, has been
corrected as follows:

ST. CROIX RESOURCES'S
~~Your~~ notice to abandon dated 01/23/96
Civil abandon, etc.
and our report No. P 696-026, issued in answer thereto, are hereby cancelled
inasmuch as the work will not be done. If you have an individual bond on file covering
this notice, it will be returned. No request for such return is necessary.

Other: Well is no longer owned by ST. CROIX RESOURCES

William F. Guerari, Jr.
State Oil and Gas Supervisor

By 
Deputy Supervisor

Robert A. Reid

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

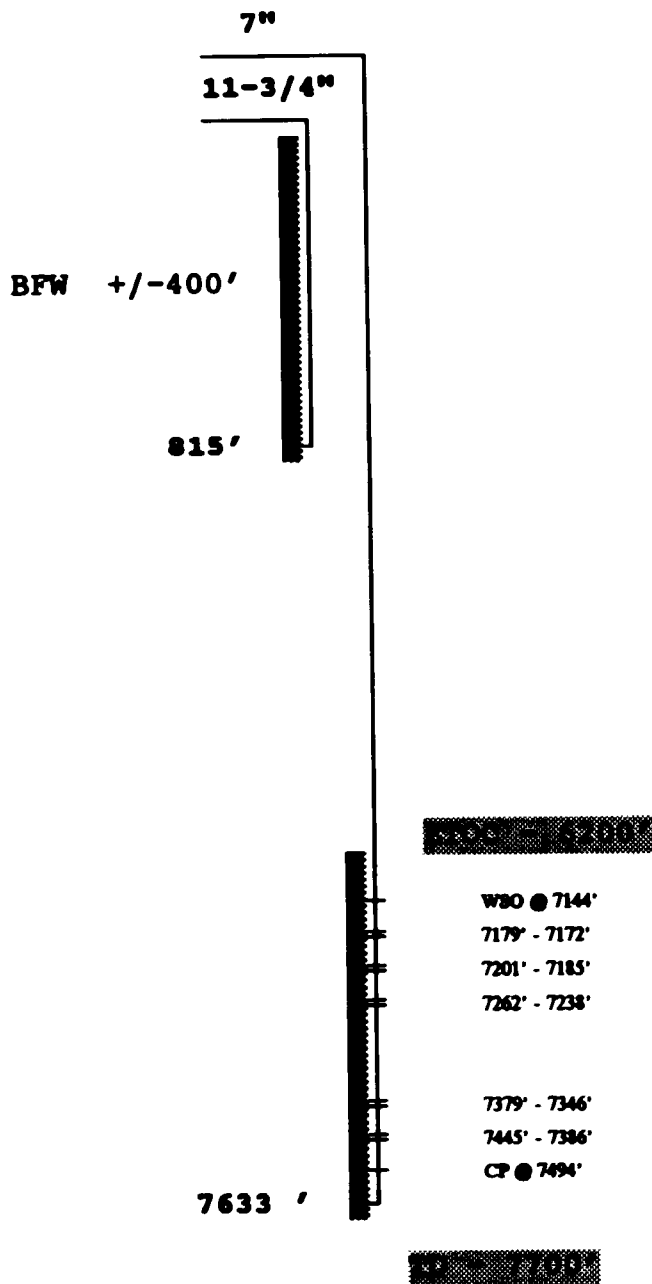
REPORT OF PROPERTY AND WELL TRANSFER

Field or county Dutch Slough Gas		District 6
Former owner ST. CROIX RESOURCES, INC.		Date 2/27/96
Name and location of well(s)		
✓ "Tract 4" 4-3	20/2N/3E	013-00113
✓ "Tract 5" 5-4	29/2N/3E	013-00114
✓ "Tract 5" 5-5	29/2N/3E	013-00115
✓ "Tract 6" 6-1	29/2N/3E	013-00116
✓ "Tract 7" 7-1	29/2N/3E	013-00011
✓ "Severin A" 1	09/2N/3E	013-20090
Description of the land upon which the well(s) is (are) located		
Date of transfer, sale, assignment, conveyance, or exchange 2/01/96	New owner TONKA ENERGY, INC. Address 15550 Ranchview Court Wayzata, Minnesota 55391	Type of organization CORP. Telephone No. (612) 476-5897
Reported by Robert Pledger, President - ST. CROIX RESOURCES, INC.		
Confirmed by Jack E. Hill, President - TONKA ENERGY, INC.		
New operator new status (status abbreviation) PA	Request designation of agent	
Old operator new status (status abbreviation) PA	Remarks	

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor ROBERT A. REID	Signature <i>Robert A. Reid</i>				
	FORM AND RECORD CHECK LIST					
PA - Producing Active	Form or record	Initials	Date	Form or record	Initials	Date
NPA - No Potential, Active	Form OGD121	SDH	2-26-96	Map and book		
PI - Potential Inactive	Form OGD148			Notice to be cancelled		
NPI - No Potential, Inactive	New well cards			Bond status		
Ab - Abandoned or No More Wells	Well records	SDH	2-26-96	EDP files	SDH	2/26/96
	Electric logs	SDH	2-26-96			
	Production reports					

"Tract 5" 5-5

Spud Date: 9/22/66
 RSH - November 29, 1995
 Well Class - Development



KEY

- | | | | |
|---|----------|---|----------------------|
| \| | Casing | ■ | Cement |
| + | WSO Hole | ⊕ | Fish |
| + | Perf. | ■ | Bridge plug/Retainer |

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

Div. of Oil & Gas - Dist. 6
RECEIVED

Notice of Intention to Abandon Well

JAN 22 1996

Sacramento, California

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
<input checked="" type="checkbox"/>	BB	<input checked="" type="checkbox"/>	

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well Tract 5, Well 5-5, API No. 04 013 00115, Sec. 29, T. 2N, R. 3E, M.D. B. & M., Dutch Slough Field, Contra Costa County, commencing work on December 20, 1995.

The present condition of the well is:

- Total depth 7700'
- Complete casing record, including plugs and perforations (present hole)

(See reverse side of this page)

3. Last produced 05-82 0 26 0
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

4. Last injected _____
(Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths):

- Oil or gas shows
Meganos 7172'-7200'
Meganos 7247'-7261'
Martinez 7346'-7455'
- Stratigraphic markers
Margaret Hamilton 6541'
Meganos 6907'
Martinez 7346'
- Formation and age at total depth
Martinez Paleocene
- Base of fresh water sands 400'

9. Is this a critical well according to the definition on the reverse side of this form? Yes No

The proposed work is as follows:

- Set cement retainer at 7100' and pump 100 sacks cement below.
- Fill 7" casing from 7100' to 450' with drilling fluid (minimum density of 70 lb/cu ft and minimum 10-minute gel strength of 20 lb/100 sq ft).
- Perforate 7" casing at 450' and squeeze cement into 7"-11 3/4" annulus from 450' to 350'.
- Fill casing and annulus to 30' with drilling fluid (minimum properties as above).
- Fill 7" casing and 7"-11 3/4" annulus with cement from 30' to 5".
- Cut off 7" casing and 11 3/4" casing at 5'.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 1880 S. Dairy Ashford Road, Suite 540 St. Croix Resources, Inc.
(Street) (Name of Operator)
Houston Texas 77077
(City) (State) (Zip)
By Robert E. Pledger
(Print Name)
Telephone Number (713) 558-1121 11-29-1995
(Area Code) (Number) (Signature) (Date)

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), "Critical well" means a well within:

- (1) 300 feet of the following:
 - (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
 - (B) Any airport runway.
- (2) 100 feet of the following:
 - (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
 - (B) Any navigable body of water or watercourse perennially covered by water;
 - (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
 - (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.

2. Complete casing record, including plugs and perforation

11 3/4" 47# J-55 SS casing set at 815'. Cemented w/715 sacks.

7" 23#&26# J-55&N-80 SS casing set at 7633'. Cemented w/450 sacks cement.

Perforations: 7144' (WSO)
7172'-7179'
7185'-7201'
7238'-7262'
7346'-7379'
7386'-7445'
Cement retainer at 7450'
7465' (squeezed)
7494'-7499 (squeezed)
Cement plug at 7567'

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county DUTCH SLOUGH GAS		District 6
Former owner PHILLIPS PETROLEUM COMPANY		Date 3/16/93
Name and location of well(s) (see attached list)		
Description of the land upon which the well(s) is (are) located		
Date of transfer, sale, assignment, conveyance, or exchange 1/1/93	New owner ST. CROIX RESOURCES, INC.	Type of organization
	Address 2727 Allen Parkway, Suite 790 Houston, TX 77019	CORP.
		Telephone No. 713 521-1212
Reported by J. E. Herndon - PHILLIPS		
Confirmed by R. Pledger - St. CROIX		
New operator new status (status abbreviation) PA	Request designation of agent	
Old operator new status (status abbreviation) PA	Remarks	

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor ROBERT A. REID	Signature <i>Robert A. Reid</i>
	PA - Producing Active	

	FORM AND RECORD CHECK LIST					
	Form or record	Initials	Date	Form or record	Initials	Date
NPA - No Potential, Active						
PI - Potential Inactive	Form OGD121			Map and book		
NPI - No Potential, Inactive	Form OGD148			Notice to be cancelled		
Ab - Abandoned or No More Wells	New well cards			Bond status		
	Well records			EDP files		
	Electric logs					
	Production reports					

"Tract 1" 1-1	17/2N/3E	013-00121
"Tract 1" 1-4	17/2N/3E	013-00012
"Tract 1" 1-5	16/2N/3E	013-00123
"Tract 1" 1-7	17/2N/3E	013-20082
"Tract 2" 2-1	17/2N/3E	013-00096
"Tract 2" 2-2	17/2N/3E	013-00097
"Tract 3" 3-1	20/2N/3E	013-00117
"Tract 3" 3-2	20/2N/3E	013-00118
"Tract 3" 3-3	20/2N/3E	013-00119
"Tract 3" 3-6	20/2N/3E	013-00120
"Tract 4" 4-1	20/2N/3E	013-00111
"Tract 4" 4-2	20/2N/3E	013-00112
"Tract 4" 4-3	20/2N/3E	013-00113
"Tract 5" 5-4	29/2N/3E	013-00114
"Tract 5" 5-5	29/2N/3E	013-00115
"Tract 6" 6-1	20/2N/3E	013-00116
"Tract 7" 7-1	29/2N/3E	013-00011

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Sacramento California

March 16, 1993

W. R. Constant, Agent
PHILLIPS PETROLEUM COMPANY
P O Box E
Taft, CA 93268

In accordance with notification of transfer to St. Croix Resources, Inc.

the following change pertaining to your well "Tract 5" 5-5,
(Well designation)
Dutch Slough Gas field, Contra Costa County,
Sec. 29, T. 2N, R. 3E, M.D. B. & M., is being made in our records:

The corrected location is _____

The corrected elevation is _____

Report No. _____, dated _____, has been
corrected as follows: _____

Your notice to abandon dated 9/11/92,
(Drill, abandon, etc.)
and our report No. P 692-345, issued in answer thereto, are hereby cancelled
inasmuch as the work will not be done. If you have an individual bond on file covering
this notice, it will be returned. No request for such return is necessary.

Other: _____

William F. Guerard Jr.
~~XXXXXXXXXX~~
Acting State Oil and Gas Supervisor

By Robert A. Reid

Deputy Supervisor
ROBERT A. REID

RESOURCE AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
District 6, (916) 322-1110

No. P 692-345

PERMIT TO CONDUCT WELL OPERATIONS

218
(field code)
00
(area code)
00
(new pool code)

(old pool code)

W. R. Reed, Agent
PHILLIPS PETROLEUM CO., UNIT OPERATOR
P. O. Box E
1050 Lincoln Avenue
Taft, CA 93268

Sacramento, California
September 21, 1992

Your proposal to abandon well "Tract 5" 5-5
API No. 013-00115 Section 29, T. 2N, R. 3E, M.D. B. & M.,
Dutch Slough Gas field, any area, No Pool Breakdown pool,
Contra Costa County, dated 9-11-92, received 9-17-92 has been examined in conjunction with
records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to Class "III" 3 M requirements is installed on the 7" casing and maintained in operating condition at all times. See Manual M07 and attached sheet.
2. Wire line operations are conducted through at least a 3 M lubricator.
3. All portions of the hole not plugged with cement are filled with inert mud fluid having a minimum density of 70 lbs./cu. ft and a minimum gel-strength (10 min.) of 20 lbs./100 sq. ft.
4. The hole is plugged with cement from 7450' to 7044', shoot and squeeze at 450', from 450' to 350', and from 30' to 5'.
5. The annulus between the 11 3/4" and 7" casings is filled with at least 25 linear feet of cement at the surface.
6. THIS DIVISION IS NOTIFIED:
 - a. To witness the location and hardness of the cement plug at 7044'.
 - b. To witness the mudding of the hole.
 - c. To witness the squeeze of the cement at 450'.
 - d. To witness the placing of the surface plug.

THIS DIVISION IS NOTIFIED:

1. Before deviating from proposed program and/or placing any plugs in the hole. Additional requirements shall be outlined at that time.

NOTE:

1. All casing must be removed from at least 5 feet below ground level.
2. The cleanup of the wellsite must be approved by the Division before the Report of Final Well Abandonment (Form OG159) can be issued. Please contact this office for site inspection after the wellsite cleanup work has been completed.

Blanket Bond
RSH:jhs

William F. Guerard, Jr.
Acting State Oil and Gas Supervisor

By Robert A. Reid
Deputy Supervisor
Robert A. Reid

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after completion, suspension, or abandonment.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

Div. of Oil & Gas - Dist. 6
RECEIVED

SEP 17 1992

Notice of Intention to Abandon Well

Sacramento, California

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
✓	BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well Dutch Slough "Tract 5" #5-5, API NO. 04-013-00115, Sec. 29, T. 2N, R. 3E, M.D. B. & M., Dutch Slough Field, Contra Costa County, commencing work on November 2, 19 92.

The present condition of the well is:

1. Total depth 7700' TD
7450' PBSD
2. Complete casing record, including plugs and perforations (present hole)

See attached wellbore schematic

3. Last produced not available
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)
- or
4. Last injected _____
(Date) (Water, B/D) (Gas, Mcf/D) (surface pressure)

Additional data for dry hole (show depths):

5. Oil or gas shows
6. Stratigraphic markers
7. Formation and age at total depth
8. Base of fresh water sands _____

9. Is this a critical well according to the definition on the reverse side of this form? Yes No

The proposed work is as follows:

Move in and rig up well service unit. Install and test DOG Class III BOPE. Pull tubing and packer. RIH to PBSD of 7450'. Displace hole (and fill all portions of the wellbore not cement plugged) with inert mud having minimum 10 minute gel shear strength of 26 lbs/100 sq. ft. Pump 85 sx of cement to plug from PBSD to at least 7044'. Tag and replug, if necessary. Rig up wireline and shoot four 1/2" holes at 450'. Pump cement down 7" casing and up 7"x11-3/4" annulus to set cement plug in annulus from 450' to surface and in 7" casing from 450' to 350'. (If full circulation cannot be established, the 7" casing will be cut and pulled from 450' and a minimum of 100 lineal feet of cement will be placed on the 7" stub.) Confirm top of cement at 350', replug if necessary. Set cement plug from 30' to 5' in casing and all annuli. Cut off casings 5' below ground level and cap with steel plate. Restore and clean location.

If packer cannot be unset, tubing plug will be pulled and tubing string will be cut off just above packer, 100 sx of cement squeezed thru the packer, and 50 sx of cement placed on top of packer. If tubing plug cannot be pulled, tubing string will be cut off just above the plug and 50 sx of cement placed on top of packer.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address P. O. Box 1967
(Street)
Houston Texas 77251-1967
(City) (State) (Zip)
Telephone Number (713) 669-3509
(Area Code) (Number)

Phillips Petroleum Company
(Name of Operator)

By Jacob F. Mitchell
(Print Name)
Amy Parde for J. F. Mitchell 9/11/92
(Signature) (Date)

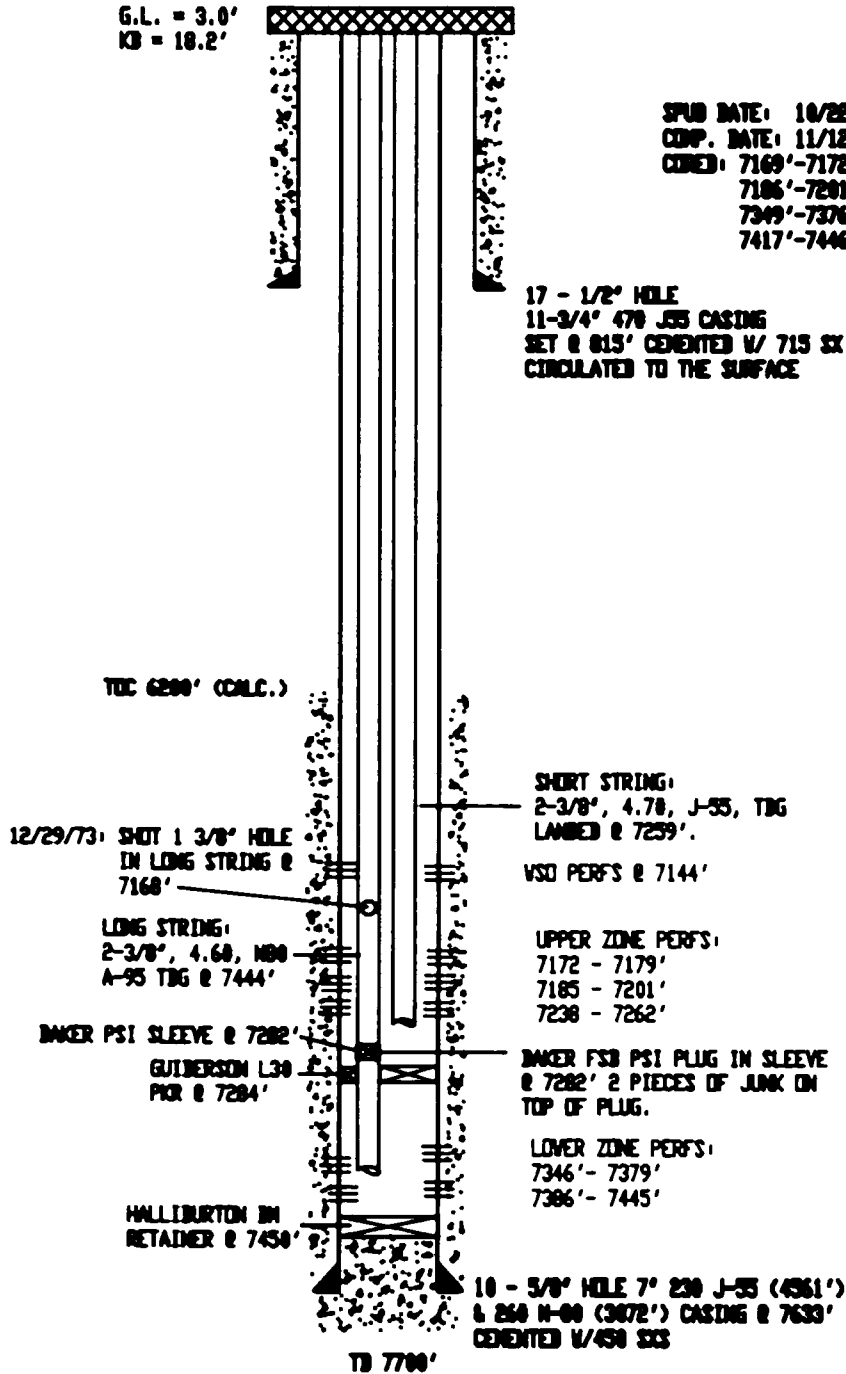
DUTCH SLOUGH 5-5

EXISTING COMPLETION

G.L. = 3.0'
KB = 18.2'

SPUD DATE: 10/22/64
COMP. DATE: 11/12/64
CORED: 7169'-7172'
7186'-7201'
7349'-7376'
7417'-7446'

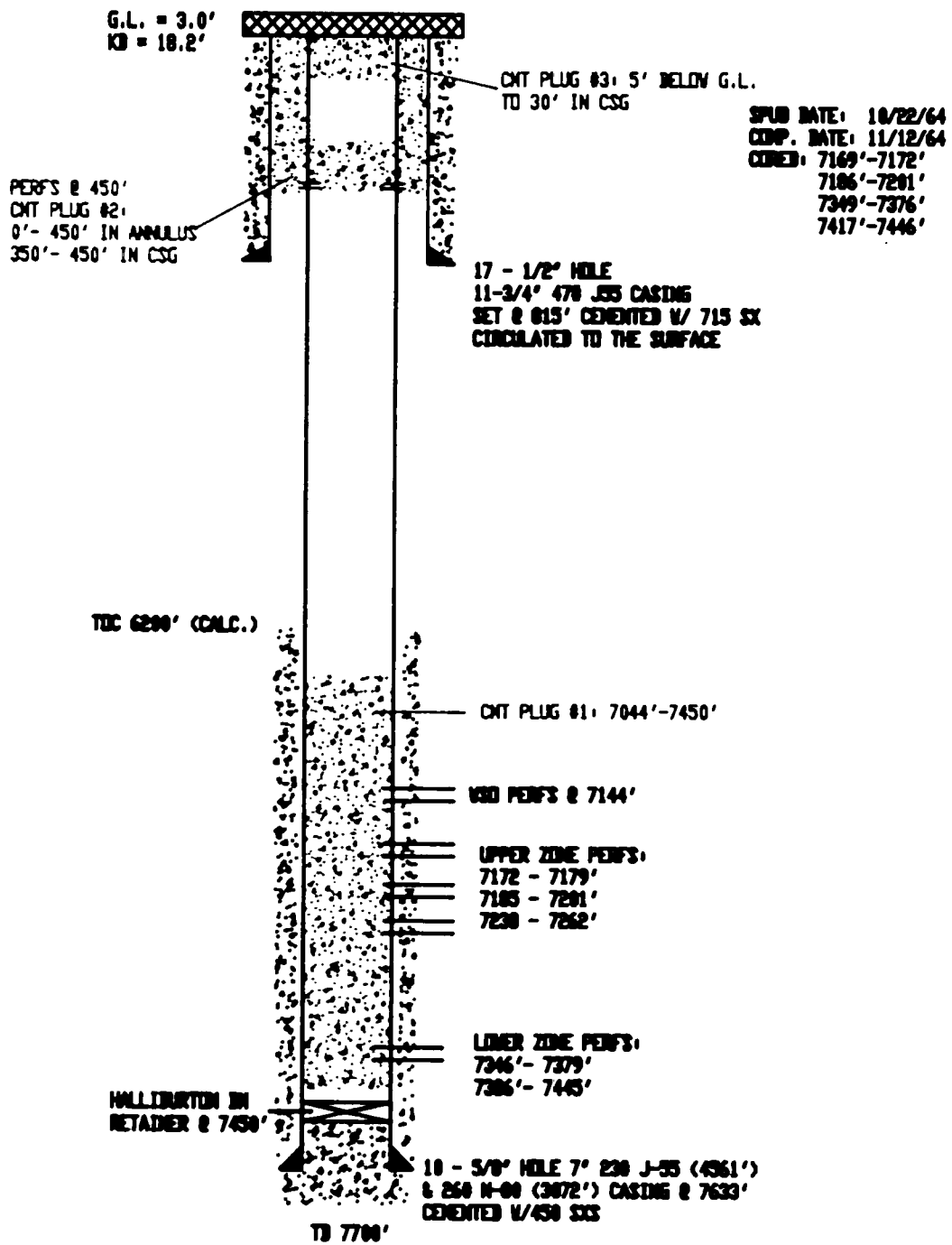
17 - 1/2" HOLE
11-3/4" 470 J55 CASING
SET @ 815' CEMENTED W/ 715 SX
CIRCULATED TO THE SURFACE



OPERATOR: PHILLIPS PETROLEUM COMPANY	WELL NO. 5-5
WELL NAME: DUTCH SLOUGH	STATE: CALIFORNIA
FIELD: DUTCH SLOUGH	DATE: 5-28-92
COUNTY: CONTRASTA	
LOC: 500' 7500' E FR C SEC 29 T2N R3E	

DUTCH SLOUGH 5-5

PROPOSED P & A



OPERATOR: PHILLIPS PETROLEUM COMPANY	
WELL NAME: DUTCH SLOUGH	WELL NO: 5-5
FIELD: DUTCH SLOUGH	
COUNTY: CONTR COSTA	STATE: CALIFORNIA
LOC: 500'N/500' FR C OF SEC 29 T2N R3E	DATE: 9-04-92

INJECTION (M.I.T.) SURVEY

Operator: PHILLIPS PETROLEUM Well Designation: "TRACT 5" 5-5
Sec. 29, T. 2N, R. 3E, MD, B.&M. A.P.I. No.: 013-00115 Field: DUTCH SLOUGH GAS
County COLERA COSTA Witnessed on (date): 3/14/90 36T
representative of the Supervisor, was present from 0800 to 0900
Also present: MR. BILL REED, CO. REP.

Casing record of well _____

The injection survey was performed for the purpose of CASING INTEGRITY TEST

The injection survey is approved since it indicates that all of the injection fluid is confined to the formations below _____ feet at this time.

The injection survey is not approved due to the following reasons: (specify)

The casing integrity test is approved since the fluid level in the wellbore is not an endangerment to fresh waters at this time.

Note: see attached



**INSTRUMENT
SERVICE
INC.**

2100 N. Ventura Avenue
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-325-0502
Garden Grove 714-638-4794

SONIC FLUID LEVEL TESTING REPORT

COMPANY *Phillips*

FIELD *DUTCH SLOUGH*

WELL NO.	FLUID LEVEL	FLUID OVER PUMP	PUMP DEPTH	STROKES PER MINUTE	LENGTH OF STROKE	CAS. PSI	TUB. PSI	PREVIOUS FOP	TYPE OF TEST
#3-1	787	5509	OVER	PKR.		VAC.			CSG. TEST
#3-1	213	6078	OVER	PKR.		Ø	Ø		TBG. TEST
#3-1	787	5509	OVER	PKR.		Ø			CSG. TEST
#3-1	213	6078	OVER	PKR.			Ø		TBG. TEST
#2-2	7099	402	OVER	PERFS		626			CSG. TEST
#3-6	696A	791	OVER	TRIL			936		TBG. TEST
#4-2	7347	105	OVER	TOP PERFS.		IND			CSG. TEST
#5-5	5947	1225	OVER	TOP PERFS.			218		TBG. TEST
		Two sonic loggers + gradient used to log depth, long time per test due to long string - communicated after test. →							

Jim Hemphill

DATE *8-19-90*



Way 4

Post 19600

→ Torella Island 5-5

*3

TRINITY
*1

*2

*3

*5-11

*1177

TRINITY 2

3-2

3-1
3-0

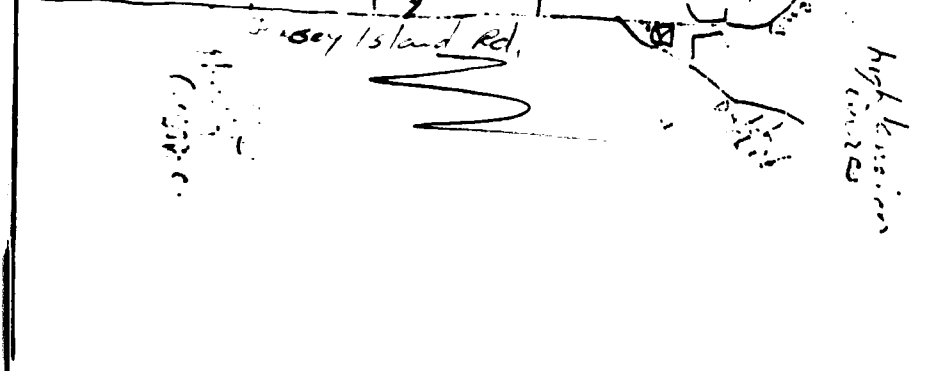
*2-1

*2-2

1
Torella Island

Torella Island Rd.

high level in



DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
221 WEST COURT STREET, SUITE 1
WOODLAND, CALIFORNIA 95695
(916) 662-4683



July 19, 1990

P.D. Barrington
Production Engineering Director
Phillips Petroleum Co.
Box 1967
Houston, Texas 77251-1967

Subject: Testing of Idle Wells,
Dutch Slough Gas Field.

Dear Mr. Barrington:

Thank you for your July 11, 1990 response regarding the 5-year idle wells at the Dutch Slough Gas field. Your request for an exemption to the testing requirement for the wells 1-2, 9-1, and 8-1 is approved provided that Phillips plans on plugging and abandoning the wells prior to January 1, 1991.

Your plans are noted for the testing of wells 2-2, 5-5, 4-2, 3-1, and 3-6 prior to August 19, 1990.

Sincerely,

Robert A. Reid

ROBERT A. REID
Deputy Supervisor

RAR:crd

cc: T.W. Kennedy, Phillips Petroleum

DEPARTMENT OF CONSERVATION
 DIVISION OF OIL AND GAS
 221 WEST COURT STREET, SUITE 1
 WOODLAND, CALIFORNIA 95695
 (916) 662-4683



June 19, 1990

T.W. Kennedy
 PHILLIPS PETROLEUM CO.
 1180 Eugenia Place
 Suite 104
 Carpinteria, CA 93013

Subject: Annual Status Report of
 5-Year Idle Wells

Dear Mr. Kennedy:

On June 7, 1989, I sent a letter of inquiry to you regarding the future plans for 11 of Phillips wells that had been idle for more than five years (some more than 10 years). During the last year, three of the 11 wells have been abandoned and one transferred to another operator.

As indicated above, Phillips has taken action on four of the wells. However, it was indicated in Mr. Jaap's response to my letter that a partnership meeting was to be held in August 1989 to determine the disposition of the Dutch Slough Unit wells listed below (Note: "Tract 3" 3-6 is new to the list).

Dutch Slough Gas	"Tract 2" 2-2	Sec.17, T.2N, R.3E
" "	"Tract 1" 1-2	" " "
" "	"Tract 9" 9-1	Sec.29, " "
" "	"Tract 8" 8-1	" " "
" "	"Tract 5" 5-5	" " "
" "	"Tract 4" 4-2	Sec.20, " "
" "	"Tract 3" 3-1	" " "
" "	"Tract 3" 3-6	" " "

Wells new to the 5-Year Idle Wells list are the "Peterson Unit 1" 6 (Sec.34, T.5N, R.2E) at Lindsey Slough Gas field and the "Glide-Colby" 5 at the Saxon Gas field. An abandonment notice for the "Glide-Colby" 5 has been received by this office.

As a reminder, Section 3237 of the Public Resources Code provides that the State Oil and Gas Supervisor may order the abandonment of any well that has been deserted (idle) whether or not any damage is occurring or threatened by such well. However, prior to ordering a well to be abandoned, it's Division policy to first encourage operators to abandon wells that have no apparent future use. It's also Division policy to allow operators to retain wells in an idle status provided that it can be demonstrated that the wells are not causing damage to waters suitable for irrigation or domestic use.

A casing pressure test to determine casing integrity and/or a survey to determine the fluid level relative to the base of fresh water are acceptable methods of determining whether wells are posing a threat to fresh waters. These tests are to be made on a scheduled basis such as biennially until the particular well is abandoned or placed on production.

Therefore, unless there are specific plans to abandon or rework the nine idle wells prior to September 19, 1990, it will be necessary to test the wells to verify that fresh waters are not being damaged. These tests are to be performed prior to August 19, 1990.

Please notify this office of the date and time of the tests so that a Division engineer may witness the testing. Results of the tests are to be filed with the Division.

If you have any questions, please let me know.

Sincerely,

Robert A. Reid

ROBERT A. REID
Deputy Supervisor

RAR:crd

PHILLIPS PETROLEUM CO.

FIELD	WELL NUMBER	LOCATION API#
Dutch Slough Gas	"Tract 3" 3-1	20/02N/03E 01300117
" "	"Tract 1" 1-2	17/02N/03E 01300124
" "	"Tract 4" 4-2	20/02N/03E 01300112
" "	"Tract 9" 9-1	29/02N/03E 01300104
" "	"Tract 2" 2-2	17/02N/03E 01300097
" "	"Tract 8" 8-1	29/02N/03E 01300105
" "	✓ "Tract 5" 5-5	29/02N/03E 01300115
Millar Gas	"Anderson" 1	05/06N/02E 09520303
Saxon Gas	"H&C Glide" 4	17/07N/03E 11320269
" "	"H&C Buckley-A" 1	08/07N/03E 11320159
" "	"Union 2" 1	28/07N/03E 11320080

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
221 WEST COURT STREET, SUITE 1
WOODLAND, CALIFORNIA 95695
(916) 662-4683



June 7, 1989

W.D. Jaap
Phillips Petroleum Co.
1306 Santa Barbara St.
Santa Barbara, CA 93101

Re: Idle Well Status

Dear Mr. Jaap:

Under the provision of Section 3237 of the Public Resources Code, the Division of Oil and Gas may order the abandonment of any well that has been deserted whether or not any damage is occurring or threatened by such well.

Prior to ordering the abandonment of any well, it is the policy of the Division to encourage the abandonment of those wells that have been idle for several years and have no apparent future use.

Attached is a list of your wells that, according to our records, have been idle (inactive) for at least the past five years. Please provide information to this office by July 15, 1989 regarding your future plans for each well and a time schedule for completion of the plans.

If you have any questions regarding this program, please let me know.

Sincerely,


ROBERT REID

Attachment

RESOURCES AGENCY OF CALIFORNIA
 DEPARTMENT OF CONSERVATION
 DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county SEE ATTACHED LIST		Former owner PHILLIPS OIL COMPANY, UNIT OPERATOR	
Name and location of well(s) SEE ATTACHED LIST			
Description of the land upon which the well(s) is (are) located --			
Date of transfer, sale, assignment, conveyance, or exchange 8/1/85	New owner PHILLIPS PETROLEUM CO. , UNIT OPERATOR		Type of organization Corp.
	Address 1306 Santa Barbara St. Santa Barbara, CA 93101-2017		Reported by W.L.Ingram
		Telephone No.	Confirmed by --
New operator new status (status abbreviation) PA	Remarks		
Old operator new status (status abbreviation) AB			
Date 9/5/85	District 6	Deputy Supervisor	Signature <i>John Sullivan</i>

OPERATOR STATUS ABBREVIATIONS	FORM AND RECORD CHECK LIST					
	Form or record	Initials	Date	Form or record	Initials	Date
PA - Producing Active	Form OGD134A or OGD134B			Map and book		
NPA - No-Potential, Active	Form OGD121			Notice to be cancelled		
PI - Potential Inactive	Form OGD148			Bond status		
NPI - No-Potential, Inactive	New well cards			EDP files		
Ab - Abandoned or No More Wells	Well records					
	Electric logs					
	Production reports					

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county SEE ATTACHED LIST		Former owner AMINOIL USA, INC. UNIT OPERATOR	
Name and location of well(s) See Attached List			
Description of the land upon which the well(s) is (are) located See Attached List			
Date of transfer, sale, assignment, conveyance, or exchange 3/4/85	New owner PHILLIPS OIL COMPANY, UNIT OPER Address 1306 Santa Barbara St. Santa Barbara, CA 93111		Type of organization Corp. Reported by Hdq. Confirmed by
New operator new status (status abbreviation) PA	Remarks		
Old operator new status (status abbreviation) AB			
Date 3/27/85	District 6	Deputy Supervisor JOHN C. SULLIVAN	Signature <i>John C. Sullivan</i>

OPERATOR STATUS ABBREVIATIONS	FORM AND RECORD CHECK LIST					
	Form or record	Initials	Date	Form or record	Initials	Date
PA - Producing Active	Form OGD134A or OGD134B			Map and book ^{loc 24} 6110	RF	4-20-85
NPA - No-Potential, Active	Form OGD121	<i>KA</i>	<i>1-2-85</i>	Notice to be cancelled		
PI - Potential Inactive	Form OGD148			Bond status	<i>AB/B</i>	
NPI - No-Potential, Inactive	New well cards			EDP files	<i>KA</i>	<i>4-16-85</i>
Ab - Abandoned or No More Wells	Well records					
	Electric logs					
	Production reports	<i>KA</i>	<i>4-16-85</i>			

MAP & BOOK

S T A T U S

Completed Producing ✓
 Recompleted Producing _____
 Completed Abandoned _____
 Uncompleted Abandoned _____
 Idle _____

R E C O R D S

Received _____ Needed _____

2 Well Summary _____
2 History _____
 Log & Core _____
 Lgs Sm Elec Log(s) Lgs Sm _____
 Direct Survey _____
 Other _____

Location OK _____ ?
 Elevation _____
 Release bond No _____
 Hold bond Reason B/B _____
 Final letter No _____
 150b _____
 170 _____
 121 ✓ _____
 Card _____

E N G I N E E R S

1. Log, history & core record (dupl) ✓
2. Electric log ?
3. Operator name & well designation ✓
4. Location OK
5. Elevation _____
6. Signature ✓
7. Notices ✓
8. "T" reports ✓
9. Casing record ✓
10. Plugs _____ ?
11. Production _____
12. Wildcat cards _____
13. Map and Book _____
14. Surface Inspection _____

APPROVED _____ NOT APPROVED FOR THE FOLLOW-
 ING REASON _____

10
DIVISION OF OIL AND GAS
RECEIVED
APR 22 1965
WOODLAND, CALIFORNIA

Signal Oil and Gas Company
WELL SUMMARY REPORT

Well No. Signal 'Burroughs' No. 5 Sec. 29, T. 2 N., R. 3E., M.D. B. & M.

Field Dutch Slough Elevation of ground 3.0 feet. Kelly bushing 18.2 feet.

Location 500' North and 500' East from center of Section 29

Date April 16, 1965

Signed Jon Crawford
Title District Engineer

Jack Foehr
(Engineer ~~SPC/SL/SL/SL~~)

Total depth 7700' Plugged depth 7450'
Junk _____

Commenced drilling 10/22/64
Completed drilling 11/02/64
Commenced producing 11/12/64
Flowing/ ~~gas lift/ pumping~~

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	Upper Zone	20	64"	5825	2420	2610
	Lower Zone	21	64"	4760	1845	Packer
Production after _____ days	<u>S H U T I N</u>					

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing Landed In	Number of Sacks of Cement	Depth of Cementing if through perforations
11-3/4"	815'	Surface	47#	New	Smls.	J-55	17-1/2"	715	
7"	7633'	Surface	23# & 26#	New	Smls.	J-55, N-80	10-5/8"	450	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
7"	7494'	7499'	2 1/2" jet holes/ft.		(Squeezed)	
	at	7465'	4 1/2" holes (Squeezed)			
7"	-7386'	7445'	2 1/2" jet holes/ft.			
7"	7346'	7379'	7238'-7262'; 7185'-7201';			
	7172'	7179'	4 1/2" jet holes/ft.			Lane Wells Gun
	at	7144'	4 1/2" holes W.S.O.			
		I.E.S.	817'-7698'			
		Sonic	6500'-7689'			
		Micro	6900'-7699'			
		Cement Bond	6300'-7573'			
Electrical Log Depths		Neutron	7000'-7573'			

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well

Signal
 WELL NO. "Burroughs" No. 5 SEC. 29 T. 2 N. R. 3 E. M/D. B. & M.
 FIELD Dutch Slough SIGNED *Jon Crawford*
 DATE April 16, 1965 TITLE District Engineer

DATE
1964

NOTE: All depths are from the Kelly Bushing which was 15.2' above the ground.

Hunnicuttt and Camp Drilling Company equipment was used to drill well.

- 10/22 Spudded in at 2:00 A.M. using clay-base drilling fluid.
 Drilled 17-1/2" hole to 817'.
 Cemented 11-3/4", 47#, J-55 casing at 815' with 615 sax of Class "G" cement mixed with 4% gel and 3% CaCl₂ followed by 100 sax of Class "G" cement mixed with 3% CaCl₂. Had good cement returns to the surface. The casing was equipped with a Baker guide shoe and two centralizers on the shoe joint.
- 10/23 Found top of cement at 764'. Tested casing with 1500 psi.
- 10/26 Drilled 10-5/8" hole to 5000' and changed to a chrome-ligno type drilling fluid.
 Installed Exploration Mud Logging Company equipment.
- 10/29 Drilled 10-5/8" hole to 6706'.
- 10/30 Drilled 8-3/4" hole from 6706' to 7169'.
 Cored 8-3/4" hole from 7169' to 7172'. (See attached core description for this and following cores.)
 Drilled 8-3/4" hole from 7172' to 7186'.
- 10/31 Cored 8-3/4" hole from 7186' to 7201'.
- 11/1 Drilled 8-3/4" hole from 7201' to 7349'.
 Cored 8-3/4" hole from 7349' to 7376'.
 Drilled 8-3/4" hole from 7376' to 7417'.
- 11/2 Cored 8-3/4" hole from 7417' to 7446'.
 Drilled 8-3/4" hole to 7700'. TOTAL DEPTH.

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well

Signal
WELL NO. "Burroughs" No. 5 SEC. 29 T. 2 N. R. 3 E. M. D. B. & M.

FIELD Dutch Slough SIGNED _____

DATE April 16, 1965 TITLE District Engineer

- 11/3 Ran Schlumberger induction-electric, sonic, and micro logs. Ran sidewall sample gum (see core description.)
- 11/4 Opened 8-3/4" hole to 10-5/8" from 6706' to 7648'.
- 11/5 Cemented 7", 23# and 26#, J-55 and N-80 casing at 7633' with 450 sax of Class "G" cement with 0.1% HR-7 retarder. Displaced cement with 1700 cu. ft. of drilling fluid. Bumped plugs.

7" CASING DETAIL

0' - 216'	26#	N-80
216' - 4777'	23#	J-55
4777' - 7633'	26#	N-80
7633'	Baker upwhirler guide shoe.	
7567'	Baker differential fill-up float collar.	

- 11/6 Found top of cement at 7567'. Tested casing with 1500 psi.
Ran Lane Wells Neutron and Cement Bond logs.
Shot 2 1/2" jet holes/ft. from 7494' to 7499'.
Ran Cook tester on dry 3-1/2" drill pipe. Set hookwall packer at 7468' with tail at 7487'. The valve was open for one hour. Had gas to the surface in one minute. Recovered 6107' of brackish water.
- 11/7 Set Halliburton "D.M." retainer at 7475'.
Ran Lane Wells gum and shot 4 1/2" holes at 7465'. Set another Halliburton "D.M." retainer at 7450'. Breakdown pressure was 1600 psi at 12 cu.ft./min.
Squeezed holes at 7465' and 7494'-7499' with 100 sax Class "G" cement with 0.1% HR-7 retarder through 3-1/2" drill pipe. Final pressure was 6000 psi. Backscuttled out approximately 32 sax.
- 11/8 Ran Cook shoot and tester on dry 3-1/2" drill pipe. Shot 4 1/2" holes at 7144'. Set hookwall packer at 7094', tail to 7121'. Test was no good. Gum did not fire.
Ran Lane Wells gum and shot 4 1/2" holes at 7144'. Re-ran tester and set packer at 7094', tail to 7121'. Opened valve for one hour. Had puff blow throughout test. Recovered 75' of mud.

The W.S.O. was approved by the D.O.G.

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well

Signal
 WELL NO. "Burroughs" No. 5 SEC. 29 T. 2 N. R. 3 E. M. D. B. & M.
 FIELD Dutch Slough SIGNED _____
 DATE April 16, 1965 TITLE District Engineer

DATE						
	Changed from mud to 77# calcium chloride water.					
11/9	Ran Lane Wells jet guns and perforated casing with 2 1/2" holes/ft. 7386'-7445' and 4 1/2" holes/ft. 7346'-7379'; 7238'-7262'; 7185'-7201' and 7172'-7179'.					
11/10	Landed 2-3/8", 4.6# N-80 Hydrill A-95 tubing at 7444'. This long string was equipped with a Guiberson L-30 packer at 7284' and a Baker PSI sleeve at 7282'.					
	Landed the 2-3/8", 4.7#, J-55, A-95 short string at 7259'.					
	Opened the PSI sleeve and displaced the long string, short string and annulus with nitrogen.					
11/11	Flowed well for clean up. Released rig at 4:00 P.M.					
	Head equipment consists of Shaffer 11-3/4" weld x 12", Series 900 casing head; Shaffer 12" x 7" type KS slips and packing unit, Cameron 12" x 6" Series 900-1500 "DCB" tubing head and Cameron Series 1500 block tree with double master valves.					
11/12	<u>Time</u>	<u>Gas</u> MCF/D	<u>C.P.</u> PSIG	<u>T.P.</u> PSIG	<u>Bean</u>	<u>Remarks</u>
	<u>Lower Zone</u>					
	9:30 A.M.	S.I.	Packer	2860	-	
	10:30 A.M.	2200	"	2500	13/64"	
	11:30 A.M.	3350	"	2325	16/64"	58 B/D condensate
	12:00 A.M.	4000	"	2190	18/64"	67 B/D condensate
	1:15 P.M.	4760	"	1950	21/64"	86 B/D condensate
	1:55 P.M.	S.I.	"	2895		
	<u>Upper Zone</u>					
	1:30 P.M.	S.I.	2800	2850	-	
	2:45 P.M.	3920	2680	2650	16/64"	67 B/D condensate
	3:30 P.M.	4860	2655	2550	18/64"	106 B/D condensate
	4:30 P.M.	5810	2600	2450	20/64"	96 B/D condensate
	4:40 P.M.	S.I.	2800	2845	-	

SIGNAL OIL AND GAS COMPANY

History of Oil or Gas Well

Signal

WELL NO. 'Burroughs' No. 5 SEC. 29 T. 2 N. R. 3 E. M.D. B. & M.

FIELD Dutch Slough

SIGNED _____

DATE April 16, 1965

TITLE District Engineer

DATE
11/13

<u>Time</u>	<u>Gas</u> MCF/D	<u>C.P.</u> PSIG	<u>T.P.</u> PSIG	<u>Bean</u>	<u>Remarks</u>
<u>Lower Zone - P.G. & E. Test</u>					
9:55 A.M.	S.I.	Packer	2770	-	
11:15 A.M.	3400	"	2245	16/64"	58 B/D condensate
12:15 P.M.	3990	"	2083	18/64"	67 B/D condensate
1:25 P.M.	4760	"	1846	21/64"	96 B/D condensate
1:35 P.M.	S.I.	"	2703		
<u>Upper Zone - P.G. & E. Test</u>					
1:45 P.M.	S.I.	2804	2792	-	
2:45 P.M.	3940	2697	2611	16/64"	79 B/D condensate
3:30 P.M.	4920	2656	2524	18/64"	90 B/D condensate
4:35 P.M.	5825	2608	2419	20/64"	106 B/D condensate
4:50 P.M.	S.I.	2796	2799	-	

Specific gravity of Upper and Lower Zone gas is 0.602.

FIELD Dutch Slough

SIGNAL OIL AND GAS COMPANY
CORE RECORD

DATE November 3, 1964

COMPANY Signal Oil & Gas Company

WELL Signal "Burroughs" No. 5

PAGE 1

Core Bbl Make Dunlap 8-3/4" Drayhead (Core #1) 8-3/4" Rock head (Core #2)
Size & Type _____
Described by L. E. Garrison

ELEVATION 18.2' K.B.

CORE NO.	FROM	TO	THICK. NESS.	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
1	7169'	7172'	3'	1 1/2'				X	1 1/2' - SANDSTONE SHELL, medium grey, uniformly fine grained with traces of coarse to medium grains; quartzose, 30% darker feldspars (?); dense, well cemented with dense calcareous (?) cement; tight, very hard; very poor to nil P & P NOCSF.	
2	7186'	7201'	15'	6 1/2'	X				5 1/2' - SHALE, dark grey, hard, sub-fissile, slightly micromaceous, trace carbonaceous matter; slicked surface (possibly due to coring). 5 1/2' - SAND, dirty white-greyish white, to light grey, uniformly fine grained, subangular grained; quartzose, common biotite flakes; easily friable, massive, clay cemented, varying to almost loose near bottom of core; 2' from bottom, a 6" shelly streak differing from rest in being hard, cemented, difficulty friable, very fine to fine grained, whiter in color; overall P & P good to very good. No odor, no cut, no staining, slight cut fluorescence from	

FIELD Dutch Slough

SIGNAL OIL AND GAS COMPANY
CORE RECORD

DATE November 3, 1964

COMPANY Signal Oil & Gas Company

CORE BBL. MAKE Oliver (Core #3)

WELL Signal 'Burrough' No. 5

PAGE 2

SIZE & TYPE 8-3/4" Rock head

ELEVATION 18.2' K.B.

DESCRIBED BY L. E. Garrison

CORE NO.	FROM	TO	THICK. FEET	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
3	7349'	7376'	27'	7 1/2'	X			X	<p>sample near bottom (in chloroform): very pale, washed out yellow.</p> <p>1' - <u>SHALE</u> (as above) sand and shale appear massive and dips not evident, but sand appears to part at 4'; this parting probably is dip.</p> <p>Remainder of barrel crumpled with shale fill.</p> <p>7 1/2' - <u>SANDSTONE</u>, uniformly dark grey, very fine grained with traces coarse and medium grains, subangular grains; high to preponderant amount of dark minerals, abundantly micromaceous, trace carbonaceous matter; massive; very silty, but apparently not cemented; 3' from bottom, appears friable and fractures easily, elsewhere, difficulty friable and tight; pods of relatively siltier areas scattered throughout; no parting or dips evident.</p> <p>Rare <u>Haplophragmoides</u> and light fine sand grains in thin clusters.</p>	

FIELD Dutch Slough

SIGNAL OIL AND GAS COMPANY
CORE RECORD

DATE November 3, 1964

COMPANY Signal Oil & Gas Company

CORE BBL. MAKE Oliver

WELL Signal "Burroughs" No. 5

PAGE 3

SIZE & TYPE 8-3/4" Draghead (Core #4)

ELEVATION 18.2' R.B.

DESCRIBED BY L. E. Garrison

CORE NO.	FROM	TO	THICK. NEBS	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
4	7417'	7446'	29'	29'				X	29' - SANDSTONE: dirty white, light grey to dark grey; fine to very fine grained; clean to silty; massive; fair to very good P & P as specifically described below. Within top 4' sandstone is dark grey due to preponderance of micromica and dark mineral grains, uniformly very fine grained and silty, subangular grains; friable; laminated rhythmically with alternating 1/16" to 1/8" layers of darker and lighter sand which show flat (to 2°) dips. Fair P & P. About 4' to 12' from top sandstone is medium grey to dirty white, very fine grained, somewhat silty, subangular grained; common areas of dark brownish grey silt, highly micromicaceous, with	

FIELD Dutch Slough

SIGNAL OIL AND GAS COMPANY
CORE RECORD

DATE November 3, 1964

COMPANY Signal Oil & Gas Company

CORE BBL. MAKE Oliver

WELL Signal "Burroughs" No. 5

PAGE 4

SIZE & TYPE 8-3/4" Draghead

ELEVATION 18.2' K.B.

DESCRIBED BY L. E. Garrison

CORE NO.	FROM	TO	THICK. INCHES	TOTAL REC.	SHALE	OIL SAND	GRAY SAND	MISC.	DESCRIPTION	DIP
									pyrite shot in streaks up to 1/3" long and 1/8" thick; carbonaceous material. These areas have irregular but definite contacts with lighter colored sandstone, sometimes fine circular lines, shell fragments present. Sandstone here is easily friable to somewhat friable, dense, massive; est fair to good P & P.	
									Remainder of core is sandstone, dirty white, uniformly fine grained, angular to subangular grains, 95% quartz: trace medium sized grains; clean, well sorted; easily friable; massive; flat to 1' parting, probably is dip. Carbonaceous material and mica flakes (blotite) become less common toward bottom of core. Good to very good P & P.	
									No odor: one break within 1 foot from bottom had area equalling 5 to 10% of surface on which was noted dark brown staining on surface, in irregular patches about 1/2" in diameter. These	

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
REPORT OF PROPERTY AND WELL TRANSFER

Field or County **DUTCH SLOUGH GAS**

District **6**

Former Owner: **BURMAH OIL AND GAS CO., UNIT OPERATOR**

Date **August 20, 1976**

Description of Property

SEE ATTACHED LIST

List of Wells

SEE ATTACHED LIST

Date of Transfer **July 1, 1976**

New Owner: **Aminoil USA, Inc., Unit Operator**

Address: **P.O. Box 191, Huntington Beach, CA 92648**

Telephone No. **--**

Type of Organization **Corporation**

Reported by: **E. H. Kelly for Aminoil USA, Inc.**

Confirmed by: **--**

New Operator New Status **PA**

Old Operator New Status **AB**

Request Designation of Agent **No**

Remove Agent (Yes)

Remarks:

John J. Sullivan
Deputy Supervisor

	INITIALS	DATE
Form 121	<i>AKK</i>	<i>8/20/76</i>
New Well Cards		
Well Records		
Electric Logs		
Production Reports "DIP"	<i>AKK</i>	<i>8-20-76</i>
Map and Book	<i>AKK</i>	<i>8-20-76</i>
Form 141		
Notice to be cancelled		
Bond status		

LEGEND	
PA	Producing Active
NPA	Non Potential Active
PI	Potential Inactive
NPI	Non Potential Inactive
Ab	Abandoned or No More Wells

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or County **SEE ATTACHED LIST** District **6**
Former Owner: **SIGNAL OIL AND GAS CO., UNIT OPERATOR** Date **June 14, 1974**
Description of Property **SEE ATTACHED LIST**

List of Wells **SEE ATTACHED LIST**

Date of Transfer **June 1, 1974**
New Owner: **Burmah Oil and Gas Company, UNIT OPERATOR**
Address: **P.O. Box 191, Huntington Beach, California 90017**

Telephone No. **-----**

Type of Organization **Corporation**
Reported by: **E. H. Kelly for Signal Oil and Gas Co.**
Confirmed by: **---**
New Operator New Status **PA** , Old Operator New Status **AB**
Request Designation of Agent **Yes** Remove Agent (Yes)

Remarks: **Change in Operating Name only.**

REC:
CC:Con. Com.

R. M. Barger
Deputy Supervisor

	INITIALS	DATE	
Form 121			<p style="text-align: center;">LEGEND</p> <p>PA—Producing Active</p> <p>NPA—Non Potential Active</p> <p>PI—Potential Inactive</p> <p>NPI—Non Potential Inactive</p> <p>Ab—Abandoned or No More Wells</p>
New Well Cards			
Well Records			
Electric Logs			
Production Reports			
Map and Book			
Form 148			
Notice to be cancelled			
Bond status			

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Woodland California

November 4, 1966

Mr. H. E. Wheeler
2129 Maricopa Way, Suite 1
Sacramento, California 95814
Agent for IGNAL OIL AND GAS COMPANY

DEAR SIR:

Your request dated October 28, 1966, relative to change in designation of well(s) in Sec. 29, T. 2N., R. 3E., M.D. B. & M., Dutch Slough Gas field, Contra Costa County, District No. 6, has been received;

and in accordance with Section 3203, Public Resources Code, reading in part as follows:

"* * * The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

Well No. "Signal-Burroughs" 4 will hereafter be known as "Dutch Slough Unit 1" 4

Well No. "Signal-Burroughs" 5 will hereafter be known as "Dutch Slough Unit 1" 5

RM:mas
cc: Gen. Com.
cc: O. E. Harr

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By R. M. Berger
Deputy Supervisor

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

(FORMATION TESTER)

No. T 664-336

Mr. Jon Crawford
930 Truxtun Avenue
Bakersfield, California
 Agent for SIGNAL OIL & GAS COMPANY

Woodland Calif.November 17, 1964

DEAR SIR:

Your well No. "Signal-Burroughs" 5, Sec. 29, T. 2N, R. 3E, M.D. B & M.
Dutch Slough Gas Field, in Contra Costa County, was tested for water shut-off
 on Nov. 8, 1964 Mr. G. W. Boecroft, designated by the supervisor was present
 from 5:30 p.m. to 7:00 p.m. as prescribed by law; there were also present J. Foehr, Engineer,
M. McDonald, Drilling Superintendent

Shut-off data: 7 in 23 & 26 lb. casing was cemented at 7633 ft.
 on Nov. 5, 1964 in 10-5/8 in. hole with 450 ~~sacks~~ sacks of cement
treated with 0.1% HR-7

calculated to fill behind casing to 6133 ft. below surface.
 Casing record of well: 11-3/4" cas. 817', 7" cas. 7633', c.p. 7499'-7494' & 7465', perf.
7150', W.S.O.

Cement retainers at 7475' & 7450'

Present depth 7700 ft. cmt. bridge = ft. to = ft. Cleaned out cmt. = ft. to = ft. for test.
 A Cook tester was run into the hole on 3-1/2 in. drill pipe ~~setting~~
 with ft. of water-mud cushion, and packer set at 7094 ft. with tailpiece to 7121 ft.
 Tester valve, with 3/8 in. bean, was open for 1 hr. and 0 min. During this interval there was a
intermittent puff blow

Mr. Foehr reported:

1. On Oct. 22, 1964, 11-3/4", 47 lb. surface casing was cemented in a 17-1/4" hole at 17' with 615 sacks of cement mixed with 4% gel and 3% calcium chloride, followed by 100 sacks of cement treated with 3% calcium chloride. Cement returned to the surface.
2. A 10-5/8" hole was drilled to 7700' and 7" casing was cemented as noted above.
3. After a test of perforations in the interval 7499' to 7494' proved wet, a retainer was set at 7475'.
4. The 7" casing was perforated at 7465' and 68 sacks of cement was displaced under a final pressure of 6000 psi. below a retainer set at 7450'.
5. The 7" casing was jet-perforated at 7150' with four 1/2" holes for a test of shut-off.

THE ENGINEER NOTED THE FOLLOWING:

1. When the drill pipe was pulled, 75' of drilling fluid was found above the tester.
2. The pressure recorder charts indicated that the tester functioned properly.

THE 7" SHUT-OFF AT 7150' IS APPROVED.

GWB: rmc

cc: O. E. KARR

E. R. MURRAY-AARON

State Oil and Gas Supervisor

By

R. M. Barger

Deputy

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P. 664-435

Mr. Jon Crawford
930 Truxtum Avenue
Bakersfield, California
 Agent for SIGNAL OIL & GAS COMPANY

Woodland Calif.
October 28, 1964

DEAR SIR:

Your proposal to drill Well No. "Signal-Burroughs" 5
 Section 29, T. 2N, R. 3E, N.D. B. & M., Dutch Slough Gas Field, Contra Costa County,
 dated Sept. 21, 1964, received Sept. 25, 1964, has been examined in conjunction with records filed in this office.
 Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"Legal description of mineral-right lease, consisting of Sec Plat previously filed.

Do mineral and surface leases coincide? Yes x

Location of Well: 500' North and 500' East from the center of Sec. 29

Elevation of ground above sea level -3+ feet ground datum.

All depth measurements taken from top of Kelly Bushing which is 12+ feet above ground."

PROPOSAL:

"PROPOSED CASING PROGRAM

SIZE OF CASING

INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
11-3/4"	47#	J-55	Surface	800' <u>±</u>	800' <u>±</u>
* 5-1/2"	17#	J-55, N-80	"	7700' <u>±</u>	7700' <u>±</u>

Intended zone(s)

of completion: Martinez Estimated total depth 7700'±

*NOTE: If well is dual completed, 7", 23# and 26#, J-55 and N-80 casing will be cemented at 7700'± instead of 5-1/2" casing.

It is understood that if changes in this plan become necessary we are to notify you immediately."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The 11-3/4" surface casing shall be cemented with sufficient cement to fill behind this casing from the shoe to the ground surface.
2. Mud fluid of sufficient weight and proper consistency to prevent blow-outs shall be used in drilling, and the column of mud fluid shall be maintained to the surface at all times, particularly while pulling the drill pipe.
3. Adequate blow-out prevention equipment shall be provided and maintained ready for operation at all times.
4. This Division shall be notified to witness a test of the 5 1/2" or 7" water shut-off immediately above the objective zone.

Blanket Bond

GWB: rmc

cc: O. E. Karr

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By R. M. Berger, Deputy

013-00115

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well
This notice and surety bond must be filed before drilling begins

JUL 23 1964 7

WOODLAND, CALIFORNIA

Bakersfield Calif. September 21 19 64

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence drilling well No. Signal-Burroughs No. 5, Sec. 29, T. 2N,

R. 3E, M.D. B. & M., Dutch Slough Field, Contra Costa County.

Legal description of mineral-right lease, consisting of _____ acres, is as follows: _____
(Attach map or plat to scale)
See Plat previously filed.

Do mineral and surface leases coincide? Yes No _____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of Well: _____ feet _____ property along section line and _____ feet _____ property
(Direction) (Direction)

at right angles to said line from the _____ corner of section _____

500' North and 500' East from the center of Sec. 29.

Elevation of ground above sea level -3+ feet _____ ground _____ datum.

All depth measurements taken from top of Kelly Bushing which is 12+ feet above ground.
~~OSPREY BUSHING~~ Kelly Bushing

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
11-3/4"	47#	J-55	Surface	800'+	800'+
* 5-1/2"	17#	J-55, N-80	"	7700'+	7700'+

Intended zone(s) of completion: Martinez Estimated total depth 7700'+
(Name) (Depth, top and bottom)

* NOTE: If well is dual completed, 7", 23# and 26#, J-55 and N-80 casing will be cemented at 7700'+ instead of 5-1/2" casing.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 930 Truxtun Avenue, Rm. 201

SIGNAL OIL & GAS COMPANY

Bakersfield, California

By Jon Crawford
(Name of Operator)

Telephone Number FA 7-2781

Type of Organization Corporation

(Corporation, Partnership, Individual, etc.)

FORMS 114 121
BOND
MAP BOOK
MAP 116-1 7/24/64

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF WELL PLUGGING AND ABANDONMENT

Sacramento, California

February 6, 2004

Michael L. Phillips, Agent

TONKA ENERGY, INC.

P.O. Box 102

Sutter, CA 95982

Your report of the plugging and abandonment of well "Tract 5" 5-5,
A.P.I. No. 013-00115, Section 29, T 2N, R 3E, M.D. B. & M.,
Dutch Slough Gas field, Contra Costa County, dated 10/04/03, received 10/10/03
has been examined in conjunction with records filed in this office. We have determined that
all of the requirements of this Division have been fulfilled relative to plugging and
abandonment of the well, removal of well equipment and junk, and filing of well records.

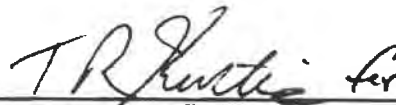
- NOTES:** 1. Surface plugging completed on 2/5/04.
2. Site inspection made and approved 3/18/04.

BOND: Blanket

STATUS:

Hal Bopp
State Oil and Gas Supervisor

By



Robert S. Habel
District Deputy

No. T 604-009

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

**DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
REPORT ON OPERATIONS**

District 6, (916) 322-1110

Michael L. Phillips, Agent

TONKA ENERGY, INC.

P.O. Box 102

Sutter, CA 95982

Sacramento, California

February 9, 2004

Your operations at well "Tract 5" 5-5 . API No. 013-00115 .
Sec. 29 , T. 2N , R. 3E , M.D. B. & M. Dutch Slough Gas
field in Contra Costa County,
were witnessed on 1/27/04 . Pam Ceccarelli , representative of
the supervisor, was present from 1400 to 1630 .

There was also present Ken Young, Contract Foreman

Present condition of the well: 11-3/4" cem 815'; 7" cem 7633', cp 450', perms 7445'-7386',
7379'-7346', 7262'-7238', 7201'-7185', 7179'-7172', perf 7144' (wso). TD 7700'. Plugged
w/cem below retainer @ 7450', plugged w/cem 7450'-6971' and 440'-314'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

NOTE:

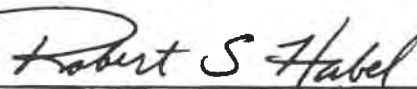
BOND: Blanket

STATUS:

RSH/sdl

Hal Bopp
State Oil and Gas Supervisor

By



Deputy Supervisor

Robert S. Habel

DIVISION OF OIL AND GAS
RECEIVED
APR 22 1965
WOODLAND, CALIFORNIA

Signal Oil and Gas Company
WELL SUMMARY REPORT

Well No. Signal 'Burroughs' No. 5 Sec. 29, T. 2 N., R. 3E., M.D. B. & M.

Field Dutch Slough Elevation of ground 3.0 feet. Kelly bushing 18.2 feet.

Location 500' North and 500' East from center of Section 29

Date April 16, 1965

Signed Jon Crawford
Title District Engineer

Jack Foehr
(Engineer)

Total depth 7700' Plugged depth 7450'
Junk _____

Commenced drilling 10/22/64
Completed drilling 11/02/64
Commenced producing 11/12/64
Flowing/_____

Initial production _____
Production after _____ days

Class Oil bbl. per day	Gravity Class Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Upper Zone	20/64"		5825	2420	2610
Lower Zone	21/64"		4760	1845	Packer
S H U T I N					

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing Landed In	Number of Sacks of Cement	Depth of Cementing if through perforation
11-3/4"	815'	Surface	47#	New	Smls.	J-55	17-1/2"	715	
7"	7633'	Surface	23# & 26#	New	Smls.	J-55, N-80	10-5/8"	450	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
7"	7494'	7499'	2 1/2" jet holes/ft.		(Squeezed)	
	at	7465'	4 1/2" holes (Squeezed)			
7"	7386'	7445'	2 1/2" jet holes/ft.			
7"	7346'	7379'	7238'-7262'; 7185'-7201';			
	7172'	7179'	4 1/2" jet holes/ft.			Lane Wells Gun
	at	7144'	4 1/2" holes W.S.O.			
		I.E.S.	817'-7698'			
		Sonic	6500'-7689'			
		Micro	6900'-7699'			
		Cement Bond	6300'-7573'			
		Neutron	7000'-7573'			



DRAFT

APPENDIX H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

SHAWN MUNGER, CHG
Principal Geologist

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 31
Years with Other Firms: 0

**REGISTRATIONS &
CERTIFICATIONS**

Certified Hydrogeologist, CA, 413
8 Hour HAZWOPER Training, CA,
160115576014
Professional Geologist, CA, 5810
Certified Environmental Manager,
NV, 1332
40 Hour HAZWOPER Training, CA,
100830513934

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Shawn has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, Phase I and II Site Assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Select Project Experience

14234 Saratoga Sunnyvale Road—Saratoga, CA

Project Geologist. Shawn performed Principal review of ENGEO's environmental documents. This 2.2-acre townhome site is planned for a new multi-family development comprising up to 20 units in 8 buildings. The site immediately borders Saratoga Creek and contains numerous mature trees, many of which are to be saved. Site challenges include shallow groundwater, creek bank stability, and the potential for liquefaction and lateral spreading.

Lenihan Dam Outlet Modification—Los Gatos, CA

Principal Geologist. Shawn provided technical advice, coordination, consultation, and review of ENGEO's documents to provide quality mitigation measures. The findings were presented to SCVWD and it was concluded that the stockpile was sufficient for transportation. This analysis led to significant project budget savings by avoiding removal and disposal at a solid waste disposal facility. The project consisted of a stockpile approximately 6,000 cubic yards that required profiling as requested by Santa Clara Valley Water District before use of as site backfill.

199 River Oaks Parkway—San Jose, CA

Principal in Charge. Shawn provided principal oversight, data analysis, and consultation regarding site characterization, risk evaluation, and demolition observation plans. The project consists of a proposed six-story podium structure with one level to be constructed below grade. The property is a former semiconductor facility that has received conditional closure from the Regional Water Quality Control Board and is approved for construction.

Riverside Avenue Property—Roseville, CA

Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Assessments and site

characterization. The project site consists of an active auto sales and service facility. The historic use of the facility for industrial purposes resulted in soil and groundwater impacts beneath the site. The City of Roseville revised its plans for acquiring and redeveloping the site due to the identified soil and groundwater impacts.

1301 Standard Oil Ave—Pittsburg, CA

Principal in Charge. Shawn provided principal oversight of a Phase II Environmental Site Characterization. The property is an abandoned wastewater treatment plant with processing buildings, clarifier tanks, and sludge beds.

Pleasant Hill BART Station—Walnut Creek, CA

Principal in Charge. Shawn provided oversight, data analysis and consultation during the preparation of a Phase II Environmental Site Assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

County Crossings Property—Antioch, CA

Principal in Charge. Shawn provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264-acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

620 North Ninth Street—San Jose, CA

Principal in Charge. Shawn provided oversight of soil, groundwater and soil gas characterizations, risk evaluations and Remedial Action Plan preparation. Shawn also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Westshore—Richmond, CA

Project Manager. Shawn conducted Phase I and II Site Assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Mills Ranch—King City, CA

Principal in Charge. Shawn provided principal oversight of Phase I/II Environmental Site Assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA

Principal in Charge. Shawn provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Arroyo Crossing—Livermore, CA

Principal in Charge. Shawn provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

Renaissance Square—Concord, CA

Project Manager. Shawn provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Union Pacific Railroad Corridor—San Jose, CA

Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former 1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Former SFPP Alignment—Concord, CA

Project Manager. Shawn prepared a Phase I and II Environmental Site Assessment. The site was a former ±6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility. Work included the recovery of soil and groundwater samples along the SP right of way.

Hercules Property—Hercules, CA

Project Manager. Shawn provided oversight of a Phase I Environmental Site Assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ±167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi-family residential development with some commercial components.

Highlands Ranch—Antioch, CA

Principal in Charge. Shawn provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.



DRAFT

Appendix G
Phase II ESA for the Oakley Property

Project No.
16836.001.000

April 13, 2020
Revised December 7, 2020

Mr. Brian Montgomery
City of Oakley
c/o Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Boulevard, Suite 224
San Ramon, CA 84583

Subject: 1180 East Cypress Road
APN 032-081-025
Oakley, California

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Reference: ENGEO, Draft Phase I Environmental Site Assessment, City of Oakley Property, Oakley, California, December 24, 2019, Project No. 16836.000.000.

Dear Mr. Montgomery:

We are pleased to submit the findings of our phase II environmental site assessment (ESA) undertaken at the subject property (Property) in Oakley, California. The purpose of this assessment is to evaluate potential impacts associated with the former dry gas production well located near the western perimeter of the Property. In addition, we evaluated potential near-surface soil impacts from pesticides and lead-based paint associated with the former residences on the Property.

BACKGROUND

The Property is located at 1180 East Cypress Road in Oakley, California, as shown in Figure 1. The approximately 27-acre Property is identified by Assessor's Parcel Number (APN) 032-081-025. ENGEO conducted a phase I ESA for the Property in December 2019. At the time of our phase I ESA the Property consisted of undeveloped grazing land, perimeter fencing, a cattle corral, a water well shed, remnant concrete foundations, and an above-ground water storage tank.

Historically, the Property has been used for cattle grazing. Review of historic aerial photographs and available documents indicate that a residential structure existed near the southern perimeter of the Property from at least 1914 to sometime prior to 1968. The residence was demolished and removed from the Property by 1968. By 1981, a modular home was placed on the Property near the location of the remaining concrete foundations. The modular home was removed prior to 1999. Given the age of the structures, there is a potential for near-surface soil impacts due to past pesticide applications and lead-based paint.

One abandoned dry gas production well was identified on the adjacent parcel to the west of the Property. The 7,700-foot deep well was installed in 1964 and ceased production sometime prior to 1985. The well was abandoned and received clearance from the Division of Oil, Gas, and

Geothermal Resources (DOGGR, now CalGEM) in 2004. Although there is no record of a release on the adjacent site, it is conceivable that subsurface impacts associated with the former gas production may have occurred.

Based on the findings of our phase I ESA, we recommended that near-surface soil sampling be performed within the area of the former structures to address potential impacts due to pesticides and lead-based paint. In addition, we recommended a limited subsurface assessment be undertaken to determine if the former gas well operations have impacted site soil gas.

Based on our review of the preliminary site layout prepared by Bellecci and Associates, Inc. dated November 19, 2020, we understand that the abandoned gas well will be located on a vacant corner lot. The abandoned gas well will be approximately 15 feet away from the nearest residential lot, Lot 87. The preliminary site plan also indicates that the area where the former structures were along the southern perimeter of the Property will be located within the expansion of East Cypress Road.

FIELD EXPLORATION

Field sampling activities associated with the phase II ESA were performed on March 26, 2020. Prior to drilling, ENGEO acquired a soil boring permits from the Contra Costa County Environmental Health Division, and an ENGEO representative contacted USA North Service Alert for identification of underground utilities at the Property.

Hand sampling techniques were used to collect near-surface soil samples. A C-57 licensed drilling contractor was retained to advance two soil borings for the collection of soil gas samples at the Property. The exploration locations are shown on Figure 2.

Soil Sampling

Near-surface soil samples were collected from the eight locations (1-S1 through 1-S8) from around the perimeter of the former residence. The samples were collected from depths of approximately 3 to 9 inches below the ground surface using handheld sampling equipment. The soil samples were placed in an ice-cooled chest and were transported under documented chain-of-custody to Torrent Laboratory, Inc. (Torrent), a State-certified laboratory based in Milpitas, California, for analysis.

The soil samples were analyzed on a discrete basis for the following:

- Total arsenic and total lead by EPA Method 6020.

In addition, the eight soil samples were composited by the laboratory into two 4-point composite samples and analyzed for the following:

- Organochlorine Pesticides by EPA Method 8081A.

Soil Gas Sampling

We drilled two soil borings to approximately 5 feet below the ground surface and converted these borings into temporary soil gas wells (1-SG5 and 1-SG6). The temporary soil gas wells casings

consisted of ¼-inch-diameter Teflon® tubing equipped with a filter at the base of the tubing. Soil gas probes were left to equilibrate for a minimum of two hours prior to sample collection. The sampling was performed in general accordance with the DTSC *Final Advisory Active Soil Gas Investigations* (July 2015). During sampling, we used 1,1-difluoroethane (1,1-DFA) as a leak check compound. Soil gas samples were collected in 1-liter summa canisters, labeled and transported under documented chain-of-custody to Torrent Laboratory, Inc. (Torrent), a State-certified laboratory based in Milpitas, California, for analysis.

The soil gas samples were analyzed on a discrete basis for the following:

- VOCs and TPH-Gasoline by EPA Method TO-15.
- Oxygen and Methane by ASTM D-1946.

The temporary soil gas wells were abandoned shortly after sampling.

ANALYTICAL RESULTS

Since the former structures will be located within the expansion of East Cypress Road, we compared soil laboratory test results to corresponding San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs) for commercial land use. Based on the abandoned gas wells proximity to the surrounding residential lots, we compared soil gas laboratory test results to corresponding San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs) for residential land use.

Though screening levels are tools for screening purposes and are not statutory, regulatory agencies can choose to apply screening levels as action levels for a site. The results are summarized in Tables A and B, attached, and the laboratory analysis reports are presented in their entirety in Appendix A. The following is a summary of the laboratory results.

Soil Results

Soil results were compared to San Francisco Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) considering a commercial land use scenario¹ and known background concentrations. The following is a summary of the laboratory results.

- Arsenic was detected in all soil samples. The reported arsenic concentrations ranged from 1.54 milligrams per kilogram (mg/kg) to 1.98 mg/kg. The results are consistent with background arsenic concentrations² and are not indicative of anthropogenic impacts.
- Lead was detected in all soil samples. The reported lead concentrations ranged from 11.2 mg/kg to 98.6 mg/kg, with an average concentration of 35.2 mg/kg. The reported mean lead concentrations are below both the residential and commercial RWQCB ESLs of 80 and 320 mg/kg, respectively.

¹ San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), Direct Exposure Human Health Risk Levels (Table S-1), Shallow Soil, Commercial/Industrial Exposure, January 2019.

² The expected background concentrations found within the San Francisco Bay Area (11 mg/kg) is used as a screening level for arsenic.

- Review of the laboratory test results reported all OCP analytes at non-detectable concentrations for composite sample 1-S1-S4. Composite sample 1-S5-S8 detected 4,4'-DDT at a concentration below the respective RWQCB ESL. All other OCPs were reported at non-detectable (ND) concentrations for sample 1-S5-S8.

Table A provides a summary of the concentrations of detected analytes, as well as their corresponding RWQCB ESLs for residential and commercial soil. The laboratory analysis report is presented in its entirety in Appendix A.

Soil Gas Results

Soil gas results were compared to RWQCB subslab/soil gas ESLs³ considering a residential land use scenario. The following is a summary of the laboratory results:

- Review of laboratory test results found detectable concentrations of several VOCs, including hexane, benzene, trichloroethylene, toluene, tetrachloroethylene, m,p-xylene, 1,3-dichlorobenzene, and 1,1-difluoroethane. The reported concentrations for the detected constituents are listed in Table B. With the exception of benzene, the reported concentrations of the detected VOCs are below the applicable RWQCB ESLs for residential land use.
- Benzene was detected in soil gas samples 1-SG5 and 1-SG6 at concentrations of 4.4 $\mu\text{g}/\text{m}^3$ and 1.6 $\mu\text{g}/\text{m}^3$, respectively. The reported benzene concentration for sample 1-SG5 is above the RWQCB ESL of 3.2 $\mu\text{g}/\text{m}^3$ considering a residential land use scenario.
- Both soil gas samples reported detectable concentrations of TPH-Gasoline, ranging from 253 $\mu\text{g}/\text{m}^3$ to 427 $\mu\text{g}/\text{m}^3$. These concentrations are below applicable RWQCB ESL of 20,000 $\mu\text{g}/\text{m}^3$ assuming a residential land use scenario.
- Both soil gas samples reported detectable concentrations of oxygen, ranging from 18 percent to 19 percent. At the time of preparation of this report, an ESL for residential soil gas vapor had not been established for oxygen.
- Methane was reported at non-detectable concentrations for all soil gas samples.

Table B provides a summary of the concentrations of detected analytes, as well as their corresponding screening level for residential land use. The laboratory analysis report is presented in its entirety in Appendix A.

SOIL GAS SCREENING LEVELS

Screening levels for chemicals in soil, groundwater, and soil gas are not intended to establish regulations or restrictions on land use nor to establish any mitigation or remediation requirements, and “the presence of a chemical at concentrations in excess of a screening does not necessarily indicate adverse effects on human health or the environment, rather that additional evaluation is warranted.”⁴ Health and Safety Code Section 57008(a)(3) of SB 32 states the following:

³ San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels (Table SG-1), Residential Exposure, January 2019.

⁴ San Francisco Bay Regional Water Quality Control Board, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final 2016 Water Board Environmental Screening Levels.

A screening number is solely an advisory number, and has no regulatory effect, and is published solely as a reference value that may be used by citizen groups, community organizations, property owners, developers, and local government officials to estimate the degree of effort that may be necessary to remediate a contaminated property. A screening number may not be construed as, and may not serve as, a level that can be used to require an agency to determine that no further action is required or a substitute for the cleanup level that is required to be achieved for a contaminant on a contaminated property.

The concern with elevated VOCs in soil gas with respect to a risk to human health is if soil gas enters indoor air through vapor intrusion. The screening levels for soil gas are therefore calculated based on a ratio of the acceptable indoor air concentration to the soil gas concentration. This ratio is referred to as an attenuation factor. The indoor air screening levels for select VOCs are shown in Table 1 below and are the same for both the San Francisco Regional Water Quality Control Board (SFRWQCB) and Department of Toxic Substances Control (DTSC).

DTSC's most recent guidance related to site assessments for vapor intrusion concern (2011 Vapor Intrusion Guidance) recommends using default attenuation factors based on six different building scenarios, which can be applied for site-specific conditions. DTSC developed their default attenuation factors using the national empirical vapor intrusion database (U.S. EPA, 2008⁵). Soil vapor and paired indoor air measurements, consisting of 311 samples at 13 sites, were reviewed. An attenuation factor of 0.05 (or 20), representing approximately the 90th percentile of the data, was selected as an appropriate attenuation factor for existing residential structures. For new residential construction, the DTSC attenuation factor is 0.001 (or 1,000). Prior to January 2019, the SFRWQCB used an attenuation factor of 0.002 (or 500). However, in January 2019, the SFRWQCB updated its environmental screening levels to use the U.S. EPA's generic attenuation factor of 0.03 (or 33)⁶. This dramatically reduced the screening levels for numerous VOCs.

In April 2019, DTSC's Human and Ecological Risk Office (HERO) released an update to its Human Health Risk Assessment Note (referred to as HERO Note 3) that recommended using both the tailored attenuation factors included in the 2011 Vapor Intrusion Guidance and the U.S. EPA generic attenuation factor of 0.03. Therefore, this assessment compares the measured soil gas concentrations to two screening levels – one calculated based on the recommended attenuation factor for new residential construction (0.001), and one calculated based on the U.S. EPA's generic attenuation factor of 0.03.

TABLE 1: Indoor Air and Soil Gas Screening Levels for Residential Land Use Scenario

CHEMICAL	SF REGIONAL BOARD		DTSC		SOIL GAS SAMPLE
	INDOOR AIR (µg/m ³)	SUBSLAB / SOIL GAS AF: 0.03 (µg/m ³)	INDOOR AIR (µg/m ³)	SOIL GAS AF: 0.001 (µg/m ³)	MAXIMUM CONCENTRATION (µg/m ³)
Benzene	0.097	3.2	0.097	97	4.4

AF: Attenuation Factor

⁵ U.S. EPA's Vapor Intrusion Database: Preliminary Evaluation of Attenuation Factors, March 4, 2008

⁶ San Francisco Bay Regional Water Quality Control Board Update to Environmental Screening Levels dated January 24, 2019.

DISCUSSION AND CONCLUSION

Review of the soil laboratory results found detectable concentrations of arsenic, lead, and 4,4'-DDT. The reported arsenic concentrations are within typical background concentrations. The reported concentrations for lead and 4,4'-DDT are below the applicable RWQCB ESLs for commercial soil. The mean lead concentration is also below the residential RWQCB ESL. It is our understanding that soil import is required to achieve final grades; therefore, soil off-haul is not anticipated. However, if soil export is necessary, additional soil analyses may be required by the receiving facility.

Review of soil gas laboratory test results found detectable concentrations of TPH-Gasoline, oxygen, and several VOCs. All of the reported concentrations of TPH-Gasoline were below the applicable residential RWQCB ESL. Reported concentrations of VOCs were below respective RWQCB ESLs with the exception of benzene. Although benzene was reported above the RWQCB ESL, benzene concentrations remain below the DTSC Vapor Intrusion Guidance Levels, reflecting new residential construction.

Based on the proposed improvements shown on the preliminary site layout, we understand that the abandoned gas will be approximately 15 feet away from the nearest residential lot. Based on our review of the preliminary site layout and the findings of our soil and soil gas sampling and analysis, it is our opinion that these conditions do not represent a significant health risk for future land users. ENGEO recommends no further environmental studies at this time.

If you have any questions regarding this report, please contact us.

Sincerely,

ENGEO Incorporated



Victoria Drake, EIT
vd/sm/dt



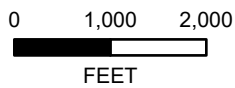
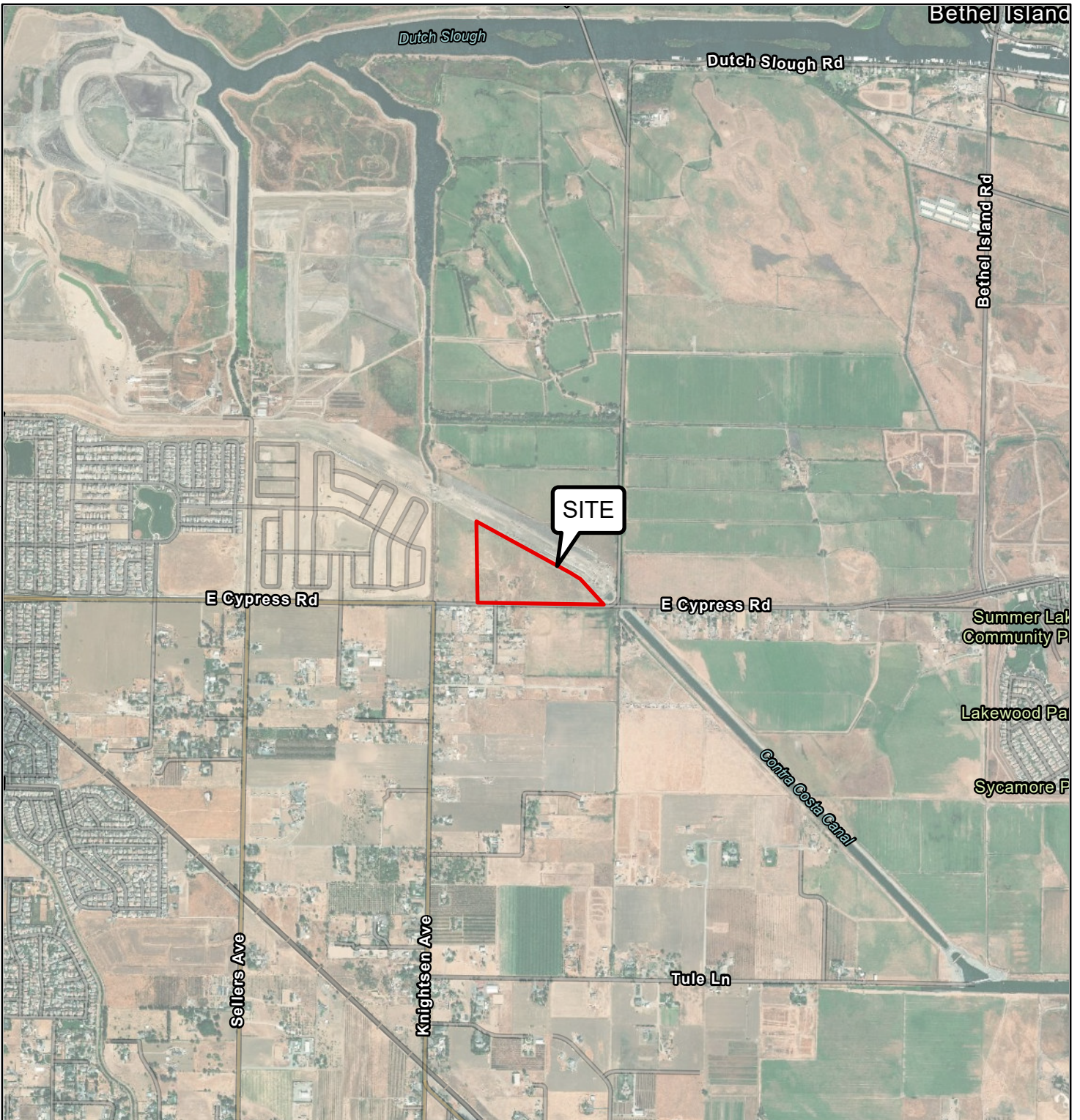
Shawn Munger, CHG

Attachments: Figures
Tables A and B
Appendix A – Laboratory Analytical Reports

FIGURES

Figure 1 – Vicinity Map
Figure 2 – Site Plan

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BASEMAP SOURCE: ESRI MAPPING SERVICE 2017



VICINITY MAP
 1180 EAST CYPRESS ROAD
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.001.000

SCALE: AS SHOWN

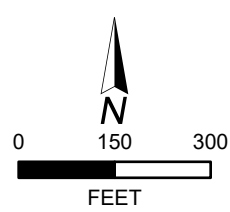
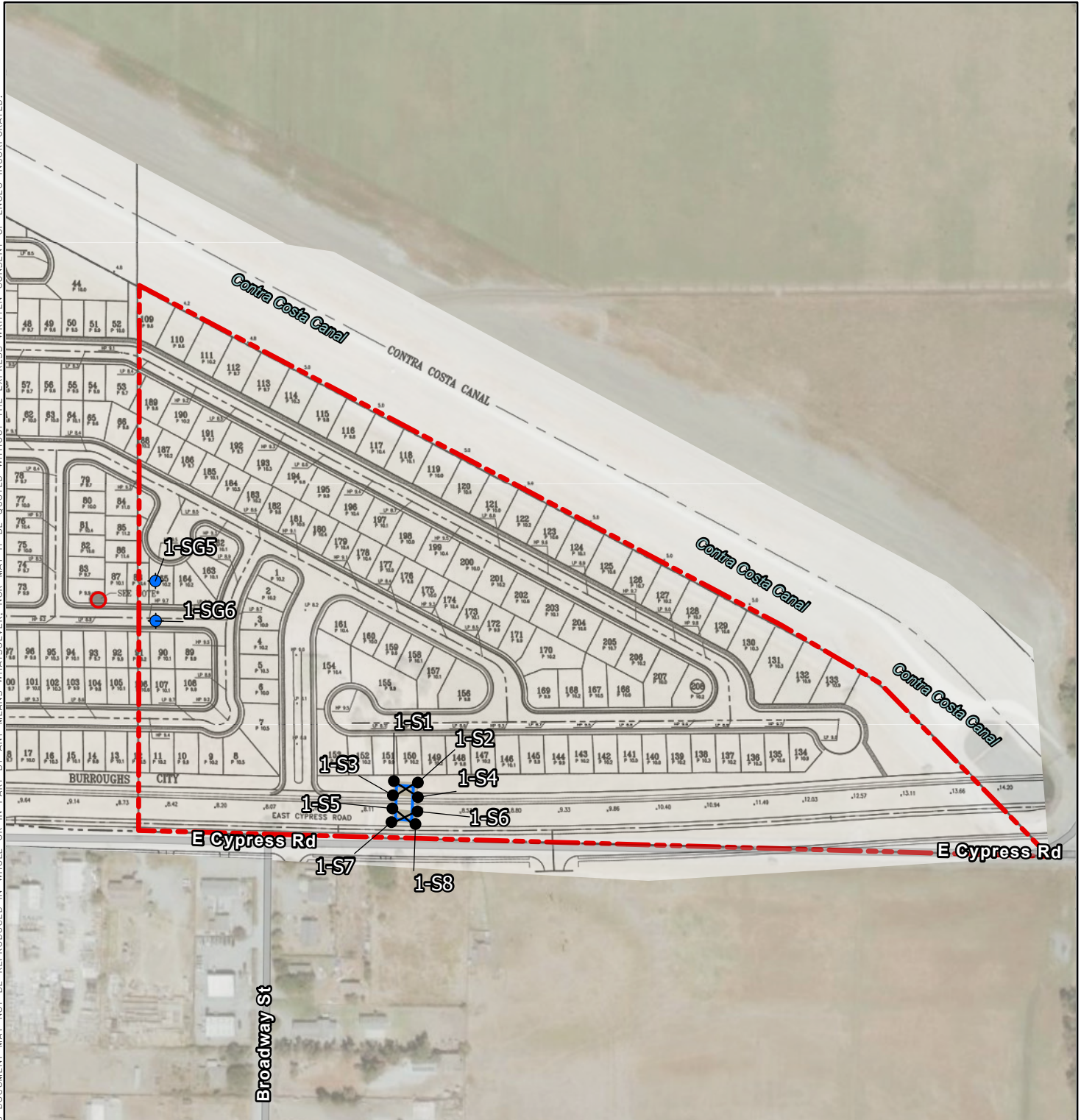
DRAWN BY: QRL

CHECKED BY: SPM

FIGURE NO.

1

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PROJECT SITE
- APPROX. LOCATION OF FORMER STRUCTURES (C. 1939 TO 1968)
- SOIL GAS SAMPLE (ENGEO, 2020)
- ⊗ COMPOSITE SAMPLE (ENGEO, 2020)
- ABANDONED DRY GAS WELL

BASEMAP SOURCE: ESRI MAPPING SERVICE 2019, BELLECCI & ASSOCIATES



SITE PLAN
 1180 EAST CYPRESS ROAD
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.001.000	
SCALE: AS SHOWN	
DRAWN BY: QRL	CHECKED BY: SPM

FIGURE NO.
2

TABLES

- Table A: Summary of Soil Analytical Results**
- Table B: Summary of Soil Gas Analytical Results**

Table A - Summary of Soil Analytical Results

Sample ID	CAM-17 Metals		OCPs
	mg/kg		µg/kg
	Arsenic	Lead	4,4'-DDT
1-S1	1.98	27.9	
1-S2	1.65	25.2	
1-S3	1.55	11.2	
1-S4	1.54	13.4	
1-S5	1.72	78.0	
1-S6	1.65	98.6	
1-S7	1.61	15.1	
1-S8	1.77	12.3	
Mean Concentration	1.68	35.2	
1-S1-S4 (COMP)			ND
1-S5-S8 (COMP)			1.35
RWQCB ESLs - Risk Hazard for Commercial/Industrial Soil ¹	*11	320	8,500
RWQCB ESLs - Risk Hazard for Residential Soil ²	*11	80	1,900

ND indicates analyte was reported at non-detectable concentrations.

- indicates screening level not reported.

* The expected background concentrations found within the San Francisco Bay Area (11 mg/kg) is used as a screening level for arsenic.

¹San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Soil, Commercial/Industrial (Table S-1), January 2019.

²San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Soil, Residential (Table S-1), January 2019.

Bold indicates mean concentration calculated for samples 1-S1 through 1-S8.

Table B - Summary of Soil Gas Analytical Results

Sample ID	VOCs								TPH	Other
	µg/m ³								µg/m ³	%
	Hexane	Benzene	Trichloroethylene	Toluene	Tetrachloroethylene	m,p-Xylene	1,3-Dichlorobenzene	1,1-Difluoroethane	TPH-G	Oxygen
1-SG5	14	4.4	3.9	17.0	4.8	2.5	25	ND	427	18
1-SG6	5.6	1.6	3.5	7.1	3.4	ND	15	1,400	253	19
RWQCB ESLs - Risk Hazard for Residential Soil Gas Vapor Intrusion ¹	-	3.2	16	10,000	15	3,500	-	-	20,000	-
DTSC-SL for Residential Air (with an attenuation factor of 0.001) ²	-	97.0	-	310,000	460	-	-	-	-	-

ND indicates analyte was reported at non-detectable concentrations.

- indicates screening level not reported.

¹San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, Residential (Table SG-1), January 2019.

²Department of Toxic Substances Control (DTSC), Human Health Risk Assessment (HHRA) Note, Hero HHRA Note Number 3, DTSC-Modified Screening Levels (DTSC-SLs) for Ambient Air, Residential (Table 3) with an attenuation factor of 0.001 for future residential land use, April 2019.

Bold indicates results above the RWQCB ESL for soil gas.

APPENDIX A

Laboratory Analytical Reports



Engeo (San Ramon)
2010 Crow Canyon Place, #250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199
RE: 1180 East Cypress Road

Work Order No.: 2003255

Dear Victoria Drake:

Torrent Laboratory, Inc. received 8 sample(s) on March 27, 2020 for the analyses presented in the following Report.

As requested on the Chain of Custody, samples were analyzed on a discrete basis for Arsenic and Lead. Two 4:1 point composites were prepared for the pesticide analysis.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

April 01, 2020

Date



Date: 4/1/2020

Client: Engeo (San Ramon)

Project: 1180 East Cypress Road

Work Order: 2003255

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-S1

2003255-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.98	mg/Kg
Lead	6020A	1	0.054	1.0	27.9	mg/Kg

1-S2

2003255-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.65	mg/Kg
Lead	6020A	1	0.054	1.0	25.2	mg/Kg

1-S3

2003255-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.55	mg/Kg
Lead	6020A	1	0.054	1.0	11.2	mg/Kg

1-S4

2003255-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.54	mg/Kg
Lead	6020A	1	0.054	1.0	13.4	mg/Kg

1-S5

2003255-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.72	mg/Kg
Lead	6020A	5	0.27	5.0	78.0	mg/Kg

1-S6

2003255-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.65	mg/Kg
Lead	6020A	5	0.27	5.0	98.6	mg/Kg

1-S7

2003255-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.61	mg/Kg
Lead	6020A	1	0.054	1.0	15.1	mg/Kg

1-S8

2003255-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	6020A	1	0.21	1.0	1.77	mg/Kg
Lead	6020A	1	0.054	1.0	12.3	mg/Kg



Sample Result Summary

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-S1-S4 Composite

2003255-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.

1-S5-S8 Composite

2003255-010

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
4,4'-DDT	SW8081B	10	0.0013	0.020	0.00135	mg/Kg



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S1	Lab Sample ID:	2003255-001A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:30		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.98		mg/Kg	03/30/20	18:18	ERR	447073
Lead	6020A	1	0.054	1.0	27.9		mg/Kg	03/30/20	18:18	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S2	Lab Sample ID:	2003255-002A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:32		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.65		mg/Kg	03/30/20	18:28	ERR	447073
Lead	6020A	1	0.054	1.0	25.2		mg/Kg	03/30/20	18:28	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S3	Lab Sample ID:	2003255-003A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:35		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.55		mg/Kg	03/30/20	18:42	ERR	447073
Lead	6020A	1	0.054	1.0	11.2		mg/Kg	03/30/20	18:42	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S4	Lab Sample ID:	2003255-004A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:36		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.54		mg/Kg	03/30/20	18:47	ERR	447073
Lead	6020A	1	0.054	1.0	13.4		mg/Kg	03/30/20	18:47	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S5	Lab Sample ID:	2003255-005A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:39		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst:	IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.72		mg/Kg	03/30/20	19:02	ERR	447073

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst:	IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	6020A	5	0.27	5.0	78.0		mg/Kg	03/30/20	20:00	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S6	Lab Sample ID:	2003255-006A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:38		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst:	IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.65		mg/Kg	03/30/20	19:07	ERR	447073

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst:	IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	6020A	5	0.27	5.0	98.6		mg/Kg	03/30/20	20:05	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S7	Lab Sample ID:	2003255-007A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:40		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.61		mg/Kg	03/30/20	19:11	ERR	447073
Lead	6020A	1	0.054	1.0	15.1		mg/Kg	03/30/20	19:11	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S8	Lab Sample ID:	2003255-008A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 / 10:42		
SDG:			

Prep Method: 6020S-P	Prep Batch Date/Time: 3/27/20	3:30:00PM
Prep Batch ID: 1121615	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Arsenic	6020A	1	0.21	1.0	1.77		mg/Kg	03/30/20	19:16	ERR	447073
Lead	6020A	1	0.054	1.0	12.3		mg/Kg	03/30/20	19:16	ERR	447073



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S1-S4 Composite	Lab Sample ID:	2003255-009A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 /		
SDG:			

Prep Method: 3546_OCP	Prep Batch Date/Time: 3/31/20	3:35:00PM
Prep Batch ID: 1121654	Prep Analyst: MKAUR	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
-------------	-----------------	----	-----	-----	---------	---	-------	----------	------	----	------------------

The results shown below are reported using their MDL.

alpha-BHC	SW8081B	10	0.0013	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
gamma-BHC (Lindane)	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
beta-BHC	SW8081B	10	0.0032	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
delta-BHC	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Heptachlor	SW8081B	10	0.0011	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Aldrin	SW8081B	10	0.0020	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Heptachlor Epoxide	SW8081B	10	0.00078	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
gamma-Chlordane	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
alpha-Chlordane	SW8081B	10	0.0017	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
4,4'-DDE	SW8081B	10	0.0019	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endosulfan I	SW8081B	10	0.0018	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Dieldrin	SW8081B	10	0.0015	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endrin	SW8081B	10	0.0019	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
4,4'-DDD	SW8081B	10	0.0057	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endosulfan II	SW8081B	10	0.0058	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
4,4'-DDT	SW8081B	10	0.0013	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endrin Aldehyde	SW8081B	10	0.0015	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Methoxychlor	SW8081B	10	0.0020	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endosulfan Sulfate	SW8081B	10	0.0012	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Endrin Ketone	SW8081B	10	0.00094	0.020	ND		mg/Kg	04/01/20	3:56	LA	447104
Chlordane	SW8081B	10	0.021	0.20	ND		mg/Kg	04/01/20	3:56	LA	447104
Toxaphene	SW8081B	10	0.085	0.50	ND		mg/Kg	04/01/20	3:56	LA	447104
Acceptance Limits											
TCMX (S)	SW8081B		48 - 125		105		%	04/01/20	3:56	LA	447104
DCBP (S)	SW8081B		38 - 135		108		%	04/01/20	3:56	LA	447104

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-S5-S8 Composite	Lab Sample ID:	2003255-010A
Project Name/Location:	1180 East Cypress Road	Sample Matrix:	Soil
Project Number:	16836.001.000		
Date/Time Sampled:	03/26/20 /		
SDG:			

Prep Method: 3546_OCP	Prep Batch Date/Time: 3/31/20	3:35:00PM
Prep Batch ID: 1121654	Prep Analyst: MKAUR	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
<i>The results shown below are reported using their MDL.</i>											
alpha-BHC	SW8081B	10	0.0013	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
gamma-BHC (Lindane)	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
beta-BHC	SW8081B	10	0.0032	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
delta-BHC	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Heptachlor	SW8081B	10	0.0011	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Aldrin	SW8081B	10	0.0020	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Heptachlor Epoxide	SW8081B	10	0.00078	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
gamma-Chlordane	SW8081B	10	0.0016	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
alpha-Chlordane	SW8081B	10	0.0017	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
4,4'-DDE	SW8081B	10	0.0019	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Endosulfan I	SW8081B	10	0.0018	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Dieldrin	SW8081B	10	0.0015	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Endrin	SW8081B	10	0.0019	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
4,4'-DDD	SW8081B	10	0.0057	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Endosulfan II	SW8081B	10	0.0058	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
4,4'-DDT	SW8081B	10	0.0013	0.020	0.00135	J	mg/Kg	04/01/20	4:10	LA	447104
Endrin Aldehyde	SW8081B	10	0.0015	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Methoxychlor	SW8081B	10	0.0020	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Endosulfan Sulfate	SW8081B	10	0.0012	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Endrin Ketone	SW8081B	10	0.00094	0.020	ND		mg/Kg	04/01/20	4:10	LA	447104
Chlordane	SW8081B	10	0.021	0.20	ND		mg/Kg	04/01/20	4:10	LA	447104
Toxaphene	SW8081B	10	0.085	0.50	ND		mg/Kg	04/01/20	4:10	LA	447104
Acceptance Limits											
TCMX (S)	SW8081B		48 - 125		103		%	04/01/20	4:10	LA	447104
DCBP (S)	SW8081B		38 - 135		95.2		%	04/01/20	4:10	LA	447104

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



MB Summary Report

Work Order:	2003255	Prep Method:	6020S-P	Prep Date:	03/27/20	Prep Batch:	1121615
Matrix:	Soil	Analytical Method:	6020A	Analyzed Date:	3/30/2020	Analytical Batch:	447073
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Arsenic	0.21	1.0	ND	
Lead	0.054	1.0	0.082	

Work Order:	2003255	Prep Method:	3546_OCP	Prep Date:	03/31/20	Prep Batch:	1121654
Matrix:	Soil	Analytical Method:	SW8081B	Analyzed Date:	4/1/2020	Analytical Batch:	447104
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			91.9	
DCBP (S)			105	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003255	Prep Method:	6020S-P	Prep Date:	03/27/20	Prep Batch:	1121615
Matrix:	Soil	Analytical Method:	6020A	Analyzed Date:	3/30/2020	Analytical Batch:	447073
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.21	1.0	ND	25	82.2	84.8	3.36	80 - 120	30	
Lead	0.054	1.0	0.082	25	98.4	96.9	1.64	80 - 120	30	

Work Order:	2003255	Prep Method:	3546_OCP	Prep Date:	03/31/20	Prep Batch:	1121654
Matrix:	Soil	Analytical Method:	SW8081B	Analyzed Date:	4/1/2020	Analytical Batch:	447104
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	105	110	4.43	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	100	106	6.06	40 - 130	30	
Aldrin	0.20	2.0	ND	40	99.0	104	4.44	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	97.5	102	4.02	60 - 130	30	
Endrin	0.19	2.0	ND	40	101	101	0.000	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	103	106	3.35	45 - 140	30	
TCMX (S)				100	92.1	107		48 - 125		
DCBP (S)				100	114	123		38 - 135		



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003255	Prep Method:	6020S-P	Prep Date:	03/27/20	Prep Batch:	1121615
Matrix:	Soil	Analytical Method:	6020A	Analyzed Date:	March 30	Analytical Batch:	447073
Spiked Sample:	2003255-002A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.21	1.0	1.65	25	99.5	111	10.4	71.0 - 121	30	
Lead	0.054	1.0	25.2	25	106	117	6.02	57.9 - 118	33	

Work Order:	2003255	Prep Method:	3546_OCP	Prep Date:	03/31/20	Prep Batch:	1121654
Matrix:	Soil	Analytical Method:	SW8081B	Analyzed Date:	4/1/2020	Analytical Batch:	447104
Spiked Sample:	2003255-010A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	1.59	20.0	ND	40	94.0	87.2	7.45	25 - 135	30	
Heptachlor	1.05	20.0	ND	40	89.0	86.0	3.43	40 - 130	30	
Aldrin	1.95	20.0	ND	40	89.9	82.8	8.12	25 - 140	30	
Dieldrin	1.48	20.0	ND	40	89.6	81.2	9.66	60 - 130	30	
Endrin	1.88	20.0	ND	40	84.7	78.3	7.98	55 - 135	30	
4,4'-DDT	1.29	20.0	ND	40	80.7	73.3	9.02	45 - 140	30	
TCMX (S)				100	88.1	80.1		48 - 125		
DCBP (S)				100	86.1	79.7		38 - 135		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg/m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Date and Time Received: 3/27/2020 12:10:00PM

Project Name: 1180 East Cypress Road

Received By: Helena Ueng

Work Order No.: 2003255

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3.0 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: N/A pH Adjusted by: N/A

Comments:



Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: 1180 East Cypress Road
Project # : 16836.001.000
Report Due Date: 4/1/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 3/27/2020
Time Received: 12:10 pm

Comments:

Work Order # : 2003255

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2003255-001A	1-S1	03/26/20 10:30	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-002A	1-S2	03/26/20 10:32	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-003A	1-S3	03/26/20 10:35	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-004A	1-S4	03/26/20 10:36	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-005A	1-S5	03/26/20 10:39	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-006A	1-S6	03/26/20 10:38	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-007A	1-S7	03/26/20 10:40	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-008A	1-S8	03/26/20 10:42	Soil	09/22/20			Composite Met_S_6020AsPb	
2003255-009A	1-S1-S4 Composite	03/26/20	Soil	09/22/20			Pest_S_8081OCP	
2003255-010A	1-S5-S8 Composite	03/26/20	Soil	09/22/20			Pest_S_8081OCP	



CHAIN OF CUSTODY RECORD

2003255

PROJECT NUMBER 10834.001.000		PROJECT NAME 1180 EAST CYPRESS ROAD						OCPS 8081A Total Lead + Arsenic + Vols VOLS - TPH-9 OVVgen + methane TD-15 ASTMD-1940	REMARKS REQUIRED DETECTION LIMITS
SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts		PROJECT MANAGER: (SIGNATURE/PRINT) Victoria Drake							
ROUTING: E-MAIL vdrake, twerts, smunger@engeo.com									
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	OCPS 8081A	REMARKS	
1-S1	3/26/20	10:30	Soil	1	Sieve	N/A	X	-009A 4:1 comp	
1-S2		10:32					X		
1-S3		10:35					X		
1-S4		10:36					X		
1-S5		10:39					X		
1-S6		10:38					X		
1-S7		10:40					X		
1-S8		10:42	↓		↓		X		
1-S65		10:58	AIR		1L Summa		X	-010A 4:1 comp	
1-S66		11:08	↓		↓		X		
RELINQUISHED BY: (SIGNATURE)		DATE/TIME	RECEIVED BY: (SIGNATURE)		DATE/TIME	RELINQUISHED BY: (SIGNATURE)		DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)		DATE/TIME	RECEIVED BY: (SIGNATURE)		DATE/TIME	RELINQUISHED BY: (SIGNATURE)		DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)		DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE/TIME	REMARKS			



2010 CROW CANYON PLACE SUITE 550
 SAN RAMON, CALIFORNIA 94583
 (925) 866-9000 FAX (888) 279-2698
 WWW.ENGEO.COM

Standard TAT

FCS Temp=3°C #2

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES



Engeo (San Ramon)
2010 Crow Canyon Place, #250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199
RE: 1180 East Cypress Road

Work Order No.: 2003256 Rev: 2

Dear Victoria Drake:

Torrent Laboratory, Inc. received 2 sample(s) on March 27, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

April 01, 2020

Date



Date: 4/1/2020

Client: Engeo (San Ramon)

Project: 1180 East Cypress Road

Work Order: 2003256

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

REVISIONS

Report revised to correct sample IDs.

Rev. 1 (4/2/20)

Report revised to include Methane and Oxygen data.

Rev. 2 (4/7/20)



Sample Result Summary

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-SG5

2003256-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	5	0.053	0.25	18%
Hexane	ETO15	1	0.46	1.8	14
Benzene	ETO15	1	0.44	1.6	4.4
Trichloroethylene	ETO15	1	0.81	2.7	3.9
Toluene	ETO15	1	0.75	1.9	17
Tetrachloroethylene	ETO15	1	1.5	3.4	4.8
m,p-Xylene	ETO15	1	0.98	2.2	2.5
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	25
GRO (C5-C12)	TO-15	1	40	180	427

1-SG6

2003256-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	4.7	0.050	0.24	19%
Hexane	ETO15	1	0.46	1.8	5.6
Benzene	ETO15	1	0.44	1.6	1.6
Trichloroethylene	ETO15	1	0.81	2.7	3.5
Toluene	ETO15	1	0.75	1.9	7.1
Tetrachloroethylene	ETO15	1	1.5	3.4	3.4
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	15
1,1-Difluoroethane	ETO15	30	10	410	1400
GRO (C5-C12)	TO-15	1	40	180	253



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG5	Lab Sample ID: 2003256-001A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 10:58	Certified Clean WO # :
Canister/Tube ID: A7562	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/2/20	2:00:00PM
Prep Batch ID: 1121718	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	5.00	0.053	0.25	18			04/02/20	16:50	BA	447148
Methane	D1946	5.00	0.012	0.025	ND			04/02/20	16:50	BA	447148

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	18:33	BA	447099
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		03/30/20	18:33	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	18:33	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	18:33	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	18:33	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	18:33	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	18:33	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	18:33	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	18:33	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	18:33	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	18:33	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		03/30/20	18:33	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	18:33	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	18:33	BA	447099
Acetone	ETO15	1.00	0.40	12	ND	ND		03/30/20	18:33	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	18:33	BA	447099
Hexane	ETO15	1.00	0.46	1.8	14	3.98		03/30/20	18:33	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	18:33	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		03/30/20	18:33	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	18:33	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	18:33	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	18:33	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	18:33	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		03/30/20	18:33	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG5	Lab Sample ID: 2003256-001A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 10:58	Certified Clean WO # :
Canister/Tube ID: A7562	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20 12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	18:33	BA	447099
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	18:33	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	18:33	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	18:33	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	18:33	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	18:33	BA	447099
Benzene	ETO15	1.00	0.44	1.6	4.4	1.38		03/30/20	18:33	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	18:33	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	18:33	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	3.9	0.73		03/30/20	18:33	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	18:33	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	18:33	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	18:33	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	18:33	BA	447099
Toluene	ETO15	1.00	0.75	1.9	17	4.51		03/30/20	18:33	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		03/30/20	18:33	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	18:33	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.8	0.71		03/30/20	18:33	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	18:33	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	18:33	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	18:33	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	18:33	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	18:33	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	18:33	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	18:33	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	2.5	0.58		03/30/20	18:33	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	18:33	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	18:33	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	18:33	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	18:33	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	18:33	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	18:33	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	18:33	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG5	Lab Sample ID: 2003256-001A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 10:58	Certified Clean WO # :
Canister/Tube ID: A7562	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	18:33	BA	447099
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	25	4.16		03/30/20	18:33	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	18:33	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	18:33	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	18:33	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	18:33	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	100 %			03/30/20	18:33	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	427	121.31	x	03/30/20	18:33	BA	447099

NOTE: x- Although some Gasoline constituents are present, the sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG6	Lab Sample ID: 2003256-002A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 11:08	Certified Clean WO # :
Canister/Tube ID: R3580	Received PSI : 14.2
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/2/20	2:00:00PM
Prep Batch ID: 1121718	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.70	0.050	0.24	19			04/02/20	17:16	BA	447148
Methane	D1946	4.70	0.011	0.024	ND			04/02/20	17:16	BA	447148

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	19:06	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	19:06	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	19:06	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	19:06	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	19:06	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	19:06	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	19:06	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	19:06	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	19:06	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	19:06	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		03/30/20	19:06	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	19:06	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	19:06	BA	447099
Acetone	ETO15	1.00	0.40	12	ND	ND		03/30/20	19:06	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	19:06	BA	447099
Hexane	ETO15	1.00	0.46	1.8	5.6	1.59		03/30/20	19:06	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	19:06	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		03/30/20	19:06	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	19:06	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	19:06	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	19:06	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	19:06	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		03/30/20	19:06	BA	447099
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	19:06	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG6	Lab Sample ID: 2003256-002A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 11:08	Certified Clean WO # :
Canister/Tube ID: R3580	Received PSI : 14.2
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20 12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	19:06	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	19:06	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	19:06	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	19:06	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	19:06	BA	447099
Benzene	ETO15	1.00	0.44	1.6	1.6	0.50		03/30/20	19:06	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	19:06	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	19:06	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	3.5	0.65		03/30/20	19:06	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	19:06	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	19:06	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	19:06	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	19:06	BA	447099
Toluene	ETO15	1.00	0.75	1.9	7.1	1.88		03/30/20	19:06	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		03/30/20	19:06	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	19:06	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	3.4	0.50		03/30/20	19:06	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	19:06	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	19:06	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	19:06	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	19:06	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	19:06	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	19:06	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	19:06	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		03/30/20	19:06	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	19:06	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	19:06	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	19:06	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	19:06	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	19:06	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	19:06	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	19:06	BA	447099
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	19:06	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG6	Lab Sample ID: 2003256-002A
Project Name/Location: 1180 East Cypress Road	Sample Matrix: Air
Project Number: 16836.001.000	
Date/Time Sampled: 03/26/20 / 11:08	Certified Clean WO # :
Canister/Tube ID: R3580	Received PSI : 14.2
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	15	2.50		03/30/20	19:06	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	19:06	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	19:06	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	19:06	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	19:06	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	96 %			03/30/20	19:06	BA	447099

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,1-Difluoroethane	ETO15	30.00	10	410	1400	518.52		03/30/20	18:08	BA	447099
(S) 4-Bromofluorobenzene	ETO15	30.00	50	150	95 %			03/30/20	18:08	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	253	71.88	x	03/30/20	19:06	BA	447099

NOTE: x- Sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



MB Summary Report

Work Order:	2003256	Prep Method:	TO15-P	Prep Date:	03/30/20	Prep Batch:	1121681
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.32	0.50	ND	
1,1-Difluoroethane	0.13	5.0	0.16	
1,2-Dichlorotetrafluoroethane	0.20	0.50	ND	
Chloromethane	0.99	2.0	ND	
Vinyl Chloride	0.088	0.50	ND	
1,3-Butadiene	0.15	0.50	ND	
Bromomethane	0.17	0.50	0.21	
Chloroethane	0.31	0.50	ND	
Trichlorofluoromethane	0.099	0.50	ND	
1,1-Dichloroethene	0.21	0.50	ND	
Freon 113	0.13	0.50	ND	
Carbon Disulfide	0.12	0.50	ND	
2-Propanol (Isopropyl Alcohol)	0.52	5.0	ND	
Methylene Chloride	0.20	3.0	ND	
Acetone	0.17	5.0	ND	
trans-1,2-Dichloroethene	0.12	0.50	ND	
Hexane	0.13	0.50	ND	
MTBE	0.12	0.50	ND	
tert-Butanol	0.20	0.50	ND	
Diisopropyl ether (DIPE)	0.18	0.50	ND	
1,1-Dichloroethane	0.13	0.50	ND	
ETBE	0.078	0.50	ND	
cis-1,2-Dichloroethene	0.21	0.50	ND	
Chloroform	0.20	0.50	ND	
Vinyl Acetate	0.22	0.50	ND	
Carbon Tetrachloride	0.18	0.50	ND	
1,1,1-Trichloroethane	0.15	0.50	ND	
2-Butanone (MEK)	0.13	0.50	ND	
Ethyl Acetate	0.13	0.50	ND	
Tetrahydrofuran	0.15	0.50	ND	
Benzene	0.14	0.50	ND	
TAME	0.16	0.50	ND	
1,2-Dichloroethane (EDC)	0.10	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
1,2-Dichloropropane	0.17	0.50	ND	
Bromodichloromethane	0.11	0.50	ND	
1,4-Dioxane	0.50	1.0	ND	
trans-1,3-Dichloropropene	0.23	0.50	ND	
Toluene	0.20	0.50	ND	
4-Methyl-2-Pentanone (MIBK)	0.18	0.50	ND	
cis-1,3-Dichloropropene	0.093	0.50	ND	
Tetrachloroethylene	0.22	0.50	ND	



MB Summary Report

Work Order:	2003256	Prep Method:	TO15-P	Prep Date:	03/30/20	Prep Batch:	1121681
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
1,1,2-Trichloroethane	0.11	0.50	ND		
Dibromochloromethane	0.13	0.50	ND		
1,2-Dibromoethane (EDB)	0.096	0.50	ND		
2-Hexanone	0.16	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
Chlorobenzene	0.13	0.50	ND		
1,1,1,2-Tetrachloroethane	0.12	0.50	ND		
m,p-Xylene	0.23	0.50	ND		
o-Xylene	0.070	0.50	ND		
Styrene	0.11	0.50	ND		
Bromoform	0.13	0.50	ND		
1,1,2,2-Tetrachloroethane	0.12	0.50	ND		
4-Ethyl Toluene	0.11	0.50	ND		
1,3,5-Trimethylbenzene	0.061	0.50	ND		
1,2,4-Trimethylbenzene	0.12	0.50	ND		
1,4-Dichlorobenzene	0.12	0.50	ND		
1,3-Dichlorobenzene	0.22	0.50	ND		
1,2-Dichlorobenzene	0.18	0.50	ND		
Hexachlorobutadiene	0.17	0.50	ND		
1,2,4-Trichlorobenzene	0.29	0.50	ND		
Naphthalene	0.24	0.50	ND		
Cyclohexane	0.50	0.50	ND		
Benzyl Chloride	0.20	0.50	ND		
Heptane	0.13	0.50	ND		
(S) 4-Bromofluorobenzene			86		

Work Order:	2003256	Prep Method:	TO15-GRO	Prep Date:	03/30/20	Prep Batch:	1121682
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
GRO (C5-C12)	11	50	21		



MB Summary Report

Work Order:	2003256	Prep Method:	FG-P	Prep Date:	04/02/20	Prep Batch:	1121718
Matrix:	Air	Analytical Method:	D1946	Analyzed Date:	4/2/2020	Analytical Batch:	447148
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Oxygen	110	500	ND	
Methane	23	50	ND	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003256	Prep Method:	TO15-P	Prep Date:	03/30/20	Prep Batch:	1121681
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.21	0.50	ND	8.00	128	130	1.94	65 - 135	30	
Benzene	0.14	0.50	0.16	8.00	107	105	1.65	65 - 135	30	
Trichloroethylene	0.15	0.50	ND	8.00	109	107	2.20	65 - 135	30	
Toluene	0.20	0.50	ND	8.00	104	102	1.82	65 - 135	30	
Chlorobenzene	0.13	0.50	ND	8.00	106	107	1.17	65 - 135	30	
(S) 4-Bromofluorobenzene				20.0	96.5	93.5		50 - 150		

Work Order:	2003256	Prep Method:	TO15-GRO	Prep Date:	03/30/20	Prep Batch:	1121682
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
GRO (C5-C12)	11	50	21	417	110	114	3.65	65 - 135	30	

Work Order:	2003256	Prep Method:	FG-P	Prep Date:	04/02/20	Prep Batch:	1121718
Matrix:	Air	Analytical Method:	D1946	Analyzed Date:	4/2/2020	Analytical Batch:	447148
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Oxygen	110	500	ND	2500	119	110	7.67	65 - 135	30	
Methane	230	500	ND	2500	89.8	80.9	10.8	65 - 135	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg/m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Date and Time Received: 3/27/2020 12:10:00PM

Project Name: 1180 East Cypress Road

Received By: Helena Ueng

Work Order No.: 2003256

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Temperature: °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: N/A pH Adjusted by: N/A

Comments:

Summa canisters received at ambient temperature.



Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: 1180 East Cypress Road
Project # : 16836.001.000
Report Due Date: 4/7/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 3/27/2020
Time Received: 12:10 pm

Comments:

Work Order # : 2003256

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2003256-001A	1-SG5	03/26/20 10:58	Air	09/22/20			VOC_A_TO15 VOC_A_FG D1946 VOC_A_TO15GRO	
2003256-002A	1-SG6	03/26/20 11:08	Air	09/22/20			VOC_A_TO15 VOC_A_TO15GRO VOC_A_FG D1946	



Change Order

Work Order: 2003256

Serial #: CO20-0217

Print Date: 4/7/2020

Project Name: 1180 East Cypress Road

Client: Engeo (San Ramon)

Requested By: Victoria Drake

	<u>Requested Date</u>	<u>Requested Time</u>	<u>Extended Price</u>
Analyze 001 & 002 for Methane/Oxygen; STD TAT	4/2/2020	10:00:00AM	

Appendix H
Phase II ESA for the Burroughs Property

Project No.
16836.000.000

April 10, 2020
Revised December 7, 2020

Mr. Adam Tennant
WestGate Ventures Fund III, LLC
2551 San Ramon Valley Boulevard, Suite 224
San Ramon, CA 84583

Subject: Burroughs Property
APN 032-081-026
Oakley, California

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Reference: ENGEO, Draft Phase I Environmental Site Assessment, Burroughs Property, Oakley, California, December 23, 2019, Project No. 16836.000.000.

Dear Mr. Tennant:

We are pleased to submit the findings of our phase II environmental site assessment (ESA) undertaken at the subject property (Property) in Oakley, California. The purpose of this assessment is to evaluate potential impacts associated with the former dry gas production well within the Property.

BACKGROUND

The Property is located at 1180 East Cypress Road in Oakley, California, as shown in Figure 1. The approximately 18-acre Property is identified by Assessor's Parcel Number (APN) 032-081-026. ENGEO conducted a phase I ESA for the Property in December 2019. At the time of our phase I ESA, the Property consisted of undeveloped grazing land with perimeter fencing.

Historically, the Property has been used for cattle grazing and gas production. One abandoned dry gas production well is located within the Property boundaries. The 7,700-foot deep well was installed in 1964 and ceased production sometime prior to 1985. The well was abandoned and received clearance from the Division of Oil, Gas, and Geothermal Resources (DOGGR, now CalGEM) in 2004. Although there is no record of a release on the Property, it is conceivable that subsurface impacts associated with the former gas production may have occurred.

Based on the findings of our phase I ESA, we recommended a limited subsurface assessment be undertaken to determine if the former gas well operations have impacted site soil, soil gas, and/or groundwater.

Based on our review of the preliminary site layout prepared by Bellecci and Associates, Inc. dated November 19, 2020, we understand that the abandoned gas well will be located on a vacant corner lot. The abandoned gas well will be approximately 15 feet away from the nearest residential lot, Lot 87. Under this configuration, the well does not pose an environmental concern, provided no utilities overlie the well.

FIELD EXPLORATION

Field sampling activities associated with the phase II ESA were performed on March 26, 2020. Prior to drilling, ENGEO acquired soil boring permits from the Contra Costa County Environmental Health Division, and an ENGEO representative contacted USA North Service Alert for identification of underground utilities at the Property.

A C-57 licensed drilling contractor was retained to advance ten soil borings: five to collect soil samples, one to collect soil and groundwater samples, and four to collect soil gas samples at the Property. The exploration locations are shown on Figure 2.

Soil Sampling

Soil samples were collected from the six shallow soil borings (1-B1 through 1-B6) at approximately 5 feet below the ground surface. Soil cuttings were screened using a photoionization detector (PID) and for visual and/or olfactory evidence of impact. No significant PID readings were recorded. A total of six soil samples were collected. Soil samples were transported under documented chain-of-custody to Torrent Laboratory, Inc. (Torrent), a State-certified laboratory based in Milpitas, California, for analysis.

The soil samples were analyzed on a discrete basis for the following.

- Volatile Organic Compounds (VOCs) by EPA Test Method 8260B.

Groundwater Sampling

Following soil sampling, one soil boring, 1-B6, was extended to a depth of approximately 15 feet below the ground surface. One grab groundwater sample was collected from 1-B6 by inserting a temporary PVC casing in the soil boring and allowing groundwater to stabilize. Groundwater was encountered at approximately 8 feet below the ground surface. The groundwater sample was collected in 40-milliliter VOA containers with hydrochloric acid preservative. The sample containers were then labeled, immediately placed on ice, and transported under documented chain-of-custody to Torrent for analysis.

The groundwater sample was analyzed on a discrete basis for the following.

- VOCs and Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA Method 8260.
- TPH-Diesel and TPH-Motor Oil by EPA Method 8015B.
- CAM-17 Metals by EPA Method 6010B/7471A

Soil Gas Sampling

We drilled an additional four soil borings to approximately 5 feet below the ground surface and converted these borings into temporary soil gas wells (1-SG1 through 1-SG4). The temporary soil gas well casings consisted of ¼-inch-diameter Teflon® tubing equipped with a filter at the base of the tubing. Soil gas probes were left to equilibrate for a minimum of two hours prior to sample collection. The sampling was performed in general accordance with the DTSC *Final Advisory Active Soil Gas Investigations* (July 2015). During sampling, we used 1,1-difluoroethane (1,1-DFA) as a leak check compound. Soil gas samples were collected in 1-liter summa canisters, labeled

and transported under documented chain-of-custody to Torrent Laboratory, Inc. (Torrent), a State-certified laboratory based in Milpitas, California, for analysis.

The soil gas samples were analyzed on a discrete basis for the following:

- VOCs and TPH-Gasoline by EPA Method TO-15
- Oxygen and Methane by ASTM D-1946

The soil borings and temporary soil gas wells were abandoned shortly after sampling.

ANALYTICAL RESULTS

We compared laboratory test results to corresponding San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs) for residential land use. Though screening levels are tools for screening purposes and are not statutory, regulatory agencies can choose to apply screening levels as action levels for a site. The results are summarized in Tables A and B, attached, and the laboratory analysis reports are presented in their entirety in Appendix A. The following is a summary of the laboratory results.

Soil Results

Review of the laboratory test results indicated all VOC analytes at non-detectable concentrations for all soil samples. The laboratory analysis report is presented in its entirety in Appendix A.

Groundwater Results

Groundwater results were compared to California Maximum Contaminant Levels (CA MCLs)¹. The following is a summary of the laboratory results.

- Review of laboratory test results found detectable concentrations of three CAM-17 metal analytes. The detected analytes include barium, chromium, and molybdenum. The reported concentrations for the detected analytes are listed in Table A. As indicated in the table, the reported concentrations are below the applicable CA MCLs. All other CAM-17 metal analytes were reported at non-detectable concentrations.
- All VOC analytes, TPH-Gasoline, TPH-Diesel, and TPH-Motor Oil were reported at non-detectable concentrations.

Table A provides a summary of the concentrations of detected analytes, as well as their corresponding CA MCL. The laboratory analysis report is presented in its entirety in Appendix A.

Soil Gas Results

Soil gas results were compared to RWQCB subslab/soil gas ESLs² considering a residential land use scenario. The following is a summary of the laboratory results.

¹ San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), Direct Exposure Human Health Risk Levels, Groundwater, MCL Priority (Table GW-1), January 2019.

² San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels (Table SG-1), Residential Exposure, January 2019.

- Review of laboratory test results found detectable concentrations of several VOCs, including carbon disulfide, acetone, hexane, tert-butanol, chloroform, benzene, trichloroethylene, toluene, 4-methyl-2-pentanone (MBK), tetrachloroethylene, m,p-xylene, and 1,3-dichlorobenzene. The reported concentrations for the detected constituents are listed in Table B. With the exception of chloroform and benzene, the reported concentrations of the detected VOCs are below the applicable RWQCB ESLs for residential land use.
- Chloroform was detected in Soil Gas Samples 1-SG2, 1-SG3, and 1-SG4 at concentrations of 3.0, 8.6, and 3.7 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), respectively. The reported concentration of chloroform for Sample 1-SG3 is above the current RWQCB ESL of $4.1 \mu\text{g}/\text{m}^3$ considering a residential land use scenario.
- Benzene was detected in Soil Gas Samples 1-SG1 and 1-SG2. These samples reported benzene concentrations of $5.3 \mu\text{g}/\text{m}^3$ and $2.5 \mu\text{g}/\text{m}^3$, respectively. The reported benzene concentration for Sample 1-SG1 is above the RWQCB ESL of $3.2 \mu\text{g}/\text{m}^3$ considering a residential land use scenario.
- All soil gas samples reported detectable concentrations of TPH-Gasoline, ranging from $270 \mu\text{g}/\text{m}^3$ to $514 \mu\text{g}/\text{m}^3$. These concentrations are below applicable RWQCB ESL of $20,000 \mu\text{g}/\text{m}^3$ assuming a residential land use scenario.
- All soil gas samples reported detectable concentrations of oxygen, ranging from 17% to 22%. At the time of preparation of this report, an ESL for residential soil gas vapor had not been established for oxygen.
- Methane was reported at non-detectable concentrations for all soil gas samples.

Table B provides a summary of the concentrations of detected analytes, as well as their corresponding screening level for residential land use. The laboratory analysis report is presented in its entirety in Appendix A.

SOIL GAS SCREENING LEVELS

Screening levels for chemicals in soil, groundwater, and soil gas are not intended to establish regulations or restrictions on land use nor to establish any mitigation or remediation requirements, and “the presence of a chemical at concentrations in excess of a screening does not necessarily indicate adverse effects on human health or the environment, rather that additional evaluation is warranted.”³ Health and Safety Code Section 57008(a)(3) of SB 32 states the following:

A screening number is solely an advisory number, and has no regulatory effect, and is published solely as a reference value that may be used by citizen groups, community organizations, property owners, developers, and local government officials to estimate the degree of effort that may be necessary to remediate a contaminated property. A screening number may not be construed as, and may not serve as, a level that can be used to require an agency to determine that no further action is required or a substitute for the cleanup level that is required to be achieved for a contaminant on a contaminated property.

³ San Francisco Bay Regional Water Quality Control Board, User's Guide: Derivation and Application of Environmental Screening Levels (ESLs), Interim Final 2016 Water Board Environmental Screening Levels.

The concern with elevated VOCs in soil gas with respect to a risk to human health is if soil gas enters indoor air through vapor intrusion. The screening levels for soil gas are therefore calculated based on a ratio of the acceptable indoor air concentration to the soil gas concentration. This ratio is referred to as an attenuation factor. The indoor air screening levels for select VOCs are shown in Table 1 below and are the same for both the San Francisco Regional Water Quality Control Board (SFRWQCB) and Department of Toxic Substances Control (DTSC).

DTSC’s most recent guidance related to site assessments for vapor intrusion concern (2011 Vapor Intrusion Guidance) recommends using default attenuation factors based on six different building scenarios, which can be applied for site-specific conditions. DTSC developed their default attenuation factors using the national empirical vapor intrusion database (U.S. EPA, 2008⁴). Soil vapor and paired indoor air measurements, consisting of 311 samples at 13 sites, were reviewed. An attenuation factor of 0.05 (or 20), representing approximately the 90th percentile of the data, was selected as an appropriate attenuation factor for existing residential structures. For new residential construction, the DTSC attenuation factor is 0.001 (or 1,000). Prior to January 2019, the SFRWQCB used an attenuation factor of 0.002 (or 500). However, in January 2019, the SFRWQCB updated its environmental screening levels to use the U.S. EPA’s generic attenuation factor of 0.03 (or 33)⁵. This dramatically reduced the screening levels for numerous VOCs.

In April 2019, DTSC’s Human and Ecological Risk Office (HERO) released an update to its Human Health Risk Assessment Note (referred to as HERO Note 3) that recommended using both the tailored attenuation factors included in the 2011 Vapor Intrusion Guidance and the U.S. EPA generic attenuation factor of 0.03. Therefore, this assessment compares the measured soil gas concentrations to two screening levels – one calculated based on the recommended attenuation factor for new residential construction (0.001) and one calculated based on the U.S. EPA’s generic attenuation factor of 0.03.

TABLE 1: Indoor Air and Soil Gas Screening Levels for Residential Land Use Scenario

CHEMICAL	SF REGIONAL BOARD		DTSC		SOIL GAS SAMPLE
	INDOOR AIR (µg/m ³)	SUBSLAB / SOIL GAS AF: 0.03 (µg/m ³)	INDOOR AIR (µg/m ³)	SOIL GAS AF: 0.001 (µg/m ³)	MAXIMUM CONCENTRATION (µg/m ³)
Benzene	0.097	3.2	0.097	97	5.3
Chloroform	0.12	4.1	0.12	120	8.6

AF: Attenuation Factor

DISCUSSION AND CONCLUSION

Review of the soil laboratory test results found all VOC analytes at non-detectable concentrations for all soil samples.

Review of groundwater laboratory test results found detectable concentrations of barium, chromium, and molybdenum below the applicable CA MCL. All other groundwater analytes were reported at non-detectable concentrations.

⁴ U.S. EPA’s Vapor Intrusion Database: Preliminary Evaluation of Attenuation Factors, March 4, 2008

⁵ San Francisco Bay Regional Water Quality Control Board Update to Environmental Screening Levels dated January 24, 2019.

Review of soil gas laboratory test results found detectable concentrations of TPH-Gasoline, oxygen, and several VOCs. All of the reported concentrations of TPH-Gasoline were below the applicable residential RWQCB ESL. Reported concentrations of VOCs were below respective RWQCB ESLs with the exception of chloroform and benzene. Although these constituents are above the RWQCB ESL, they remain below the DTSC Vapor Intrusion Guidance Levels, reflecting new residential construction.

Based on the proposed improvements shown on the preliminary site layout, we understand that the abandoned gas will be approximately 15 feet away from the nearest residential lot.

Based on our review of the preliminary site layout and the findings of our soil, soil gas, and groundwater sampling and analysis, it is our professional opinion that these conditions do not represent a significant health risk for future residential land users. ENGEO recommends no further environmental studies at this time.

If you have any questions regarding this report, please contact us.

Sincerely,

ENGEO Incorporated



Victoria Drake, EIT
vd/sm/dt



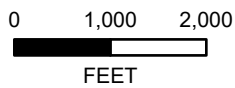
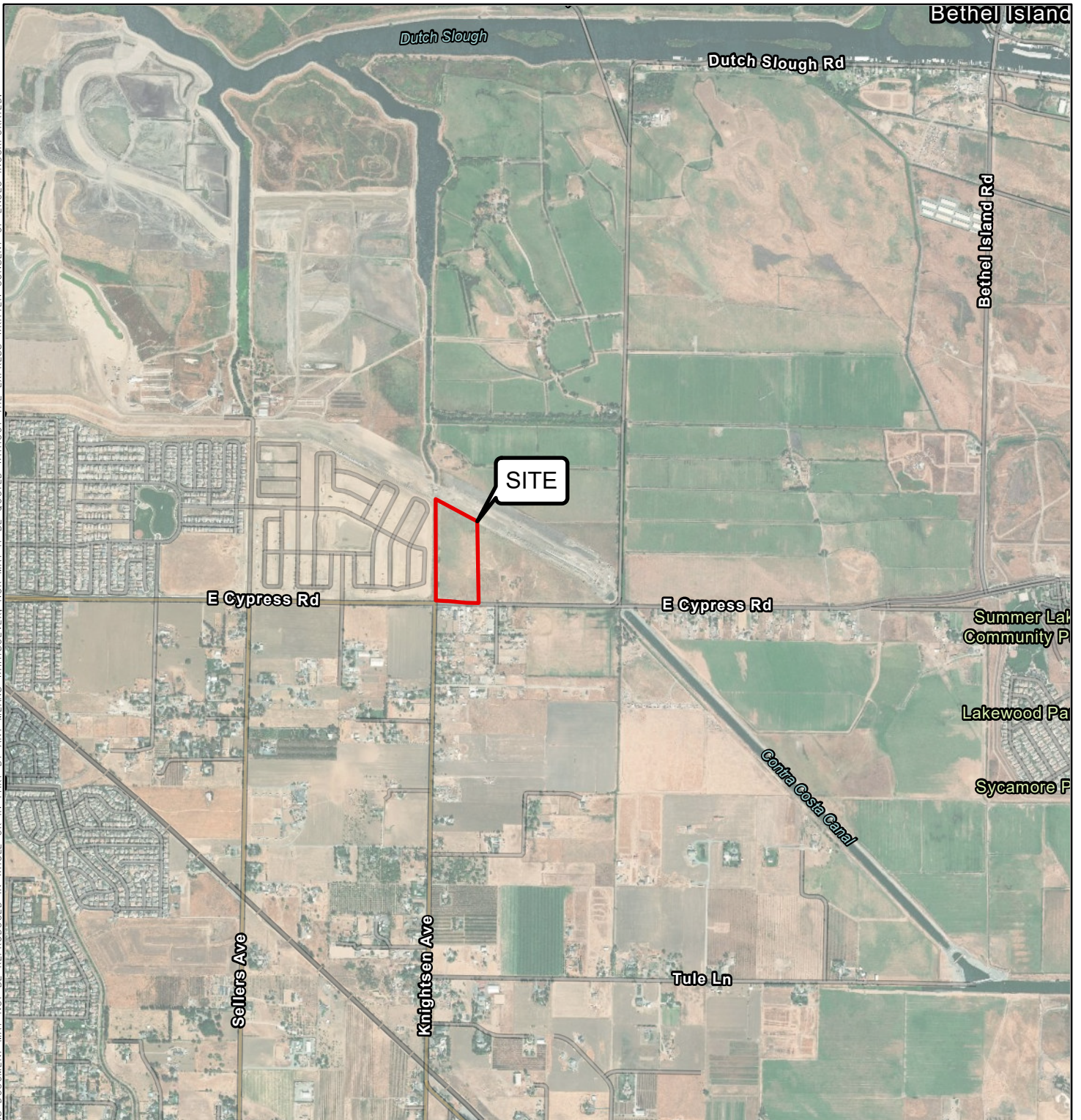
Shawn Munger, CHG

Attachments: Figures
Tables A and B
Appendix A – Laboratory Analytical Reports

FIGURES

Figure 1 – Vicinity Map
Figure 2 – Site Plan

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BASEMAP SOURCE: ESRI MAPPING SERVICE 2017



VICINITY MAP
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000

SCALE: AS SHOWN

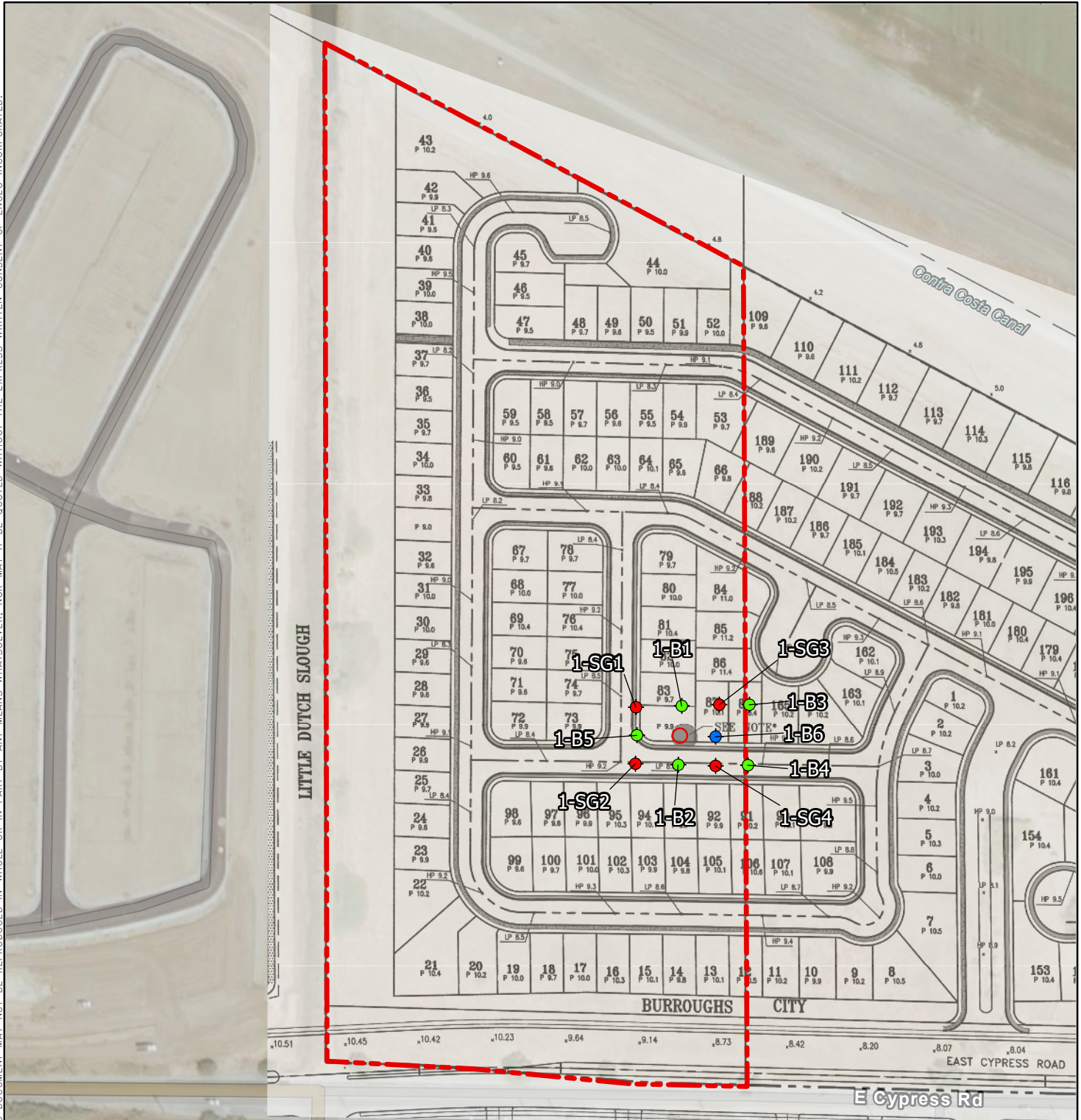
DRAWN BY: QRL

CHECKED BY: SPM

FIGURE NO.

1

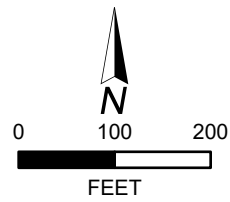
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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- PROJECT SITE
- ◆ SOIL GAS SAMPLE (ENGEO, 2020)
- ◆ SOIL SAMPLE (ENGEO, 2020)
- ◆ GROUNDWATER AND SOIL SAMPLE (ENGEO, 2020)
- ABANDONED DRY GAS WELL



BASEMAP SOURCE: ESRI MAPPING SERVICE 2019, BELLECCI & ASSOCIATES



SITE PLAN
 BURROUGHS PROPERTY
 OAKLEY, CALIFORNIA

PROJECT NO. : 16836.000.000	FIGURE NO.
SCALE: AS SHOWN	2
DRAWN BY: QRL	CHECKED BY: SPM

TABLES

Table A: Summary of Groundwater Analytical Results
Table B: Summary of Soil Gas Analytical Results

TABLE A - Summary of Groundwater Analytical Results

Sample ID	CAM-17 Metals		
	µg/L		
	Barium	Chromium	Molybdenum
1-B6-GW	91.3	8.5	23
CA MCL - Risk Hazard for Groundwater ¹	1,000	50	100

¹San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs), Direct Exposure Human Health Risk Levels, Groundwater, MCL Priority (Table GW-1), January 2019.

Bold indicates results exceed the CA MCL for groundwater.

TABLE B - Summary of Soil Gas Analytical Results

Sample ID	VOCs												TPH	Other
	µg/m ³												µg/m ³	%
	Carbon Disulfide	Acetone	Hexane	tert-Butanol	Chloroform	Benzene	Trichloroethylene	Toluene	4-Methyl-2-Pentanone (MBK)	Tetrachloroethylene	m,p-Xylene	1,3-Dichlorobenzene	TPH-G	Oxygen
1-SG1	1.6	ND	25	ND	ND	5.3	4.0	18.0	ND	4.5	2.7	28	432	17
1-SG2	1.7	ND	6.4	ND	3.0	2.5	3.5	8.3	2.1	4.1	ND	30	280	17
1-SG3	ND	ND	2.3	6.9	8.6	ND	3.2	7.6	ND	ND	ND	28	514	19
1-SG4	ND	12	2.5	ND	3.7	ND	3.2	5.6	ND	ND	ND	25	270	22
RWQCB ESLs - Risk Hazard for Residential Soil Gas Vapor Intrusion ¹	-	1,100,000	-	-	4.1	3.2	16	10,000	-	15	3,500	-	20,000	-
DTSC-SL for Residential Air (with an attenuation factor of 0.001) ²	-	-	-	-	120	97	-	310,000	-	460	-	-	-	-

ND indicates analyte was reported at non-detectable concentrations.

- indicates screening level not reported.

¹San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Subslab/Soil Gas Vapor Intrusion: Human Health Risk Levels, Residential (Table SG-1), January 2019.

²Department of Toxic Substances Control (DTSC), Human Health Risk Assessment (HHRA) Note, Hero HHRA Note Number 3, DTSC-Modified Screening Levels (DTSC-SLs) for Ambient Air, Residential (Table 3) with an attenuation factor of 0.001 for future residential land use, April 2019.

Bold indicates results above the RWQCB ESL for soil gas.

APPENDIX A

Laboratory Analytical Reports



Engeo (San Ramon)
2010 Crow Canyon Place, #250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199
RE: Burroughs Property

Work Order No.: 2003253

Dear Victoria Drake:

Torrent Laboratory, Inc. received 7 sample(s) on March 27, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that reads "Kathie Evans". The signature is written in a cursive style.

Kathie Evans
Project Manager

April 01, 2020

Date



Date: 4/1/2020

Client: Engeo (San Ramon)

Project: Burroughs Property

Work Order: 2003253

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comments for method SW 6010B, 2003253-007C MS/MSD, QC Preparation Batch ID 1121622 Note: The % recoveries for Silver are outside of laboratory control limits but % RPD is within limits. A Post Digestion Spike was analyzed and recovered within acceptance criteria. The associated LCS/LCSD is within both % Recovery and %RPD limits. No corrective action required.

Analytical Comment for method SW8260B, 2003253-006A MS, QC Preparation Batch ID 1121663, Note: The % recovery for the 1,4-BFB surrogate in the MS is outside of laboratory control limits (slight high bias). The associated compounds were recovered within control limits.



Sample Result Summary

Report prepared for: Victoria Drake
 Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-B1@5' 2003253-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B2@5' 2003253-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B3@5' 2003253-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B4@5' 2003253-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B5@5' 2003253-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B6@5' 2003253-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

1-B6-GW 2003253-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Barium	SW6010B	1	0.0010	0.0050	0.0913	mg/L
Chromium	SW6010B	1	0.0010	0.0050	0.00850	mg/L
Molybdenum	SW6010B	1	0.0020	0.010	0.0230	mg/L



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B1@5'	Lab Sample ID:	2003253-001A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:40		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	16:17	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B1@5'	Lab Sample ID:	2003253-001A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:40		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:17	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		119		%	03/27/20	16:17	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		112		%	03/27/20	16:17	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		102		%	03/27/20	16:17	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B2@5'	Lab Sample ID:	2003253-002A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:28		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20 10:46:00AM
Prep Batch ID: 1121663	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	16:46	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B2@5'	Lab Sample ID:	2003253-002A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:28		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	16:46	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		129		%	03/27/20	16:46	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		119		%	03/27/20	16:46	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		108		%	03/27/20	16:46	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B3@5'	Lab Sample ID:	2003253-003A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:23		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	17:15	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B3@5'	Lab Sample ID:	2003253-003A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:23		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:15	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		125		%	03/27/20	17:15	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		117		%	03/27/20	17:15	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		109		%	03/27/20	17:15	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B4@5'	Lab Sample ID:	2003253-004A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:11		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	17:44	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B4@5'	Lab Sample ID:	2003253-004A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:11		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	17:44	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		127		%	03/27/20	17:44	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		117		%	03/27/20	17:44	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		108		%	03/27/20	17:44	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B5@5'	Lab Sample ID:	2003253-005A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:27		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	18:14	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B5@5'	Lab Sample ID:	2003253-005A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 9:27		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:14	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		129		%	03/27/20	18:14	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		118		%	03/27/20	18:14	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		109		%	03/27/20	18:14	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6@5'	Lab Sample ID:	2003253-006A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 10:18		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20 10:46:00AM
Prep Batch ID: 1121663	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.0012	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Chloromethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Vinyl Chloride	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Bromomethane	SW8260B	1	0.0027	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Chloroethane	SW8260B	1	0.0030	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Trichlorofluoromethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1-Dichloroethene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Freon 113	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Methylene Chloride	SW8260B	1	0.0071	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
trans-1,2-Dichloroethene	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
MTBE	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
TBA	SW8260B	1	0.012	0.050	ND		mg/Kg	03/27/20	18:43	BP	447085
Diisopropyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1-Dichloroethane	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Ethyl tert-Butyl ether	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
cis-1,2-Dichloroethene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
2,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Bromochloromethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Chloroform	SW8260B	1	0.0024	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Carbon Tetrachloride	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1,1-Trichloroethane	SW8260B	1	0.0021	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1-Dichloropropene	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Benzene	SW8260B	1	0.0022	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
TAME	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2-Dichloroethane	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Trichloroethylene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Dibromomethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2-Dichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Bromodichloromethane	SW8260B	1	0.0020	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
cis-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Toluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Tetrachloroethylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
trans-1,3-Dichloropropene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1,2-Trichloroethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Dibromochloromethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,3-Dichloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6@5'	Lab Sample ID:	2003253-006A
Project Name/Location:	Burroughs Property	Sample Matrix:	Soil
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 10:18		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 3/27/20	10:46:00AM
Prep Batch ID: 1121663	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Chlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Ethylbenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1,1,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
m,p-Xylene	SW8260B	1	0.0032	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
o-Xylene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Styrene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Bromoform	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Isopropyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
n-Propylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Bromobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,1,2,2-Tetrachloroethane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
2-Chlorotoluene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,3,5-Trimethylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2,3-Trichloropropane	SW8260B	1	0.0019	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
4-Chlorotoluene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
tert-Butylbenzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2,4-Trimethylbenzene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
sec-Butyl Benzene	SW8260B	1	0.0016	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
p-Isopropyltoluene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,3-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,4-Dichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
n-Butylbenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2-Dichlorobenzene	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.0018	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Hexachlorobutadiene	SW8260B	1	0.0014	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2,4-Trichlorobenzene	SW8260B	1	0.0015	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
Naphthalene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
1,2,3-Trichlorobenzene	SW8260B	1	0.0017	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
2-Butanone	SW8260B	1	0.0023	0.010	ND		mg/Kg	03/27/20	18:43	BP	447085
(S) Dibromofluoromethane	SW8260B		59.8 - 148		134		%	03/27/20	18:43	BP	447085
(S) Toluene-d8	SW8260B		55.2 - 133		121		%	03/27/20	18:43	BP	447085
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		115		%	03/27/20	18:43	BP	447085



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6-GW	Lab Sample ID:	2003253-007A
Project Name/Location:	Burroughs Property	Sample Matrix:	Groundwater
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 11:20		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 3/27/20	10:36:00AM
Prep Batch ID: 1121617	Prep Analyst: BPATEL	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1.14	0.30	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Chloromethane	SW8260B	1.14	0.19	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Vinyl Chloride	SW8260B	1.14	0.24	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Bromomethane	SW8260B	1.14	0.24	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Chloroethane	SW8260B	1.14	0.13	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Trichlorofluoromethane	SW8260B	1.14	0.21	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1-Dichloroethene	SW8260B	1.14	0.16	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Freon 113	SW8260B	1.14	0.39	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Methylene Chloride	SW8260B	1.14	0.15	1.1	ND		ug/L	03/27/20	15:24	BP	447044
trans-1,2-Dichloroethene	SW8260B	1.14	0.19	0.57	ND		ug/L	03/27/20	15:24	BP	447044
MTBE	SW8260B	1.14	0.088	0.57	ND		ug/L	03/27/20	15:24	BP	447044
tert-Butanol	SW8260B	1.14	3.4	5.7	ND		ug/L	03/27/20	15:24	BP	447044
DIPE	SW8260B	1.14	0.14	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1-Dichloroethane	SW8260B	1.14	0.14	0.57	ND		ug/L	03/27/20	15:24	BP	447044
ETBE	SW8260B	1.14	0.073	0.57	ND		ug/L	03/27/20	15:24	BP	447044
cis-1,2-Dichloroethene	SW8260B	1.14	0.17	0.57	ND		ug/L	03/27/20	15:24	BP	447044
2,2-Dichloropropane	SW8260B	1.14	0.11	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Bromochloromethane	SW8260B	1.14	0.17	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Chloroform	SW8260B	1.14	0.14	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Carbon Tetrachloride	SW8260B	1.14	0.18	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1,1-Trichloroethane	SW8260B	1.14	0.18	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1-Dichloropropene	SW8260B	1.14	0.21	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Benzene	SW8260B	1.14	0.074	0.57	ND		ug/L	03/27/20	15:24	BP	447044
TAME	SW8260B	1.14	0.082	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2-Dichloroethane	SW8260B	1.14	0.12	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Trichloroethylene	SW8260B	1.14	0.17	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Dibromomethane	SW8260B	1.14	0.12	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2-Dichloropropane	SW8260B	1.14	0.10	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Bromodichloromethane	SW8260B	1.14	0.087	0.57	ND		ug/L	03/27/20	15:24	BP	447044
cis-1,3-Dichloropropene	SW8260B	1.14	0.089	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Toluene	SW8260B	1.14	0.16	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Tetrachloroethylene	SW8260B	1.14	0.27	0.57	ND		ug/L	03/27/20	15:24	BP	447044
trans-1,3-Dichloropropene	SW8260B	1.14	0.25	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1,2-Trichloroethane	SW8260B	1.14	0.087	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Dibromochloromethane	SW8260B	1.14	0.21	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,3-Dichloropropane	SW8260B	1.14	0.25	0.57	ND		ug/L	03/27/20	15:24	BP	447044



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6-GW	Lab Sample ID:	2003253-007A
Project Name/Location:	Burroughs Property	Sample Matrix:	Groundwater
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 11:20		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 3/27/20	10:36:00AM
Prep Batch ID: 1121617	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,2-Dibromoethane	SW8260B	1.14	0.090	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Chlorobenzene	SW8260B	1.14	0.18	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Ethylbenzene	SW8260B	1.14	0.22	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1,1,2-Tetrachloroethane	SW8260B	1.14	0.099	0.57	ND		ug/L	03/27/20	15:24	BP	447044
m,p-Xylene	SW8260B	1.14	0.45	1.1	ND		ug/L	03/27/20	15:24	BP	447044
o-Xylene	SW8260B	1.14	0.18	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Styrene	SW8260B	1.14	0.12	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Bromoform	SW8260B	1.14	0.087	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Isopropyl Benzene	SW8260B	1.14	0.25	0.57	ND		ug/L	03/27/20	15:24	BP	447044
n-Propylbenzene	SW8260B	1.14	0.34	0.57	ND		ug/L	03/27/20	15:24	BP	447044
Bromobenzene	SW8260B	1.14	0.17	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,1,2,2-Tetrachloroethane	SW8260B	1.14	0.090	0.57	ND		ug/L	03/27/20	15:24	BP	447044
2-Chlorotoluene	SW8260B	1.14	0.29	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,3,5-Trimethylbenzene	SW8260B	1.14	0.28	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2,3-Trichloropropane	SW8260B	1.14	0.17	0.57	ND		ug/L	03/27/20	15:24	BP	447044
4-Chlorotoluene	SW8260B	1.14	0.25	0.57	ND		ug/L	03/27/20	15:24	BP	447044
tert-Butylbenzene	SW8260B	1.14	0.30	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2,4-Trimethylbenzene	SW8260B	1.14	0.26	0.57	ND		ug/L	03/27/20	15:24	BP	447044
sec-Butyl Benzene	SW8260B	1.14	0.34	0.57	ND		ug/L	03/27/20	15:24	BP	447044
p-Isopropyltoluene	SW8260B	1.14	0.30	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,3-Dichlorobenzene	SW8260B	1.14	0.19	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,4-Dichlorobenzene	SW8260B	1.14	0.20	0.57	ND		ug/L	03/27/20	15:24	BP	447044
n-Butylbenzene	SW8260B	1.14	0.31	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2-Dichlorobenzene	SW8260B	1.14	0.18	0.57	ND		ug/L	03/27/20	15:24	BP	447044
1,2-Dibromo-3-Chloropropane	SW8260B	1.14	0.87	2.3	ND		ug/L	03/27/20	15:24	BP	447044
Hexachlorobutadiene	SW8260B	1.14	0.70	2.3	ND		ug/L	03/27/20	15:24	BP	447044
1,2,4-Trichlorobenzene	SW8260B	1.14	1.1	2.3	ND		ug/L	03/27/20	15:24	BP	447044
Naphthalene	SW8260B	1.14	1.4	2.3	ND		ug/L	03/27/20	15:24	BP	447044
1,2,3-Trichlorobenzene	SW8260B	1.14	1.4	2.3	ND		ug/L	03/27/20	15:24	BP	447044
(S) Dibromofluoromethane	SW8260B		61.2 - 131		131	S	%	03/27/20	15:24	BP	447044
(S) Toluene-d8	SW8260B		75.1 - 127		104		%	03/27/20	15:24	BP	447044
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		115		%	03/27/20	15:24	BP	447044

NOTE: Reporting limits were raised due to sediment in all VOAs.
S-Surrogate recovery out of limit-high bias. Data was acceptable as no target analytes were observed in the sample. No corrective action required.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6-GW	Lab Sample ID:	2003253-007A
Project Name/Location:	Burroughs Property	Sample Matrix:	Groundwater
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 11:20		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 3/30/20	11:02:00AM
Prep Batch ID: 1121642	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1.2	35	60	ND		ug/L	03/30/20	16:24	BP	447064
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		77.4		%	03/30/20	16:24	BP	447064

NOTE: Reporting limits were raised due to sediment in all VOAs.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6-GW	Lab Sample ID:	2003253-007B
Project Name/Location:	Burroughs Property	Sample Matrix:	Groundwater
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 11:20		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 3/30/20 4:42:00PM
Prep Batch ID: 1121633	Prep Analyst: MKAUR

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	03/30/20	18:05	MK	447102
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	03/30/20	18:05	MK	447102
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		73.7		%	03/30/20	18:05	MK	447102



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID:	1-B6-GW	Lab Sample ID:	2003253-007C
Project Name/Location:	Burroughs Property	Sample Matrix:	Groundwater
Project Number:	16836.000.000		
Date/Time Sampled:	03/26/20 / 11:20		
SDG:			

Prep Method: 7470AP	Prep Batch Date/Time: 3/30/20	11:45:00AM
Prep Batch ID: 1121629	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7470A	1	0.00013	0.00020	ND		mg/L	03/30/20	17:30	ERR	447058

Prep Method: 3010B	Prep Batch Date/Time: 3/30/20	11:45:00AM
Prep Batch ID: 1121622	Prep Analyst: IRNAZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	SW6010B	1	0.0050	0.010	ND		mg/L	03/30/20	19:49	ERR	447078
Arsenic	SW6010B	1	0.0040	0.010	ND		mg/L	03/30/20	19:49	ERR	447078
Barium	SW6010B	1	0.0010	0.0050	0.0913		mg/L	03/30/20	19:49	ERR	447078
Beryllium	SW6010B	1	0.0010	0.0050	ND		mg/L	03/30/20	19:49	ERR	447078
Cadmium	SW6010B	1	0.0020	0.0050	ND		mg/L	03/30/20	19:49	ERR	447078
Chromium	SW6010B	1	0.0010	0.0050	0.00850		mg/L	03/30/20	19:49	ERR	447078
Cobalt	SW6010B	1	0.0010	0.0050	ND		mg/L	03/30/20	19:49	ERR	447078
Copper	SW6010B	1	0.0020	0.0050	ND		mg/L	03/30/20	19:49	ERR	447078
Lead	SW6010B	1	0.0014	0.015	ND		mg/L	03/30/20	19:49	ERR	447078
Molybdenum	SW6010B	1	0.0020	0.010	0.0230		mg/L	03/30/20	19:49	ERR	447078
Nickel	SW6010B	1	0.0020	0.0050	ND		mg/L	03/30/20	19:49	ERR	447078
Selenium	SW6010B	1	0.0070	0.010	ND		mg/L	03/30/20	19:49	ERR	447078
Silver	SW6010B	1	0.0040	0.010	ND		mg/L	03/30/20	19:49	ERR	447078
Thallium	SW6010B	1	0.0040	0.015	ND		mg/L	03/30/20	19:49	ERR	447078
Vanadium	SW6010B	1	0.0020	0.020	ND		mg/L	03/30/20	19:49	ERR	447078
Zinc	SW6010B	1	0.0020	0.050	ND		mg/L	03/30/20	19:49	ERR	447078



MB Summary Report

Work Order:	2003253	Prep Method:	5030VOC	Prep Date:	03/27/20	Prep Batch:	1121617
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447044
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.26	0.50	ND		
Chloromethane	0.17	0.50	ND		
Vinyl Chloride	0.21	0.50	ND		
Bromomethane	0.21	0.50	ND		
Chloroethane	0.11	0.50	ND		
Trichlorofluoromethane	0.19	0.50	ND		
1,1-Dichloroethene	0.14	0.50	ND		
Freon 113	0.34	0.50	ND		
Methylene Chloride	0.13	1.0	ND		
trans-1,2-Dichloroethene	0.16	0.50	ND		
MTBE	0.077	0.50	ND		
tert-Butanol	2.9	5.0	ND		
DIPE	0.12	0.50	ND		
1,1-Dichloroethane	0.12	0.50	ND		
ETBE	0.064	0.50	ND		
cis-1,2-Dichloroethene	0.15	0.50	ND		
2,2-Dichloropropane	0.094	0.50	ND		
Bromochloromethane	0.15	0.50	ND		
Chloroform	0.12	0.50	ND		
Carbon Tetrachloride	0.16	0.50	ND		
1,1,1-Trichloroethane	0.16	0.50	ND		
1,1-Dichloropropene	0.19	0.50	ND		
Benzene	0.065	0.50	ND		
TAME	0.072	0.50	ND		
1,2-Dichloroethane	0.11	0.50	ND		
Trichloroethylene	0.15	0.50	ND		
Dibromomethane	0.11	0.50	ND		
1,2-Dichloropropane	0.089	0.50	ND		
Bromodichloromethane	0.076	0.50	ND		
cis-1,3-Dichloropropene	0.078	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.24	0.50	ND		
trans-1,3-Dichloropropene	0.22	0.50	ND		
1,1,2-Trichloroethane	0.076	0.50	ND		
Dibromochloromethane	0.18	0.50	ND		
1,3-Dichloropropane	0.22	0.50	ND		
1,2-Dibromoethane	0.079	0.50	ND		
Chlorobenzene	0.16	0.50	ND		
Ethylbenzene	0.20	0.50	ND		
1,1,1,2-Tetrachloroethane	0.087	0.50	ND		
m,p-Xylene	0.39	1.0	ND		
o-Xylene	0.15	0.50	ND		



MB Summary Report

Work Order:	2003253	Prep Method:	5030VOC	Prep Date:	03/27/20	Prep Batch:	1121617
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447044
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.11	0.50	ND		
Bromoform	0.076	0.50	ND		
Isopropyl Benzene	0.22	0.50	ND		
n-Propylbenzene	0.30	0.50	ND		
Bromobenzene	0.15	0.50	ND		
1,1,2,2-Tetrachloroethane	0.079	0.50	ND		
2-Chlorotoluene	0.25	0.50	ND		
1,3,5-Trimethylbenzene	0.24	0.50	ND		
1,2,3-Trichloropropane	0.15	0.50	ND		
4-Chlorotoluene	0.22	0.50	ND		
tert-Butylbenzene	0.26	0.50	ND		
1,2,4-Trimethylbenzene	0.23	0.50	ND		
sec-Butyl Benzene	0.30	0.50	ND		
p-Isopropyltoluene	0.27	0.50	ND		
1,3-Dichlorobenzene	0.17	0.50	ND		
1,4-Dichlorobenzene	0.18	0.50	ND		
n-Butylbenzene	0.27	0.50	ND		
1,2-Dichlorobenzene	0.16	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.76	2.0	ND		
Hexachlorobutadiene	0.62	2.0	ND		
1,2,4-Trichlorobenzene	0.93	2.0	ND		
Naphthalene	1.2	2.0	ND		
1,2,3-Trichlorobenzene	1.2	2.0	ND		
(S) Dibromofluoromethane			113		
(S) Toluene-d8			98.7		
(S) 4-Bromofluorobenzene			108		



MB Summary Report

Work Order:	2003253	Prep Method:	3010B	Prep Date:	03/30/20	Prep Batch:	1121622
Matrix:	Water	Analytical Method:	SW6010B	Analyzed Date:	3/30/2020	Analytical Batch:	447078
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.0050	0.010	ND	
Arsenic	0.0040	0.010	ND	
Barium	0.0010	0.0050	ND	
Beryllium	0.0010	0.0050	ND	
Cadmium	0.0020	0.0050	ND	
Chromium	0.0010	0.0050	ND	
Cobalt	0.0010	0.0050	ND	
Copper	0.0020	0.0050	ND	
Lead	0.0014	0.015	ND	
Molybdenum	0.0020	0.010	ND	
Nickel	0.0020	0.0050	ND	
Selenium	0.0070	0.010	ND	
Silver	0.0040	0.010	ND	
Thallium	0.0040	0.015	ND	
Vanadium	0.0010	0.020	ND	
Zinc	0.0020	0.050	0.0061	

Work Order:	2003253	Prep Method:	7470AP	Prep Date:	03/30/20	Prep Batch:	1121629
Matrix:	Water	Analytical Method:	SW7470A	Analyzed Date:	3/30/2020	Analytical Batch:	447058
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Mercury	0.00013	0.00020	ND	

Work Order:	2003253	Prep Method:	3510_TPH SG	Prep Date:	03/30/20	Prep Batch:	1121633
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	3/30/2020	Analytical Batch:	447102
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	ND	
TPH as Motor Oil (SG)	0.11	0.40	ND	
Pentacosane (S)			80.1	



MB Summary Report

Work Order:	2003253	Prep Method:	5030GRO	Prep Date:	03/30/20	Prep Batch:	1121642
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	3/30/2020	Analytical Batch:	447064
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	29	50	ND	
(S) 4-Bromofluorobenzene			74.0	



MB Summary Report

Work Order:	2003253	Prep Method:	5035	Prep Date:	03/27/20	Prep Batch:	1121663
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447085
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.0012	0.010	ND		
Chloromethane	0.0018	0.010	ND		
Vinyl Chloride	0.0020	0.010	ND		
Bromomethane	0.0027	0.010	ND		
Chloroethane	0.0030	0.010	ND		
Trichlorofluoromethane	0.0021	0.010	ND		
1,1-Dichloroethene	0.0020	0.010	ND		
Freon 113	0.0019	0.010	ND		
Methylene Chloride	0.0071	0.010	ND		
trans-1,2-Dichloroethene	0.0021	0.010	ND		
MTBE	0.0023	0.010	ND		
TBA	0.012	0.050	ND		
Diisopropyl ether	0.0023	0.010	ND		
1,1-Dichloroethane	0.0022	0.010	ND		
Ethyl tert-Butyl ether	0.0023	0.010	ND		
cis-1,2-Dichloroethene	0.0022	0.010	ND		
2,2-Dichloropropane	0.0019	0.010	ND		
Bromochloromethane	0.0023	0.010	ND		
Chloroform	0.0024	0.010	ND		
Carbon Tetrachloride	0.0021	0.010	ND		
1,1,1-Trichloroethane	0.0021	0.010	ND		
1,1-Dichloropropene	0.0020	0.010	ND		
Benzene	0.0022	0.010	ND		
TAME	0.0023	0.010	ND		
1,2-Dichloroethane	0.0023	0.010	ND		
Trichloroethylene	0.0018	0.010	ND		
Dibromomethane	0.0018	0.010	ND		
1,2-Dichloropropane	0.0019	0.010	ND		
Bromodichloromethane	0.0020	0.010	ND		
cis-1,3-Dichloropropene	0.0016	0.010	ND		
Toluene	0.0018	0.010	ND		
Tetrachloroethylene	0.0017	0.010	ND		
trans-1,3-Dichloropropene	0.0016	0.010	ND		
1,1,2-Trichloroethane	0.0018	0.010	ND		
Dibromochloromethane	0.0019	0.010	ND		
1,3-Dichloropropane	0.0018	0.010	ND		
1,2-Dibromoethane	0.0018	0.010	ND		
Chlorobenzene	0.0018	0.010	ND		
Ethylbenzene	0.0017	0.010	ND		
1,1,1,2-Tetrachloroethane	0.0019	0.010	ND		
m,p-Xylene	0.0032	0.010	ND		
o-Xylene	0.0017	0.010	ND		



MB Summary Report

Work Order:	2003253	Prep Method:	5035	Prep Date:	03/27/20	Prep Batch:	1121663
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447085
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Styrene	0.0016	0.010	ND	
Bromoform	0.0017	0.010	ND	
Isopropyl Benzene	0.0016	0.010	ND	
n-Propylbenzene	0.0016	0.010	ND	
Bromobenzene	0.0018	0.010	ND	
1,1,2,2-Tetrachloroethane	0.0019	0.010	ND	
2-Chlorotoluene	0.0018	0.010	ND	
1,3,5-Trimethylbenzene	0.0016	0.010	ND	
1,2,3-Trichloropropane	0.0019	0.010	ND	
4-Chlorotoluene	0.0016	0.010	ND	
tert-Butylbenzene	0.0016	0.010	ND	
1,2,4-Trimethylbenzene	0.0014	0.010	ND	
sec-Butyl Benzene	0.0016	0.010	ND	
p-Isopropyltoluene	0.0015	0.010	ND	
1,3-Dichlorobenzene	0.0017	0.010	ND	
1,4-Dichlorobenzene	0.0017	0.010	ND	
n-Butylbenzene	0.0015	0.010	ND	
1,2-Dichlorobenzene	0.0018	0.010	ND	
1,2-Dibromo-3-Chloropropane	0.0018	0.010	ND	
Hexachlorobutadiene	0.0014	0.010	ND	
1,2,4-Trichlorobenzene	0.0015	0.010	ND	
Naphthalene	0.0017	0.010	ND	
1,2,3-Trichlorobenzene	0.0017	0.010	ND	
2-Butanone	0.0023	0.010	ND	
4-Methyl-2-Pentanone	0.0020	0.010	ND	
(S) Dibromofluoromethane			118	
(S) Toluene-d8			107	
(S) 4-Bromofluorobenzene			106	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003253	Prep Method:	5030VOC	Prep Date:	03/27/20	Prep Batch:	1121617
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447044
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.9	118	112	0.000	61.4 - 129	30	
Benzene	0.16	0.50	ND	17.9	119	121	2.33	66.9 - 140	30	
Trichloroethylene	0.15	0.50	ND	17.9	101	104	4.37	69.3 - 144	30	
Toluene	0.14	0.50	ND	17.9	117	120	1.88	76.6 - 123	30	
Chlorobenzene	0.16	0.50	ND	17.9	108	110	2.58	73.9 - 137	30	
(S) Dibromofluoromethane				17.9	119	116		61.2 - 131		
(S) Toluene-d8				17.9	110	106		75.1 - 127		
(S) 4-Bromofluorobenzene				17.9	108	112		64.1 - 120		

Work Order:	2003253	Prep Method:	3010B	Prep Date:	03/30/20	Prep Batch:	1121622
Matrix:	Water	Analytical Method:	SW6010B	Analyzed Date:	3/30/2020	Analytical Batch:	447078
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.0050	0.010	ND	1	87.8	86.8	1.15	80 - 120	20	
Arsenic	0.0040	0.010	ND	1	90.7	89.5	1.33	80 - 120	20	
Barium	0.0010	0.0050	ND	1	91.3	91.1	0.219	80 - 120	20	
Beryllium	0.0010	0.0050	ND	1	92.9	90.1	3.06	80 - 120	20	
Cadmium	0.0020	0.0050	ND	1	90.6	90.4	0.221	80 - 120	20	
Chromium	0.0010	0.0050	ND	1	90.5	90.3	0.221	80 - 120	20	
Cobalt	0.0010	0.0050	ND	1	89.9	89.0	1.01	80 - 120	20	
Copper	0.0020	0.0050	ND	1	90.9	90.4	0.552	80 - 120	20	
Lead	0.0014	0.010	ND	1	90.5	90.4	0.111	80 - 120	20	
Molybdenum	0.0020	0.010	ND	1	93.8	93.1	0.749	80 - 120	20	
Nickel	0.0020	0.0050	ND	1	89.9	89.7	0.223	80 - 120	20	
Selenium	0.0070	0.010	ND	1	90.3	89.6	0.778	80 - 120	20	
Silver	0.0040	0.010	ND	1	87.9	88.6	0.793	80 - 120	20	
Thallium	0.0040	0.015	ND	1	89.6	87.8	2.03	80 - 120	20	
Vanadium	0.0020	0.0050	ND	1	90.4	90.2	0.221	80 - 120	20	
Zinc	0.0020	0.010	0.0061	1	91.1	90.2	0.993	80 - 120	20	

Work Order:	2003253	Prep Method:	7470AP	Prep Date:	03/30/20	Prep Batch:	1121629
Matrix:	Water	Analytical Method:	SW7470A	Analyzed Date:	3/30/2020	Analytical Batch:	447058
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.00013	0.00020	ND	0.015	82.6	82.2	0.810	80 - 120	20	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003253	Prep Method:	3510_TPH SG	Prep Date:	03/30/20	Prep Batch:	1121633
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	3/30/2020	Analytical Batch:	447102
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	ND	1.0	50.4	57.2	12.6	40 - 115	30	
TPH as Motor Oil (SG)			ND	200				59 - 129		

Work Order:	2003253	Prep Method:	5030GRO	Prep Date:	03/30/20	Prep Batch:	1121642
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	3/30/2020	Analytical Batch:	447064
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	29	50	ND	238	117	104	12.2	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.9	94.0	92.0		41.5 - 125		

Work Order:	2003253	Prep Method:	5035	Prep Date:	03/27/20	Prep Batch:	1121663
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447085
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.0500	102	93.1	9.21	53.7 - 139	30	
Benzene	0.0022	0.010	ND	0.0500	111	101	9.83	66.5 - 135	30	
Trichloroethylene	0.0018	0.010	ND	0.0500	105	104	1.34	57.5 - 150	30	
Toluene	0.0018	0.010	ND	0.0500	109	108	1.66	56.8 - 134	30	
Chlorobenzene	0.0018	0.010	ND	0.0500	104	103	0.579	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	106	101		59.8 - 148		
(S) Toluene-d8				50.0	104	103		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	101	103		55.8 - 141		



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003253	Prep Method:	3010B	Prep Date:	03/30/20	Prep Batch:	1121622
Matrix:	Water	Analytical Method:	SW6010B	Analyzed Date:	3/30/2020	Analytical Batch:	447078
Spiked Sample:	2003253-007C						
Units:	mg/L						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.00500	0.0100	ND	1	91.9	92.7	0.867	75 - 125	20	
Arsenic	0.00400	0.0100	ND	1	98.9	99.3	0.404	75 - 125	20	
Barium	0.00200	0.00500	0.0913	1	90.4	92.0	1.50	75 - 125	20	
Beryllium	0.00100	0.00500	ND	1	91.2	91.1	0.110	75 - 125	20	
Cadmium	0.00200	0.00500	ND	1	94.8	96.5	1.78	75 - 125	20	
Chromium	0.00100	0.00500	0.00850	1	90.1	91.3	1.31	75 - 125	20	
Cobalt	0.00100	0.00500	ND	1	88.8	90.0	1.34	75 - 125	20	
Copper	0.00200	0.00500	ND	1	92.9	94.2	1.39	75 - 125	20	
Lead	0.00140	0.0100	ND	1	88.6	89.3	0.787	75 - 125	20	
Molybdenum	0.00200	0.0100	0.0230	1	89.8	91.7	2.04	75 - 125	20	
Nickel	0.00200	0.00500	ND	1	89.6	90.0	0.445	75 - 125	20	
Selenium	0.00700	0.0100	ND	1	95.4	95.0	0.420	75 - 125	20	
Silver	0.00400	0.0100	ND	1	13.9	12.7	9.02	75 - 125	20	S
Thallium	0.00400	0.0150	ND	1	83.5	81.7	2.18	75 - 125	20	
Vanadium	0.00200	0.00500	ND	1	93.0	94.2	1.28	75 - 125	20	
Zinc	0.00200	0.0100	ND	1	103	100	2.96	75 - 125	20	

Work Order:	2003253	Prep Method:	5035	Prep Date:	03/27/20	Prep Batch:	1121663
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	3/27/2020	Analytical Batch:	447085
Spiked Sample:	2003253-006A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.0020	0.010	ND	0.05	96.5	108	11.0	55 - 125	30	
Benzene	0.0022	0.010	ND	0.05	96.8	111	13.7	55 - 125	30	
Trichloroethylene	0.0018	0.010	ND	0.05	89.2	101	12.6	55 - 125	30	
Toluene	0.0018	0.010	ND	0.05	103	115	10.6	55 - 125	30	
Chlorobenzene	0.0018	0.010	ND	0.05	88.8	102	13.6	55 - 125	30	
(S) Dibromofluoromethane				50	132	132		59.8 - 148		
(S) Toluene-d8				50	134	130		55.2 - 133		S
(S) 4-Bromofluorobenzene				50	123	123		55.8 - 141		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg/m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Date and Time Received: 3/27/2020 12:10:00PM

Project Name: Burroughs Property

Received By: Helena Ueng

Work Order No.: 2003253

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3.0 °C
Water-VOA vials have zero headspace? Yes
Water-pH acceptable upon receipt? Yes
pH Checked by: Helena Ueng pH Adjusted by: Helena Ueng

Comments:



Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Burroughs Property
Project # : 16836.000.000
Report Due Date: 4/1/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 3/27/2020
Time Received: 12:10 pm

Comments:

Work Order # : 2003253

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2003253-001A	1-B1@5'	03/26/20 9:40	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-002A	1-B2@5'	03/26/20 9:28	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-003A	1-B3@5'	03/26/20 9:23	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-004A	1-B4@5'	03/26/20 9:11	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-005A	1-B5@5'	03/26/20 9:27	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-006A	1-B6@5'	03/26/20 10:18	Soil	09/22/20			VOC_S_8260B mg/Kg	
2003253-007A	1-B6-GW	03/26/20 11:20	Water	09/22/20			VOC_W_8260B VOC_W_GRO	
2003253-007B	1-B6-GW	03/26/20 11:20	Water	09/22/20			TPHDOSG_W_8015B	
2003253-007C	1-B6-GW	03/26/20 11:20	Water	09/22/20			Met_W_CAM17_6010 B Hg_W_7470A	

Sample Note: Aliquoted sample volume from n/p amber and preserved in lab for metals analysis



CHAIN OF CUSTODY RECORD

2003253

PROJECT NUMBER: 116830.000.000 PROJECT NAME: Burroughs Property

SAMPLED BY: (SIGNATURE/PRINT) Tauno Werts

PROJECT MANAGER: (SIGNATURE/PRINT) Victoria Drake

ROUTING: E-MAIL vdrake, twerts, smunger@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	VOCS	TPH-g + VOCS	TPH-d/m + 8015B	CAM-17	TPH-g + VOCS	Oxygen + Methane	ASTM D-1994	REMARKS
1-B1@5'	3/24/10	09:40	Soil	1	Steve	N/A	X							
1-B2@5'		09:28					X							
1-B3@5'		09:23					X							
1-B4@5'		09:11					X							
1-B5@5'		09:27					X							
1-B6@5'		10:18					X							
1-SG1		11:00	AIR		1L Summa						X	X		
1-SG2		12:14									X	X		
1-SG3		11:47									X	X		
1-SG4		11:55									X	X		
1-BU-GW		11:20	H ₂ O	6	VARIES	HCL	X	X	X					

RELINQUISHED BY: (SIGNATURE) DATE/TIME RECEIVED BY: (SIGNATURE) DATE/TIME

RELINQUISHED BY: (SIGNATURE) DATE/TIME RECEIVED BY: (SIGNATURE) DATE/TIME

RELINQUISHED BY: (SIGNATURE) DATE/TIME RECEIVED FOR LABORATORY BY: (SIGNATURE) DATE/TIME REMARKS

W/SG Cleanup

100%
100%
100%
100%
100%
100%
100%

ENGEO INCORPORATED

2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

Temp=3°C#2
FCS

Standard TAT

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES



Engeo (San Ramon)
2010 Crow Canyon Place, #250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199
RE: Burroughs Property

Work Order No.: 2003254

Dear Victoria Drake:

Torrent Laboratory, Inc. received 4 sample(s) on March 27, 2020 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that reads "Kathie Evans". The signature is written in a cursive style and is positioned above a horizontal line.

Kathie Evans
Project Manager

April 01, 2020

Date



Date: 4/1/2020

Client: Engeo (San Ramon)

Project: Burroughs Property

Work Order: 2003254

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



Sample Result Summary

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-SG1

2003254-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	5.1	0.054	0.26	17%
Carbon Disulfide	ETO15	1	0.37	1.6	1.6
Hexane	ETO15	1	0.46	1.8	25
Benzene	ETO15	1	0.44	1.6	5.3
Trichloroethylene	ETO15	1	0.81	2.7	4.0
Toluene	ETO15	1	0.75	1.9	18
Tetrachloroethylene	ETO15	1	1.5	3.4	4.5
m,p-Xylene	ETO15	1	0.98	2.2	2.7
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	28
GRO (C5-C12)	TO-15	1	40	180	432

1-SG2

2003254-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	4.8	0.051	0.24	17%
Carbon Disulfide	ETO15	1	0.37	1.6	1.7
Hexane	ETO15	1	0.46	1.8	6.4
Chloroform	ETO15	1	0.97	2.4	3.0
Benzene	ETO15	1	0.44	1.6	2.5
Trichloroethylene	ETO15	1	0.81	2.7	3.5
Toluene	ETO15	1	0.75	1.9	8.3
4-Methyl-2-Pentanone (MIBK)	ETO15	1	0.75	2.1	2.1
Tetrachloroethylene	ETO15	1	1.5	3.4	4.1
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	30
GRO (C5-C12)	TO-15	1	40	180	280

1-SG3

2003254-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	4.9	0.052	0.25	19%
Hexane	ETO15	1	0.46	1.8	2.3
tert-Butanol	ETO15	1	0.62	1.5	6.9
Chloroform	ETO15	1	0.97	2.4	8.6
Trichloroethylene	ETO15	1	0.81	2.7	3.2
Toluene	ETO15	1	0.75	1.9	7.6
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	28
GRO (C5-C12)	TO-15	1	40	180	514



Sample Result Summary

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date Received: 03/27/20

Date Reported: 04/01/20

1-SG4

2003254-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Oxygen	D1946	4.6	0.049	0.23	22%
Acetone	ETO15	1	0.40	12	12
Hexane	ETO15	1	0.46	1.8	2.5
Chloroform	ETO15	1	0.97	2.4	3.7
Trichloroethylene	ETO15	1	0.81	2.7	3.2
Toluene	ETO15	1	0.75	1.9	5.6
1,3-Dichlorobenzene	ETO15	1	1.3	3.0	25
GRO (C5-C12)	TO-15	1	40	180	270



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG1	Lab Sample ID: 2003254-001A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:06	Certified Clean WO # :
Canister/Tube ID: A11722	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/1/20	2:00:00PM
Prep Batch ID: 1121687	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	5.10	0.054	0.26	17			04/01/20	15:13	BA	447119
Methane	D1946	5.10	0.012	0.026	ND			04/01/20	15:13	BA	447119

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	15:38	BA	447099
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		03/30/20	15:38	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	15:38	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	15:38	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	15:38	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	15:38	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	15:38	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	15:38	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	15:38	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	15:38	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	15:38	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	1.6	0.51		03/30/20	15:38	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	15:38	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	15:38	BA	447099
Acetone	ETO15	1.00	0.40	12	ND	ND		03/30/20	15:38	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	15:38	BA	447099
Hexane	ETO15	1.00	0.46	1.8	25	7.10		03/30/20	15:38	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	15:38	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		03/30/20	15:38	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	15:38	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	15:38	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	15:38	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	15:38	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	ND	ND		03/30/20	15:38	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG1	Lab Sample ID: 2003254-001A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:06	Certified Clean WO # :
Canister/Tube ID: A11722	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	15:38	BA	447099
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	15:38	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	15:38	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	15:38	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	15:38	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	15:38	BA	447099
Benzene	ETO15	1.00	0.44	1.6	5.3	1.66		03/30/20	15:38	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	15:38	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	15:38	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	4.0	0.74		03/30/20	15:38	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	15:38	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	15:38	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	15:38	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	15:38	BA	447099
Toluene	ETO15	1.00	0.75	1.9	18	4.77		03/30/20	15:38	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		03/30/20	15:38	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	15:38	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.5	0.66		03/30/20	15:38	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	15:38	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	15:38	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	15:38	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	15:38	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	15:38	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	15:38	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	15:38	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	2.7	0.62		03/30/20	15:38	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	15:38	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	15:38	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	15:38	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	15:38	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	15:38	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	15:38	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	15:38	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG1	Lab Sample ID: 2003254-001A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:06	Certified Clean WO # :
Canister/Tube ID: A11722	Received PSI : 12.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	15:38	BA	447099
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	28	4.66		03/30/20	15:38	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	15:38	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	15:38	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	15:38	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	15:38	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	93 %			03/30/20	15:38	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	432	122.73	x	03/30/20	15:38	BA	447099

NOTE: x- Sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG2	Lab Sample ID: 2003254-002A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 12:16	Certified Clean WO # :
Canister/Tube ID: 6109	Received PSI : 13.5
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/1/20	2:00:00PM
Prep Batch ID: 1121687	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.80	0.051	0.24	17			04/01/20	15:32	BA	447119
Methane	D1946	4.80	0.011	0.024	ND			04/01/20	15:32	BA	447119

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	16:03	BA	447099
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		03/30/20	16:03	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	16:03	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	16:03	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	16:03	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	16:03	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	16:03	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	16:03	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	16:03	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	16:03	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	16:03	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	1.7	0.55		03/30/20	16:03	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	16:03	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	16:03	BA	447099
Acetone	ETO15	1.00	0.40	12	ND	ND		03/30/20	16:03	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	16:03	BA	447099
Hexane	ETO15	1.00	0.46	1.8	6.4	1.82		03/30/20	16:03	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	16:03	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		03/30/20	16:03	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	16:03	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	16:03	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	16:03	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	16:03	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	3.0	0.61		03/30/20	16:03	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG2	Lab Sample ID: 2003254-002A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 12:16	Certified Clean WO # :
Canister/Tube ID: 6109	Received PSI : 13.5
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	16:03	BA	447099
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	16:03	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	16:03	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	16:03	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	16:03	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	16:03	BA	447099
Benzene	ETO15	1.00	0.44	1.6	2.5	0.78		03/30/20	16:03	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	16:03	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	16:03	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	3.5	0.65		03/30/20	16:03	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	16:03	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	16:03	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	16:03	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	16:03	BA	447099
Toluene	ETO15	1.00	0.75	1.9	8.3	2.20		03/30/20	16:03	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	2.1	0.51		03/30/20	16:03	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	16:03	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	4.1	0.60		03/30/20	16:03	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	16:03	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	16:03	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	16:03	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	16:03	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	16:03	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	16:03	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	16:03	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		03/30/20	16:03	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	16:03	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	16:03	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	16:03	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	16:03	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	16:03	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	16:03	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	16:03	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG2	Lab Sample ID: 2003254-002A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 12:16	Certified Clean WO # :
Canister/Tube ID: 6109	Received PSI : 13.5
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	16:03	BA	447099
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	30	4.99		03/30/20	16:03	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	16:03	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	16:03	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	16:03	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	16:03	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	94 %			03/30/20	16:03	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	280	79.55	x	03/30/20	16:03	BA	447099

NOTE: x- Sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG3	Lab Sample ID: 2003254-003A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:47	Certified Clean WO # :
Canister/Tube ID: A11719	Received PSI : 14.4
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/1/20	2:00:00PM
Prep Batch ID: 1121687	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.90	0.052	0.25	19			04/01/20	16:01	BA	447119
Methane	D1946	4.90	0.011	0.025	ND			04/01/20	16:01	BA	447119

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	16:29	BA	447099
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		03/30/20	16:29	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	16:29	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	16:29	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	16:29	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	16:29	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	16:29	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	16:29	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	16:29	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	16:29	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	16:29	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		03/30/20	16:29	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	16:29	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	16:29	BA	447099
Acetone	ETO15	1.00	0.40	12	ND	ND		03/30/20	16:29	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	16:29	BA	447099
Hexane	ETO15	1.00	0.46	1.8	2.3	0.65		03/30/20	16:29	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	16:29	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	6.9	2.28		03/30/20	16:29	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	16:29	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	16:29	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	16:29	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	16:29	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	8.6	1.76		03/30/20	16:29	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG3	Lab Sample ID: 2003254-003A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:47	Certified Clean WO # :
Canister/Tube ID: A11719	Received PSI : 14.4
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	16:29	BA	447099
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	16:29	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	16:29	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	16:29	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	16:29	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	16:29	BA	447099
Benzene	ETO15	1.00	0.44	1.6	ND	ND		03/30/20	16:29	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	16:29	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	16:29	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	3.2	0.60		03/30/20	16:29	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	16:29	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	16:29	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	16:29	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	16:29	BA	447099
Toluene	ETO15	1.00	0.75	1.9	7.6	2.02		03/30/20	16:29	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		03/30/20	16:29	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	16:29	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	ND	ND		03/30/20	16:29	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	16:29	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	16:29	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	16:29	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	16:29	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	16:29	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	16:29	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	16:29	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		03/30/20	16:29	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	16:29	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	16:29	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	16:29	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	16:29	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	16:29	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	16:29	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	16:29	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG3	Lab Sample ID: 2003254-003A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:47	Certified Clean WO # :
Canister/Tube ID: A11719	Received PSI : 14.4
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	16:29	BA	447099
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	28	4.66		03/30/20	16:29	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	16:29	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	16:29	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	16:29	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	16:29	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	96 %			03/30/20	16:29	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	514	146.02	x	03/30/20	16:29	BA	447099

NOTE: x- Sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG4	Lab Sample ID: 2003254-004A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:55	Certified Clean WO # :
Canister/Tube ID: N3984	Received PSI : 13.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: FG-P	Prep Batch Date/Time: 4/1/20	2:00:00PM
Prep Batch ID: 1121687	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL %	PQL %	Results %	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Oxygen	D1946	4.60	0.049	0.23	22			04/01/20	16:18	BA	447119
Methane	D1946	4.60	0.011	0.023	ND			04/01/20	16:18	BA	447119

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	ETO15	1.00	1.6	2.5	ND	ND		03/30/20	17:43	BA	447099
1,1-Difluoroethane	ETO15	1.00	0.35	14	ND	ND		03/30/20	17:43	BA	447099
1,2-Dichlorotetrafluoroethane	ETO15	1.00	1.4	3.5	ND	ND		03/30/20	17:43	BA	447099
Chloromethane	ETO15	1.00	2.0	4.1	ND	ND		03/30/20	17:43	BA	447099
Vinyl Chloride	ETO15	1.00	0.23	1.3	ND	ND		03/30/20	17:43	BA	447099
1,3-Butadiene	ETO15	1.00	0.34	1.1	ND	ND		03/30/20	17:43	BA	447099
Bromomethane	ETO15	1.00	0.66	1.9	ND	ND		03/30/20	17:43	BA	447099
Chloroethane	ETO15	1.00	0.81	1.3	ND	ND		03/30/20	17:43	BA	447099
Trichlorofluoromethane	ETO15	1.00	0.56	2.8	ND	ND		03/30/20	17:43	BA	447099
1,1-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	17:43	BA	447099
Freon 113	ETO15	1.00	1.0	3.8	ND	ND		03/30/20	17:43	BA	447099
Carbon Disulfide	ETO15	1.00	0.37	1.6	ND	ND		03/30/20	17:43	BA	447099
2-Propanol (Isopropyl Alcohol)	ETO15	1.00	1.3	12	ND	ND		03/30/20	17:43	BA	447099
Methylene Chloride	ETO15	1.00	0.70	10	ND	ND		03/30/20	17:43	BA	447099
Acetone	ETO15	1.00	0.40	12	12	5.04		03/30/20	17:43	BA	447099
trans-1,2-Dichloroethene	ETO15	1.00	0.48	2.0	ND	ND		03/30/20	17:43	BA	447099
Hexane	ETO15	1.00	0.46	1.8	2.5	0.71		03/30/20	17:43	BA	447099
MTBE	ETO15	1.00	0.44	1.8	ND	ND		03/30/20	17:43	BA	447099
tert-Butanol	ETO15	1.00	0.62	1.5	ND	ND		03/30/20	17:43	BA	447099
Diisopropyl ether (DIPE)	ETO15	1.00	0.74	2.1	ND	ND		03/30/20	17:43	BA	447099
1,1-Dichloroethane	ETO15	1.00	0.54	2.0	ND	ND		03/30/20	17:43	BA	447099
ETBE	ETO15	1.00	0.33	2.1	ND	ND		03/30/20	17:43	BA	447099
cis-1,2-Dichloroethene	ETO15	1.00	0.83	2.0	ND	ND		03/30/20	17:43	BA	447099
Chloroform	ETO15	1.00	0.97	2.4	3.7	0.76		03/30/20	17:43	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG4	Lab Sample ID: 2003254-004A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:55	Certified Clean WO # :
Canister/Tube ID: N3984	Received PSI : 13.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
Vinyl Acetate	ETO15	1.00	0.76	1.8	ND	ND		03/30/20	17:43	BA	447099
Carbon Tetrachloride	ETO15	1.00	1.1	3.1	ND	ND		03/30/20	17:43	BA	447099
1,1,1-Trichloroethane	ETO15	1.00	0.79	2.7	ND	ND		03/30/20	17:43	BA	447099
2-Butanone (MEK)	ETO15	1.00	0.39	1.5	ND	ND		03/30/20	17:43	BA	447099
Ethyl Acetate	ETO15	1.00	0.48	1.8	ND	ND		03/30/20	17:43	BA	447099
Tetrahydrofuran	ETO15	1.00	0.45	1.5	ND	ND		03/30/20	17:43	BA	447099
Benzene	ETO15	1.00	0.44	1.6	ND	ND		03/30/20	17:43	BA	447099
TAME	ETO15	1.00	0.67	2.1	ND	ND		03/30/20	17:43	BA	447099
1,2-Dichloroethane (EDC)	ETO15	1.00	0.42	2.0	ND	ND		03/30/20	17:43	BA	447099
Trichloroethylene	ETO15	1.00	0.81	2.7	3.2	0.60		03/30/20	17:43	BA	447099
1,2-Dichloropropane	ETO15	1.00	0.76	2.3	ND	ND		03/30/20	17:43	BA	447099
Bromodichloromethane	ETO15	1.00	0.74	3.4	ND	ND		03/30/20	17:43	BA	447099
1,4-Dioxane	ETO15	1.00	1.8	3.6	ND	ND		03/30/20	17:43	BA	447099
trans-1,3-Dichloropropene	ETO15	1.00	1.1	2.3	ND	ND		03/30/20	17:43	BA	447099
Toluene	ETO15	1.00	0.75	1.9	5.6	1.49		03/30/20	17:43	BA	447099
4-Methyl-2-Pentanone (MIBK)	ETO15	1.00	0.75	2.1	ND	ND		03/30/20	17:43	BA	447099
cis-1,3-Dichloropropene	ETO15	1.00	0.42	2.3	ND	ND		03/30/20	17:43	BA	447099
Tetrachloroethylene	ETO15	1.00	1.5	3.4	ND	ND		03/30/20	17:43	BA	447099
1,1,2-Trichloroethane	ETO15	1.00	0.58	2.7	ND	ND		03/30/20	17:43	BA	447099
Dibromochloromethane	ETO15	1.00	1.1	4.3	ND	ND		03/30/20	17:43	BA	447099
1,2-Dibromoethane (EDB)	ETO15	1.00	0.74	3.8	ND	ND		03/30/20	17:43	BA	447099
2-Hexanone	ETO15	1.00	0.65	2.1	ND	ND		03/30/20	17:43	BA	447099
Ethyl Benzene	ETO15	1.00	0.63	2.2	ND	ND		03/30/20	17:43	BA	447099
Chlorobenzene	ETO15	1.00	0.60	2.3	ND	ND		03/30/20	17:43	BA	447099
1,1,1,2-Tetrachloroethane	ETO15	1.00	0.84	3.4	ND	ND		03/30/20	17:43	BA	447099
m,p-Xylene	ETO15	1.00	0.98	2.2	ND	ND		03/30/20	17:43	BA	447099
o-Xylene	ETO15	1.00	0.30	2.2	ND	ND		03/30/20	17:43	BA	447099
Styrene	ETO15	1.00	0.46	2.1	ND	ND		03/30/20	17:43	BA	447099
Bromoform	ETO15	1.00	1.3	5.2	ND	ND		03/30/20	17:43	BA	447099
1,1,2,2-Tetrachloroethane	ETO15	1.00	0.82	3.4	ND	ND		03/30/20	17:43	BA	447099
4-Ethyl Toluene	ETO15	1.00	0.55	2.5	ND	ND		03/30/20	17:43	BA	447099
1,3,5-Trimethylbenzene	ETO15	1.00	0.30	2.5	ND	ND		03/30/20	17:43	BA	447099
1,2,4-Trimethylbenzene	ETO15	1.00	0.60	2.5	ND	ND		03/30/20	17:43	BA	447099



SAMPLE RESULTS

Report prepared for: Victoria Drake
Engeo (San Ramon)

Date/Time Received: 03/27/20, 12:10 pm
Date Reported: 04/01/20

Client Sample ID: 1-SG4	Lab Sample ID: 2003254-004A
Project Name/Location: Burroughs Property	Sample Matrix: Air
Project Number: 16836.000.000	
Date/Time Sampled: 03/26/20 / 11:55	Certified Clean WO # :
Canister/Tube ID: N3984	Received PSI : 13.9
Collection Volume (L):	Corrected PSI :
SDG:	

Prep Method: TO15-P	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121681	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
1,4-Dichlorobenzene	ETO15	1.00	0.75	3.0	ND	ND		03/30/20	17:43	BA	447099
1,3-Dichlorobenzene	ETO15	1.00	1.3	3.0	25	4.16		03/30/20	17:43	BA	447099
1,2-Dichlorobenzene	ETO15	1.00	1.1	3.0	ND	ND		03/30/20	17:43	BA	447099
Hexachlorobutadiene	ETO15	1.00	1.9	5.3	ND	ND		03/30/20	17:43	BA	447099
1,2,4-Trichlorobenzene	ETO15	1.00	2.2	3.7	ND	ND		03/30/20	17:43	BA	447099
Naphthalene	ETO15	1.00	1.3	2.6	ND	ND		03/30/20	17:43	BA	447099
(S) 4-Bromofluorobenzene	ETO15	1.00	50	150	96 %			03/30/20	17:43	BA	447099

Prep Method: TO15-GRO	Prep Batch Date/Time: 3/30/20	12:00:00PM
Prep Batch ID: 1121682	Prep Analyst: BALI	

Parameters:	Analysis Method	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Q	Analyzed	Time	By	Analytical Batch
GRO (C5-C12)	TO-15	1.00	40	180	270	76.70	x	03/30/20	17:43	BA	447099

NOTE: x- Sample chromatogram does not resemble gasoline standard pattern. Hydrocarbon peaks within the range C5-C12 quantitated as gasoline.



MB Summary Report

Work Order: 2003254	Prep Method: TO15-P	Prep Date: 03/30/20	Prep Batch: 1121681
Matrix: Air	Analytical Method: ETO15	Analyzed Date: 3/30/2020	Analytical Batch: 447099
Units: ppbv			

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.32	0.50	ND	
1,1-Difluoroethane	0.13	5.0	0.16	
1,2-Dichlorotetrafluoroethane	0.20	0.50	ND	
Chloromethane	0.99	2.0	ND	
Vinyl Chloride	0.088	0.50	ND	
1,3-Butadiene	0.15	0.50	ND	
Bromomethane	0.17	0.50	0.21	
Chloroethane	0.31	0.50	ND	
Trichlorofluoromethane	0.099	0.50	ND	
1,1-Dichloroethene	0.21	0.50	ND	
Freon 113	0.13	0.50	ND	
Carbon Disulfide	0.12	0.50	ND	
2-Propanol (Isopropyl Alcohol)	0.52	5.0	ND	
Methylene Chloride	0.20	3.0	ND	
Acetone	0.17	5.0	ND	
trans-1,2-Dichloroethene	0.12	0.50	ND	
Hexane	0.13	0.50	ND	
MTBE	0.12	0.50	ND	
tert-Butanol	0.20	0.50	ND	
Diisopropyl ether (DIPE)	0.18	0.50	ND	
1,1-Dichloroethane	0.13	0.50	ND	
ETBE	0.078	0.50	ND	
cis-1,2-Dichloroethene	0.21	0.50	ND	
Chloroform	0.20	0.50	ND	
Vinyl Acetate	0.22	0.50	ND	
Carbon Tetrachloride	0.18	0.50	ND	
1,1,1-Trichloroethane	0.15	0.50	ND	
2-Butanone (MEK)	0.13	0.50	ND	
Ethyl Acetate	0.13	0.50	ND	
Tetrahydrofuran	0.15	0.50	ND	
Benzene	0.14	0.50	ND	
TAME	0.16	0.50	ND	
1,2-Dichloroethane (EDC)	0.10	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
1,2-Dichloropropane	0.17	0.50	ND	
Bromodichloromethane	0.11	0.50	ND	
1,4-Dioxane	0.50	1.0	ND	
trans-1,3-Dichloropropene	0.23	0.50	ND	
Toluene	0.20	0.50	ND	
4-Methyl-2-Pentanone (MIBK)	0.18	0.50	ND	
cis-1,3-Dichloropropene	0.093	0.50	ND	
Tetrachloroethylene	0.22	0.50	ND	



MB Summary Report

Work Order:	2003254	Prep Method:	TO15-P	Prep Date:	03/30/20	Prep Batch:	1121681
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
1,1,2-Trichloroethane	0.11	0.50	ND		
Dibromochloromethane	0.13	0.50	ND		
1,2-Dibromoethane (EDB)	0.096	0.50	ND		
2-Hexanone	0.16	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
Chlorobenzene	0.13	0.50	ND		
1,1,1,2-Tetrachloroethane	0.12	0.50	ND		
m,p-Xylene	0.23	0.50	ND		
o-Xylene	0.070	0.50	ND		
Styrene	0.11	0.50	ND		
Bromoform	0.13	0.50	ND		
1,1,2,2-Tetrachloroethane	0.12	0.50	ND		
4-Ethyl Toluene	0.11	0.50	ND		
1,3,5-Trimethylbenzene	0.061	0.50	ND		
1,2,4-Trimethylbenzene	0.12	0.50	ND		
1,4-Dichlorobenzene	0.12	0.50	ND		
1,3-Dichlorobenzene	0.22	0.50	ND		
1,2-Dichlorobenzene	0.18	0.50	ND		
Hexachlorobutadiene	0.17	0.50	ND		
1,2,4-Trichlorobenzene	0.29	0.50	ND		
Naphthalene	0.24	0.50	ND		
Cyclohexane	0.50	0.50	ND		
Benzyl Chloride	0.20	0.50	ND		
Heptane	0.13	0.50	ND		
(S) 4-Bromofluorobenzene			86		

Work Order:	2003254	Prep Method:	TO15-GRO	Prep Date:	03/30/20	Prep Batch:	1121682
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
GRO (C5-C12)	11	50	21		



MB Summary Report

Work Order:	2003254	Prep Method:	FG-P	Prep Date:	04/01/20	Prep Batch:	1121687
Matrix:	Air	Analytical Method:	D1946	Analyzed Date:	4/1/2020	Analytical Batch:	447119
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Oxygen	110	500	ND	
Methane	23	50	ND	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	2003254	Prep Method:	TO15-P	Prep Date:	03/30/20	Prep Batch:	1121681
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.21	0.50	ND	8.00	128	130	1.94	65 - 135	30	
Benzene	0.14	0.50	0.16	8.00	107	105	1.65	65 - 135	30	
Trichloroethylene	0.15	0.50	ND	8.00	109	107	2.20	65 - 135	30	
Toluene	0.20	0.50	ND	8.00	104	102	1.82	65 - 135	30	
Chlorobenzene	0.13	0.50	ND	8.00	106	107	1.17	65 - 135	30	
(S) 4-Bromofluorobenzene				20.0	96.5	93.5		50 - 150		

Work Order:	2003254	Prep Method:	TO15-GRO	Prep Date:	03/30/20	Prep Batch:	1121682
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	3/30/2020	Analytical Batch:	447099
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
GRO (C5-C12)	11	50	21	417	110	114	3.65	65 - 135	30	

Work Order:	2003254	Prep Method:	FG-P	Prep Date:	04/01/20	Prep Batch:	1121687
Matrix:	Air	Analytical Method:	D1946	Analyzed Date:	4/1/2020	Analytical Batch:	447119
Units:	ppmv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Oxygen	110	500	ND	2500	118	107	9.96	65 - 135	30	
Methane	230	500	ND	2500	112	95.0	16.2	65 - 135	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg/m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Date and Time Received: 3/27/2020 12:10:00PM

Project Name: Burroughs Property

Received By: Helena Ueng

Work Order No.: 2003254

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: First Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Temperature: °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt? N/A
pH Checked by: N/A pH Adjusted by: N/A

Comments:

Summa canisters received at ambient temperature.



Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Burroughs Property
Project # : 16836.000.000
Report Due Date: 4/1/2020

QC Level: II
TAT Requested: 3 Day Std:3
Date Received: 3/27/2020
Time Received: 12:10 pm

Comments:

Work Order # : 2003254

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2003254-001A	1-SG1	03/26/20 11:06	Air	09/22/20			VOC_A_TO15 VOC_A_FG D1946 VOC_A_GRO VOC_A_TO15GRO	
Sample Note:	D1946FG- Oxygen & Methane; TO15-VOCs/TPHg							
2003254-002A	1-SG2	03/26/20 12:16	Air	09/22/20			VOC_A_TO15 VOC_A_FG D1946 VOC_A_GRO VOC_A_TO15GRO	
2003254-003A	1-SG3	03/26/20 11:47	Air	09/22/20			VOC_A_FG D1946 VOC_A_GRO VOC_A_TO15GRO VOC_A_TO15	
2003254-004A	1-SG4	03/26/20 11:55	Air	09/22/20			VOC_A_FG D1946 VOC_A_TO15 VOC_A_TO15GRO VOC_A_GRO	



CHAIN OF CUSTODY RECORD

2003254
~~2003253~~ *do 3/21/20*

*W/S6
 Cleanup*

PROJECT NUMBER 148310.000.000		PROJECT NAME Burroughs Property																			REMARKS REQUIRED DETECTION LIMITS	
SAMPLED BY: (SIGNATURE/PRINT) Taunee Werts																						
PROJECT MANAGER: (SIGNATURE/PRINT) Victoria Drake																						
ROUTING: E-MAIL vdrake, twerts, smunger@engeo.com																						
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	VOCS	TPH9 + VOCS	TPH-d/m/o	CAM-17	TPH9 + VOCS	Oxygen & Methane										
1-B1@5'	3/24/20	09:40	Soil	1	Steeve	N/A	X															
1-B2@5'		09:28					X															
1-B3@5'		09:23					X															
1-B4@5'		09:11					X															
1-B5@5'		09:27					X															
1-B6@5'		10:18					X															
1-SG1		11:00	AIR		1L Summa						X	X	# A11722									
1-SG2		12:14									X	X	# 6109									
1-SG3		11:47									X	X	# A11719									
1-SG4		11:55									X	X	# N3984									
1-BU-GW		11:20	H2O	6	VARIES	HCL	X	X	X													

*CO2A
 CO2B
 CO2C
 CO2D*

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27/20 10:34	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27/20 12:10	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27/20 12:10	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE/TIME 3/27/20 12:10	REMARKS
Standard TAT												

EN GEO
INCORPORATED

2010 CROW CANYON PLACE SUITE 250
 SAN RAMON, CALIFORNIA 94583
 (925) 866-9000 FAX (888) 279-2698
 WWW.ENGEO.COM

*Temp = 3°C #2
 Summa canisters at ambient temp.*

Appendix I
Noise and Vibration Assessment

BURROUGHS PROPERTY NOISE AND VIBRATION ASSESSMENT

Oakley, California

January 20, 2021

Prepared for:

**Mr. Adam Tennant
Principal
WestGate Ventures
2551 San Ramon Valley Blvd., Suite 204
San Ramon, CA 94583**

Prepared by:

Steve J. Deines

ILLINGWORTH & RODKIN, INC.
/// Acoustics • Air Quality ///

**429 E. Cotati Avenue
Cotati, CA 94931
(707) 794-0400**

I&R Project: 20-054

INTRODUCTION

The project proposes to develop 208 single-family, one and two-story detached homes on the Burroughs property, an approximate 45 acre site located north of East Cypress Road in Oakley, California.

This report evaluates the project's potential to result in significant environmental noise impacts with respect to applicable California Environmental Quality Act (CEQA) guidelines. The report is divided into three sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise and vibration, summarizes applicable regulatory criteria, and discusses the results of the ambient noise monitoring survey completed to document existing conditions; 2) the General Plan Consistency section discusses land use compatibility utilizing noise policies in the City's General Plan; and, 3) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts, provides a discussion of each project impact, and presents measures, where necessary, to mitigate the impacts to a less-than-significant level.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA)*. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

This *energy-equivalent sound/noise descriptor* is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level (CNEL)* is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level (DNL or L_{dn})* is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Effects of Noise

Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn} . Typically, the highest steady traffic noise level during the daytime is about equal to the L_{dn} and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid

correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA L_{dn} . At a L_{dn} of about 60 dBA, approximately 12 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 25-30 percent of the population. There is, therefore, an increase of about 2 percent per dBA between a L_{dn} of 60-70 dBA. Between a L_{dn} of 70-80 dBA, each additional decibel increases the percentage of the population highly annoyed by about 3 percent. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately 30-35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
	10 dBA	Broadcast/recording studio
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce. The guidelines in Table 3 represent syntheses of vibration criteria for human response and potential damage to buildings resulting from construction vibration.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, that may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in Table 3 include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from “Historic and some old buildings” to “Modern industrial/commercial buildings”. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

TABLE 3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013.

Regulatory Background

The project would be subject to noise-related regulations, plans and policies established by the State of California and the City of Oakley. Applicable planning documents include Appendix G of the CEQA Guidelines and the Oakley 2020 General Plan. Regulations, plans, and policies presented within these documents form the basis of the significance criteria used to assess project impacts.

State CEQA Guidelines. CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

- (a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- (b) Generation of excessive groundborne vibration or groundborne noise levels;
- (c) For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.

Noise Element of the City of Oakley 2020 General Plan. The Noise Element contains the following applicable goals and policies:

Goal 9.1 Protect residents from the harmful and annoying effects of exposure to excessive noise.

Policies

- 9.1.1 New development shall use the land use compatibility table shown in Figure 9.1 [see Figure 1] and the standards contained within Tables 9.1 and 9.3 [see Tables 4 and 5] for determining noise compatibility.
- 9.1.2 New development of noise-sensitive uses shall not be allowed where the noise level due to non-transportation noise sources will exceed the noise level standards of Table 9-1 as measured immediately within the property line or within a designated outdoor activity area (location is at the discretion of the Community Development Director) of the new development, unless effective noise mitigation measures have been incorporated into the development design to achieve the standards specified in Table 9-1.
- 9.1.3 Noise created by new proposed nontransportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 9-1 as measured immediately within the property line of lands designated for noise-sensitive uses.
- 9.1.6 It is anticipated that roadway improvement projects will be needed to accommodate buildout of the general plan. Therefore, existing noise-sensitive uses may be exposed to increased noise levels due to roadway improvement projects as a result of increased roadway capacity, increases in travel speeds, etc. It may not be practical to reduce increased traffic noise levels consistent with those contained in Table 9-3. Therefore, as an alternative, the following criteria may be used as a test of significance for roadway improvement projects:
- Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant and
 - Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant; and
 - Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +1.5 dB L_{dn} increase in noise levels due to roadway improvement projects will be considered significant.
- 9.1.7 Where noise mitigation measures are required to achieve the standards of Tables 9-1 and 9-3, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.
- 9.1.8 Obtrusive, discretionary noise generated from residences, motor vehicles, commercial establishments, and/or industrial facilities should be minimized or prohibited.

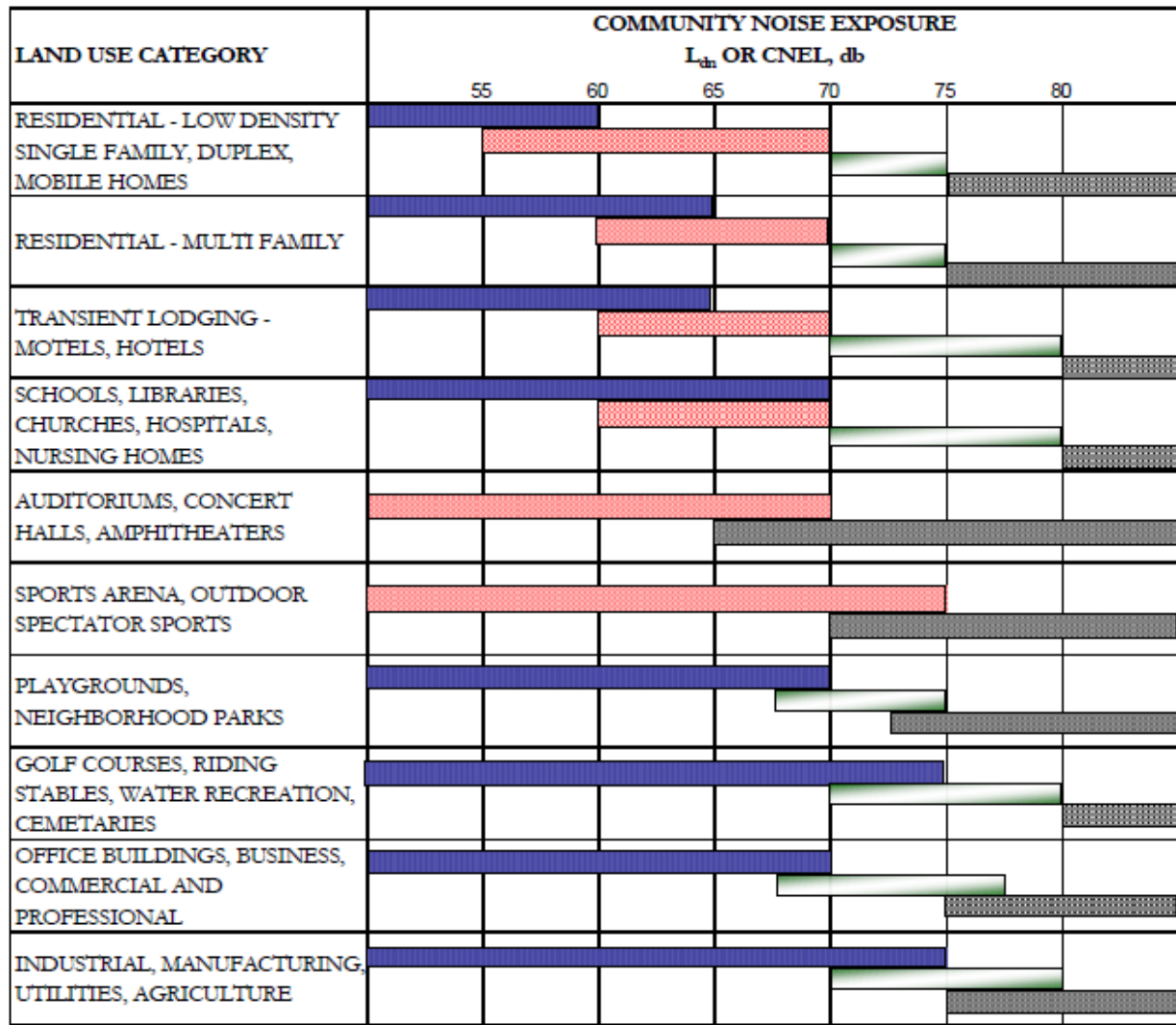
Goal 9.2 Protect the economic base of the City by preventing incompatible land uses from encroaching upon existing or planned noise-producing uses.

Policies

- 9.2.1 New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table 9-3, unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table 9-3.

- 9.2.2 Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 9-3 or the performance standards of Table 9-1, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

FIGURE 1 Land Compatibility for Community Noise Environments



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development clearly should not be undertaken.

TABLE 4 Noise Level Performance Standards for New Projects Affected by or Including Non-Transportation Noise Sources*

Noise Level Descriptor	Daytime (7:00 AM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)																						
Hourly L_{eq}, dB	55	45																						
<p>1. Each of the noise levels specified above shall be lowered five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises (e.g., humming sounds, outdoor speaks systems). These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).</p> <p>2. The City can impose noise level standards which are more restrictive than those specified above based upon determination of existing low ambient noise levels.</p> <p>3. Fixed noise sources which are typically of concern include, but are not limited to the following:</p> <table> <tbody> <tr> <td>HVAC Systems</td> <td>Cooling Towers/Evaporative Condensers</td> </tr> <tr> <td>Pump Stations</td> <td>Lift Stations</td> </tr> <tr> <td>Emergency Generators</td> <td>Boilers</td> </tr> <tr> <td>Steam Valves</td> <td>Steam Turbines</td> </tr> <tr> <td>Generators</td> <td>Fans</td> </tr> <tr> <td>Air Compressors</td> <td>Heavy Equipment</td> </tr> <tr> <td>Conveyor Systems</td> <td>Transformers</td> </tr> <tr> <td>Pile Drivers</td> <td>Grinders</td> </tr> <tr> <td>Drill Rigs</td> <td>Gas or Diesel Motors</td> </tr> <tr> <td>Welders</td> <td>Cutting Equipment</td> </tr> <tr> <td>Outdoor Speakers</td> <td>Blowers</td> </tr> </tbody> </table> <p>4. The types of uses which may typically produce the noise sources described above include but are not limited to industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.</p>			HVAC Systems	Cooling Towers/Evaporative Condensers	Pump Stations	Lift Stations	Emergency Generators	Boilers	Steam Valves	Steam Turbines	Generators	Fans	Air Compressors	Heavy Equipment	Conveyor Systems	Transformers	Pile Drivers	Grinders	Drill Rigs	Gas or Diesel Motors	Welders	Cutting Equipment	Outdoor Speakers	Blowers
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Welders	Cutting Equipment																							
Outdoor Speakers	Blowers																							

*Table 9-1 of the Oakley 2020 General Plan.

TABLE 5 Maximum Allowable Noise Exposure Transportation Noise Sources*

Land Use	Outdoor Activities Areas ¹ L _{dn} / CNEL, dB	Interior Space	
		L _{dn} /CNEL, dB	L _{eq} , dB ²
Residential	65	45	--
Transient Lodging	65 ³	45	--
Hospitals, Nursing Homes	65	45	
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	65	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

1. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

2. As determined for a typical worst-case hour during periods of use.

3. In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

*Table 9-3 of the Oakley 2020 General Plan.

City of Oakley Municipal Code. Section 4.2.208 of the City of Oakley Municipal Code regulates acceptable hours of construction activity. It is unlawful for a person to operate or perform construction or repair work (which creates noise) within or adjacent to a residential land use district except during the following hours:

- 1) Monday through Friday: 7:30 a.m. to 7:00 p.m.
- 2) Saturdays, Sundays and holidays: 9:00 a.m. to 7:00 p.m.

Existing Noise Environment

The project site is located northeast of the intersection of Knightsen Avenue and East Cypress Road in Oakley, California. The northern property line of the site is bordered by the Contra Costa Canal. The area surrounding the site is primarily agricultural to the north, east, and south, with residential developments located to the west.

In October 2020, Illingworth & Rodkin, Inc. collected noise data at the project site and in the site vicinity for the Woodbury at Emerson Residential Project located approximately one half of one mile west of the site, north of East Cypress Road and west of Sellers Avenue. The noise measurement survey quantified noise levels originating primarily from East Cypress Road. This noise data is applicable to the existing noise environment of the project site and will be used for the purpose of this analysis, as both sites share the same primary noise source of East Cypress Road.

The noise monitoring survey began on Tuesday, October 20, 2020 and ended on Thursday, October 22, 2020. The monitoring survey included two long-term measurements and four short term measurements. Of these, long-term measurement LT-1 (referenced in original study as LT-2) and short-term measurements ST-1 and ST-2 (not referenced in original study) are applicable in characterizing the noise environment of the Burroughs site. Long-term measurement LT-1 was made along East Cypress Road and the two short-term measurements were made at the Burroughs site at two distances from East Cypress Road. The primary noise source at all three measurement locations was vehicular traffic along East Cypress Road.

Long-term noise measurement LT-1 was made approximately 45 feet north of the centerline of East Cypress Road and approximately 1,750 feet west of the project site. Hourly average noise levels at this location ranged from 67 to 73 dBA L_{eq} during the day and from 58 to 69 dBA L_{eq} at night. The day-night average noise level on Wednesday, October 21, 2020 was 72 dBA L_{dn} . The daily trend in noise levels measured at LT-1 is shown in Figures 2 through 4.

Short-term (10-minute duration) noise measurements were made between 10:10 a.m. and 10:40 a.m. on Tuesday, October 20th, 2020 at two positions to document noise levels at the site. ST-1 was made approximately 640 feet north of the East Cypress Road centerline. ST-2 was made approximately 60 feet north of the East Cypress Road centerline. Short-term measurements were conducted simultaneously with long-term measurement LT-1 to allow for approximation of the day-night average noise levels at short-term measurement locations. The locations of measurements relative to the project site are shown in Figure 5. Short-term measurement results are shown in Table 6.

TABLE 6 Summary of Short-Term Noise Measurement Data, dBA

Noise Measurement Location	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}	L_{dn}^*
ST-1: Project site, approximately 640 feet north of East Cypress Road centerline. Tuesday, October 20, 2020 10:10 a.m. - 10:20 a.m.	57	54	50	46	43	48	50
ST-2: Project site, approximately 60 feet north of East Cypress Road centerline. Tuesday, October 20, 2020 10:30 a.m. - 10:40 a.m.	75	73	69	63	50	65	66

* Day-night average noise levels at short-term measurement locations were calculated through comparison with measurement LT-1.

FIGURE 2 Noise Levels at Measurement Site LT-1 on Tuesday, October 20th, 2020

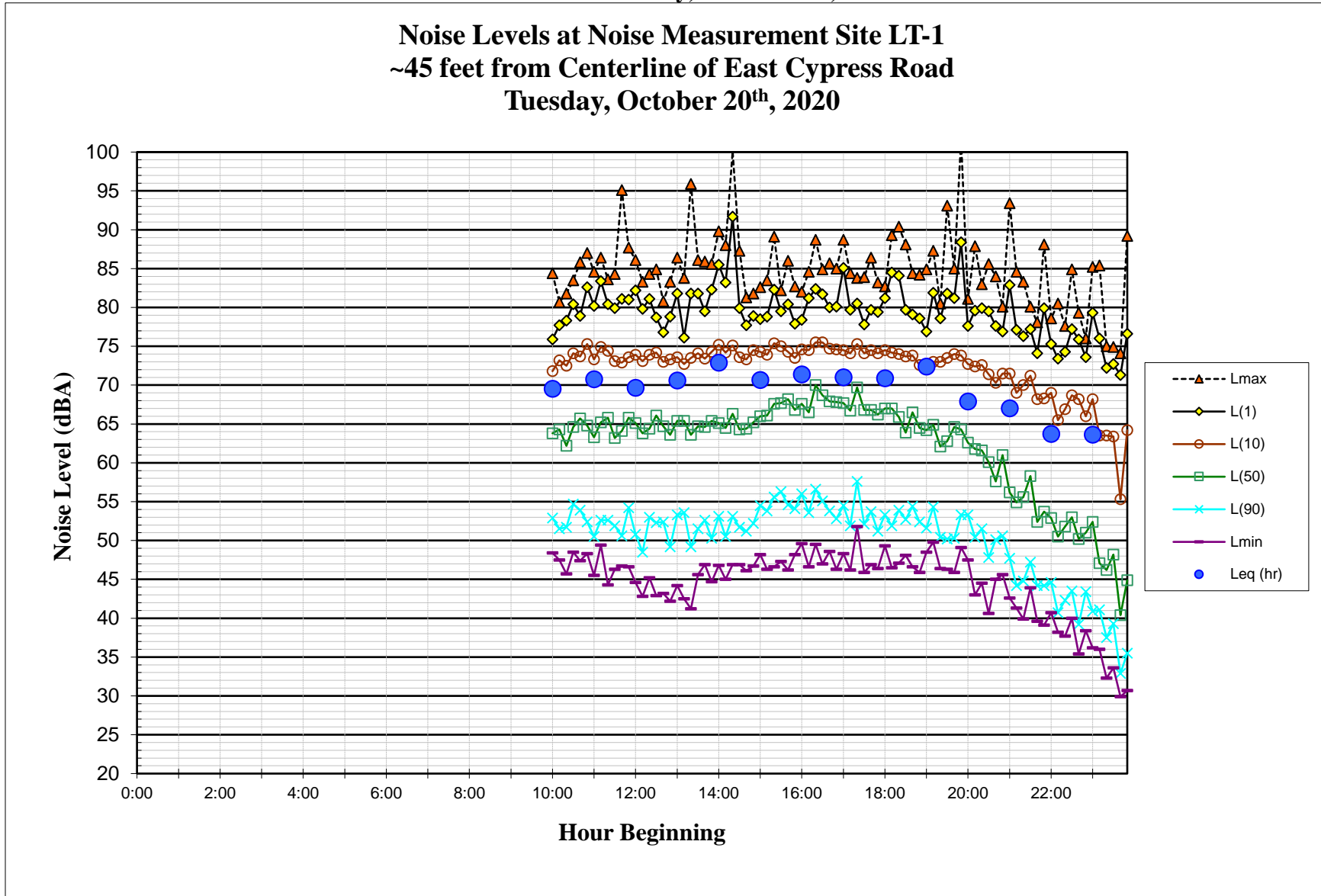


FIGURE 3 Noise Levels at Measurement Site LT-1 on Wednesday, October 21st, 2020

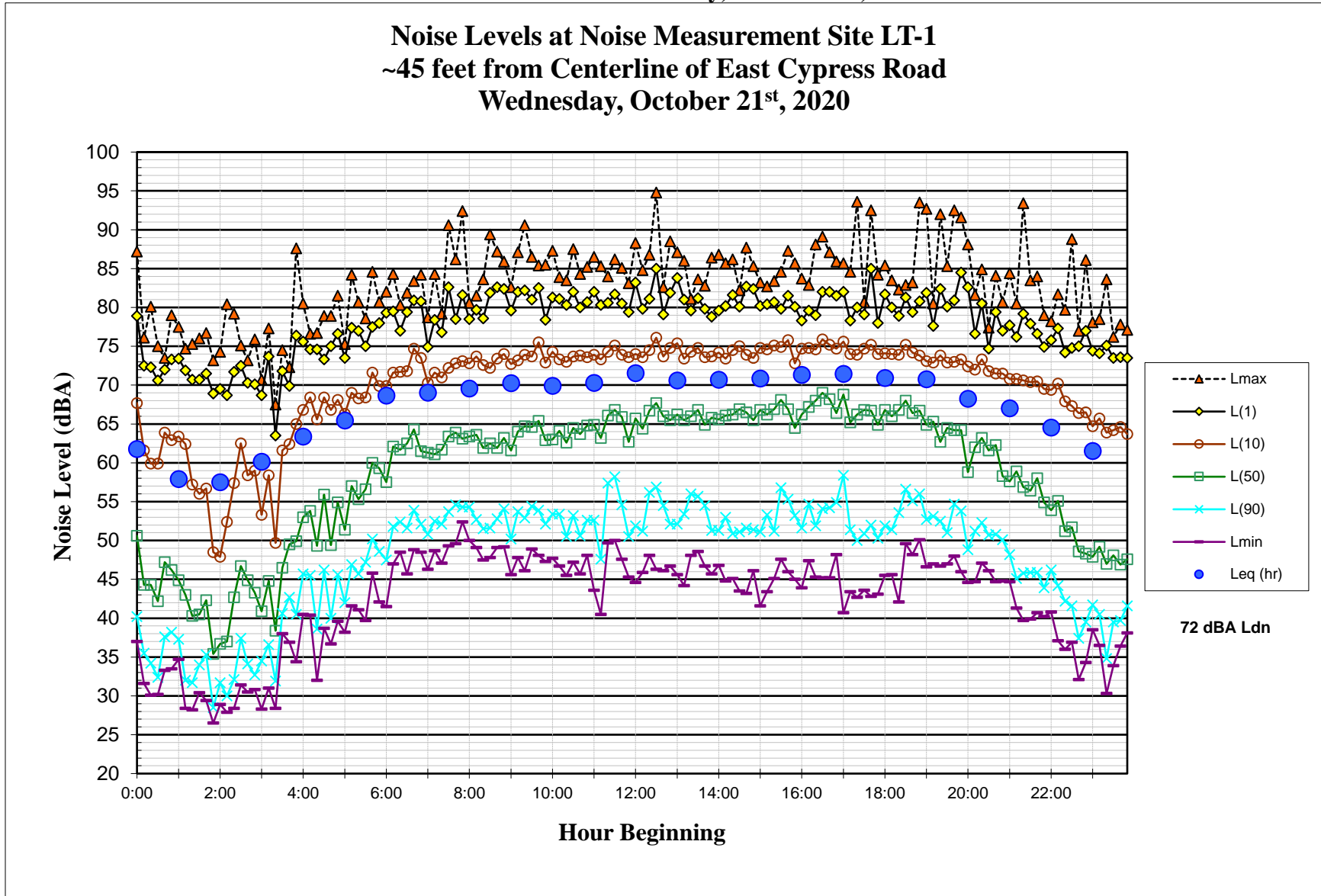


FIGURE 4 Noise Levels at Measurement Site LT-1 on Thursday, October 22nd, 2020

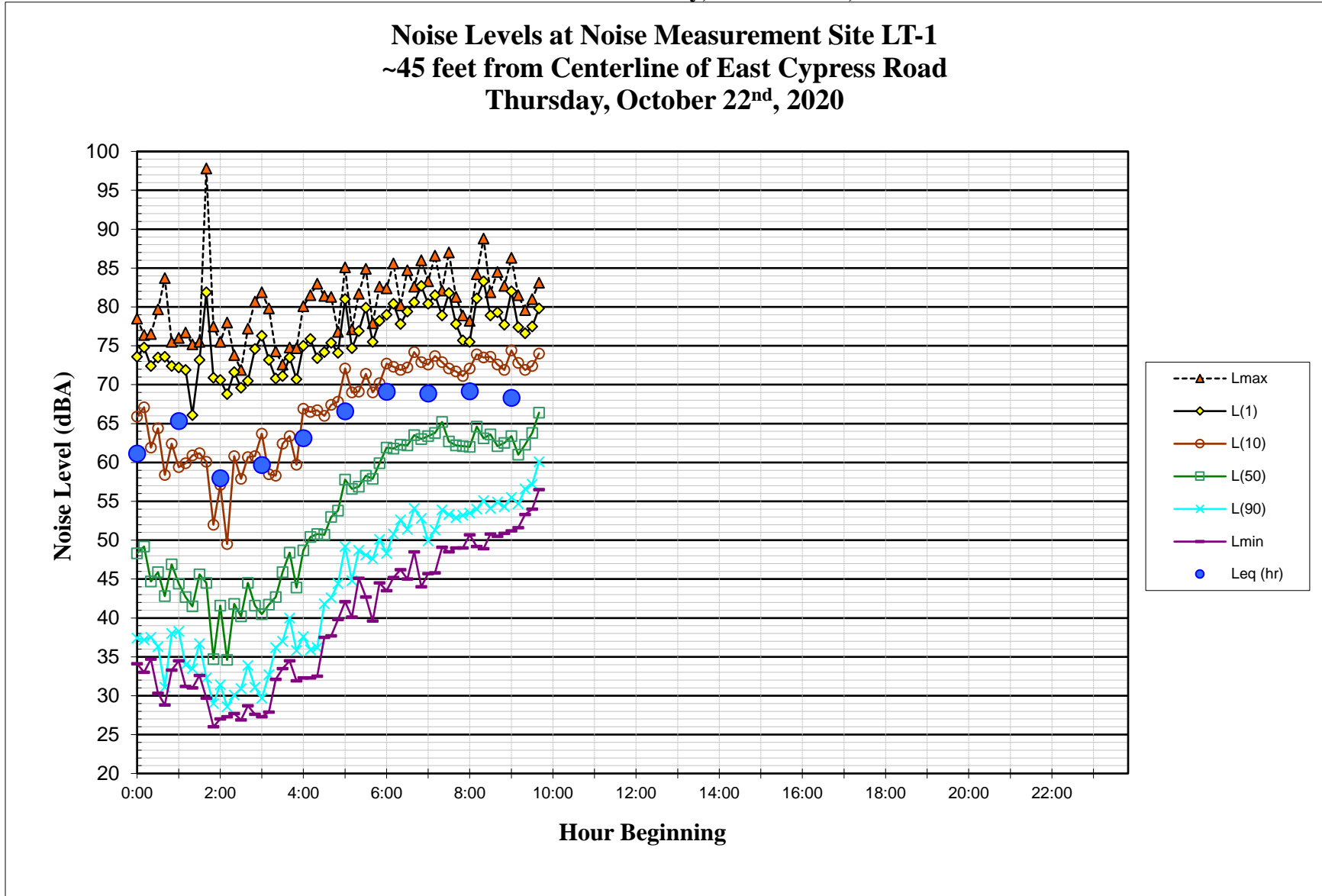


FIGURE 5 Aerial Image Showing Noise Measurement Locations



Source: Google Earth, 2020.

PLAN CONSISTENCY ANALYSIS

Compatibility Thresholds

The applicable compatibility thresholds were presented in detail in the Regulatory Background section and are summarized below for the proposed project:

- The City of Oakley's maximum allowable exterior noise exposure from transportation noise sources at outdoor use areas of residential land uses is 65 dBA L_{dn} .
- The City of Oakley's maximum allowable interior noise exposure from transportation noise sources at residential land uses is 45 dBA L_{dn} .

Exterior Noise Environment

The project proposes to construct 208 single-family residences on a 45 acre site. Each residence would have available its own yard. There are no other outdoor use areas proposed by the project. The City of Oakley General Plan limits the maximum noise exposure resulting from transportation sources to 65 dBA L_{dn} at residential outdoor activity areas.

The future noise environment at the project site would continue to result primarily from vehicular traffic along East Cypress Road. According to traffic data provided by TJKM,¹ future traffic volume increases along East Cypress Road would result in a noise increase of 1 to 2 dBA over existing conditions. Additionally, the City of Oakley is planning to widen and alter the alignment of East Cypress Road to have a right of way width totaling 150 feet, located north of the existing road.

To determine future noise levels at outdoor use areas, noise modeling of the site was conducted using SoundPLAN 8.2, a three-dimensional noise modeling software that considers site geometry and the characteristics of noise sources. The model utilized traffic data for a future 2040 plus project scenario and accounted for the new alignment of East Cypress Road. Based on modeling results, the future noise level at the residences nearest East Cypress Road would reach up to 71 dBA L_{dn} , with the highest noise exposure expected at the southern boundary of lot 134 near the southeastern corner of the site. Without mitigation, traffic noise levels would exceed the General Plan standard for maximum allowable exterior noise exposure from transportation noise sources.

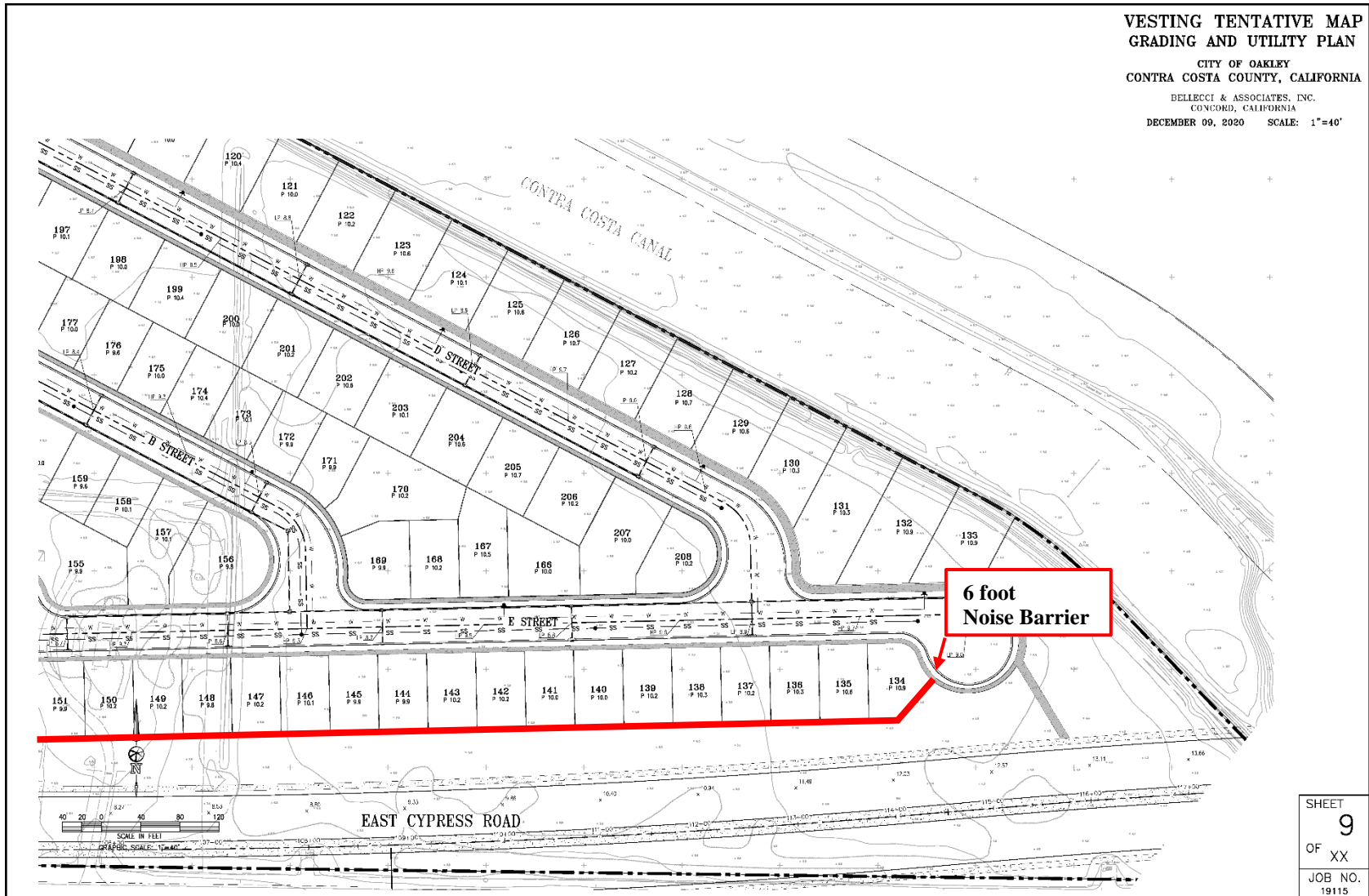
Noise barriers were introduced into the model at locations shown in Figures 6 and 7 and calculations were made to determine the height of wall required to provide the noise reduction necessary to reduce noise exposure at residential outdoor use spaces below 65 dBA L_{dn} . Results of calculations indicate that constructing a noise barrier with a minimum height of 6 feet along the southern border of the residential lots nearest East Cypress Road would reduce transportation noise exposure to approximately 61 dBA L_{dn} or less throughout the project site.

¹ *WestGate Ventures Residential Development Draft Traffic Impact Analysis*, TJKM, December 2020

FIGURE 6 Location of Modeled Noise Barriers



FIGURE 7 Location of Modeled Noise Barriers



Interior Noise Environment

The City of Oakley requires that interior noise levels attributable to exterior noise sources do not exceed 45 dBA L_{dn} within any habitable room. As described above, exterior noise levels at the project site could reach up to 71 dBA L_{dn} at the southern lots with the greatest amount of exposure to East Cypress Road. The anticipated noise exposure at façades of individual residences would depend on their setback distance from East Cypress Road and potential construction of noise barriers.

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. In residential buildings of typical construction, with the windows partially open, interior noise levels are approximately 15 dBA lower than exterior noise levels. With the windows closed, standard residential construction typically provides 20 to 25 decibels of exterior to interior noise reduction. Where exterior day-night average noise levels are 65 dBA L_{dn} or less, interior noise levels can typically be maintained below standards (45 dBA L_{dn}) with the incorporation of forced air mechanical ventilation systems in residential units. These systems allow the occupant the option of controlling noise by maintaining the windows shut. Where noise levels exceed 65 dBA L_{dn} , forced-air mechanical ventilation systems and sound-rated building elements are normally required. It is understood that all residences will be provided with mechanical ventilation allowing for windows and doors to be closed for noise control purposes.

Assuming a minimum reduction of 20 dBA with windows closed, noise levels inside the proposed residences nearest East Cypress Road could reach up to 51 dBA L_{dn} . While ground-floor residences would experience lower noise levels after construction of a noise barrier of sufficient height along southern lot lines, residences with second floors would still be directly exposed to noise resulting from traffic along East Cypress Road. Project plans available at the time of this writing do not indicate exterior wall construction materials which could be assessed to determine potential noise reduction. Assuming a worst case noise exposure of 71 dBA L_{dn} and a typical window and door to wall ratio of 40% at building façades facing East Cypress Road, typical wood siding exterior wall construction meeting a Sound Transmission Class (STC) of 39 and windows meeting a minimum STC of 30 would provide approximately 29 dBA of exterior-to-interior noise reduction, resulting in interior noise levels of 45 dBA L_{dn} or less within the upper level of residences having the greatest exterior noise exposure.

Conditions of Approval

To reduce noise exposure at residential outdoor use areas and within residences to levels not exceeding applicable standards, the following conditions of approval are recommended:

- Construct a noise barrier reaching a minimum height of 6 feet, as measured above the residential pad elevation, along the southern lot line of lots 7 through 21 and 134 through 153, as indicated in Figures 6 and 7.

- Exterior wall construction of south-facing walls of residences on lots 8 through 20 and 134 through 153 should meet a minimum STC of 39. Windows on south-facing walls of these residences should meet a minimum STC of 30.

NOISE IMPACTS AND MITIGATION MEASURES

This section describes the significance criteria used to evaluate project impacts under CEQA, provides a discussion of each project impact, and presents mitigation measures, where necessary, to provide a compatible project in relation to adjacent land uses.

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- **Temporary or Permanent Noise Increases in Excess of Established Standards.** A significant impact would be identified if project construction or operations would result in a substantial temporary or permanent increase in ambient noise levels at sensitive receivers in excess of the local noise standards contained in the General Plan or Municipal Code.
- **Generation of Excessive Groundborne Vibration.** A significant impact would be identified if the construction of the project would generate excessive groundborne vibration levels (i.e., 0.3 in/sec PPV or greater).
- **Exposure of Residents or Workers to Excessive Noise Levels in the Vicinity of a Public Airport or Private Airstrip.** A significant impact would be identified if the project would expose people residing or working in the project area to aircraft noise levels exceeding 65 dBA CNEL.

Impact 1 **Temporary or Permanent Noise Increases in Excess of Established Standards.**
The proposed project is not anticipated to generate noise levels in excess of standards established in the City’s General Plan and Municipal Code at the nearby sensitive receptors. **This is a less-than-significant impact.**

Construction Noise

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), if the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities would include excavation, site preparation, grading, building construction, paving, and architectural coating. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based

on the amount of equipment in operation and the location at which the equipment is operating. The hauling of excavated materials and construction materials would generate truck trips on local roadways as well.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. Table 7 lists typical ranges of construction noise levels at a distance of 50 feet. Typical hourly average construction-generated noise levels from domestic housing projects are about 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods when all pertinent equipment is present at the site. When the minimum required equipment is present at the site, noise levels produced by domestic housing projects are about 65 to 83 dBA L_{eq} . Average and maximum instantaneous noise levels for individual pieces of construction equipment are listed in Table 8.

TABLE 7 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
	Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84
I – All pertinent equipment present at site. II – Minimum required equipment present at site.								

Source: USE.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

TABLE 8 Construction Equipment 50-foot Noise Emission Levels (dBA)

Equipment Category	L _{eq} ^{1,2,3}	L _{max} ^{1,2}	Equipment Category	L _{eq} ^{1,2,3}	L _{max} ^{1,2}
Air Hose	93	100	Horizontal Bore Drill	87	88
Air-Operated Post Driver	83	85	Impact Pile Driver	99	105
Asphalt Distributor Truck (Asphalt Sprayer)	-	70	Impact Wrench	68	72
Auger Drill	88	101	Jackhammer	91	95
Backhoe	76	84	Jig Saw	92	95
Bar Bender	66	75	Joint Sealer	-	74
Blasting (Abrasive)	100	103	Man Lift	72	73
Blasting (Explosive)	83	93	Movement Alarm	79	80
Chainsaw	79	83	Mud Recycler	73	74
Chip Spreader	-	77	Nail Gun	70	74
Chipping Gun	95	100	Pavement Scarifier (Milling Machine)	-	84
Circular Saw	73	76	Paving – Asphalt (Paver, Dump Truck)	-	82
Compactor (Plate)	-	75	Paving – Asphalt (Paver, MTV, Dump Truck)	-	83
Compactor (Roller)	82	83	Paving – Concrete (Placer, Slipform Paver)	87	91
Compressor	66	67	Paving – Concrete (Texturing/Curing Machine)	73	74
Concrete Batch Plant	87	90	Paving – Concrete (Triple Roller Tube Paver)	85	88
Concrete Grinder	-	97	Power Unit (Power Pack)	81	82
Concrete Mixer Truck	81	82	Pump	73	74
Concrete Pump Truck	84	88	Reciprocating Saw	64	66
Concrete Saw	85	88	Rivet Buster	100	107
Crane	74	76	Rock Drill	92	95
Directional Drill Rig	68	80	Rumble Strip Grinding	-	87
Drum Mixer	66	71	Sander	65	68
Dump Truck (Cyclical)	82	92	Scraper	-	92
Dump Truck (Passby)	-	73	Shot Crete Pump/Spray	78	87
Excavator	76	87	Street Sweeper	-	81
Flatbed Truck	-	74	Telescopic Handler (Forklift)	-	88
Front End Loader (Cyclical)	72	81	Vacuum Excavator (Vac-Truck)	86	87
Front End Loader (Passby)	-	71	Ventilation Fan	62	63
Generator	67	68	Vibratory Concrete Consolidator	78	80
Grader (Passby)	-	79	Vibratory Pile Driver	99	105
Grinder	68	71	Warning Horn (Air Horn)	94	99
Hammer Drill	72	75	Water Spray Truck	-	72
Hoe Ram	92	99	Welding Machine	71	72

Notes: ¹ Measured at 50 feet from the construction equipment, with a “slow” (1 sec.) time constant.

² Noise levels apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

³ Equipment without average (L_{eq}) noise levels are non-stationary and best represented only by maximum instantaneous noise level (L_{max}).

Source: Project 25-49 Data, National Cooperative Highway Research Program, <https://apps.trb.org/cmsfeed/trbnetprojectdisplay.asp?projectid=3889>, October 2018

Construction of the project is anticipated to begin in March of 2022 and conclude in November 2024. All construction throughout the site would occur simultaneously through one single phase. The center of the project site would be approximately 500 feet from the nearest residences to the south, opposite East Cypress Road, and approximately 1,000 feet from the nearest residential property line shared with the development to the west. Average noise levels produced by residential housing construction activities would range from 45 to 68 dBA L_{eq} at 500 feet and from 39 to 62 dBA L_{eq} at 1,000 feet. There may be periods of heavy construction occurring along the project site's southern and western property lines when construction activity generates noise levels exceeding ambient conditions by greater than 10 dBA. Implementation of standard construction noise best management practices would reduce noise and limit annoyance at nearby sensitive receptors.

Construction Noise Best Management Practices

- Pursuant to the City of Oakley Municipal Code Section 4.2.208, prohibit construction activities at the site or in areas adjacent to the site to the hours between 7:30 a.m. and 7:00 p.m., Monday through Friday and 9:00 a.m. to 7:00 p.m. on Saturday, Sunday, and State, Federal or Local Holidays;
- Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;
- Acoustically shield stationary equipment located near residential receivers with temporary noise barriers;
- Locate staging areas and construction material areas as far away as possible from adjacent land uses;
- Prohibit all unnecessary idling of internal combustion engines;
- Route all construction traffic to and from the project site via designated truck routes and prohibit construction related heavy truck traffic in residential areas where feasible;
- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented; and

- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

Implementation of the above measures would reduce construction noise and minimize annoyance at the nearest residences and would result in a **less-than-significant impact**.

On-Site Operational Noise

Table 9-1 of the City of Oakley General Plan establishes noise level performance standards for non-transportation noise sources. Project-generated noise would be limited to 55 dBA L_{eq} during daytime hours and 45 dBA L_{eq} during nighttime hours.

Operational noise sources associated with residential projects include heating, ventilation, and air conditioning equipment which would be present at each of the proposed residences. Noise levels produced by a typical residential heat pump are approximately 56 dBA at 3 feet during operation. Noise levels produced by a typical residential air conditioning condenser are approximately 66 dBA at 3 feet during operation. The nearest noise-sensitive uses would be located approximately 175 feet south of the residential property line where HVAC equipment may be located. At this distance, noise generated by mechanical equipment would reach 21 to 31 dBA.

Occupation and use of the proposed residences is expected to result in noises typically associated with residential development, such as voices of the new residents, home maintenance activities, barking dogs, and children. These sources would not be expected to generate substantial noise off-site. Operational noise levels would not exceed General Plan standards. This is a **less-than-significant impact**.

Traffic Noise

General Plan Policy 9.16 establishes significance criteria for traffic noise increases due to roadway improvement projects. These criteria may be reasonably applied to traffic noise increases resulting from the project. The most restrictive of these criteria states that where traffic noise levels are greater than 65 dBA L_{dn} at outdoor activity areas of noise-sensitive uses, a 1.5 dBA increase in noise levels will be considered significant.

Traffic data provided by TJKM were reviewed to calculate future traffic noise increases resulting from the project. Through a comparison of future 2040 traffic volumes with and without the project, it was calculated that the project would result in a 0 to 1 dBA increase on all roadway segments analyzed in the traffic study. The traffic noise increase generated by the project would not exceed General Plan criteria. This is a **less-than-significant impact**.

Mitigation Measures: None Required.

Impact 2: Exposure to Excessive Groundborne Vibration. The project site is located over 130 feet from existing or proposed buildings west and south of the project site. At this minimum distance, construction-related vibration levels would not exceed the significance thresholds for vibration levels received at historic buildings or

buildings of normal conventional construction. **This is a less-than-significant impact.**

Construction of the project may temporarily generate perceptible vibration when heavy equipment or impact tools are used near the boundary of the site. Proposed construction phases include demolition, site preparation, grading, trenching/foundation, paving, and new building framing and finishing. The proposed project would not require pile driving, which can cause excessive vibration.

The City of Oakley does not specify a construction vibration limit. For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings (see Table 3). The 0.3 in/sec PPV vibration limit would be applicable to properties in the vicinity of the project site.

Table 9 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet and summarizes the vibration levels at the minimum distance of 130 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Heavy vibration generating construction equipment, such as vibratory rollers or the dropping of heavy equipment (e.g., clam shovel drops), would have the potential to produce vibration levels of 0.3 in/sec PPV or more at buildings of normal conventional construction located within approximately 20 feet of the project site.

At 130 feet, vibration levels are calculated to reach 0.034 in/sec PPV, which would not exceed the 0.3 in/sec PPV threshold for residential buildings. Cosmetic damage (e.g., hairline cracks in plaster, opening of old cracks, etc.) would not be expected at sensitive buildings located 20 feet or further from the project site. Construction vibration may still be perceptible at times, but with any type of construction, this would be anticipated and would not be considered significant, given the intermittent and short duration of the phases that have the highest potential of producing vibration. This is a less-than-significant impact.

TABLE 9 Vibration Source Levels for Construction Equipment

Equipment		Source PPV (in/sec) at 25 ft.	PPV at 130 ft. Nearest Res. Bldg.
Clam shovel drop		0.202	0.033
Hydromill (slurry wall)	in soil	0.008	0.001
	in rock	0.017	0.003
Vibratory Roller		0.210	0.034
Hoe Ram		0.089	0.015
Large bulldozer		0.089	0.015
Caisson drilling		0.089	0.015
Loaded trucks		0.076	0.012
Jackhammer		0.035	0.006
Small bulldozer		0.003	0.000

Source: Transit Noise and Vibration Impact Assessment Manual, U.S. Department of Transportation Federal Transit Administration, September 2018 as modified by Illingworth & Rodkin, Inc., January 2021.

Mitigation Measures: None Required.

Impact 3 Exposure of Residents or Workers to Excessive Noise Levels in the Vicinity of a Public Airport or Private Airstrip. The project site would not be exposed to aircraft noise levels of 65 dBA CNEL or greater. **This is a less-than-significant impact.**

No public airports or private airstrips exist within two miles of the project site. Most aircraft activities associated with public airports or private airstrips are concentrated in the immediate environs, therefore, noise levels resulting from any intermittent aircraft overflights would be less than 65 dBA CNEL and compatible with the proposed land use.

Mitigation Measures: None Required.

Appendix J
Traffic Impact Study



Burroughs Residential Development Draft Traffic Impact Analysis

Oakley, CA

March 31, 2021



Table of Contents

1. Introduction.....1

 Study Purpose.....1

 Report Overview1

 Proposed Project and Location.....1

 Analysis Scenarios and Study Area.....4

 Study Intersections4

 Level of Service Methodology.....5

 Signalized Intersections5

 Unsignalized Intersections.....5

 Significant Impact/Level of Service Standards.....7

2. Existing Conditions9

 Roadway Network.....9

 Pedestrian Facilities10

 Bicycle Facilities.....10

 Existing Transit Facilities11

 Existing Peak Hour Intersection Volumes.....14

 Existing Conditions Traffic Level of Service Analysis14

3. Project Conditions..... 18

 Project Trip Generation.....18

 Vehicle Trip Distribution & Assignment.....18

 Existing plus Project Conditions Traffic Analysis.....22

 Existing plus Project Traffic Impact Findings & Recommended Mitigation Measures.....22

 Pedestrian, Bicycle, and Transit Impacts23

4. Future Impacts..... 25

 Background Traffic Growth.....25

 Background plus Project Conditions Traffic Analysis.....31

 Future Impact Findings31

5. Vehicle Miles Travelled Analysis..... 34

Burroughs Residential Development, Oakley - Traffic Impact Analysis

6. Site Plan Analysis	36
Site Access and Sight Distance Analysis.....	36
On-Site Circulation, Parking and Queueing Analysis.....	36
Queueing Analysis	36

Tables

Table 1: Level of Service Thresholds Based on Intersection Control Delay.....	6
Table 2: Existing Transit Facilities	12
Table 3: Existing Conditions Traffic Level of Service Analysis Results	14
Table 4: Project Vehicle Trip Generation.....	19
Table 5: Existing plus Project Conditions Traffic Level of Service Analysis Results	22
Table 6: Intersection Level of Service – Background Conditions without Project.....	26
Table 7: Intersection Traffic Level of Service – Background plus Project Conditions.....	31
Table 8: Queueing for Study Intersections, in Feet.....	38

Figures

Figure 1: Vicinity Map.....	2
Figure 2: Project Site Plan	3
Figure 3: Transit Service Map.....	13
Figure 4: Existing Lane Patterns and Traffic Control.....	16
Figure 5: Existing Peak Hour Traffic Volumes.....	17
Figure 6a: Trip Distribution & Assignment.....	20
Figure 6b: Trip Distribution & Assignment	21
Figure 7: Existing plus Project Peak Hour Traffic Volumes	24
Figure 8a: Trip Distribution with Laurel Road Extension.....	28
Figure 8b: Background Lane Patterns and Traffic Control with Laurel Road Extension	29
Figure 9: Background Conditions Peak Hour Traffic Volumes	30
Figure 10: Background plus Project Peak Hour Traffic Volumes	33
Figure 11: Traffic Analysis Zones in Project Study Area	35

Appendices

Appendix A – Existing Conditions LOS Reports

Appendix B – Existing plus Project Conditions LOS Reports

Appendix C – Existing plus Project Conditions Mitigated LOS Reports

Appendix D – Background Conditions LOS Reports

Appendix E – Background plus Project Conditions LOS Reports

1. INTRODUCTION

This report describes results of the Transportation Impact Assessment (TIA) for a proposed Burroughs residential development jointly sponsored by WestGate Ventures and the City of Oakley on E. Cypress Road in the City of Oakley in Contra Costa County.

Study Purpose

The purpose of the TIA is to evaluate potential transportation impacts that could result from the proposed project, identify short-term and long-term multi-modal circulation needs where relevant to site access and/or project impacts, identify potential mitigation measures for any significant transportation impacts, and evaluate the adequacy of the proposed site plan for accommodating multi-modal site access and meeting City of Oakley Guidelines.

Report Overview

This report is organized into the following chapters:

- **Chapter 1 Introduction** describes the study methodology, impact significance criteria and regulatory setting.
- **Chapter 2 Existing Conditions** describes existing transportation conditions in the study area.
- **Chapter 3 Project Conditions** provides a forecast of traffic volumes that would be generated by the proposed project, assesses the significance of impacts to the transportation network resulting from the project under Existing plus Project conditions and identifies potential mitigations if necessary.
- **Chapter 4 Background Impacts** provides an assessment of potential cumulative traffic impacts, based on forecasted traffic growth under Background Conditions (without the proposed project) and Background plus Project Conditions (with the addition of project-generated traffic), and identifies potential cumulative mitigations if necessary.
- **Chapter 5 Site Plan and Queueing Analysis** provides site distance analysis, assesses site access, on-site circulation and queueing.

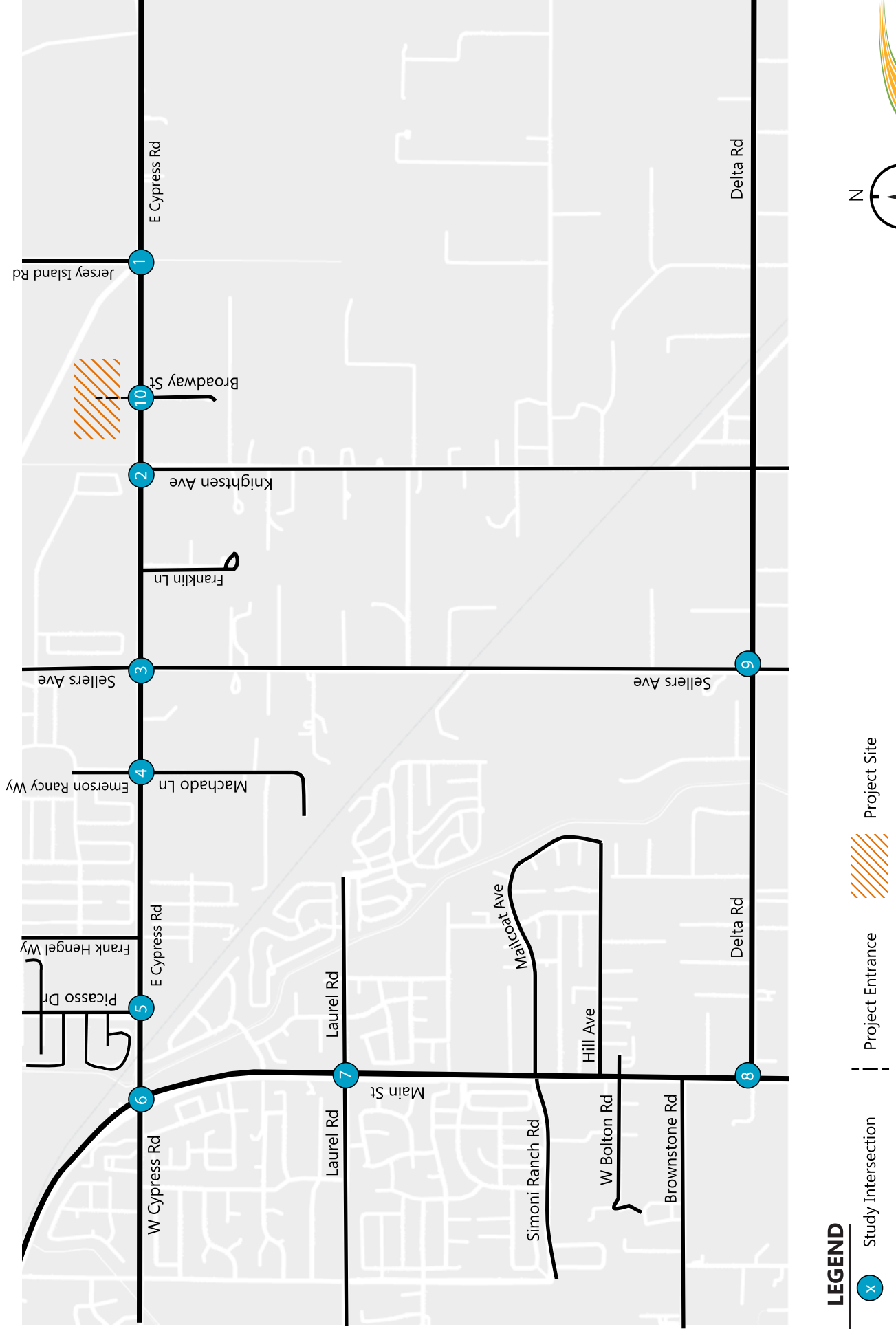
Proposed Project and Location

The location of the project site is shown in **Figure 1**. The project site is located in east Oakley, on the northeast corner of the intersection at E. Cypress Road and Knightsen Avenue.

The proposed residential development includes 208 single-family residential lots, where 93 lots are under the ownership of the Burroughs Property and 115 are under the ownership of the City of Oakley. The entire development is within the City of Oakley. The site plan of the proposed development is illustrated in **Figure 2**.

Direct access to and from the site is proposed via one driveway on E. Cypress Road. There are no existing sidewalks on E. Cypress Road in the vicinity of the project area.

Figure 1: Vicinity Map



LEGEND

- x Study Intersection
- Project Entrance
- Project Site

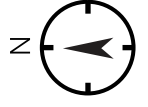
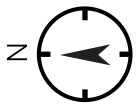


Figure 2: Site Plan



Analysis Scenarios and Study Area

Potential transportation impacts were assessed based on the following scenarios addressed in this study:

- **Existing Conditions** – This scenario describes existing transportation conditions in the study area based on the current roadway and sidewalk network characteristics, transit service, and the existing Oakley Citywide Traffic Model.
- **Existing plus Project Conditions** – This scenario is similar to Existing Conditions but with the additions of net new trips that would be generated by the project.
- **Background Conditions** – This scenario describes the projected peak hour traffic operations based on the net change to travel patterns anticipated from approved (but not yet constructed) or fully/partially occupied developments in the City at the time of the Existing Conditions assessment. This includes additional trips that would be generated if the proposed approved developments were to operate at full occupancy. The conditions in this scenario were developed using the Updated Citywide Vistro Model.
- **Background plus Project Conditions** – This scenario is similar to Background Conditions but with the inclusion of vehicle trips that would be generated by the project. The Background plus Project Conditions analysis provides an assessment of project impacts that takes into account other projects that would be completed within a similar timeframe as the project.

Study Intersections

TJKM evaluated transportation conditions at nine existing study intersections, and one proposed new driveway which would provide access to the project site. All intersections were evaluated based on conditions provided from the Citywide Traffic Model for the a.m. (7:00 a.m.-9:00 a.m.) and p.m. (4:00 p.m.-6:00 p.m.) peak periods for a typical weekday, except for the intersection at Delta Road/Sellers Avenue (Intersection #9), where the data was collected more recently. The following study intersections were selected in consultation with City staff based on the anticipated trip generation and travel pattern for project trips:

1. Jersey Island Road / E. Cypress Road
2. Knightsen Avenue / E. Cypress Road
3. Sellers Avenue / E. Cypress Road
4. Machado Lane / E. Cypress Road
5. Picasso Drive / E. Cypress Road
6. Main Street / E. Cypress Road
7. Main Street / Laurel Road
8. Main Street / Delta Road
9. Delta Road / Sellers Avenue*
10. E. Cypress Road / Project Entrance**
11. Sellers Avenue/ Laurel Road

* Indicates new location included in the Citywide Traffic Model to evaluate Level of Service

** Indicates intersection would be evaluated under "plus Project" scenarios only

Level of Service Methodology

Level of Service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. LOS generally describes these conditions in terms of speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow with little or no delay) and F representing the worst conditions (severely congested flow with high delays). Intersections are generally the capacity-controlling locations, with respect to traffic operations, on arterial and collector streets.

Signalized Intersections

The study intersections under traffic signal control were analyzed using Highway Capacity Manual 6th Edition (HCM 6) Operations Methodology for Signalized Intersections (Transportation Research Board, 2016), as described in Chapter 19. This methodology determines LOS based on overall average control delay per vehicle for the intersection during peak hour operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections was calculated using Vistro analysis software version 7.00-05 and correlated to a LOS designation. **Table 1** presents the HCM 6 delay and LOS definitions.

Unsignalized Intersections

Stop-control study intersections were analyzed using HCM 6 Operations Methodology for Unsignalized Intersections, as described in Chapters 20 and 21. LOS ratings for stop-control intersections are based on average control delay expressed in seconds per vehicle. At the side street of one-way stop-controlled intersections or two-way stop sign intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop-controlled (AWSC) intersections, while the worst-movement delay is presented for side-street stop-controlled intersections. The average control delay for unsignalized intersections was calculated using Vistro analysis software version (7.00-04) and correlated to a LOS designation. At an unsignalized intersection, most of the major street traffic is not delayed, and by definition has acceptable conditions. The major street left-turn movements and minor street movements are all susceptible to delay of varying degrees. Generally, higher major street traffic volumes are associated with higher delay for minor movements. HCM 6 definitions for delay and LOS at signalized intersections are presented in **Table 1**. The analysis methodology described above was used to measure a.m. and p.m. peak hour traffic operations for all study intersections.

Table 1 describes the LOS thresholds from the HCM 6th edition for intersections. The intersection LOS thresholds differ between signalized and unsignalized intersections.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

Table 1: Level of Service Thresholds Based on Intersection Control Delay

Level of Service	Description	Signalized Intersection Delay (D) (sec)	Unsignalized Intersection Delay (D) (sec)
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	$0 \leq D \leq 10$	$0 \leq D \leq 10$
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.	$10 < D \leq 20$	$10 < D \leq 15$
C	Control delay greater than 20 and up to 35 seconds per vehicle. Fair progression or longer cycle lengths, or both cause higher delays. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.	$20 < D \leq 35$	$15 < D \leq 25$
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	$35 < D \leq 55$	$25 < D \leq 35$
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.	$55 < D \leq 80$	$35 < D \leq 50$
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.	$80 < D$	$50 < D$

Source: HCM 6th Edition

Regulatory Setting

All Contra Costa County jurisdictions, including the City of Oakley, participate in the Measure J – Growth Management Program. The overall goal of this program is to achieve a cooperative process for Growth Management on a countywide basis, while maintaining local authority over land use decisions and the establishment of performance standards. Using a formula based on road miles and population. Contra Costa County Transportation Authority (CCTA) allocates 18 percent of sales tax revenues to local jurisdictions that comply with Growth Management requirements. Oakley participates in the Measure C program as a member of the TRANSPLAN subregional transportation planning committee, which consists of the Cities of Antioch, Oakley, and Pittsburg, and Contra Costa County.

The Contra Costa Transportation Authority (CCTA) serves as the Congestion Management Agency (CMA) for Contra Costa County. CCTA adopted the most recent Congestion Management Program (CMP) in 2015. The 2015 CMP requires an analysis of any project that is expected to generate more than 100 peak hour vehicle trips.

Significant Impact/Level of Service Standards

Per the City of Oakley General Plan, LOS D or a volume-to-capacity (V/C) ratio of 0.90 are the thresholds of acceptability for signalized intersections. Any signalized intersection operating worse than LOS D would be considered inconsistent with this standard. The intersection of Main Street and E. Cypress Road, which is a CMP intersection (Contra Costa County 2019 Congestion Management Program, CCTA, 2019), and the intersections along Main Street at Laurel Road and Delta Road, which are within Priority Development Areas (Plan Bay Area 2040, Metropolitan Transportation Commission, 2017), have standards of LOS E or better. For this study, the study intersections were analyzed using HCM 6th Edition Methodology as per the City's guidance. Average control delay is reported in seconds per vehicle for signalized and all-way-stop-control intersections and critical delay for minor approaches is reported for two-way-stop-control intersections. Intersections operating worse than LOS D are considered inconsistent with the City's standard.

Appendix G of the State CEQA Guidelines includes significance criteria for potential transportation impacts. These include whether a project would result in one of the following:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, bicycle and pedestrian paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

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- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- Section 4B of the Contra Costa County Transportation Analysis Guidelines identifies significance criteria based on level of service analysis results. Significant impacts occur if:
- The addition of project traffic results in the degradation of intersection operations from acceptable LOS D or better to unacceptable operations (LOS E or LOS F), except for intersections in Priority Development Areas ("PDA") where the minimum acceptable operational standard is LOS E;
- The addition of project traffic to an intersection operating unacceptably before the addition of project trips results in an increase in average controlled delay (for signalized and all-way stop-controlled intersections) or worst movement/approach delay (for side-street stop-controlled intersections) at the intersection by 5.0 seconds or more.

Project Vehicle Miles Traveled

The City of Oakley has not yet established standards of significance for vehicle miles traveled which is now a mandatory CEQA component of traffic studies. The Governor's Office of Planning and Research (OPR) *Technical Advisory* (December 2018) provides guidance to analysts and local jurisdictions for implementing VMT as a metric for determining the transportation impact for land use projects. The OPR guidelines state that for analysis purposes, "VMT" refers to automobile VMT, specifically passenger vehicles and light trucks. Heavy truck traffic is typically excluded. The Contra Costa County *Transportation Analysis Guidelines* (June 2020) provide additional guidance on evaluating VMT impacts from projects within the County.

Both the OPR and County guidelines provide standards for identifying which projects should be exempt from further VMT analysis, based on characteristics such as their size, proximity to transit, or expected number of total daily trips. For non-exempt projects that replace an existing VMT-generating use, the OPR guidelines state that a net reduction in total VMT constitutes a less-than-significant impact. Where a project does not replace an existing use, the County guidelines specify that a residential project would have a significant impact if it generates home-based VMT per resident less than 15 percent below the countywide average. This threshold is consistent with guidance issued in the OPR *Technical Advisory*. As this analysis utilized local VMT estimates generated in a regional travel demand model the regional average VMT has been used instead of the countywide average.

2. EXISTING CONDITIONS

Roadway Network

Key roadways and freeways in the vicinity are discussed below.

E. Cypress Road – E. Cypress Road is a two to four lane major arterial roadway. E. Cypress Road extends east-west between Main Street and Sandmound Boulevard. Residential, school, and agricultural uses, along with vacant land, characterize the lands along both sides of E. Cypress Road. Posted speed limits on E. Cypress Road are 35 miles per hour (mph) between Main Street and Frank Hengel Way and east of Summer Lake Drive, 45 mph between Frank Hengel Way and Sellers Avenue and between Bethel Island Road and Summer Lake Drive, and 50 mph between Sellers Avenue and Bethel Island Road.

Jersey Island Road – Jersey Island Road is a two lane, north-south collector roadway that extends north of E. Cypress Road. Agricultural land exists on both sides of Jersey Island Road. The posted speed limits are 25 mph and 40 mph within the City of Oakley.

Knightsen Avenue – Knightsen Avenue is a two lane, north-south roadway that extends between E. Cypress Road and Delta Road. Residential and agricultural uses characterize the lands along both sides of Knightsen Avenue. The maximum posted speed limit on Knightsen Avenue is 50 mph south of E. Cypress Road, and the minimum posted speed limit is 30 mph north of Delta Road.

Sellers Avenue – Sellers Avenue is a two lane, north-south collector roadway north of E. Cypress Road, and minor arterial south of E. Cypress Road. Residential and agricultural uses characterize the lands along both sides of Sellers Avenue. The maximum posted speed limit on Sellers Avenue is 50 mph between E. Cypress Road and Delta Road.

Machado Lane – Machado Lane is an unpaved, bidirectional roadway that provides access to single-family homes south of E. Cypress Road. Residential and agricultural uses characterize the lands along both sides of Machado Lane. There is no posted speed limit on Machado Lane.

Picasso Drive – Picasso Drive is a two lane roadway that extends north of E. Cypress Road. Residential and school uses characterize the lands along both sides of Picasso Drive. The posted speed limit on Picasso Drive is 25 mph.

Main Street – Main Street is a two to four lane major arterial roadway. Main Street is currently the major north-south transportation corridor in the City of Oakley. Mixed residential, commercial, and agricultural uses characterize the lands along both sides of Main Street between Rose Avenue and Laurel Avenue. Maximum speeds posted on Main Street are 35 mph west of Rose Avenue, 45 mph between Rose Avenue and Bernard Road, and 40 mph south of Bernard Road.

Laurel Road – Within the project vicinity, Laurel Road is a two- to three-lane, east-west divided roadway. Laurel Road extends beyond Main Street to the east and terminates at SR 4 to the west. Laurel Road mainly serves to collect and distribute traffic to/from residential streets and SR 4. The posted speed limits on Laurel Road are 35 mph and 40 mph near the project site.

Delta Road – Delta Road is a two-lane, east-west rural road that extends east from Main Street providing connection to the north end of the planned Byron Highway.

Pedestrian Facilities

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal “walkable” community includes wide sidewalks, a mix of land uses providing residential, employment, and shopping opportunities, minimal conflict points with vehicle traffic, and access to transit facilities and services.

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities.

There are no sidewalks provided in the immediate vicinity of the project. The closest sidewalk network on E. Cypress Road begins approximately 0.24 miles west of the intersection of E. Cypress Road and Machado Lane. Sidewalks are also provided on local collectors and arterials such as Picasso Drive, Main Street and Laurel Road. There are no sidewalks on the side streets of Jersey Island Road, Knightsen Avenue, Sellers Avenue, Machado Lane and Delta Road. West Bolton Road, Brownstone Road, Monte Linda Road and Delta Road.

Bicycle Facilities

Bicycle facilities include the following:

Multi-Use Paths (Class I) – A path physically separated from motor vehicle traffic by an open space or barrier, and either within a highway or an independent right-of-way (ROW), used by bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers. Class I paths are the most popular type of facility. Because the availability of uninterrupted ROW is limited, this type of facility may be difficult to locate and expensive to build, relative to other types of bicycle facilities, but inexpensive compared to new roadways. Ideal locations for bike paths are areas such as powerline easements, utility easements, canal banks, river levees, drainage easements, railroad or highway ROW, or regional community parks.

Bike Lanes (Class II) – A portion of a roadway designated by striping and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes are intended to promote an orderly flow of bicycle and vehicle traffic. This type of facility is established by using the appropriate striping, pavement legends, and signs.

Bike Routes (Class III) – Bike routes are shared facilities between bicycle and motor vehicle traffic. They provide for specific bicycle demand and may be used to connect discontinuous segments of bike lanes. In addition, bike routes are located on residential streets and rural roads. If the pavement width is sufficient, and traffic volume/speeds warrant, an edge line may be painted to further delineate the bike route. Bike routes are signed with the G-93 Bike Route marker but no striping or legends are required.

The City of Oakley General Plan (September 2002), City of Oakley Parks, Recreation, and Trails Master Plan 2020 (Summer 2007), and the Contra Costa County Bicycle and Pedestrian Plan (October 2009) propose that several new bicycle facilities be constructed in the future which includes trunk line bikeway network passing through Main Street and Laurel Road and a local multi-use trail on E. Cypress Road and Sellers Avenue in the vicinity of the project area.

The existing bicycle facilities are at the following locations:

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- Main Street- Class II bicycle facilities are provided between Cypress Road and Simoni Ranch Road on both sides.
- Laurel Road- Class II bicycle facilities are provided between Harvest Drive and Main Street on both sides.
- Marsh Creek Regional Trail- Class I bicycle facility provided along Marsh Creek which can be accessed through Delta road approximately 1.5 miles west of the project site.
- Via Delta de Anza Trail- Class I bicycle facility provided along Contra Costa Canal which can be accessed through Cypress Road and O' Hara Avenue approximately two miles west of the project site.

Existing Transit Facilities

Tri-Delta Transit provides transit services in the City of Oakley, with three lines connecting Brentwood and the Pittsburg/Bay Point Bay Area Rapid Transit (BART) station. Due to Covid 19 conditions, some of the routes and schedules may not currently be in full operation.

- *Route 300*, the Pittsburg BART/Brentwood Park & Ride route, is a weekday express route connecting Brentwood to the Pittsburg/Bay Point BART station via Oakley and Antioch. This bus travels along Main Street, operating from 4:15 a.m. to approximately 10:00 p.m. with 15 to 30-minute headways.
- *Route 383*, the Oakley/Antioch/Freedom High School route, connects Oakley to Antioch and Freedom High School in Oakley. This route, in both clockwise and counterclockwise directions, provides only weekday service. The counterclockwise route runs with approximate one-hour headways, and the clockwise route runs twice during the a.m. peak hour period only.
- *Route 391*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekday service to most East County Cities. The route operates from 4:00 a.m. to 1:15 a.m. with 30 to 60-minute headways.
- *Route 393*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekend service to Route 391. The route operates from 5:20 a.m. to 2:00 a.m. with approximately 60-minute headways.

Table 2 summarizes the services and frequency during the weekday and on weekends for transit in the City of Oakley. **Figure 3** shows a map of transit routes operated by Tri-Delta Transit.

At the project site, the nearest bus stops are located at the intersections of W Cypress Rd/Fall Ln (1.7 miles west of the project site), and Main Street/Laurel Road (2.1 miles northeast of the project site) served by Routes 383, 391, and 393.

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Table 2: Existing Transit Facilities

Route	From	To	Weekdays		Saturday		Sunday	
			Hours	Headway (min)	Hours	Headway (min)	Hours	Headway (min)
300	Pittsburg/ Bay Point BART Station	Brentwood Park & Ride	4:15 a.m. – 10:00 p.m.	10-30	....	....	....	....
383	Antioch Park & Ride	Antioch Park & Ride 1	6:52 a.m. – 5:26 p.m.	60-120	....	....	....	....
391	Pittsburg/ Bay Point BART Station	Brentwood Park & Ride	4:03 a.m. - 1:14 a.m.	30-60	....	....	....	....
393	Pacifica & Mariners Cove	Brentwood Park & Ride	5:22 a.m. – 1:39 a.m.	60	6:24 a.m. – 1:49 a.m.	60

Source: www.trideltatransit.com

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Existing Peak Hour Intersection Volumes

Turning movement volumes for vehicles, bicycles and pedestrians at all study intersections were provided by the City of Oakley Citywide Traffic Model for the a.m. and p.m. peak hours at all locations, except the intersection of Delta Road/Sellers Avenue (Intersection #9). TJKM collected intersection turning movement counts for a.m. (7:00 a.m. – 9:00 a.m.) and p.m. (4:00 p.m. – 6:00 p.m.) peaks at Delta Road/Sellers Avenue on Thursday, October 22, 2020. Although this data was collected during the current COVID-19 shut-down, the roadways are low volume and the inconsistencies in data collection are not expected to impact the study. Since the City of Oakley is currently in the process of updating the model, the analysis may be updated with current counts at all intersections. Existing lane patterns and traffic control are illustrated in **Figure 4**. Existing turning movement volumes at each existing study intersection are illustrated on **Figure 5**.

Existing Conditions Traffic Level of Service Analysis

Under Existing Conditions intersections were analyzed based on lane geometries and traffic controls provided by the Existing Conditions scenario of the Citywide Traffic Model. **Table 3** summarizes peak hour levels of service at the study intersections under Existing Conditions. Detailed LOS worksheets for this scenario are provided in **Appendix A**. Each of the study intersections operate at an acceptable LOS D or better under Existing Conditions, except the intersections of Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) which operate at LOS E or F during one or both peaks.

Table 3: Existing Conditions Traffic Level of Service Analysis Results

ID	Intersection	Control	Peak Hour	Existing Conditions	
				Average Delay ¹	LOS ²
1	Jersey Island Road / E. Cypress Road	One-Way Stop	A.M.	16.2	C
			P.M.	11.3	B
2	Knightsen Avenue / E. Cypress Road	One-Way Stop	A.M.	37.3	E
			P.M.	21.6	C
3	Sellers Avenue / E. Cypress Road	Signalized	A.M.	18.4	B
			P.M.	17.2	B
4	Machado Lane / E. Cypress Road	Signalized	A.M.	12.8	B
			P.M.	11.2	B
5	Picasso Drive / E. Cypress Road	Signalized	A.M.	32.8	C
			P.M.	8.9	A
6	Main Street / E. Cypress Road*	Signalized	A.M.	>80	F
			P.M.	27.9	C
7	Main Street / Laurel Road*	Signalized	A.M.	46.2	D
			P.M.	37.0	D
8	Main Street / Delta Road*	One-Way Stop	A.M.	>50	F
			P.M.	40.5	E
9	Delta Road / Sellers Avenue	All-Way Stop	A.M.	9.3	A
			P.M.	13.0	B

Notes: **Bold** text indicates unacceptable intersection operations.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

* Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

¹Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for one-way stop-control intersections.

²LOS: Level of Service.

Figure 4: Existing Lane Patterns and Traffic Control

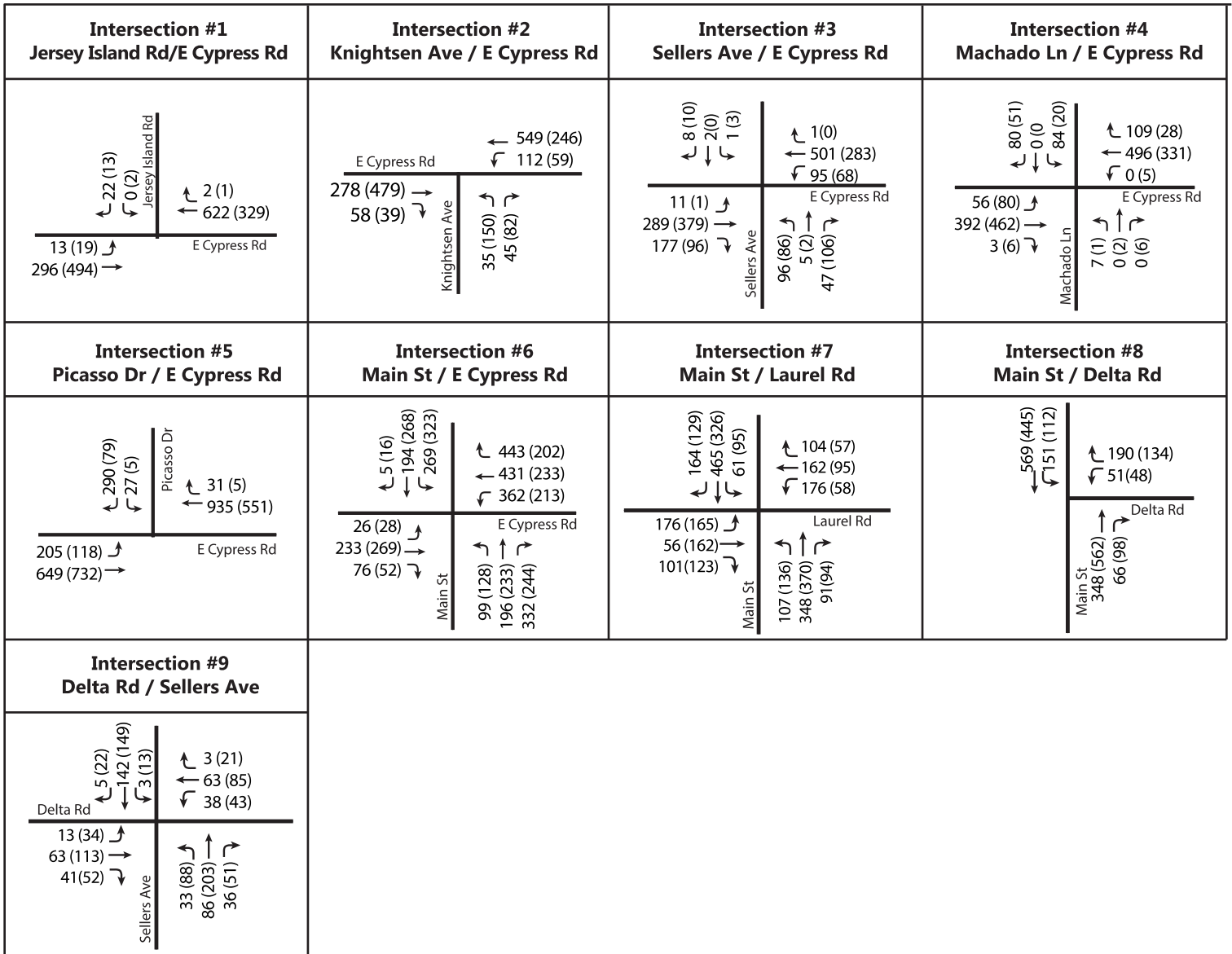
Intersection #1 Jersey Island Rd/E Cypress Rd	Intersection #2 Knightsen Ave / E Cypress Rd	Intersection #3 Sellers Ave / E Cypress Rd	Intersection #4 Machado Ln / E Cypress Rd
Intersection #5 Picasso Dr / E Cypress Rd	Intersection #6 Main St / E Cypress Rd	Intersection #7 Main St / Laurel Rd	Intersection #8 Main St / Delta Rd
Intersection #9 Delta Rd / Sellers Ave			

LEGEND

- Traffic Signal
- Stop Sign



Figure 5: Existing Peak Hour Traffic Volumes



LEGEND

- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume



3. PROJECT CONDITIONS

Project Trip Generation

The project vehicle trip generation rates were obtained from the reference *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers (ITE). Based on the applicable rates for Single-Family Detached Housing (ITE Code 210), the Project is forecasted to generate 1,964 daily vehicle trips, including 154 a.m. peak hour and 206 p.m. peak hour vehicle trips, as summarized in **Table 4**.

Vehicle Trip Distribution & Assignment

The peak-hour vehicle trips generated by the project were manually assigned to each study intersection based on the following origin and destination trip-distribution assumptions:

- 45 percent to/from SR 4 west of CA-160
- 15 percent to/from SR 4 east of CA-160
- 15 percent to/from Main Street south of Cypress Road
- 10 percent to/from Main Street west of Cypress Road
- 5 percent to/from CA-160
- 4 percent to/from Empire Avenue south of Laurel Road
- 3 percent to/from O'Hara Avenue south of Laurel Road
- 1 percent to/from Sellers Avenue south of Delta Road
- 1 percent to/from Knightsen Avenue south of Delta Road
- 1 percent to/from E. Cypress Road east of Jersey Island Road

Figures 6a and 6b illustrate the distribution of project trips to origins/destinations, and the assignment of project trips to study intersections based on the anticipated path(s) of travel.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

Table 4: Project Vehicle Trip Generation

Land Use (ITE Code)	Size ¹	Daily		A.M. Peak ²		P.M. Peak ²		Total	Rate	Total	In	Out	Total
		Rate	Trips	In:Out	Rate	In	Out						
Single-Family Detached Housing (210)	208 DU	9.44	1,964	0.74	25:75	39	115	154	0.99	63:37	130	76	206
Net New Trips			1,794			39	115	154			130	76	206

Proposed

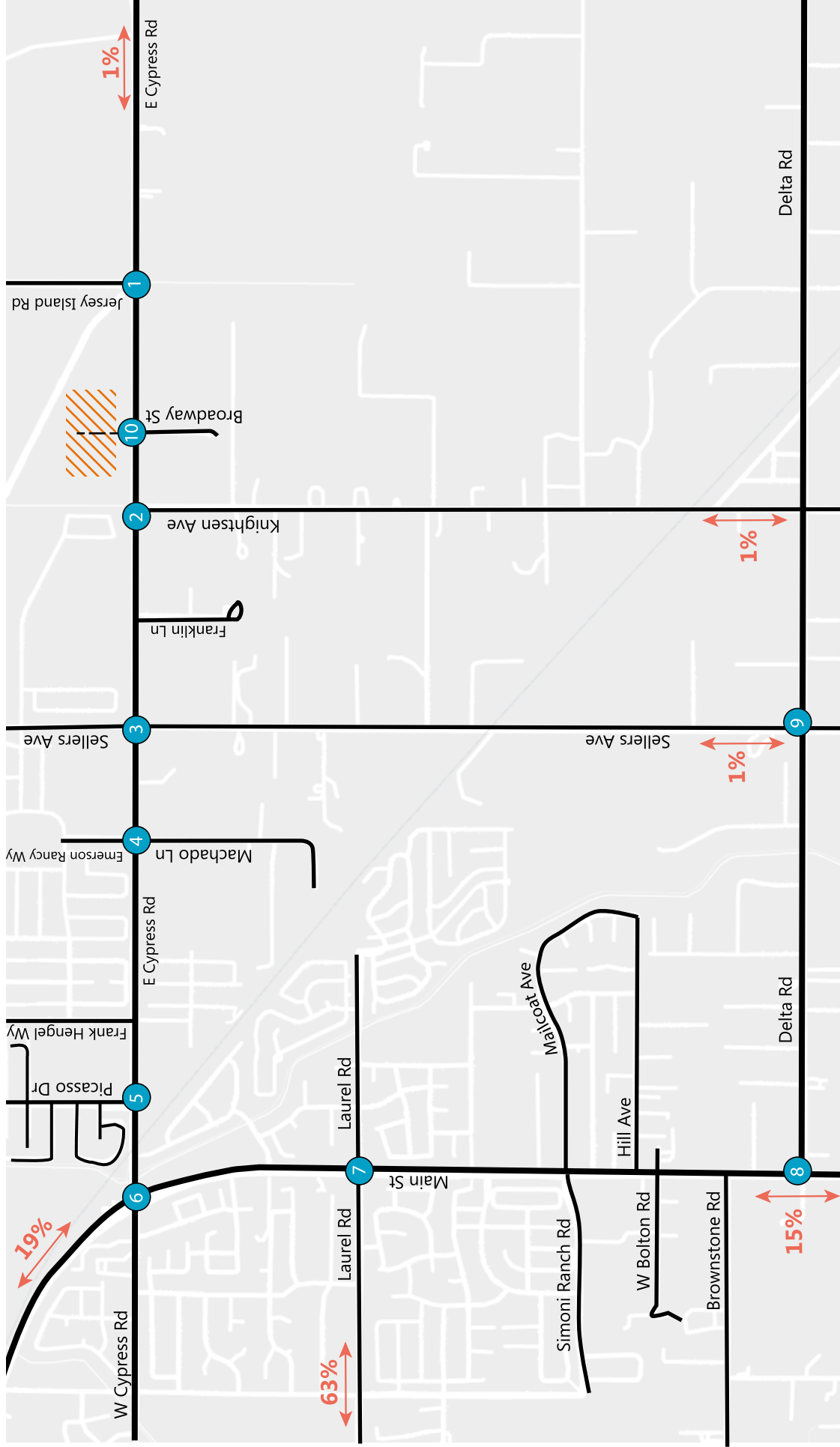
Notes:

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition

¹DU – Dwelling Units

²A.M. Peak – morning peak period (7:00 a.m.-9:00 a.m.); P.M. Peak – evening peak period (4:00p.m.-6:00 p.m.)

Figure 6a: Trip Distribution & Assignment



LEGEND

- Study Intersection
- Project Entrance
- Project Site
- Trip Distribution

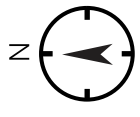


Figure 6b : Trip Distribution & Assignment

Intersection #1 Jersey Island Rd/E Cypress Rd	Intersection #2 Knightsen Ave / E Cypress Rd	Intersection #3 Sellers Ave / E Cypress Rd	Intersection #4 Machado Ln / E Cypress Rd
Intersection #5 Picasso Dr / E Cypress Rd	Intersection #6 Main St / E Cypress Rd	Intersection #7 Main St / Laurel Rd	Intersection #8 Main St / Delta Rd
Intersection #9 Delta Rd / Sellers Ave	Intersection #10 Project Dwy / E Cypress Rd		

LEGEND

- XX AM Peak Hour Project Volume
- (XX) PM Peak Hour Project Volume



Burroughs Residential Development, Oakley - Traffic Impact Analysis

Existing plus Project Conditions Traffic Analysis

Figure 7 shows the peak hour volumes at each intersection under Existing plus Project Conditions. **Table 5** summarizes peak hour levels of service at the study intersections under Existing plus Project Conditions, based on the addition of project trips to each study intersection. Detailed LOS worksheets for this scenario are provided in **Appendix B**. As shown, all study intersections operate at acceptable LOS under Existing plus Project conditions, except the intersections of Knightsen Avenue/E. Cypress Road (Intersection #2), Main Street/E. Cypress Road (Intersection #6) and Main Street/Delta Road (Intersection #8) which operate at LOS F during the a.m. peak.

Table 5: Existing plus Project Conditions Traffic Level of Service Analysis Results

ID	Intersection	Control	Peak Hour	Existing Conditions		Existing plus Project Conditions		
				Average Delay ¹	LOS ²	Average Delay ¹	LOS ²	Potential Significant LOS Impact?
1	Jersey Island Road / E. Cypress Road	One-Way Stop	A.M.	16.2	C	16.2	C	No
			P.M.	11.3	B	11.3	B	No
2	Knightsen Avenue / E. Cypress Road ³	One-Way Stop	A.M.	37.3	E	>50	F	Yes
			P.M.	21.6	C	33.2	D	No
3	Sellers Avenue / E. Cypress Road	Signalized	A.M.	18.4	B	19.6	B	No
			P.M.	17.2	B	18.3	B	No
4	Machado Lane / E. Cypress Road	Signalized	A.M.	12.8	B	13.3	B	No
			P.M.	11.2	B	12.0	B	No
5	Picasso Drive / E. Cypress Road	Signalized	A.M.	32.8	C	40.4	D	No
			P.M.	8.9	A	8.9	A	No
6	Main Street / E. Cypress Road* ⁴	Signalized	A.M.	>80	F	>80	F	Yes
			P.M.	27.9	C	39.4	D	No
7	Main Street / Laurel Road*	Signalized	A.M.	46.2	D	49.7	D	No
			P.M.	37.0	D	50.4	D	No
8	Main Street / Delta Road* ⁵	One-Way Stop	A.M.	>50	F	>50	F	Yes
			P.M.	40.5	E	44.2	E	No
9	Delta Road / Sellers Avenue	All-Way Stop	A.M.	9.3	A	9.3	A	No
			P.M.	13.0	B	13.1	B	No
10	Project Driveway / E. Cypress Road	Two-Way Stop	A.M.	-	-	13.7	B	No
			P.M.	-	-	10.3	B	No

Notes: **Bold** text indicates unacceptable intersection operations.

* Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

¹Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for two-way- stop-control intersections.

²LOS: Level of Service.

³City currently has efforts to signalize this intersection in the near future, with completion anticipated in Fiscal Year 2022-2023.

⁴City currently has efforts to widen westbound approach at this intersection in the near future.

⁵City currently is exploring options to improve operations at this intersection.

Existing plus Project Traffic Impact Findings & Recommended Mitigation Measures

The project impact to the intersections of Knightsen Avenue/E. Cypress Road (Intersection #2), Main Street/E. Cypress Road (Intersection #6), and Main Street/Delta Road (Intersection #8) are potentially significant because the project adds five or more seconds of delay in the a.m. peak period. Peak hour

Burroughs Residential Development, Oakley - Traffic Impact Analysis

signal warrants were evaluated for the Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) intersections based on the *California Manual on Uniform Traffic Control Devices (CA MUTCD), Revision 4 (2019)* guidelines for traffic signal warrant 3, which evaluates traffic signal installation for peak hour traffic. At the intersection of Knightsen Avenue/E. Cypress Road (Intersection #2) the peak hour signal warrant is met during both peak hours without the proposed project, based on the eastbound and westbound one-lane approach volumes on E. Cypress Road, and northbound one-lane approach on Knightsen Avenue, to 70% of the peak hour warrant thresholds. Thus the warrant is satisfied because the major street, E. Cypress Road, has a posted speed limit exceeding 40 mph. At the intersection of Main Street/Delta Road (Intersection #8) the peak hour signal warrant is met during both peak hours without the proposed project, based on the westbound approach volumes on Delta Road, and northbound and southbound approach volumes on Main Street, which satisfy the peak hour warrant thresholds.

The intersections at Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) both operate at acceptable LOS D or better during the a.m. and p.m. peak hours with the implementation of traffic signals. The signalized intersection of Main Street/E. Cypress Road (Study Intersection #6) operates at unacceptable LOS F during the a.m. peak hour under Existing Conditions without and with the proposed project, due to lack of acceptable signal service to the westbound left-turn movement. Intersection operations improve to acceptable LOS D at this location by increasing phase splits at the eastbound and westbound left-turn approaches and providing a northbound right-turn overlap phase.

With the installation of signal control at Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/Delta Road (Intersection #8) and signal timing improvements at Main Street/E. Cypress Road (Intersection #6), the impacts of the proposed project would be **less-than-significant**. The above-mentioned intersections are included in the list of planned intersection improvements by the City's Traffic Impact Fee (TIF) program, including the signalization of the Knightsen Avenue/E. Cypress Road and Main Street/Delta Road intersections. The City currently has Capital Improvement Projects (CIP) for improvements at the intersections of Knightsen Avenue/E. Cypress Road (Intersection #2) and Main Street/E. Cypress Road (Intersection #6). Additionally, the City has made efforts and is exploring options to improve traffic conditions at Main Street/Delta Road (Intersection #9).

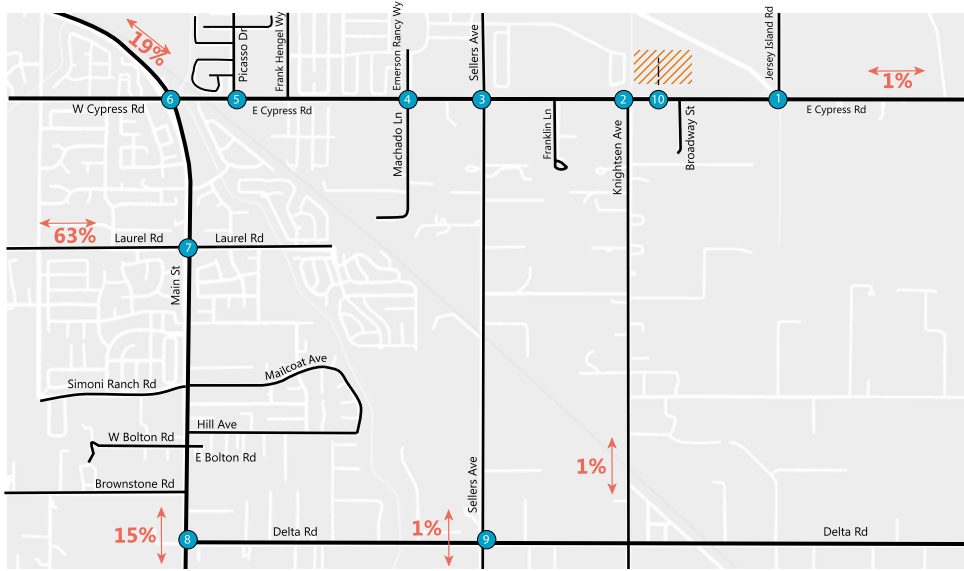
Detailed calculation sheets for mitigation of Existing and plus Project Conditions are contained in **Appendix A** and **Appendix B** respectively. Detailed LOS worksheets for mitigations are provided in **Appendix C**.

Pedestrian, Bicycle, and Transit Impacts

The proposed project is not anticipated to have adverse impacts to existing or planned pedestrian, bicycle, or transit facilities as per the Contra Costa Countywide Bicycle and Pedestrian Plan (2018) and the City of Oakley 2020 General Plan.

Figure 7: Existing Plus Project Peak Hour Traffic Volumes

Intersection #1 Jersey Island Rd/E Cypress Rd	Intersection #2 Knightsen Ave / E Cypress Rd	Intersection #3 Sellers Ave / E Cypress Rd	Intersection #4 Machado Ln / E Cypress Rd
<p>Jersey Island Rd 22 (13) ← 0 (2) ↓ 2 (1) ↑ 622 (330) → E Cypress Rd 13 (19) ↑ 297(495) ↓</p>	<p>E Cypress Rd 662 (320) ← 113 (60) ↓ Knightsen Ave 316 (607) → 58 (39) ↓ 35 (50) ← 45 (83) →</p>	<p>Sellers Ave 8 (10) ← 2 (0) ↓ 1 (3) → E Cypress Rd 1 (0) ↑ 613 (356) ← 96 (69) ↓ 11 (1) ↑ 327 (506) ← 177 (96) ↓ 96 (86) ↑ 5 (2) ↓ 47 (107) →</p>	<p>Machado Ln 80 (51) ← 0 (0) ↓ 84 (20) → E Cypress Rd 56 (80) ↑ 430 (589) ← 3 (6) ↓ 7 (1) ↑ 0 (2) ↓ 0 (6) →</p>
Intersection #5 Picasso Dr / E Cypress Rd	Intersection #6 Main St / E Cypress Rd	Intersection #7 Main St / Laurel Rd	Intersection #8 Main St / Delta Rd
<p>Picasso Dr 290 (79) ← 27 (5) ↓ 31 (5) ↑ 1047 (624) → E Cypress Rd 205 (118) ↑ 687 (859) ↓</p>	<p>Main St 5 (16) ← 194 (268) ↓ 277 (348) → E Cypress Rd 26 (28) ↑ 233 (269) ← 76 (52) ↓ 99 (128) ↑ 196 (233) ↓ 362 (346) →</p>	<p>Main St 236 (176) ← 482 (337) ↓ 61 (95) → Laurel Rd 176 (248) ↑ 56 (162) ↓ 101(123) → 107 (136) ↑ 354 (389) ↓ 91 (94) →</p>	<p>Main St 586 (456) ← 151 (112) ↓ Delta Rd 190 (134) ↑ 51(48) ↓ 354 (581) ↑ 66 (98) ↓</p>
Intersection #9 Delta Rd / Sellers Ave	Intersection #10 Project Dwy / E Cypress Rd		
<p>Delta Rd 15 (22) ← 143 (150) ↓ 3 (13) → 3 (21) ↑ 63 (85) ↓ 38 (43) → Sellers Ave 33 (88) ↑ 86 (204) ↓ 36 (51) →</p>	<p>E Cypress Rd 114 (75) ← 1 (1) ↓ Project Dwy 0 (1) ↑ 549 (246) ↓ 38 (129) ↑ 323 (561) ↓</p>		



LEGEND

- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- XX% Trip Distribution



4. FUTURE IMPACTS

This scenario evaluates the project's contribution to potential background traffic impacts. Future impacts were evaluated taking into account key planned improvements in the City of Oakley. The most notable project is the completion of the Laurel Road extension between Main Street and Sellers Avenue. This includes a railroad grade separation and widening/construction of Laurel Road to four lanes in this section. In addition, Sellers Avenue is planned to be widened to four lanes between Laurel Road and E. Cypress Road. Cypress Road is planned to be fully improved to six lanes east of Sellers Avenue and to four lanes west of Sellers Road. Other roads and intersections are scheduled to be improved as well.

Figures 8a and **8b** describe the details of the assumed future roadway system with the Laurel Road extension, including the distribution of traffic as depicted in the Updated Oakley Traffic Model and lane patterns and traffic control at each intersection.

Background Traffic Growth

Using the calibrated and validated updated Citywide Traffic Model, additional traffic projected to be generated from approved developments was forecasted for Background Conditions. The Background Conditions scenario includes additional traffic that would be generated by various approved projects completed within the City of Oakley and redistribution of traffic due to the Laurel Road extension. The following planned improvements, as per the Capital Improvement Program, are considered at the study intersections with and without the proposed project:

- Jersey Island Road/E. Cypress Road is analyzed as a signalized intersection, with lane geometry improvements which are expected to occur during signalization. The intersection is analyzed with exclusive left- and right-turn lanes at the southbound approach, one left-turn lane and three through lanes at the eastbound approach, and two through lanes and one shared through-right lane at the westbound approach.
- Knightsen Avenue/E. Cypress Road is analyzed as a signalized intersection with exclusive left- and right-turn lanes at the northbound approach, three through lanes and one shared right-turn lane at the eastbound approach, and one left-turn lane and three through lanes at the westbound approach.
- Sellers Avenue/E. Cypress Road is analyzed with the recent upgrade to lane geometry and signal timing. Additionally, the intersection considers planned widenings of Sellers Avenue and E. Cypress Road segments. The intersection is analyzed with one shared through-left lane and two right-turn lanes at the southbound approach; one exclusive left-turn lane, one shared through-right lane and two right-turn lanes at the northbound approach; one left-turn lane, two through lanes and one shared through-right lane at the eastbound approach; and two exclusive left-turn lanes, one through lane and one shared through-right lane at the westbound approach.
- Machado Lane/E. Cypress Road is analyzed with upgrades to lane geometry due to widening of E. Cypress Road. The westbound approach has one additional through lane under Background Conditions.
- Picasso Dr/E. Cypress Rd is analyzed with upgrades to lane geometry on Picasso Drive. The southbound approach has exclusive left-turn and right-turn lanes under Background Conditions.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

- Main Street/E. Cypress Road is analyzed with the future planned upgrade to striping at the westbound approach. The intersection is analyzed with one exclusive left-turn lane, one share through-left lane, and one right turn lane at the westbound approach.
- Main Street/Laurel Road is analyzed with future planned upgrade to striping at the northbound, eastbound and westbound approaches under Background Conditions. The intersection is analyzed with one exclusive left-turn lane, two through lanes and one exclusive right-turn lane at the northbound approach; one exclusive left-turn lane, two through lanes and one exclusive right-turn lane at the eastbound approach; and one exclusive left-turn lane, three through lanes and one exclusive right-turn lane at the westbound approach.
- Main Street/Delta Road is analyzed as a signalized intersection with updated lane geometry under Background Conditions. The intersection is analyzed with exclusive left-turn and right-turn lanes at the westbound approach, one through lane and one shared through-right lane at the northbound approach, and one exclusive left-turn lane and two through lanes at the southbound approach.
- Sellers Avenue/Laurel Road is a new intersection analyzed under Background Conditions. This intersection is formed due to the extension of Laurel Road. The intersection is analyzed as a signalized intersection with two left-turn lanes and one right-turn lane at the westbound approach, one exclusive left-turn lane and two through lanes at the northbound approach, and one through lane and two right-turn lanes at the southbound approach.

It should be noted that the City has plans to improve the intersections at Main Street/Delta Road and Main Street/Laurel Road in the near-term future. The City is currently exploring options to improve the intersection of Main Street and Delta Road. The Laurel Road extension has not only impacted the intersection of Main Street and Laurel Road, but also many other study intersection as the approved project and proposed project trips have been re-routed.

Figure 9 shows the forecasted volumes at each intersection under Background Conditions, based on the update of the Oakley Citywide Traffic Model. **Table 6** summarizes peak hour levels of service at the study intersections under Background Conditions without the proposed Project. Detailed LOS worksheets for this scenario are provided in **Appendix D**. Under Background Conditions, all study intersections operate at acceptable LOS D or better.

Table 6: Intersection Level of Service – Background Conditions without Project

ID	Intersection	Control	Peak Hour	Background Conditions	
				Average Delay ¹	LOS ²
1	Jersey Island Road / E. Cypress Road	Signalized	A.M.	5.0	A
			P.M.	5.2	A
2	Knightsen Avenue / E. Cypress Road	Signalized	A.M.	7.0	A
			P.M.	7.8	A
3	Sellers Avenue / E. Cypress Road	Signalized	A.M.	20.3	C
			P.M.	32.0	C
4	Machado Lane / E. Cypress Road	Signalized	A.M.	17.0	B
			P.M.	16.1	B
5	Picasso Drive / E. Cypress Road	Signalized	A.M.	14.3	B
			P.M.	8.4	A

Burroughs Residential Development, Oakley - Traffic Impact Analysis

6	Main Street / E. Cypress Road*	Signalized	A.M.	54.5	D
			P.M.	54.5	D
7	Main Street / Laurel Road*	Signalized	A.M.	39.5	D
			P.M.	50.3	D
8	Main Street / Delta Road*	Signalized	A.M.	5.7	A
			P.M.	5.9	A
9	Delta Road / Sellers Avenue	All-Way Stop	A.M.	9.6	A
			P.M.	13.4	B
10	Project Driveway/ E. Cypress Road	Signalized	A.M.	-	-
			P.M.	-	-
11	Sellers Road/ Laurel Road	Signalized	A.M.	4.5	A
			P.M.	9.2	A

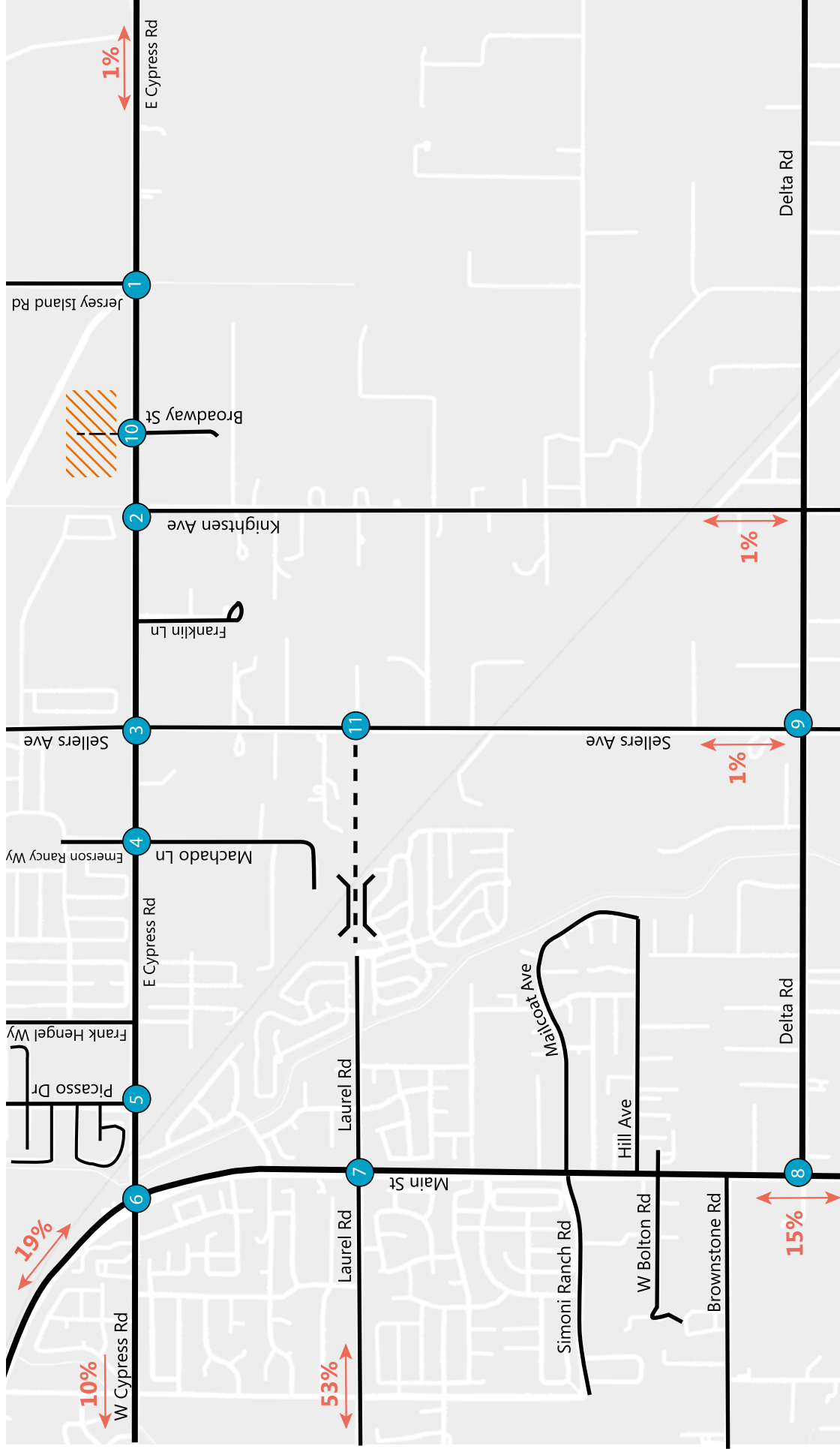
Notes: Bold text indicates unacceptable intersection operations.

* Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

¹Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for two-way- stop-control intersections.

²LOS: Level of Service.

Figure 8a: Trip Distribution with Laurel Road Extension



LEGEND

- ⊗ Study Intersection
- Project Entrance
- Project Site
- ↔ XX% Trip Distribution

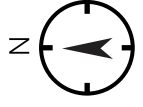
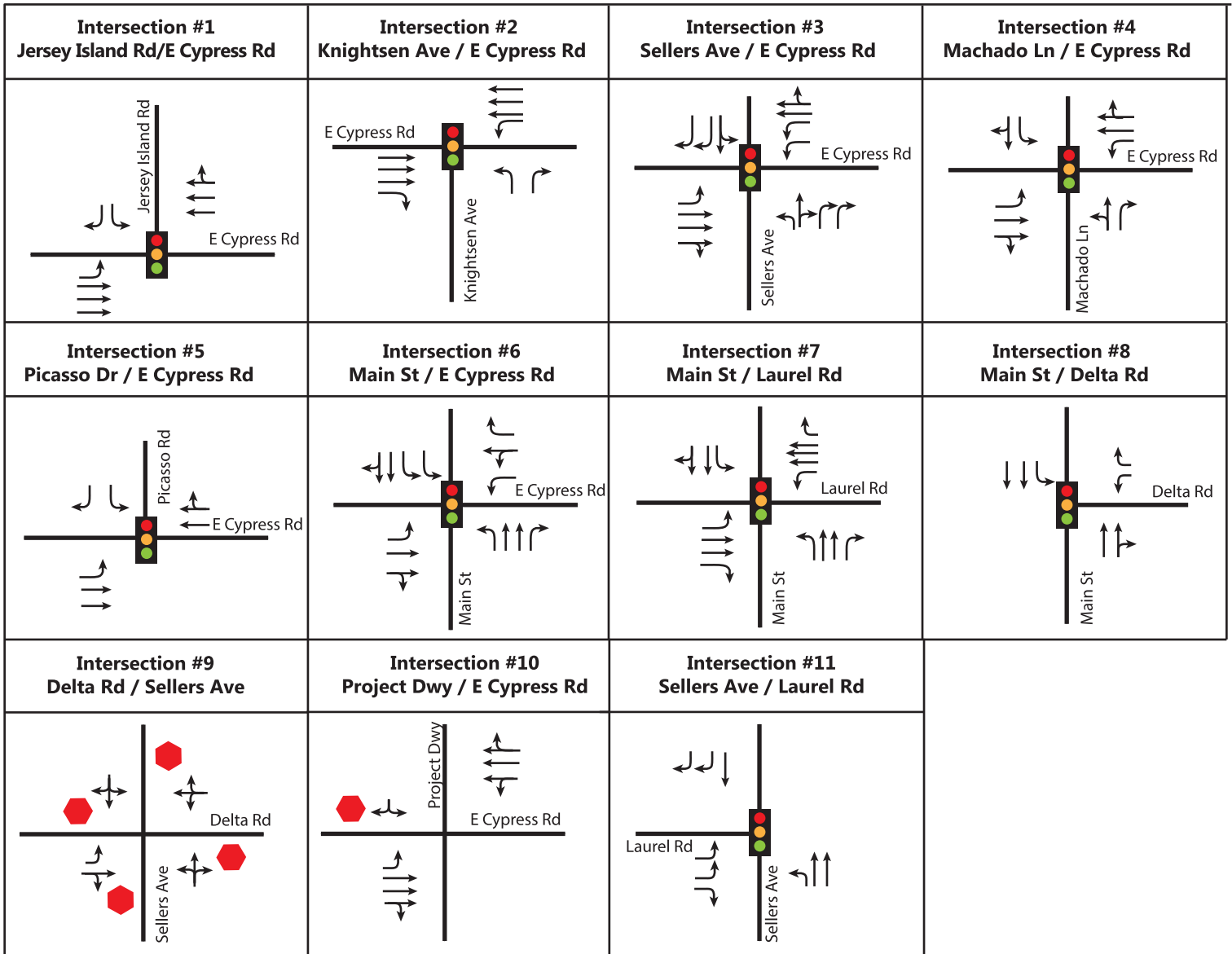


Figure 8b: Background Lane Patterns and Traffic Control with Laurel Road Extension



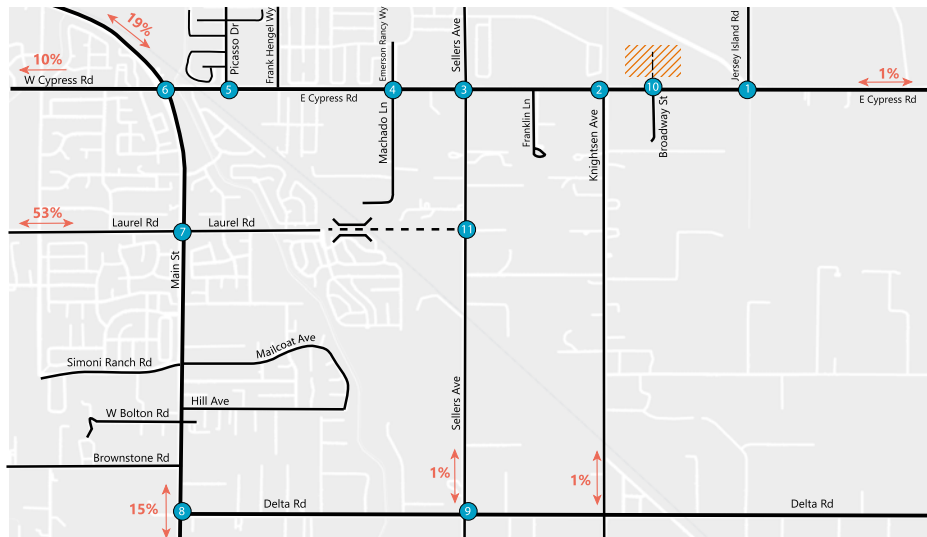
LEGEND

- Traffic Signal
- Stop Sign



Figure 9: Background Conditions Peak Hour Traffic Volumes

Intersection #1 Jersey Island Rd/E Cypress Rd	Intersection #2 Knightsen Ave / E Cypress Rd	Intersection #3 Sellers Ave / E Cypress Rd	Intersection #4 Machado Ln / E Cypress Rd
<p>Jersey Island Rd: 174 (114) left, 0 (3) right, 2 (1) left, 1733 (1025) right</p> <p>E Cypress Rd: 67 (193) left, 750 (1730) right</p>	<p>E Cypress Rd: 1768 (1073) left, 139 (66) right</p> <p>Knightsen Ave: 739 (1836) left, 58 (39) right, 35 (50) left, 78 (87) right</p>	<p>Sellers Ave: 99 (138) left, 107 (2) right, 9 (4) left</p> <p>E Cypress Rd: 8 (2) left, 1042 (679) right, 753 (442) left</p> <p>Sellers Ave: 54 (149) left, 581 (625) right, 184 (166) left</p> <p>E Cypress Rd: 102 (165) left, 6 (49) right, 207 (1246) left</p>	<p>Machado Ln: 52 (72) left, 60 (0) right, 90 (24) left</p> <p>E Cypress Rd: 111 (35) left, 700 (605) right, 432 (342) left</p> <p>Machado Ln: 54 (89) left, 726 (799) right, 11 (30) left</p> <p>E Cypress Rd: 20 (22) left, 13 (25) right, 3 (117) left</p>
Intersection #5 Picasso Dr / E Cypress Rd	Intersection #6 Main St / E Cypress Rd	Intersection #7 Main St / Laurel Rd	Intersection #8 Main St / Delta Rd
<p>Picasso Dr: 290 (79) left, 27 (5) right, 31 (5) left, 867 (925) right</p> <p>E Cypress Rd: 163 (94) left, 962 (1084) right</p>	<p>Main St: 6 (17) left, 273 (677) right, 425 (250) left</p> <p>E Cypress Rd: 535 (304) left, 336 (383) right, 286 (317) left</p> <p>Main St: 26 (29) left, 516 (552) right, 80 (65) left</p> <p>E Cypress Rd: 111 (134) left, 248 (472) right, 184 (376) left</p>	<p>Main St: 36 (306) left, 533 (296) right, 70 (457) left</p> <p>Laurel Rd: 129 (274) left, 1787 (413) right, 179 (225) left</p> <p>Main St: 166 (227) left, 263 (1240) right, 124 (165) left</p> <p>Laurel Rd: 138 (173) left, 248 (481) right, 170 (97) left</p>	<p>Main St: 640 (490) left, 162 (140) right</p> <p>Delta Rd: 214 (21) left, 94 (29) right</p> <p>Main St: 371 (641) left, 81 (146) right</p>
Intersection #9 Delta Rd / Sellers Ave	Intersection #11 Sellers Ave / Laurel Rd		
<p>Sellers Ave: 81 (65) left, 175 (162) right, 3 (13) left</p> <p>Delta Rd: 3 (21) left, 63 (85) right, 38 (43) left</p> <p>Sellers Ave: 36 (107) left, 63 (113) right, 44 (54) left</p> <p>Delta Rd: 34 (92) left, 108 (227) right, 36 (51) left</p>	<p>Sellers Ave: 688 (835) left, 356 (275) right</p> <p>Laurel Rd: 123 (1115) left, 141 (128) right</p> <p>Sellers Ave: 99 (0) left, 192 (345) right</p>		



LEGEND

- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- XX% Trip Distribution
- X Study Intersection
- Project Entrance
- Project Site
- TJKM

Burroughs Residential Development, Oakley - Traffic Impact Analysis

Background plus Project Conditions Traffic Analysis

Figure 10 shows the forecasted volumes at each intersection under Background plus Project Conditions, based on the updated Oakley Citywide Traffic Model and the proposed project traffic. **Table 7** summarizes peak hour levels of service at the study intersections under Background plus Project Conditions, with Background Conditions results included for comparison purposes. Detailed LOS worksheets for Background plus Project Conditions are provided in **Appendix E**. Under Background plus Project Conditions, all study intersections operate at acceptable LOS D or better.

Table 7: Intersection Traffic Level of Service – Background plus Project Conditions

ID	Intersection	Control	Peak Hour	Background Conditions		Background plus Project Conditions	
				Average Delay ¹	LOS ²	Average Delay ¹	LOS ²
1	Jersey Island Road / E. Cypress Road	Signalized	A.M.	5.0	A	5.0	A
			P.M.	5.2	A	5.2	A
2	Knightsen Avenue / E. Cypress Road	Signalized	A.M.	7.0	A	7.0	A
			P.M.	7.8	A	9.0	A
3	Sellers Avenue / E. Cypress Road	Signalized	A.M.	20.3	C	21.3	C
			P.M.	32.0	C	36.7	D
4	Machado Lane / E. Cypress Road	Signalized	A.M.	17.0	B	17.0	B
			P.M.	16.1	B	16.3	B
5	Picasso Drive / E. Cypress Road	Signalized	A.M.	14.3	B	14.4	B
			P.M.	8.4	A	8.4	A
6	Main Street / E. Cypress Road*	Signalized	A.M.	54.5	D	54.3	D
			P.M.	54.5	D	55.1	E
7	Main Street / Laurel Road*	Signalized	A.M.	39.5	D	40.6	D
			P.M.	50.3	D	53.5	D
8	Main Street / Delta Road*	Signalized	A.M.	5.7	A	5.7	A
			P.M.	5.9	A	5.9	A
9	Delta Road / Sellers Avenue	All-Way Stop	A.M.	9.6	A	9.6	A
			P.M.	13.4	B	13.4	B
10	Project Driveway / E. Cypress Road	One-Way Stop	A.M.	-	-	117.2	F
			P.M.	-	-	107.6	F
10.	Project Driveway/ E. Cypress Road	Mitigated	A.M.	4.5	A	27.1	D
		Signalized	P.M.	9.2	A	16.1	C
11	Sellers Road/Laurel Rd.	Signalized	A.M.	5.0	A	4.5	A
			P.M.	5.2	A	24.8	C

Notes: **Bold** text indicates unacceptable intersection operations.

* Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

¹Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for two-way- stop-control intersections.

²LOS: Level of Service.

Future Impact Findings

The project slightly increases delay at several study intersections. The intersections were evaluated under the conditions in which the Oakley Traffic Impact Fee (TIF) is planned to improve many of the study intersections. *The project contribution to future impacts would be considered **less than significant** with*

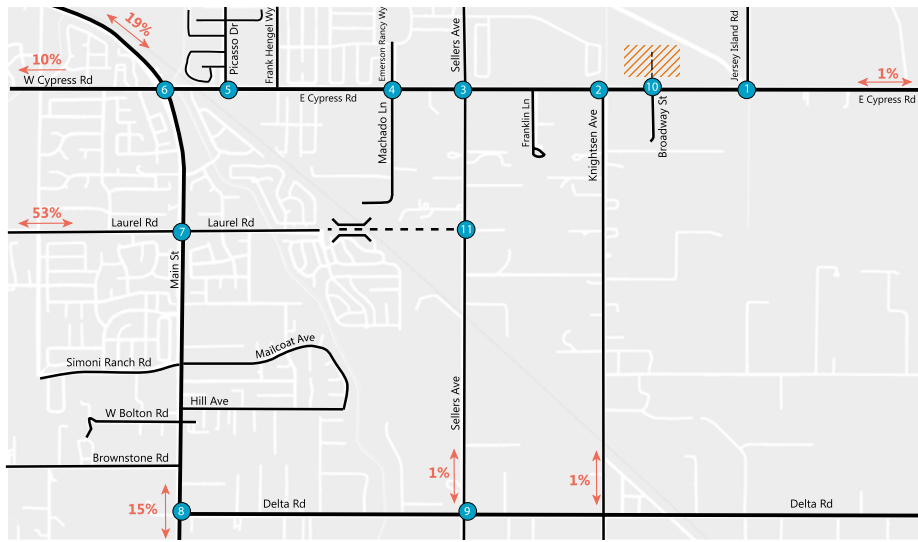
Burroughs Residential Development, Oakley - Traffic Impact Analysis

planned improvements, since the project will contribute a TIF payment to the City of Oakley that will constitute the project's "fair share" contribution towards the funding of future improvements at the impacted locations, based on the City's adopted TIF program.

Project Driveway/E. Cypress Road (Intersection #10) is forecasted to operate at unacceptable LOS F during the a.m. and p.m. peak hours. This intersection is not included in the Oakley TIF program. The impact due to the proposed project would be considered *significant*, as it causes the project driveway to operate at unacceptable conditions. With signalization, the intersection operates at acceptable LOS D or better during both peaks. Therefore, the project will need to contribute the entire cost of new traffic signals at this location. *This also results in the project impacts being considered **less than significant**.*

Figure 10: Background Plus Project Peak Hour Traffic Volumes

Intersection #1 Jersey Island Rd/E Cypress Rd	Intersection #2 Knightsen Ave / E Cypress Rd	Intersection #3 Sellers Ave / E Cypress Rd	Intersection #4 Machado Ln / E Cypress Rd
<p>Jersey Island Rd 174 (114) ← 0 (3) ↓ 2 (1) ↑ 1734 (1026) ←</p> <p>E Cypress Rd 67 (193) ↑ 751 (1731) →</p>	<p>E Cypress Rd 1881 (1147) ← 140 (67) ↓</p> <p>Knightsen Ave 777 (1964) → 58 (39) ↓</p> <p>35 (50) ↓ 78 (87) ↓</p>	<p>Sellers Ave 99 (138) ↓ 107 (2) ↓ 9 (4) ↓</p> <p>E Cypress Rd 8 (2) ↑ 1054 (687) ↑ 854 (508) ↓</p> <p>Sellers Ave 54 (149) ↑ 589 (650) → 184 (166) ↓</p> <p>E Cypress Rd 102 (165) ↓ 6 (49) ↓ 237 (1349) ↓</p>	<p>Machado Ln 52 (72) ↓ 60 (0) ↓ 90 (24) ↓</p> <p>E Cypress Rd 111 (35) ↑ 712 (613) ↑ 432 (342) ↓</p> <p>Machado Ln 54 (89) ↑ 734 (824) → 11 (30) ↓</p> <p>E Cypress Rd 20 (22) ↓ 13 (25) ↓ 3 (117) ↓</p>
Intersection #5 Picasso Dr / E Cypress Rd	Intersection #6 Main St / E Cypress Rd	Intersection #7 Main St / Laurel Rd	Intersection #8 Main St / Delta Rd
<p>Picasso Dr 290 (79) ↓ 27 (5) ↓</p> <p>E Cypress Rd 31 (5) ↑ 879 (933) ←</p> <p>E Cypress Rd 163 (94) ↑ 970 (1109) ↓</p>	<p>Main St 6 (17) ↓ 276 (690) ↓ 429 (262) ↓</p> <p>E Cypress Rd 535 (304) ↑ 348 (391) ↑ 286 (317) ↓</p> <p>Main St 26 (29) ↑ 520 (565) ↓ 80 (65) ↓</p> <p>E Cypress Rd 111 (134) ↓ 270 (486) ↓ 184 (376) ↓</p>	<p>Main St 36 (306) ↓ 533 (296) ↓ 73 (470) ↓</p> <p>Laurel Rd 151 (288) ↑ 1848 (453) ↑ 196 (236) ↓</p> <p>Main St 166 (227) ↑ 284 (1309) → 124 (165) ↓</p> <p>Laurel Rd 138 (173) ↓ 248 (481) ↓ 176 (117) ↓</p>	<p>Main St 657 (501) ↓ 162 (140) ↓</p> <p>Delta Rd 214 (21) ↑ 94 (29) ↓</p> <p>Main St 377 (661) ↓ 81 (146) ↓</p>
Intersection #9 Delta Rd / Sellers Ave	Intersection #10 Project Dwy / E Cypress Rd	Intersection #11 Sellers Ave / Laurel Rd	
<p>Delta Rd 81 (65) ↓ 176 (163) ↓ 3 (13) ↓</p> <p>Sellers Ave 3 (21) ↑ 63 (85) ↑ 38 (43) ↓</p> <p>Delta Rd 36 (107) ↑ 63 (113) ↓ 44 (54) ↓</p> <p>Sellers Ave 34 (92) ↓ 108 (228) ↓ 36 (51) ↓</p>	<p>Project Dwy 114 (75) ↓ 1 (1) ↓</p> <p>E Cypress Rd 1 (1) ↑ 1907 (1139) ←</p> <p>Project Dwy 38 (129) ↑ 817 (1923) →</p>	<p>Sellers Ave 788 (336) ↓ 357 (350) ↓</p> <p>Laurel Rd 153 (1244) ↓ 141 (128) ↓</p> <p>Sellers Ave 99 (0) ↓ 192 (346) ↓</p>	



LEGEND

- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- XX% Trip Distribution
- X Study Intersection
- Project Entrance
- Project Site



5. VEHICLE MILES TRAVELLED ANALYSIS

TJKM conducted Vehicle Miles Travelled (VMT) analysis for the project in compliance with Senate Bill 743 (SB 743) via the Contra Costa Transportation Authority's (CCTA) recommended VMT analysis methodology. The CCTA VMT analysis methodology provides different screening criteria and significance thresholds based on the project land use type. CCTA considers residential projects to have a significant impact on VMT if the project generated home-based VMT per resident is higher than the less stringent of the following:

- 85% of the home-based VMT per resident in the municipality or
- 85% of the existing County-wide average home-based VMT per resident.

The Travel Analysis Zone (TAZ) for the proposed project is #30302. **Figure 10** illustrates the project TAZ and surrounding TAZs with residential land uses. Currently, there are no residential uses in the base year model so the project cannot go through the screening process. Thus, it is assumed that the project does not screen out of the VMT analysis requirements. TJKM performed VMT analysis for the project with the CCTA Model. Two full model runs were performed in accordance with the CCTA VMT methodology to compare VMT under Baseline and Baseline plus Project Conditions. The first model run is for Baseline Conditions, which represent the Year 2020 traffic conditions for the City of Oakley. The second model run is for Baseline plus Project Conditions, which represent the Year 2020 plus project traffic conditions for the City of Oakley.

Under Baseline Conditions, the home based VMT per capita for the City of Oakley is **36.06**. For the project to have a less than significant impact, it must produce VMT within the 85% threshold, which equates to **30.65** (0.85×36.06). This value is the less stringent home-based VMT per capita number as mentioned in the CCTA VMT methodology guidelines above.

Under Baseline plus Project Conditions, the project adds 208 Single Family Dwelling Units into TAZ #30302. The resultant home based VMT per capita for the project TAZ is **28.80**. The project generated VMT falls under the 85% threshold established above, thus the Burroughs Residential Project has a **less than significant impact** on the City of Oakley VMT.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

Figure 11: Traffic Analysis Zones in Project Study Area



6. SITE PLAN ANALYSIS

Site Access and Sight Distance Analysis

The proposed project is located northeast of the intersection at Knightsen Avenue and E. Cypress Road, and would generate left and right turning traffic onto E. Cypress Road to and from the project site. The proposed residential development has one driveway, which will serve as the north leg of the existing intersection at Broadway Street and E. Cypress Road. The driveway, A Street, will lead into the development and separate into minor roadways, B Street through G Street, as shown in **Figure 2**. The driveway is proposed to be two-way stop-controlled with vehicles entering and exiting the site anticipated to be travelling at 25 miles per hour (mph).

E. Cypress Road has a posted speed limit of 50 mph near the project site and requires at least 425 feet of stopping distance for oncoming vehicles from the point where they can see a vehicle exiting the driveway. As per the proposed site plan, oncoming traffic travelling eastbound and westbound on E. Cypress Road has a clear line of sight to vehicles exiting both driveways onto E. Cypress Road. The same can be said about vehicles turning right or left from the project site onto E. Cypress Road. TJKM recommends the project keep landscaping on E. Cypress Road along the project frontage and at the project entrance to a minimum and below eye level (3 feet in height) to avoid visibility obstructions.

On-Site Circulation, Parking and Queueing Analysis

The site circulation works well for vehicular traffic with multiple routes providing access to the single-family homes. As per the site plan, the project entrance will be 76 feet wide, and each minor street within the property will be 56 feet wide. These roadway widths are expected to accommodate on-street parking and truck and emergency vehicle access. The project provides emergency vehicle access via a 20-foot wide access road at the Contra Costs Canal directly east of the Jersey Island Road and E. Cypress Road intersection. Pedestrian access will be provided via adequate sidewalks on E. Cypress Road and within the project site. It is noted that there is currently no existing sidewalk on the north side of E. Cypress Road that would connect to the pedestrian infrastructure provided within the proposed development. Sidewalks will be added along the project frontage on E. Cypress consistent with other locations to the west. This will provide pedestrian access to the two schools to the west from this development. Bicycle facilities, such as Class II bicycle lanes should provide bicycle access along the project site frontage.

As per the Oakley Municipal Parking Code two covered off-street parking spaces per unit must be provided for single-family developments. In order to satisfy City of Oakley Code requirements, TJKM recommends the project provide two covered parking spaces at each dwelling unit lot (416 total parking spaces).

Queueing Analysis

TJKM conducted a vehicle queuing and storage analysis for all exclusive left-turn or right-turn pockets at the study intersections where project traffic is added under Existing and Existing plus Project scenarios. The intersection at Delta Road and Sellers Avenue consists of two two-lane roadways with no turn pocket, thus the intersection is not included in the queueing analysis. The 95th percentile (maximum) queues were

Burroughs Residential Development, Oakley - Traffic Impact Analysis

analyzed using the HCM 6th Edition Queue methodology contained in Vistro software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario.

Table 8 summarizes the 95th percentile queue lengths at the study intersections under Existing and Existing plus Project scenarios. Under Existing plus Project scenarios, the proposed project increases queue length by over two vehicles (one vehicle length=25 feet) at the intersections of Main Street/E. Cypress Road (Intersection #6) and Main Street/Laurel Road (Intersection #7). At the Main Street/E. Cypress Road intersection, the addition of project traffic causes queue lengths to increase by approximately seven vehicles at the northbound right-turn approach and 23 vehicles at the westbound left-turn approach during the a.m. peak. During the p.m. peak, the addition of project traffic increases queues by approximately six vehicle lengths at the northbound right-turn and eight vehicle lengths at the westbound left-turn. At the Main Street/Laurel Road intersection, the addition of project traffic increases queue lengths at the eastbound left-turn approach by approximately four vehicles and 11 vehicles during the a.m. and p.m. peaks, respectively.

Additionally, queue overflow is observed at the intersections of Picasso Drive/E. Cypress Road (Intersection #5), Main Street/E. Cypress Road (Intersection #6), and Main Street/Laurel Road (Intersection #7) during one or more peak periods. The queue exceeds available capacity for the eastbound left-turning traffic of Picasso Drive and E. Cypress Road, and Main Street and Laurel Road. For the intersection of Picasso Drive and E. Cypress Road, eastbound left-turning traffic exceeds queuing capacity by approximately 195 feet or eight car lengths. Although these excessive queues will be cleared in the second cycle of the signal, because of the adjacent railroad grade crossing, TJKM recommends that the City consider a lengthened eastbound left turn lane.

The intersection of Main Street and E. Cypress Road is significantly overloaded by projected development in the E. Cypress corridor. Alternate access to the south is needed so traffic can reach an upgraded Laurel Road and Main Street intersection without having to use Main Street. This is included in the general plan. In the meantime, the northbound right-turning traffic exceeds queuing capacity by 459 feet, or 18 car lengths, and 137 feet, or five car lengths, during the a.m. and p.m. peaks, respectively. The westbound left-turning traffic exceeds queuing capacity by 1,421 feet, or 57 vehicles, during the a.m. peak, and by 88 feet, or four car lengths, during the p.m. peak. During the a.m. peak, the queues are excessive and would be cleared by mitigations mentioned earlier, including addition of a northbound right-turn overlap phase and a full westbound left-turn lane. Planned improvements at this location should alleviate the queuing problems.

It is noted that all of the queuing issues described above will be resolved by Oakley's planned improvements.

Burroughs Residential Development, Oakley - Traffic Impact Analysis

Table 8: Queuing for Study Intersections, in Feet

#	Study Intersections	Lane Group	Storage Length	Existing		Existing plus Project		Change	
				AM	PM	AM	PM	AM	PM
1	Jersey Island Road / E. Cypress Road	EBL	240	1.9	1.3	1.9	1.3	0.0	0.0
		SBR	35	6.5	2.4	6.5	2.4	0.0	0.0
2	Knightsen Avenue / E. Cypress Road	EBR	110	0.0	0.0	0.0	0.0	0.0	0.0
		WBL	125	12.4	5.5	13.3	6.4	0.9	0.9
3	Sellers Avenue / E. Cypress Road	EBL	185	16.0	3.6	17.1	3.7	1.1	0.1
		WBL	250	66.5	35.1	80.9	43.8	14.4	8.7
4	Machado Lane / E. Cypress Road	EBL	150	22.9	21.3	25.7	26.8	2.8	5.5
		WBL	100	0.0	1.8	0.0	2.1	0.0	0.3
		SBL	100	40.6	6.1	46.9	7.6	6.3	1.5
5	Picasso Drive / E. Cypress Road	EBL	110	260.3	34.3	306.4	37.3	46.1	3.0
6	Main Street / E. Cypress Road	NBL	230	130.6	106.5	136.6	130.6	6.0	24.1
		NBR	210	484.7	199.8	669.4	346.5	184.7	146.7
		EBL	145	35.8	22.3	37.4	27.3	1.6	5.0
		WBL	325	1,161.3	204.1	1,745.6	413.1	584.3	209.0
		SBL	500	188.1	124.9	199.7	167.1	11.6	42.2
		SBTR	435	104.9	90.5	111.2	100.6	6.3	10.1
7	Main Street / Laurel Road	NBL	305	200.5	244.4	200.5	244.4	0.0	0.0
		NBTR	1,150	219.6	163.3	222.7	175.4	3.1	12.1
		EBL	160	292.5	245.0	381.5	527.8	89.0	282.8
		WBL	300	382.8	91.2	382.8	91.2	0.0	0.0
		SBL	215	102.0	149.3	102.0	149.3	0.0	0.0
		SBTR	215	337.0	169.3	393.1	196.2	56.1	26.9
8	Main Street / Delta Road	SBL	95	16.0	11.9	16.1	12.2	0.1	0.3

Notes: Storage length and 95th percentile queue is expressed in feet per lane, **Bold** indicates overflow.

Appendix A

Existing Conditions LOS Reports