

Carryl MacLeod Project Manager Marketing Business Unit Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 842-3201 CMacleod@chevron.com

July 7, 2016

Mr. Mark Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 RECEIVED

By Alameda County Environmental Health 2:50 pm, Jul 07, 2016

Dear Mr. Detterman:

Attached for your review is the *Site Redevelopment Analysis and Request for Closure* for former Chevron-branded service station 92029, located at 890 West MacArthur Boulevard in Oakland, California (Case #: RO0002438). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 356-6124 or <u>travis.flora@stantec.com</u>.

Sincerely,

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Carryl MacLeod Project Manager



July 7, 2016

Attention: Mr. Mark Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502

Reference: Site Redevelopment Analysis and Request for Closure Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, CA (Case #: RO0002438)

Dear Mr. Detterman,

Stantec Consulting Services Inc. (Stantec), on behalf of Chevron Environmental Management Company (CEMC), is pleased to submit this *Site Redevelopment Analysis and Request for Closure* for former Chevron-branded service station 92029, which was located at 890 West MacArthur Boulevard, Oakland, Alameda County, California (Site; shown on **Figure 1**). This analysis was prepared at the request of Alameda County Environmental Health (ACEH) in a letter dated April 12, 2016. The ACEH correspondence is presented as **Attachment A**.

This Site redevelopment analysis consists of a standard set of figures and tables for sites with potential or active redevelopment. ACEH refers to these standard figures and tables as redevelopment tools. Other redevelopment tools include evaluation of mitigation measures, the potential for a deed restriction, and a soil and groundwater management plan. These redevelopment tools were requested by ACEH in technical comments provided in their April 12, 2016 letter. The figures and tables required by ACEH are attached to this letter and referenced in the following paragraph.

Soil analytical results are summarized in **Table 1** and **Table 2**, grab groundwater analytical results are summarized in **Table 3** and **Table 4**, and groundwater monitoring well analytical results are summarized in **Table 5** and **Table 6**. Locations of soil borings, groundwater monitoring wells, and other pertinent former Site features are shown on **Figure 2**. Cross-sections A-A' and B-B' are included as **Figure 3** and **Figure 4**, respectively. Groundwater concentration maps for total petroleum hydrocarbons as gasoline range organics (TPH-GRO), benzene, and methyl *tertiary*-butyl ether (MtBE) are included as **Figure 5**, **Figure 6**, and **Figure 7**, respectively.

All of the referenced tables and figures, which were previously submitted with the *Site Investigation Report*, dated September 4, 2015, have been updated based on the technical comments from ACEH. In addition, the tables and figures were updated with recent groundwater data from the Second Quarter 2016 groundwater monitoring event conducted on May 18, 2016, where applicable.

A description of the changes that Stantec made to the tables and figures to meet ACEH's technical requirements for the Site redevelopment analysis, along with evaluation of mitigation



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Reference: Site Redevelopment Analysis and Request for Closure

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, CA

measures, the potential for a deed restriction, and soil and groundwater management, are provided below. For ease of reference, the titles of each technical comment from ACEH's April 12, 2016 letter are used.

Redevelopment Tools

a. Plan Set

ACEH is already in receipt of the most recent development plan set. If the plans are updated in the future, they will be provided to ACEH at that time by the property owner. The figures attached to this letter depict future building plot plans, based on the most recent development plans provided by the property owner, relative to the excavation and media samples as requested.

b. Cross-Sections

Existing cross-sections A-A' and B-B' were modified to only include borings/wells near the Site or on-Site (**Figure 3** and **Figure 4**, respectively). In addition, lithology in the footprint of the future building foundation was removed to better visualize the foundation relative to residual contamination. The remainder of items requested by ACEH were already included on the existing cross-sections.

c. Data Tables

Soil analytical data tables (**Table 1** and **Table 2**) include strike outs for any data that was historically removed by excavation activities or will be removed by future excavation activities (only applies to boring SB-13). In addition, a depth below future foundation column was added to all soil and grab groundwater analytical data tables (**Table 1** through **Table 4**).

d. Non-Detectable Data

Non-detect data in the attached tables is listed by individual chemical detection limits, and data are bolded where detected and bolded/blue where over California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) Tier 1 Environmental Screening Levels (ESLs).

e. Appropriate Use of ESLs

The ESLs in all attached tables were updated to reflect changes made to the RWQCB ESLS in 2016. The ESLs used in all tables are the Tier 1 ESLs.



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f. Project Schedule

Stantec contacted the property owner and received the following estimated initial project schedule. The estimated schedule is provided as a Gantt chart in **Attachment B**. The schedule is milestone-based with approximate months noted. The property owner noted that the remaining schedule is to be determined based on the progress of this initial schedule, and design plan updates will be made as built, upon city requirement.

- October, full month: Ground breaking, earth work, trucking, dirt removal, shoring and grading.
- November, full month: Underground plumbing, sewer.
- December through February: Forming, rebar, retaining wall, piers, concrete placement.

It should also be noted that if redevelopment on Site does not occur, then the current Site use as a vacant lot should be used to evaluate the Site against the State Water Resources Control Board (SWRCB) Low-Threat Underground Storage Tank (UST) Closure Policy (LTCP) criteria, effective August 17, 2012, under Resolution No. 2012-0016, in which case the petroleum vapor intrusion to indoor air criteria would be satisfied, because there would be no indoor space to present a potential risk. It has already been demonstrated that the Site meets the LTCP general, groundwater-specific, and direct contact and outdoor air exposure criteria.

g. Mitigation Measures

As described in the *Site Investigation Report*, details within the redevelopment plans call for a vapor barrier in the typical slab-on-grade detail and a waterproofing membrane in the foundation details, which would assist with the mitigation of potential vapor intrusion to indoor air. In addition, the plans include a ventilation system for the ground floor parking garage, which would also assist with the mitigation of potential vapor intrusion to indoor air. However, Stantec notes that the minimum air flow for the parking garage ventilation system appears to be based on a calculation using 33 cars without factoring in the car stacker. Factoring in the car stacker, it appears that a maximum of 39 cars may occupy the parking garage. Furthermore, no provision is made for ventilating the pit areas (elevator and car stacker) located below the parking garage floor level. Stantec previously recommended that the design plans be reevaluated by the property owner to include minimum air flow calculations based on a total of 39 cars and that the two pit areas be ventilated with air flow calculated as the larger of 1 cubic foot per minute (cfm) of air per square foot of area, or 4 to 6 air changes per hour (one every 10 to



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15 minutes) based on pit volume. In the April 8, 2016, meeting, the property owner indicated that they plan to update the design plans based on these recommendations, and the updated design plans will be submitted to ACEH under separate cover. With these considerations incorporated into the parking garage ventilation system, along with the planned vapor barrier and waterproofing membrane, and because the garage is not a continuously occupied space, these engineering controls should sufficiently mitigate exposure to potential petroleum hydrocarbon vapors migrating from soil and groundwater such that they will have no significant risk of adversely affecting human health.

As previously noted, if redevelopment on Site does not occur, then the current Site use as a vacant lot should be used to evaluate the Site against the SWRCB LTCP criteria, in which case the petroleum vapor intrusion to indoor air criteria would be satisfied as there would be no indoor space to present a risk, and no mitigation measures would be required.

h. Potential for Deed Restriction

A deed restriction is unnecessary at this time. As noted in the ACEH letter dated April 12, 2016, there are alternative case management or remediation strategies that may be available instead of a deed restriction. In addition, as detailed in the subsequent section, this Site meets the LTCP general and media-specific criteria.

i. Site Management Plan

A Soil and Groundwater Management Plan is being developed and will be provided to the ACEH under separate cover.

SWRCB LTCP Criteria Evaluation

As described in Stantec's September 4, 2015, *Site Investigation Report*, this section presents the general and media-specific criteria defined by the SWRCB's LTCP and includes an evaluation of the Site compared to these criteria. The completed SWRCB LTCP checklist is included as **Attachment C**.

General Criteria

• Is the unauthorized release located within the service area of a public water system?

Yes. The Site is located within the service area of the East Bay Municipal Utility District.



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• Does the unauthorized release consist only of petroleum?

Yes. The constituents of concern (COCs) at the Site are petroleum hydrocarbons associated with gasoline, including TPH-GRO, BTEX compounds, and MtBE.

• Has the unauthorized ("primary") release from the UST system been stopped?

Yes. In April and May 2005, the service station was demolished and all fueling features were removed.

Dissolved-phase petroleum hydrocarbon concentrations associated with the Site are decreasing or stable, indicating that there is no longer a continuous petroleum hydrocarbon source at the Site.

• Has free product been removed to the maximum extent practicable (per CCR Chapter 16 Section 2655 a-c)?

Not applicable. Free product has not been observed in any Site wells to-date; therefore, no free product removal activities have been conducted at any Site wells.

• Has a conceptual Site model (CSM) that assesses the nature, extent, and mobility of the release been developed?

Yes. The Site Conceptual Model and Data Gap Work Plan was submitted on August 16, 2013, and updated further in Stantec's September 4, 2015, Site Investigation Report.

• Has secondary source been removed to the extent practicable?

Yes. Historical remedial efforts at the Site have consisted of:

- Over-excavation and disposal of approximately 162 cubic yards of soil and 7,800 gallons of groundwater in February 1997; and
- Over-excavation and disposal of approximately 5,134 tons of soil and 25,486 gallons of groundwater in April and May 2005.

Additional active remediation at the Site is not warranted to satisfy this criterion.



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Reference: Site Redevelopment Analysis and Request for Closure Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, CA

• Has soil or groundwater been tested for MtBE and results reported in accordance with Health and Safety Code section 25296.15?

Yes. MtBE was analyzed in all soil samples collected in association with the Site. In addition, MtBE was routinely analyzed in groundwater during monitoring and sampling events. Results have been reported to ACEH and uploaded to GeoTracker.

Does nuisance as defined by Water Code section 13050 exist at the site?

 A "nuisance" is defined as anything which meets the following (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property; (2)
 Affects at the same time an entire community or neighborhood;
 (3) Occurs during, or as a result of, the treatment or disposal of wastes.

No. The conditions of "nuisance" do not exist at the Site.

• Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?

No.

Groundwater-specific Criteria

Current and historical groundwater quality data indicate that the dissolved-phase petroleum hydrocarbon plume at the Site is stable or decreasing in size and concentration. Site conditions satisfy groundwater-specific criteria under scenario #4 of the LTCP. This scenario states the following:

- "The contaminant plume that exceeds water quality objectives is less than 1,000 feet in length."
 - As described in Section 3.3.2 of Stantec's September 4, 2015, Site Investigation Report, the average plume lengths for TPH-GRO, benzene, and MtBE provided in the Technical Justification for Groundwater Media Specific Criteria (248, 198, and 317 feet, respectively) are similar to the lengths of plumes drawn for the Site using boring/well locations and concentrations (shown on Figure 5, Figure 6, and Figure 7) and are unlikely to be exceeded. However, to be conservative, the 90th percentile plume lengths (413, 350, and 545 feet for TPH-GRO, benzene, and MtBE, respectively) are used for this LTCP evaluation. These lengths are all less than 1,000 feet.



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- "There is no free product."
 - Free product has not been observed or documented in any borings or Site wells to-date.
- "The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary."
 - During the well survey conducted in 2015, one industrial well was identified approximately 780 feet north of the Site; however, this well is believed to be destroyed. In addition, this well is located in the up- and slightly cross-gradient direction, so it is unlikely to be impacted by the dissolved-phase petroleum hydrocarbon plume associated with the Site. No surface water bodies were identified within a 0.5-mile radius of the Site.
- "The dissolved concentration of benzene is less than 1,000 μ g/L, and the dissolved concentration of MtBE is less than 1,000 μ g/L."
 - During Second Quarter 2016, benzene and MtBE were detected at maximum concentrations of 150 µg/L and 12 µg/L, respectively, in well MW-6. In addition, MtBE was below 1,000 µg/L in all grab groundwater samples collected during the 2015 investigation. Benzene was detected at 1,200 µg/L in the grab groundwater sample collected from soil boring SB-18 during the 2015 investigation; however, grab groundwater samples are utilized for screening and are not as reliable as a groundwater sample collected from a groundwater monitoring well. Monitoring well MW-6 is in close proximity to boring SB-18 and exhibited a benzene concentration of 150 µg/L during Second Quarter 2016; therefore, the concentration of benzene detected in SB-18 is not likely representative of groundwater conditions.

Petroleum Vapor Intrusion to Indoor Air

Considering the pending redevelopment, criteria c will be met by controlling exposure through the use of mitigation measures and engineering controls. Details within the development plans call for a vapor barrier in the typical slab-on-grade detail and a waterproofing membrane in the foundation details, which would assist with the mitigation of potential vapor intrusion to indoor air. In addition, the plans include a ventilation system for the ground floor parking garage, which would also assist with the mitigation of potential



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vapor intrusion to indoor air. However, Stantec notes that the minimum air flow for the parking garage ventilation system appears to be based on a calculation using 33 cars without factoring in the car stacker. Factoring in the car stacker, it appears that a maximum of 39 cars may occupy the parking garage. Furthermore, no provision is made for ventilating the pit areas (elevator and car stacker) located below the parking garage floor level. Stantec recommends that the design plans be reevaluated by the owner to include minimum air flow calculations based on a total of 39 cars and that the two pit areas be ventilated with air flow calculated as the larger of 1 cubic foot per minute (cfm) of air per square foot of area, or 4 to 6 air changes per hour (one every 10 to 15 minutes) based on pit volume. With these considerations incorporated into the parking garage ventilation system, along with the planned vapor barrier and waterproofing membrane, these engineering controls should sufficiently mitigate exposure to potential petroleum hydrocarbon vapors migrating from soil and groundwater such that they will have no significant risk of adversely affecting human health.

Again, if redevelopment on Site does not occur, then the current Site use as a vacant lot should be used to evaluate the Site against the SWRCB LTCP criteria, in which case the petroleum vapor intrusion to indoor air criteria would be satisfied as there would be no indoor space to present a risk, and no mitigation measures would be required.

Using current and historical soil and groundwater data, off-Site soil and groundwater conditions meet LTCP petroleum vapor intrusion to indoor air criteria scenario #3, because concentrations of dissolved benzene are less than $100 \mu g/L$ in groundwater, depth-to-groundwater is greater than 5 feet bgs, and concentrations of TPH in off-site soil are less than $100 \mu g/kg$ from 0 to 10 feet bgs.

Direct Contact and Outdoor Air Exposure

Site conditions satisfy the LTCP direct contact and outdoor air exposure criteria. The concentrations of benzene, ethylbenzene, and naphthalene in the upper 10 feet of soil that was not excavated are less than the residential and commercial limits for direct contact and outdoor air exposure specified in Table 1 of the LTCP.

VOCs and semi-volatile organic compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs), were analyzed in the samples collected from boring B-4, located directly adjacent to the former waste oil UST. All concentrations of VOCs and SVOCs in these samples were below MDLs, thereby satisfying the PAH limits for direct contact and outdoor air exposure specified in Table 1 of the LTCP.



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Conclusions and Recommendations

Based on our review, Site conditions meet the general and media-specific criteria established in the LTCP, and therefore pose a low threat to human health, safety, and the environment, and satisfy the case closure requirements of Health and Safety Code section 25296.10, and case closure is consistent with SWRCB Resolution 92-49 that requires that cleanup goals be met within a reasonable time frame. Therefore, we request low-threat case closure, and effective immediately, CEMC will cease groundwater monitoring and sampling activities, pending a response to this closure request and further direction from the ACEH.

If you have any questions, please contact the Stantec Project Manager, Travis Flora, at (408) 827-3876 or <u>travis.flora@stantec.com.</u>



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LIMITATIONS

This document entitled *Site Redevelopment Analysis* was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Chevron Environmental Management Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by Chin O'Mal

Erin O'Malley Project Engineer

(signature)

Reviewed by

Travis L. Flora Senior Project Manager

Donata Kung

Reviewed by

(signature)



Dorota Runyan, P.E. Senior Engineer



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Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard, Oakland, CA

Attachments:

Table 1 – 2015 Soil Analytical Results

- Table 2 Historical Soil Analytical Results
- Table 3 2015 Grab Groundwater Analytical Results
- Table 4 Historical Grab Groundwater Analytical Results
- Table 5 Groundwater Monitoring Data and Analytical Results
- Table 6 Additional Groundwater Analytical Results

Figure 1 – Site Location Map

Figure 2 – Site Plan Showing Cross-Section Locations

Figure 3 – Generalized Geologic Cross-Section A-A'

Figure 4 – Generalized Geologic Cross-Section B-B'

Figure 5 – TPH-GRO Groundwater Concentration Map

Figure 6 – Benzene Groundwater Concentration Map

Figure 7 – MtBE Groundwater Concentration Map

Attachment A – ACEH Correspondence, dated April 12, 2016 Attachment B – Estimated Project Schedule Attachment C – SWRCB LTCP Checklist

cc. Ms. Carryl MacLeod, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Mr. Buyandalai Itgel, 787 Marlesta Road, Pinole, CA 94564 – Electronic Copy

TABLES

Table 12015 Soil Analytical ResultsFormer Chevron-Branded Service Station 92029890 West MacArthur BoulevardOakland, California

				US EPA Method 8015B					US EPA N	NETHOD 8260					
Boring ID	Depth	Depth Below Proposed Foundation	Date	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MtBE	TBA	DIPE	EtBE	TAME	Ethanol	Naphthalene
· · · · g · -	(feet bgs)	(feet bgs)	Collected	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	2.5			<0.5	< 0.0005	<0.001	<0.001	<0.001	< 0.0005	<0.021	< 0.001	< 0.001	< 0.001	<0.10	<0.001
SB-11	5		02/25/15	<0.5	< 0.0005	< 0.001	<0.001	<0.001	< 0.0005	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
30-11	7.5		02/23/13	0.7	< 0.0005	< 0.001	< 0.001	<0.001	<0.0005	< 0.021	< 0.001	< 0.001	< 0.001	<0.10	<0.001
	10			65	< 0.023	<0.047	<0.047	<0.047	< 0.023	<0.94	<0.047	<0.047	<0.047	<4.7	0.46
	2.5			<0.5	< 0.0005	< 0.001	<0.001	<0.001	<0.0005	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
SB-12	5		02/26/15	<0.5	< 0.0005	< 0.001	<0.001	<0.001	< 0.0005	<0.021	<0.001	< 0.001	< 0.001	<0.10	< 0.001
3D-12	7.5		02/26/13	<0.5	< 0.0005	< 0.001	<0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.10	< 0.001
	10			26	< 0.0005	< 0.001	<0.001	<0.001	< 0.0005	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
	2.5	Soil will be removed	02/25/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.099	<0.001
SB-13	14	10	03/05/15	<0.5	< 0.0005	< 0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	< 0.001	< 0.001	< 0.097	<0.001
	14.5	10.5	03/03/13	<0.5	< 0.0005	< 0.001	<0.001	<0.001	0.087	< 0.021	< 0.001	< 0.001	< 0.001	<0.11	<0.001
	2.5			<0.5	< 0.0005	< 0.001	<0.001	<0.001	<0.0005	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
SB-14	5		02/26/15	<0.5	< 0.0005	<0.0009	<0.0009	< 0.0009	<0.0005	<0.019	< 0.0009	< 0.0009	<0.0009	< 0.094	<0.0009
3D-14	7.5		02/26/15	2.4	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	<0.019	< 0.001	< 0.001	< 0.001	< 0.096	<0.001
	10			39	0.004	< 0.001	0.005	<0.001	0.0006	< 0.021	< 0.001	< 0.001	<0.001	<0.11	0.002
	2.5			<0.5	< 0.0005	< 0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	< 0.001	< 0.001	<0.096	<0.001
SB-15	5		02/27/15	<0.5	<0.0005	< 0.001	< 0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.10	<0.001
30-13	7.5		02/2//13	0.9	< 0.0005	< 0.001	< 0.001	<0.001	< 0.0005	<0.022	< 0.001	< 0.001	< 0.001	<0.11	<0.001
	10			480	0.40	<0.053	8.3	14	<0.027	<1.1	<0.053	< 0.053	< 0.053	<5.3	2.5
	2.5			<0.5	< 0.0005	< 0.001	< 0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.10	< 0.001
SB-17	5		02/27/15	<0.5	< 0.0005	< 0.001	< 0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.10	0.001
30-17	7.5		02/2//10	0.6	< 0.0005	<0.0009	<0.0009	< 0.0009	< 0.0005	<0.019	<0.0009	< 0.0009	<0.0009	< 0.093	<0.0009
	10			25	0.0008	< 0.001	< 0.001	<0.001	< 0.0005	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
	2.5			<0.5	<0.0005	<0.001	<0.001	<0.001	< 0.0005	<0.021	<0.001	< 0.001	< 0.001	<0.10	<0.001
SB-18	5		02/27/15	<0.5	<0.0005	<0.001	<0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.099	<0.001
30-10	7.5		02/2//10	470	0.064	<0.047	0.24	<0.047	<0.023	<0.94	<0.047	<0.047	<0.047	<4.7	0.11
	10			410	0.17	<0.048	3.8	<0.048	<0.024	<0.96	<0.048	<0.048	<0.048	<4.8	1.2
	2.5			<0.5	< 0.0005	< 0.001	<0.001	<0.001	0.001	<0.020	< 0.001	< 0.001	< 0.001	<0.10	<0.001
SB-19	5		02/26/15	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	0.0005	<0.019	<0.0009	<0.0009	<0.0009	< 0.094	<0.0009
30-17	7.5		02/20/13	<0.5	<0.0005	<0.001	<0.001	<0.001	< 0.0005	<0.020	<0.001	< 0.001	< 0.001	<0.10	< 0.001
	10			5.7	<0.0005	<0.001	<0.001	<0.001	< 0.0005	<0.020	< 0.001	< 0.001	<0.001	<0.10	<0.001
	2.5			<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	< 0.001	<0.001	<0.099	< 0.001
SB-20	5		02/26/15	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	< 0.001	<0.001	<0.098	< 0.001
	7.5			<0.5	<0.0005	< 0.001	<0.001	<0.001	<0.0005	<0.022	<0.001	< 0.001	< 0.001	<0.11	<0.001

Table 12015 Soil Analytical ResultsFormer Chevron-Branded Service Station 92029890 West MacArthur BoulevardOakland, California

				US EPA Method 8015B					US EPA N	IETHOD 8260					
Boring ID	Depth	Depth Below Proposed Foundation	Date	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MtBE	TBA	DIPE	EtBE	TAME	Ethanol	Naphthalene
	(feet bgs)	(feet bgs)	Collected	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	2.5			<0.5	<0.0005	< 0.001	<0.001	<0.001	< 0.0005	<0.019	<0.001	< 0.001	< 0.001	<0.096	<0.001
SB-21	5		02/27/15	<0.5	< 0.0005	<0.001	<0.001	<0.001	< 0.0005	< 0.020	<0.001	< 0.001	< 0.001	<0.098	<0.001
3D-21	7.5		02/2//13	<0.5	< 0.0005	<0.001	<0.001	<0.001	< 0.0005	< 0.020	<0.001	< 0.001	< 0.001	<0.098	<0.001
	10			<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.096	<0.001
		ESLs ⁽¹⁾		100	0.044	2.9	1.4	2.3	0.023	0.075	NE	NE	NE	NE	0.023

Notes:

1 = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs. Bold text denotes detected concentrations. Bold/blue text denotes concentrations above RWQCB ESLs.

Abbreviations:

bgs = below ground surface US EPA = United States Environmental Protection Agency TPH-GRO = total petroleum hydrocarbons as gasoline range organics mg/kg = milligrams per kilogram MtBE = methyl tertiary-butyl ether TBA = tertiary-butyl alcohol DIPE = di-isopropyl ether EtBE = ethyl tertiary -butyl ether TAME = tertiary -amyl methyl ether

< = indicates less than stated method detection limit

ESL = Environmental Screening Level

NE = ESL not established for compound

-- = not applicable/sample location not in area of proposed foundation.

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Table 2 Historical Soil Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Depth Below Proposed Foundation (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
\$1 (soil removed)	3		02/26/97	<1.0	<0.0050	<0.0050	<0.0050	0.011	0.087						
S2 (soil removed)	3		02/26/97	6.0 ¹	<0.0050	<0.0050	<0.0050	0.0079	0.38						
S3 (soil removed)	3		02/26/97	4.1 ²	0.0098	0.0087	0.027	0.026	0.44						
S4 (soil removed)	3		02/26/97	2.0 ²	0.016	0.0088	<0.0050	0.015	0.42						
S5 (soil removed)	3		02/26/97	38	0.63	0.14	0.90	0.37	0.62						
S6 (soil removed)	3		02/26/97	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						
B-1 (soil removed)	6		10/06/00	68 ³	0.25	0.30	1.2	0.64	0.33						4.5
B-1 (soli terrioved)	11		10/08/00	<1.0	<0.0050	0.0073	<0.0050	0.0089	<0.050						4.5
B-2 (soil removed)	6		10/06/00	<1.0 ⁴	<0.0050	<0.0050	<0.0050	0.012	<0.050						6.9
B-2 (soli removed)	11		10/00/00	<1.0 ⁴	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						3.9
B-3 (soil removed)	6		10/09/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						4.4
B-3 (soli terrioved)	11		10/07/00	930 ³	6.7	1.2	22	100	13						4.7
B-4	6	2	10/09/00	<1.05	< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.0506						10 ⁷
D-4	11	7	10/07/00	<1.05	< 0.0050	< 0.0050	<0.0050	< 0.0050	< 0.0506						3.5 ⁸
В-5	6	2	10/05/00	<1.0	<0.0050	< 0.0050	<0.0050	< 0.0050	<0.050						6.1
в-5	11	7	10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						3.7
B-6 (soil partially removed)	6		10/05/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						6.5
B-8 (soli partially removed)	11		10/05/00	<1.0	<0.0050	< 0.0050	<0.0050	< 0.0050	< 0.050						5.1
B-7 (soil removed)	6		10/09/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						9.2
B-7 (soir removed)	11		10/09/00	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050						5.4
В-8	6	2	10/06/00	<1.0	<0.0050	< 0.0050	<0.0050	< 0.0050	< 0.050						6.8
D-O	11	7	10/06/00	<1.0	<0.0050	< 0.0050	<0.0050	< 0.0050	< 0.050						5.1
	6		10/00/00	95 3	0.15	0.2	1.9	2.2	<0.5						5.0
B-9 (soil removed)	11		10/09/00	200 ³	1.3	0.59	6.1	9.7	3.4						6.9
B-10 (soil removed)	6		10/06/00	<1.0	<0.0050	0.0058	0.0052	0.016	<0.050						7.7
B-10 (soil removed)	11		10/06/00	≤1.0	<0.0050	<0.0050	0.0051	0.015	<0.050						4. 6
MW-1	6		03/01/02	<1.0	< 0.0050	< 0.0050	<0.0050	< 0.015	< 0.050						
10100-1	24.5		03/01/02	<1.0	< 0.0050	< 0.0050	<0.0050	<0.015	<0.050						
	4.5	0.5		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.015	< 0.050						
MW-2	14.5	10.5	03/01/02	<1.0	<0.0050	< 0.0050	< 0.0050	< 0.015	< 0.050						
	24.5	20.5		<1.0	<0.0050	< 0.0050	< 0.0050	<0.015	< 0.050						
	4.5	0.5		240	<0.050	<0.050	3.7	<0.300	<0.20						
MW-3	14.5	10.5	03/01/02	2.1	0.22	< 0.0050	0.11	< 0.015	<0.21						
	24.5	20.5	1	<1.0	<0.0050	< 0.0050	< 0.0050	<0.015	< 0.050						
	4			150	0.18	< 0.020	2.1	1.9	0.23						
MW-4	14.5		03/01/02	3.1	<0.0050	< 0.0050	0.019	<0.015	< 0.050						
	24.5			<1.0	<0.0050	< 0.0050	< 0.0050	< 0.015	< 0.050						

Table 2 Historical Soil Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Depth Below Proposed Foundation (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
EX1	10	6	04/25/05	<1.0	< 0.005	< 0.005	<0.005	< 0.005	< 0.005						11
EX2 (soil removed)	10		04/25/05	1.8	<0.005	0.0095	<0.005	<0.005	<0.005						12
EX3 (soil removed)	10		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						8.7
EX4 (soil removed)	10		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						11
EX5	10	6	04/25/05	<1.0	<0.005	< 0.005	< 0.005	<0.005	< 0.005						9.8
EX6 (soil removed)	3.5		04/25/05	3.5	<0.005	0.020	<0.005	<0.005	<0.005						8.9
EX7 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						12
EX8 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						9.7
EX9 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						8.9
EX10 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						5.5
EX11 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	< 0.005	<0.005	<0.005						12
EX12 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						9.3
EX13 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						7.2
EX14 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						6.6
EX15 (soil removed)	3.5		04/25/05	65	<0.005	0.087	0.53	0.069	<0.005						11
EX16 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						7.9
EX17 (soil removed)	3.5		04/25/05	370	<0.050	0.20	<0.050	0.61	<0.50						14
EX18 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						7.8
EX19 (soil removed)	3.5		04/25/05	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005						7.1
EX20 (soil removed)	3.5		04/25/05	3.4	<0.005	0.021	< 0.005	0.0075	<0.005						8.4
EX21 (soil removed)	3.5		04/25/05	190	0.20	0.14	0.17	0.27	0.37						22
EX22 (soil removed)	3.5		04/25/05	76	0.35	0.058	0.78	0.20	<0.25						13
EX23	7	3	04/27/05	2.5	< 0.005	< 0.005	<0.005	<0.005	< 0.005						
EX24 (soil removed)	10		04/27/05	120	2.2	0.23	2.9	6.6	0.12						
EX25 (soil removed)	10		04/27/05	19	1.3	<0.10	0.63	0.18	0.26						
EX26 (soil removed)	10		04/27/05	<1.0	<0.005	<0.005	<0.005	<0.005	0.23						
EX27 (soil removed)	7		04/27/05	4 80	<0.050	<0.050	<0.050	<0.050	<0.050						
EX28 (soil removed)	8		04/27/05	2,800	3.0	<2.0	58	120	<2.0						
EX29 (soil removed)	8		04/27/05	250	<0.033	<0.033	<0.033	<0.033	<0.033						
EX30 (soil removed)	8		04/27/05	81	0.021	<0.020	0.034	<0.020	<0.020						
EX31 (soil removed)	8		04/27/05	600	<0.10	<0.10	0.30	<0.10	<0.10						
EX32	12	8	05/02/05	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	0.0065						
EX33	12	8	05/02/05	<1.0	<0.005	< 0.005	< 0.005	<0.005	0.12						
EX34	12	8	05/02/05	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	0.03						
EX35	12	8	05/02/05	<1.0	<0.005	<0.005	< 0.005	<0.005	< 0.005						
EX36	9	5	05/02/05	450	< 0.33	< 0.33	10	7.30	< 0.33						
EX37	9	5	05/02/05	<1.0	<0.005	<0.005	< 0.005	<0.005	< 0.005						

Table 2 Historical Soil Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Depth Below Proposed Foundation (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
EX38	12	8	05/03/05	34	0.66	<0.10	0.66	0.31	0.21						
EX39	9	5	05/03/05	64	0.022	< 0.005	0.11	0.014	< 0.005						
EX40	12	8	05/03/05	<1.0	<0.005	< 0.005	<0.005	<0.005	0.12						
EX41	12	8	05/03/05	<1.0	<0.005	< 0.005	<0.005	<0.005	0.16						
EX42 (soil removed)	9		05/03/05	450	<0.010	<0.010	<0.010	<0.010	<0.010						
EX43 (soil removed)	9		05/03/05	120	<0.010	<0.010	0.070	<0.010	<0.010						
EX44 (soil removed)	9		05/03/05	230	<0.010	<0.010	0.110	<0.010	<0.010						
EX45	12	8	05/10/05	<1.0	<0.005	< 0.005	<0.005	<0.005	0.11						
EX46	12	8	05/10/05	<1.0	<0.005	< 0.005	<0.005	< 0.005	0.025						
EX47	8	4	05/10/05	<1.0	<0.005	< 0.005	<0.005	< 0.005	< 0.005						< 0.005
EX48	12	8	05/10/05	<1.0	< 0.005	< 0.005	<0.005	< 0.005	< 0.005						< 0.005
EX49 (soil removed)	9		05/10/05	1.1	<0.005	<0.005	<0.005	<0.005	<0.005						<u><0.005</u>
EX50	9	5	05/10/05	1.3	<0.005	< 0.005	< 0.005	<0.005	< 0.005						< 0.005
EX51	9	5	05/10/05	<1.0	< 0.005	< 0.005	<0.005	< 0.005	< 0.005						< 0.005
EX52 (soil removed)	9		05/11/05	610	<0.50	<0.50	18	<0.50	<0.50						<0.50
EX53	12	8	05/11/05	<1.0	< 0.005	0.0055	< 0.005	< 0.005	0.16						0.16
EX54 (soil removed)	9		05/11/05	<u>2.7</u>	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005
EX55	9	5	05/19/05	<1.0	< 0.005	<0.005	<0.005	< 0.005	< 0.005						< 0.005
EX56	9	5	05/19/05	8.5	<0.005	< 0.005	< 0.005	< 0.005	< 0.005						< 0.005
EX57	12	8	05/19/05	<1.0	< 0.005	< 0.005	<0.005	< 0.005	< 0.005						< 0.005
EX58	12	8	05/19/05	<1.0	< 0.005	< 0.005	<0.005	< 0.005	0.0070						0.0070
EX59	9	5	05/19/05	240	<0.025	<0.025	0.40	<0.025	<0.025						<0.025
EX60	9	5	05/20/05	250	<0.20	<0.20	6.1	<0.20	<0.20						<0.20
EX61	12	8	05/20/05	16	0.10	<0.010	0.19	0.012	0.079						0.079
EX62	9	5	05/20/05	78	<0.005	< 0.005	0.095	< 0.005	< 0.005						< 0.005
EX63	9	5	05/20/05	22	0.25	< 0.033	0.90	0.035	< 0.033						< 0.033
	5		07/22/08	260	<0.025	< 0.049	<0.049	< 0.049	<0.025	< 0.049	< 0.049	< 0.049	<0.98	< 0.049	
	10			<1.0	<0.005	< 0.001	<0.001	<0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.019	< 0.001	
MW-5	15		07/02/00	<1.0	<0.0005	< 0.001	<0.001	<0.001	0.021	< 0.001	< 0.001	< 0.001	<0.020	< 0.001	
	20		07/23/08	<1.0	< 0.0005	< 0.001	<0.001	<0.001	0.002	< 0.001	< 0.001	<0.001	<0.020	< 0.001	
	25			1.8	<0.0005	< 0.001	< 0.001	< 0.001	0.003	< 0.001	< 0.001	< 0.001	< 0.019	< 0.001	
	5		07/22/08	2.7	<0.0005	< 0.001	< 0.001	< 0.001	0.003	< 0.001	< 0.001	< 0.001	< 0.020	< 0.001	
	10			16	0.19	< 0.001	0.13	0.006	0.07	< 0.001	< 0.001	0.001	0.042	< 0.001	
MW-6	15		07/02/02	1.9	<0.0005	< 0.001	< 0.001	< 0.001	0.007	< 0.001	< 0.001	< 0.001	0.026	< 0.001	
	20		07/23/08	<1.0	<0.0005	< 0.001	0.001	< 0.001	0.006	< 0.001	< 0.001	< 0.001	<0.020	< 0.001	
	25			<1.0	0.001	< 0.001	0.012	< 0.001	0.0009	< 0.001	< 0.001	< 0.001	< 0.022	< 0.001	

Table 2 Historical Soil Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Depth Below Proposed Foundation (feet bgs)	Sample Date	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
	5		07/22/08	<1.0	< 0.0005	< 0.001	0.014	<0.001	< 0.0005	<0.001	< 0.001	< 0.001	<0.020	< 0.001	
	10			75	0.21	< 0.046	1.9	<0.046	<0.023	<0.046	<0.046	<0.046	<0.92	< 0.046	
MW-7	15		07/23/08	31	0.062	< 0.001	0.19	0.004	< 0.0005	< 0.001	< 0.001	< 0.001	<0.019	< 0.001	
	20		07723708	<1.0	<0.0005	< 0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.021	<0.001	
	25			<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	<0.020	< 0.001	
	5		07/22/08	<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.019	< 0.001	
	10			<1.0	<0.0005	< 0.001	<0.001	< 0.001	<0.0005	<0.001	< 0.001	<0.001	<0.020	<0.001	
MW-8	15		07/24/08	<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005	< 0.001	< 0.001	< 0.001	<0.021	< 0.001	
	20		07/24/08	<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	<0.020	< 0.001	
	25			<1.0	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.0005	< 0.001	< 0.001	< 0.001	<0.020	< 0.001	
	5			<1	<0.0005	< 0.001	<0.001	< 0.001	<0.0005						
SB-10	9.5		01/04/11	<1	< 0.0005	< 0.001	< 0.001	< 0.001	<0.0005						
30-10	14.5		01/04/11	<1	< 0.0005	< 0.001	<0.001	< 0.001	< 0.0005						
	19.5			<]	0.0006	0.002	< 0.001	<0.001	<0.0005						
	ESLs ⁹			100	0.044	2.9	1.4	2.3	0.023	NE	NE	NE	0.075	0.0045	80

Notes:

¹ = Unidentified hydrocarbons > C8.

² = Gasoline and discrete peaks.

³ = Gasoline C6-C12.

⁴ = Sample also analyzed for total petroleum hydrocarbons as hydraulic oil (TPHho; <10 mg/kg).

⁵ = Sample also analyzed for total oil and grease (TOG; <50 mg/kg) and total petroleum hydrocarbons as diesel range organics (TPH-DRO; <1.0 mg/kg).

⁶ = Sample also analyzed for volatile organic compounds (VOCs; non-detect) and semi-volatile organic compounds (SVOCs; non-detect).

⁷ = Sample also analyzed for cadmium (0.69 mg/kg), chromium (42 mg/kg), nickel (100 mg/kg), and zinc (63 mg/kg).

⁸ = Sample also analyzed for cadmium (0.57 mg/kg), chromium (24 mg/kg), nickel (29 mg/kg), and zinc (50 mg/kg).

⁹ = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold text denotes detected concentrations. Bold/blue text denotes detected concentrations above RWQCB ESLs.

Abbreviations:

bgs = below ground surface mg/kg = milligrams per kilogram TPH-GRO = total petroleum hydrocarbons as gasoline range organics MtBE = methyl tertiary-butyl ether DIPE = di-isopropyl ether EtBE = ethyl tertiary-butyl ether TAME = tertiary -amyl methyl ether

- TBA = tertiary -butyl alcohol
- 1,2-DCA = 1,2-dichloroethane

< = indicates less than stated method detection limit

-- = not analyzed/not applicable. If not applicable, soil either already removed or sample location not in area of proposed foundation.

ESL = Environmental Screening Level

NE = ESL not established for compound

Table 3

2015 Grab Groundwater Analytical Results

Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

				US EPA Method 8015B					US EPA N	METHOD 8	260				
Boring ID	Date Collected	DTW	Depth Below Proposed Foundation	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MtBE	TBA	DIPE	EtBE	TAME	Ethanol	Naphthalene
	Collected	(feet bgs)	(feet bgs)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
SB-11	02/25/15	6.05		4,800	<0.5	0.9	0.9	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	2
SB-12	02/26/15	5.6		3,800	<0.5	<0.5	<0.5	<0.5	0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-13	03/05/15	7.5	3.5	<50	<0.5	<0.5	<0.5	<0.5	4	<2	<0.5	<0.5	<0.5	<50	<1
SB-14	02/26/15	6.2		8,800	0.8	<0.5	11	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	4
SB-15	02/27/15	6.5		43,000	210	21	2,700	4,100	1	<2	<0.5	<0.5	<0.5	<50	900
SB-17	02/27/15	5.7		5,300	<0.5	<0.5	4	1	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-18	02/27/15	8.9		43,000	1,200	7	3,100	76	29	29	<1	<1	<1	<100	910
SB-19	02/26/15	9.83		8,300	<0.5	<0.5	3	0.6	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-20	02/26/15	6.30		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
SB-21	02/27/15	10.65		<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<50	<1
		ESLs ¹		100	1	40	13	20	5	12	NE	NE	NE	NE	0.12

Notes:

¹ = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs. **Bold** text denotes detected concentrations. **Bold/blue** text denotes concentrations above RWQCB ESLs.

Abbreviations:

DTW = Depth-to-Groundwater US EPA = United States Environmental Protection Agency TPH-GRO = total petroleum hydrocarbons as gasoline range organics (µg/L) = micrograms per liter MtBE = methyl tertiary-butyl ether TBA = tertiary-butyl alcohol DIPE = di-isopropyl ether EtBE = ethyl tertiary -butyl ether

TAME = tertiary -amyl methyl ether

- < = indicates less than stated method detection limit
- ESL = Environmental Screening Level
- NE = ESL not established for compound
- -- = not applicable/sample location not in area of proposed foundation.

Table 4 Historical Grab Groundwater Analytical Results Former Chevron-Branded Service Station 92029 890 West MacArthur Boulevard Oakland, California

Borehole/ Sample ID	Sample Depth (feet bgs)	Depth Below Proposed Foundation (feet bgs)	Sample Date	TPH-GRO (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MiBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (μg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)
B-1	13.1	9.1	10/06/00	3,600 ¹	110	3.5	770	150	820						
B-2	13	9	10/06/00	<50 ²	<0.50	<0.50	<0.50	<0.50	460						
B-3	13.1	9.1	10/09/00	33,000 ¹	1,200	580	2,000	7,500	670						
B-4	13.5	9.5	10/09/00	<50 ³	<0.50	<0.50	<0.50	<0.50	71 ^{4,5}						
B-5	12.3	8.3	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	590						
B-6	11.8	7.8	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	34						
B-7	13.7	9.7	10/09/00	500 ¹	<0.50	<0.50	16	63	360						
B-8	12.8	8.8	10/06/00	<50	<0.50	<0.50	<0.50	<0.50	650						
B-10	13.8	9.8	10/09/00	3,700 ¹	8.3	4.2	180	1.7	47		-		-		
SB-1	20		03/28/06	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-1	30		03/20/08	<50	<0.5	1	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-2	20		03/28/06	2,700	34	1	83	170	38	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
5D-2	31		03/20/00	970	11	1	24	50	13	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-3	16		03/30/06	<50	<0.5	1	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-3	34		03/30/00	<50	0.6	2	<0.5	1	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-5	28		03/29/06	<50	1	1	1	3	5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-5	44		03/2//00	51	0.8	2	0.9	3	0.8	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-6	16		03/30/06	<50	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
30-0	30		03/30/00	<50	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-8	23	19	03/29/06	66	<0.5	1	<0.5	1	7	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
05-0	33	29	00,27,00	63	<0.5	0.7	<0.5	0.6	2	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-9	23	19	03/30/06	<50	<0.5	0.6	<0.5	<0.5	210	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
00-7	33	29	00,00,00	<50	0.6	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
SB-10			01/04/11	<50	<0.5	<0.5	<0.5	<0.5	4						
		ESLs ⁶		100	1	40	13	20	5	NE	NE	NE	12	0.05	0.5

Notes:

¹ = Gasoline C6-C12.

 2 = Sample also analyzed for total petroleum hydrocarbons as hydraulic oil (TPHho; <250 µg/L).

³ = Sample also analyzed for total oil and grease (TOG; <5,000 µg/L) and total petroleum hydrocarbons as diesel range organics (TPH-DRO; 170 µg/L).

⁴ = Sample also analyzed for volatile organic compounds (VOCs; non-detect except for tetrachloroethene [PCE] at 4.3 µg/L) and semi-volatile organic compounds (SVOCs; non-detect).

⁵ = Sample also analyzed for cadmium (non-detect), chromium (110 µg/L), lead (27 µg/L), nickel (140 µg/L), and zinc (250 µg/L).

⁶ = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold text denotes detected concentrations. Bold/blue text denotes detected concentrations above RWQCB ESLs.

Abbreviations:

bgs = below ground surface	TBA = tertiary-butyl alcohol
µg/L = micrograms per liter	1,2-DCA = 1,2-dichloroethane
TPH-GRO = total petroleum hydrocarbons as gasoline range organics	1,2-DBA = 1,2-dibromoethane
MtBE = methyl tertiary -butyl ether	< = indicates less than stated method detection limit
DIPE = di-isopropyl ether	= not measured/not analyzed/not applicable. If not applicable, sample location not in area of proposed foundation.
EtBE = ethyl tertiary -butyl ether	ESL = Environmental Screening Level
TAME = tertiary -amyl methyl ether	NE = ESL not established for compound

890 West MacArthur Boulevard,

WELL ID/ DATE	TOC*	DTW (#1)	GWE (mal)	TPH-GRO (µg/L)	Β (µg/L)	Τ (μg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
DAIE	(ff.)	(ft.)	(msl)						
	Ground	water ESL		100	1	40	13	20	5
MW-5									
08/22/08 ¹	49.39	9.97	39.42						
08/27/08 ³	49.39	10.03	39.36	54	0.5	0.8	<0.5	0.7	10
11/21/08 ³	49.39	8.42	40.97	6,000	93	6	37	6	8
02/13/09 ³	49.39	7.11	42.28	5,100	31	5	20	3	6
05/08/09 ³	49.39	7.21	42.18	3,600	18	4	14	2	2
08/07/09 ³	49.39	9.60	39.79	520	0.7	<0.5	<0.5	<0.5	2
11/05/09 ³	49.39	7.08	42.31	7,400	16	5	18	4	0.9
05/06/10 ³	49.39	6.08	43.31	3,500	4	2	3	0.9	0.9
11/03/10 ⁵	49.39	9.05	40.34	5,000	13	4	8	3	0.9
05/10/11 ⁵	49.39	7.26	42.13	3,200	6	4	7	0.9	<0.5
11/10/11 ⁵	49.39	7.60	41.79	2,600	6	3	10	2	<0.5
05/11/12 ⁵	49.39	6.48	42.91	3,300	<3	<3	<3	<3	<3
11/14/12 ³	49.39	8.89	40.50	2,100	3	2	3	0.6	<0.5
05/08/13 ³	49.39	8.41	40.98	2,100	2	0.9	2	<0.5	<0.5
11/06/13 ³	49.39	9.81	39.58	160	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 ³	49.39	6.74	42.65	3,500	1	2	4	<0.5	<0.5
11/19/14	49.39	INACCESSIBLE	E; FLOODED WI	TH SURFACE WATER					
05/07/15 ³	49.39	7.08	42.31	2,800	1	1	2	<0.5	<0.5
12/29/15 ³	49.39	7.13	42.26	4,500	3	2	3	2	< 0.5
05/18/16 ³	49.39	7.48	41.91	1,600	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6									
08/22/08 ¹	49.07	8.98	40.09						
08/27/08 ³	49.07	8.98	40.09	6,000	990	4	350	530	440
$11/21/08^3$	49.07	8.12	40.95	14,000	1,000	15	1,300	550	300
02/13/09 ³	49.07	5.84	43.23	9,700	630	4	510	36	180
05/08/09 ³	49.07	5.77	43.30	7,600	240	4	470	67	38
08/07/09 ³	49.07	8.49	40.58	14,000	1,500	12	1,400	180	330
11/05/09 ³	49.07	6.72	42.35	22,000	870	8	1,300	130	160
05/06/10 ³	49.07	4.89	44.18	5,200	110	2	160	23	9
11/03/10 ⁵	49.07	8.05	41.02	13,000	1,100	8	670	58	160
05/10/11 ^{4,5}	49.07	8.56	40.51	<50	0.6	<0.5	<0.5	<0.5	<0.5
11/10/11 ⁵	49.07	7.59	41.48	5,700	260	7	180	13	37
05/11/12 ⁵	49.07	5.68	43.39	1,200	36	0.6	0.8	<0.5	1
11/14/12 ³	49.07	9.83	39.24	6,400	290	9	180	6	36
05/08/13 ³	49.07	7.21	41.86	2,000	77	í	9	<0.5	6

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WELL ID/ DATE	TOC* (ff.)	DTW (ff.)	GWE (msl)	TPH-GRO (µg/L)	Β (µg/L)	Τ (µg/L)	E (µg/L)	X (µg/L)	M†BE (µg/L)
		dwater ESL	(100	1	40	13	20	5
MW-6 (cont)									
11/06/13 ³	49.07	9.27	39.80	5,300	330 ⁶	3 ⁶	8 ⁶	16	78 ⁶
05/14/14 ³	49.07	6.29	42.78	5,000	140	6	46	2	10
11/19/14	49.07		E; FLOODED WI	TH SURFACE WATER					
05/07/15 ³	49.07	7.20	41.87	3,600	19	2	7	< 0.5	2
12/29/15 ³	49.07	6.21	42.86	7,700	170	4	22	1	15
05/18/16 ³	49.07	6.78	42.29	4,500	150	4	23	1	12
MW-7									
08/22/08 ¹	48.74	10.20	38.54						
08/27/08 ³	48.74	10.19	38.55	<50	< 0.5	0.6	< 0.5	0.7	6
11/21/08 ³	48.74	9.51	39.23	1,100	80	<0.5	65	0.7	6
02/13/09 ³	48.74	7.95	40.79	630	30	<0.5	38	0.9	7
05/08/09 ³	48.74	8.04	40.70	1,200	83	<0.5	190	2	8
08/07/09 ³	48.74	9.88	38.86	8,900	240	0.7	770	5	5
11/05/09 ³	48.74	9.03	39.71	12,000	630	<1	1,300	420	5
05/06/10 ³	48.74	7.88	40.86	4,000	190	<0.5	270	7	6
11/03/10 ⁵	48.74	9.48	39.26	5,700	150	0.7	45	2	4
05/10/11 ⁵	48.74	8.82	39.92	3,500	180	<0.5	150	2	5
11/10/11 ⁵	48.74	9.68	39.06	1,500	2	<0.5	2	<0.5	5
05/11/12 ⁵	48.74	8.37	40.37	9,200	440	<5	1,000	33	<5
11/14/12 ³	48.74	9.79	38.95	5,000	<3	<3	6	<3	4
05/08/13 ³	48.74	9.54	39.20	2,200	10	<0.5	2	<0.5	5
11/06/13 ³	48.74	10.60	38.14	790	<0.5	<0.5	<0.5	<0.5	4
05/14/14 ³	48.74	8.73	40.01	8,200	380 ⁶	<16	460 ⁶	34 ⁶	4 ⁶
11/19/14 ³	48.74	10.33	38.41	1,200	0.6	<0.5	1	<0.5	5
05/07/15 ³	48.74	9.33	39.41	5,000	24	0.8	19	1	3
12/29/15 ³	48.74	7.68	41.06	6,000	88	0.5	120	2	3
05/18/16 ³	48.74	9.00	39.74	8,000	85	<3	190	3	3
MW-8									
08/22/08 ¹	47.61	12.41	35.20						
08/27/08 ³	47.61	12.42	35.19	<50	<0.5	0.7	<0.5	0.6	<0.5
11/21/08 ³	47.61	11.42	36.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/13/09 ³	47.61	8.87	38.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/09 ³	47.61	10.79	36.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09 ³	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/05/09 ³	47.61	11.23	36.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5

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WELL ID/ DATE	TOC* <i>(ft.)</i>	DTW (ff.)	GWE (msl)	TPH-GRO (µg/L)	Β (µg/L)	τ (µg/L)	E (µg/L)	Χ (μg/L)	MtBE (µg/L)
	Groundw	water ESL		100	1	40	13	20	5
MW-8 (cont)									
05/06/10 ³	47.61	10.28	37.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/03/10 ⁵	47.61	11.37	36.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/10/115	47.61	11.55	36.06	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/10/11 ⁵	47.61	11.49	36.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/11/12 ⁵	47.61	10.89	36.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/14/12 ³	47.61	11.73	35.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13 ³	47.61	12.03	35.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13 ³	47.61	12.63	34.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 ³	47.61	11.69	35.92	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/14 ³	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15 ³	47.61	11.79	35.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/15 ³	47.61	9.58	38.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/18/16 ³	47.61	11.72	35.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1									
03/12/02 ¹	50.71	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
06/07/02	50.71	8.69	42.02	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
09/13/02	50.71	9.28	41.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
12/13/02	50.71	8.48	42.23	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
03/01/03	50.71	7.34	43.37	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.52
06/27/03 ³	50.71	9.29	41.42	<50	<0.5	0.6	<0.5	<0.5	<0.5
09/30/03 ³	50.71	10.17	40.54	<50	<0.5	0.6	<0.5	<0.5	<0.5
12/03/03 ³	50.71	7.82	42.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 ³	50.71	6.57	44.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 ³	50.71	9.78	40.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 ³	50.71	9.91	40.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 ³	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³	50.71	8.59	42.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 ³	50.71	9.38	41.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	50.71	8.44	42.27						
03/20/06	50.71	3.05	47.66						
06/01/06	50.71	6.77	43.94						
09/11/06	50.71	9.18	41.53						
DESTROYED									

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WELL ID/ DATE	TOC* <i>(</i> ff.)	DTW (ff.)	GWE (mal)	TPH-GRO (µg/L)	Β (µg/L)	Τ (μg/L)	E (µg/L)	Χ (μg/L)	M†BE (µg/L)
DAIE			(msl)						
	Groundv	vater ESL		100	1	40	13	20	5
MW-2									
03/12/02 ¹	52.57	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3 ²
06/07/02	52.57	8.65	43.92	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
09/13/02	52.57	9.58	42.99	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
12/13/02	52.57	8.50	44.07	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
03/01/03	52.57	7.00	45.57	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5 ²
06/27/03 ³	52.57	9.59	42.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 ³	52.57	10.64	41.93	<50	<0.5	<0.5	<0.5	<0.5	0.7
12/03/03 ³	52.57	7.54	45.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 ³	52.57	6.05	46.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 ³	52.57	10.15	42.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 ³	52.57	10.14	42.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 ³	52.57	2.29	50.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³	52.57	2.44	50.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³	52.57	8.99	43.58	<50	<0.5	<0.5	< 0.5	< 0.5	<0.5
09/02/05 ³	52.57	10.17	42.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	52.57	8.99	43.58						
03/20/06	52.57	2.70	49.87						
06/01/06	51.57	6.51	45.06						
09/11/06	51.57	10.06	41.51						
DESTROYED									
MW-3									
03/12/02 ¹	50.31	6.50	43.81	12,000	600	8.5	1,100	370	700/650 ²
06/07/02	50.31	7.74	42.57	14,000	630	8.8	1,200	160	520/490 ²
09/13/02	50.31	9.73	40.58	3,000	270	3.2	200	11	600/640 ²
12/13/02	50.31	8.60	41.71	24,000	1,100	14	2,400	220	650/540 ²
03/01/03	50.31	6.75	43.56	16,000	500	9.0	1,200	130	460/330 ²
06/27/03 ³	50.31	9.25	41.06	9,500	390	6	450	30	470
09/30/03 ³	50.31	10.31	40.00	2,000	110	1	100	3	710
12/03/03 ³	50.31	8.18	42.13	19,000	970	8	2,100	85	420
03/10/04 ³	50.31	6.10	44.21	15,000	550	6	960	95	220
06/30/04 ³	50.31	9.80	40.51	3,200	150	1	100	3	660
08/30/04 09/30/04 ³	50.31	10.18	40.13	1,900	66	0.8	84	4	690
12/29/04 ³	50.31	4.58	45.73	16,000	470	7	820	47	170
03/23/05 ³	50.31	4.38 5.07	45.24	18,000	380	6	960	58	140
03/23/05 06/22/05 ³	50.31	8.12	43.24	16,000	700	6	950	62	300
00/22/00		0.12 9.41	40.90	8,400	380	8 4	510	41	440
09/02/05 ³	50.31								

890 West MacArthur Boulevard,

WELL ID/	TOC*	DTW	GWE	TPH-GRO	B (1177 (/))	T (1)	E	X (1)27(1)	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
	Groundw	vater ESL		100	1	40	13	20	5
WW-3 (cont)									
03/20/06 ³	50.31	5.32	44.99	4,200	79	0.8	2	10	34
06/01/06 ³	50.31	7.07	43.24	5,400	67	1	26	3	28
09/11/06 ³	50.31	9.07	41.24	14,000	270	5	240	38	97
DESTROYED									
AM-4									
3/12/02 ¹	49.93	5.34	44.59	9,700	360	5.3	1,100	150	170/170 ²
06/07/02	49.93	8.52	41.41	7,300	170	2.7	280	21	200/120 ²
9/13/02	49.93	9.86	40.07	5,800	92	4.5	80	14	190/160 ²
2/13/02	49.93	9.42	40.51	10,000	250	2.2	330	19	170/200 ²
3/01/03	49.93	7.33	42.60	12,000	300	4.6	900	110	160/100 ²
06/27/03 ³	49.93	9.62	40.31	7,500	110	2	200	58	130
9/30/03 ³	49.93	11.13	38.80	3,600	18	<1	16	7	520
2/03/03 ³	49.93	7.80	42.13	16,000	1,000	6	720	52	73
3/10/04 ³	49.93	6.69	43.24	2,200	230	3	610	71	55
)6/30/04 ³	49.93	10.33	39.60	7,700	59	<]	78	17	110
9/30/04 ³	49.93	10.75	39.18	4,800	100	1	33	10	400
2/29/04 ³	49.93	3.34	46.59	13,000	250	3	480	27	42
3/23/05 ³	49.93	4.24	45.69	12,000	130	2	280	16	24
)6/22/05 ³	49.93	7.95	41.98	6,400	290	2	11	11	18
)9/02/05 ³	49.93	9.46	40.47	3,700	180	1	13	7	18
2/02/05 ³	49.93	7.60	42.33	11,000	840	5	480	24	34
)3/20/06 ³	49.93	4.50	45.43	790	14	<0.5	1	0.6	2
06/01/06 ³	49.93	7.30	42.63	5,100	48	0.8	42	4	2
09/11/06 ³	49.93	9.38	40.55	6,700	64	3	44	3	4
DESTROYED									
RIP BLANK									
QA									
03/12/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/07/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
9/13/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
2/13/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
3/01/03				<50	<0.50	<0.50	<0.50	<1.5	<2.5
)6/27/03 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/30/03 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
2/03/03 ³				<50	<0.5	<0.5	<0.5	< 0.5	<0.5

890 West MacArthur Boulevard,

WELL ID/ DATE	TOC* <i>(</i> ff.)	DTW <i>(f</i> f.)	GWE (msl)	TPH-GRO (µg/L)	Β (µg/L)	τ (µg/L)	E (µg/L)	Χ (µg/L)	MtBE (µg/L)
	Ground	vater ESL		100	1	40	13	20	5
QA (cont)									
03/10/04 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 ³				<50	<0.5	<0.7	<0.8	<0.8	<0.5
12/29/04 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 ³				<50	<0.5	14	<0.5	14	<0.5
12/02/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/20/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/11/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/27/08 ³				<50	<0.5	<0.5	< 0.5	<0.5	<0.5
11/21/085				<50	<0.5	<0.5	<0.5	<0.5	
02/13/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
05/08/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
08/07/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
11/14/12 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/14 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15 ³				<50	<0.5	<0.5	< 0.5	<0.5	<0.5
12/29/15 ³				<50	<0.5	<0.5	< 0.5	<0.5	<0.5
05/18/16 ³				<50	<0.5	<0.5	< 0.5	<0.5	<0.5

Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing	TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
(ft.) = Feet	B = Benzene
DTW = Depth to Water	T = Toluene
GWE = Groundwater Elevation	E = Ethylbenzene
(msl) = Mean sea level	X = Xylenes
(µg/L) = Micrograms per liter	MtBE = Methyl tertiary-butyl ether

-- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank EPA = Environmental Protection Agency

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level. Update to Environmental Screening Levels. February 22, 2016. Tier 1 ESLs. Bold font denotes detected value. Bold/blue font denotes detected value above ESLs.

* Current TOC elevations were surveyed on October 1, 2008, by CRA. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).

- ¹ Well development performed.
- ² MtBE by EPA Method 8260.
- ³ BTEX and MtBE by EPA Method 8260.
- ⁴ Laboratory confirmed analytical result.
- ⁵ BTEX by EPA Method 8260.
- ⁶ Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/ DATE	ETHANOL (µg/L)	TBA (μg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	1,2-DBA (μg/L)	PCE (µg/L)
Groundwater ESL	NE	12	NE	NE	NE	0.5	0.05	3
MW-5								
08/27/08		2	<0.5	<0.5	<0.5			
11/21/08		4	<0.5	<0.5	<0.5			
02/13/09		3	<0.5	<0.5	<0.5			
05/08/09		7	<0.5	<0.5	<0.5			
08/07/09		<2	<0.5	<0.5	<0.5			
11/05/09		2	<0.5	<0.5	<0.5			
05/06/10		<2	<0.5	<0.5	<0.5			
11/03/10		<2	<0.5	<0.5	<0.5			
		<2	<0.5	<0.5	<0.5			
05/10/11 11/10/11		<2	<0.5	<0.5	<0.5			
		<10	<3	<3	<3			
05/11/12		<2	<0.5	<0.5	<0.5			
11/14/12		<2	<0.5 <0.5	<0.5	<0.5			
05/08/13		<2	<0.5 <0.5	<0.5	<0.5 <0.5			
11/06/13			<0.5 <0.5	<0.5 <0.5	<0.5 <0.5			
05/14/14		<5 <2	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5			<0.5
05/07/15		~2	<0.5	<0.5	<0.5			
MW-6								
08/27/08		390	<0.5	<0.5	6			
11/21/08		320	<13	<13	<13			
02/13/09		100	<1	<1	4			
05/08/09		16	<0.5	<0.5	0.9			
08/07/09		190	<3	<3	5			
11/05/09		86	<]	<]	4			
05/06/10		2	<0.5	<0.5	<0.5			
11/03/10		98	<3	<3	3			
05/10/11		<2	<0.5	<0.5	<0.5			
11/10/11		19	<]	<1	<1			
05/11/12		<2	<0.5	<0.5	<0.5			
11/14/12		16	<0.5	<0.5	0.7			
05/08/13		5	<0.5	<0.5	<0.5			
11/06/13 ²		60	<1	<1	2			
05/14/14		8	<0.5	<0.5	<0.5			<0.5
05/07/15		3	<0.5	<0.5	<0.5			

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (μg/L)	PCE (µg/L)
Groundwater	NE	12	NE	NE	NE	0.5	0.05	3
ESL								-
MW-7								
08/27/08		<2	<0.5	<0.5	<0.5			
11/21/08		5	<0.5	<0.5	<0.5			
02/13/09		<2	<0.5	<0.5	<0.5			
05/08/09		<2	<0.5	<0.5	<0.5			
08/07/09		4	<0.5	<0.5	<0.5			
11/05/09		9	<1	<1	<1			
05/06/10		3	<0.5	<0.5	<0.5			
11/03/10		6	<0.5	<0.5	<0.5			
05/10/11		3	<0.5	<0.5	<0.5			
11/10/11		4	<0.5	<0.5	<0.5			
05/11/12		<20	<5	<5	<5			
11/14/12		<10	<3	<3	<3			
05/08/13		<2	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5			
05/14/14 ²		<10	<1	<]	<1			<1
11/19/14		<2	<0.5	<0.5	<0.5			
05/07/15		2	<0.5	<0.5	<0.5			
MW-8								
08/27/08		<2	<0.5	<0.5	<0.5			
11/21/08		<2	<0.5	<0.5	<0.5			
02/13/09		<2	<0.5	<0.5	<0.5			
05/08/09		<2	<0.5	<0.5	<0.5			
08/07/09		<2	<0.5	<0.5	<0.5			
11/05/09		<2	<0.5	<0.5	<0.5			
05/06/10		<2	<0.5	<0.5	<0.5			
11/03/10		<2	<0.5	<0.5	<0.5			
05/10/11		<2	<0.5	<0.5	<0.5			
11/10/11		<2	<0.5	<0.5	<0.5			
05/11/12		<2	<0.5	<0.5	<0.5			
11/14/12		<2	<0.5	<0.5	<0.5			
05/08/13		<2	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5			
05/14/14		<5	<0.5	<0.5	<0.5			<0.5
11/19/14		<2	<0.5	<0.5	<0.5			
05/07/15		<2	<0.5	<0.5	<0.5			

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	ETHANOL	TBA	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Groundwater ESL	NE	12	NE	NE	NE	0.5	0.05	3
MW-1								
03/12/02		<100	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED								
MW-2								
03/12/02		<100	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5 <0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5 <5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5 <5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50 <50	<5 <5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5 <5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5 <5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5 <0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5	<0.5	
06/22/05	<50	<5	<0.5 <0.5	<0.5	<0.5	<0.5	<0.5	
08/22/03	<50 <50	<5 <5	<0.5 <0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED	<50	~5	~0.5	~0.0	~0.5	~0.0	\U. 3	
JESIKOTED								

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	ETHANOL	TBA	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Groundwater ESL	NE	12	NE	NE	NE	0.5	0.05	3
MW-3								
03/12/02		<100	<2	<2	18	<2	<2	
06/07/02		230	<5.0	<5.0	11	<5.0	<5.0	
09/13/02		170	<2	<2	8	<2	<2	
12/13/02		240	<2	<2	29	31	<2	
03/01/03		160	<0.5	<0.5	10	<0.5	<0.5	
06/27/03		200	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<50	120	<0.5	<0.5	6	0.7	<0.5	
12/03/03	<250	200	<3	<3	14	<3	<3	
03/10/04	<50	140	<0.5	<0.5	5	<0.5	<0.5	
06/30/04	<50	100	<0.5	<0.5	5	<0.5	<0.5	
09/30/04	<50	72	<0.5	<0.5	4	0.5	<0.5	
12/31/04	<50	77	<0.5	<0.5	5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	4	<0.5	3	
06/22/05	<250	150	<3	<3	6	<3	<3	
09/02/05	<100	99	<1	<]	<1	<]	<1	
12/02/05	<100	66	<1	<]	5	<]	<1	
03/20/06	<50	14	<0.5	<0.5	<0.5	<0.5	<0.5	
06/01/06	<50	12	<0.5	<0.5	0.8	<0.5	<0.5	
09/11/06	<50	47	<0.5	<0.5	2	<0.5	<0.5	
DESTROYED								
MW-4								
03/12/02		<100	<2	<2	13	<2	<2	
06/07/02		<100	<2	<2	14	<2	<2	
09/13/02		<100	<2	<2	14	<2	<2	
12/13/02		<100	<2	<2	17	<2	<2	
03/01/03		19	<0.5	<0.5	8	<0.5	<0.5	
06/27/03		22	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<100	<10	<1	<]	9	<]	<1	
12/03/03	<50	18	<0.5	<0.5	5	<0.5	<0.5	
03/10/04	<50	11	<0.5	<0.5	4	<0.5	<0.5	
06/30/04	<100	<10	<1	<]	6	<]	<1	
09/30/04	<50	17	<0.5	<0.5	7	<0.5	<0.5	
12/31/04	<50	11	<0.5	<0.5	2	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	1	<0.5	0.9	
06/22/05	<50	15	<0.5	<0.5	1	<0.5	<0.5	
09/02/05	<50	6	<0.5	<0.5	<0.5	<0.5	<0.5	
12/02/05	<50	11	<0.5	<0.5	1	<0.5	<0.5	

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/ DATE	ethanol (μg/l)	ΤΒΑ (μg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	1,2-DBA (µg/L)	РСЕ (µg/L)
Groundwater ESL	NE	12	NE	NE	NE	0.5	0.05	3
MW-4 (cont)								
03/20/06	<50	<5	<0.5	<0.5	< 0.5	<0.5	<0.5	
06/01/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/11/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED								

Table 6Additional Groundwater Analytical ResultsFormer Chevron-Branded Service Station 92029890 West MacArthur Boulevard,
Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories

TBA = Tertiary-Butyl Alcohol DIPE = Di-Isopropyl Ether EtBE = Ethyl Tertiary-Butyl Ether TAME = Tertiary-Amyl Methyl Ether 1,2-DCA = 1,2-Dichloroethane 1,2-DBA = 1,2-Dibromoethane PCE = Tetrachloroethene (µg/L) = Micrograms per liter -- = Not Analyzed EPA = Environmental Protection Agency ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level. "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs. NE = ESL not established Bold font denotes detected value. Bold/blue font denotes detected value above ESLs.

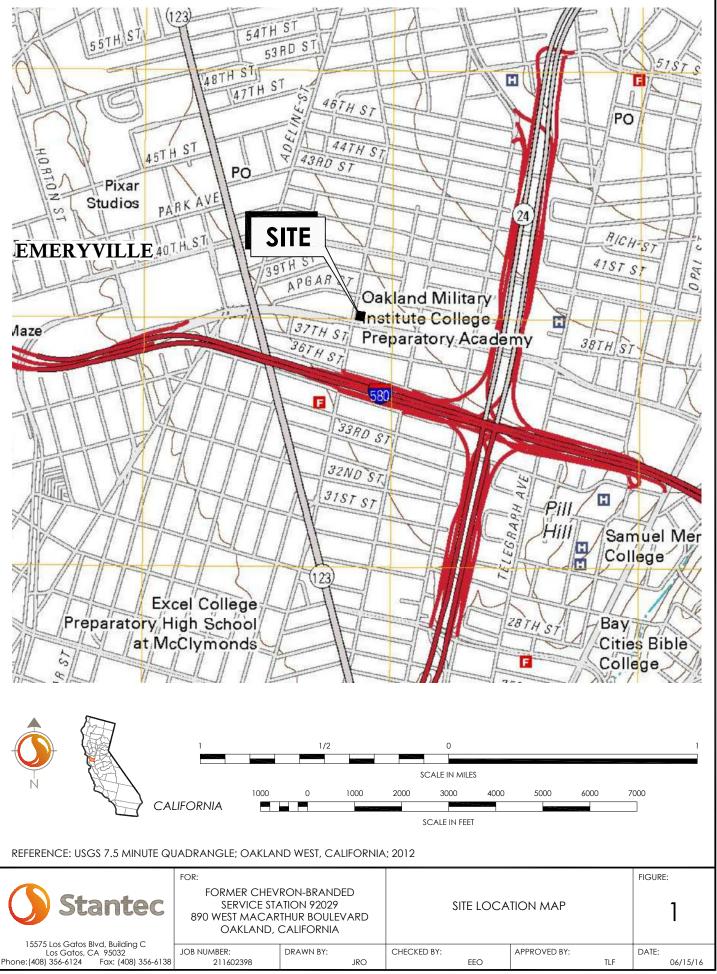
ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

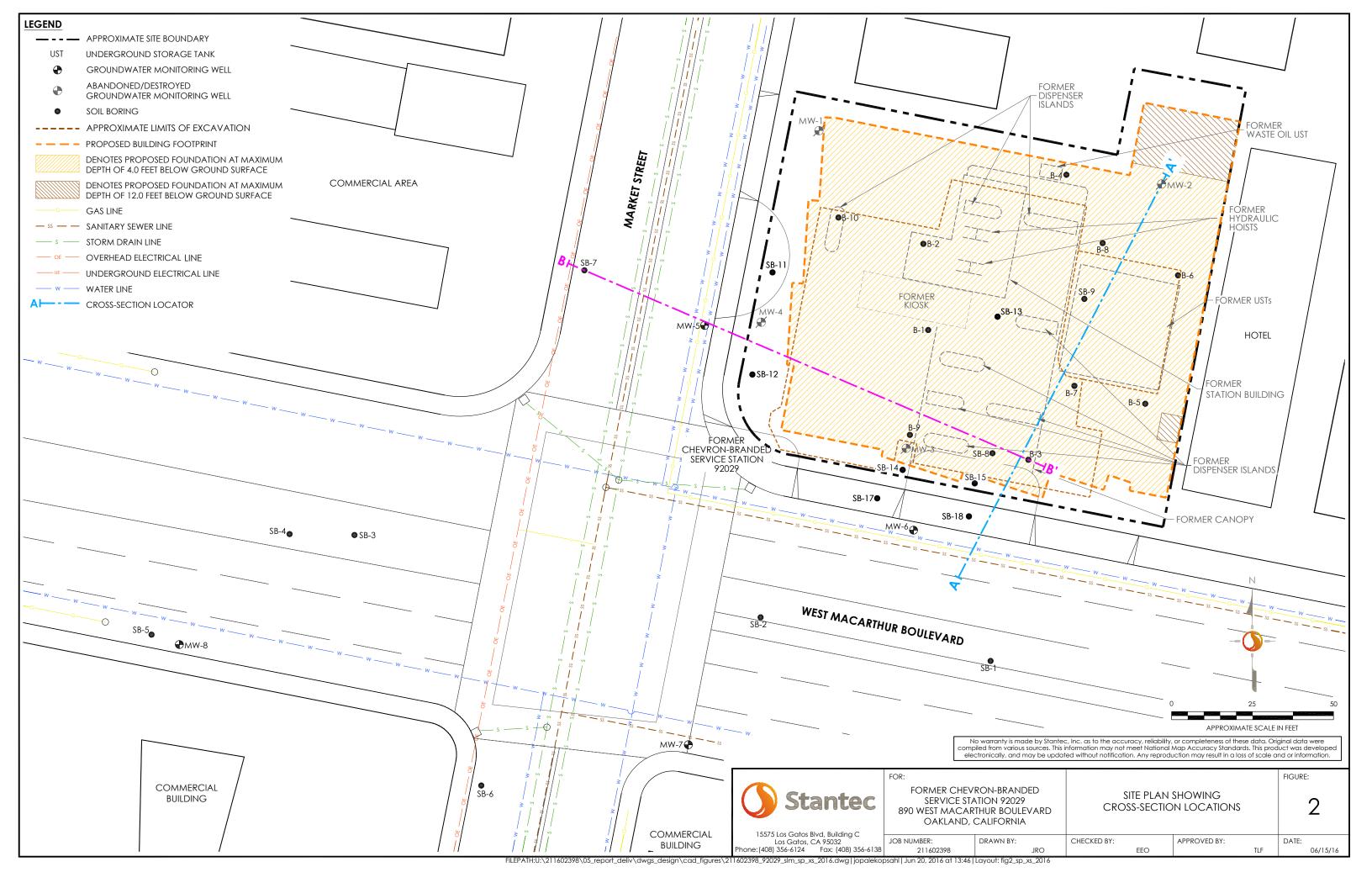
¹ Laboratory confirmed analytical result.

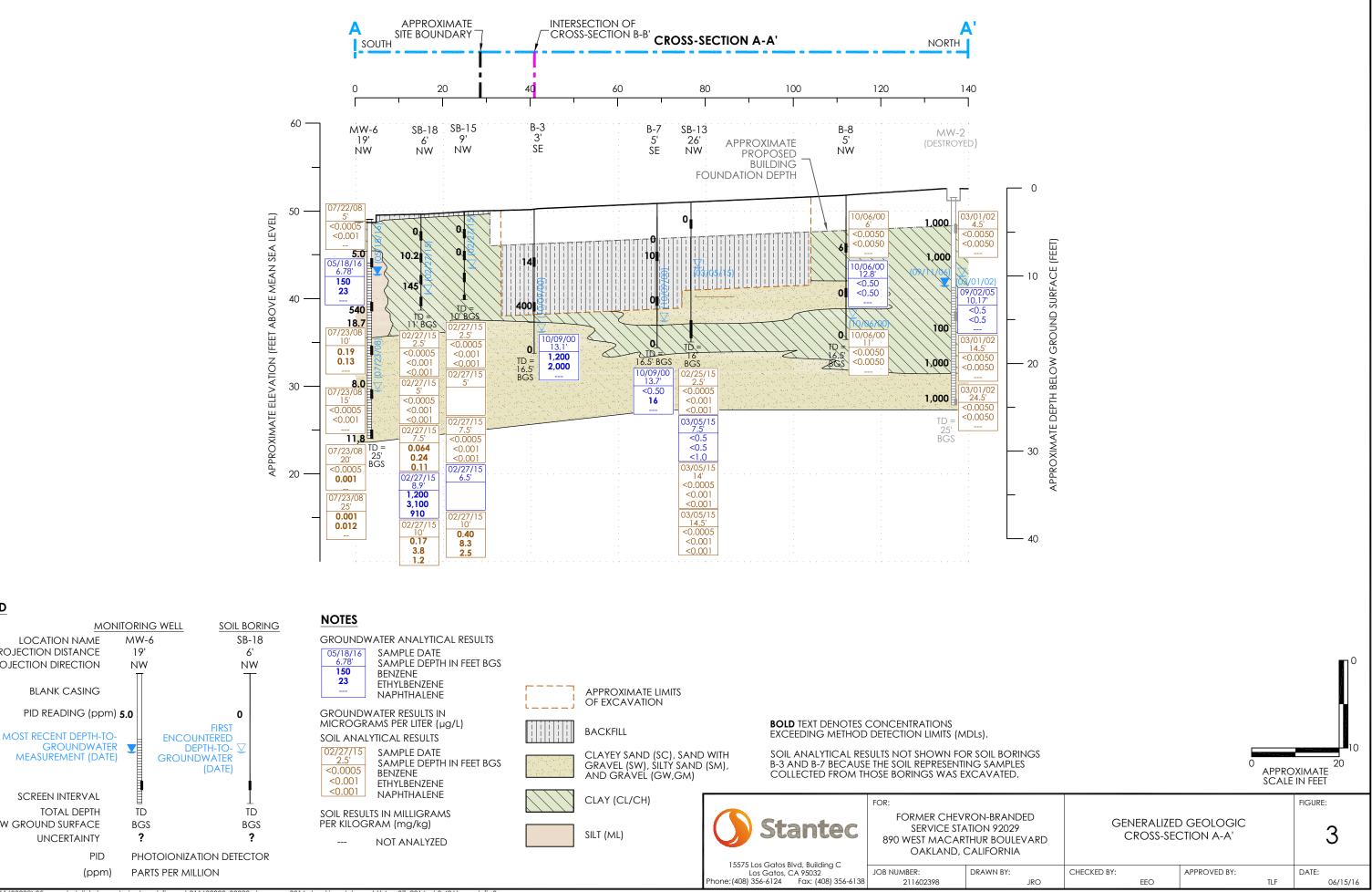
² Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

FIGURES



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UNCERTAINTY PID (ppm)

LEGEND

LOCATION NAME

BLANK CASING

SCREEN INTERVAL

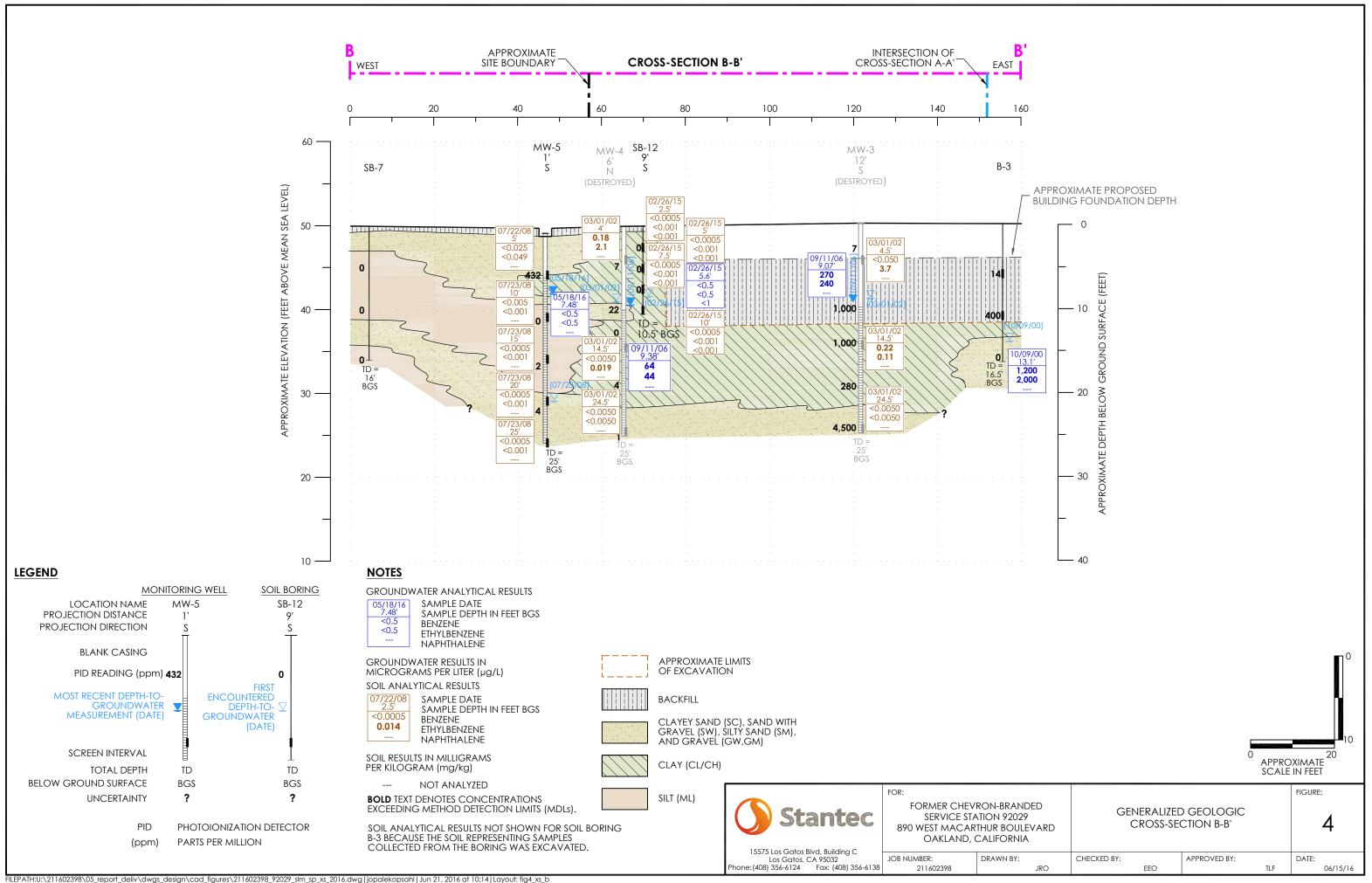
BELOW GROUND SURFACE

TOTAL DEPTH

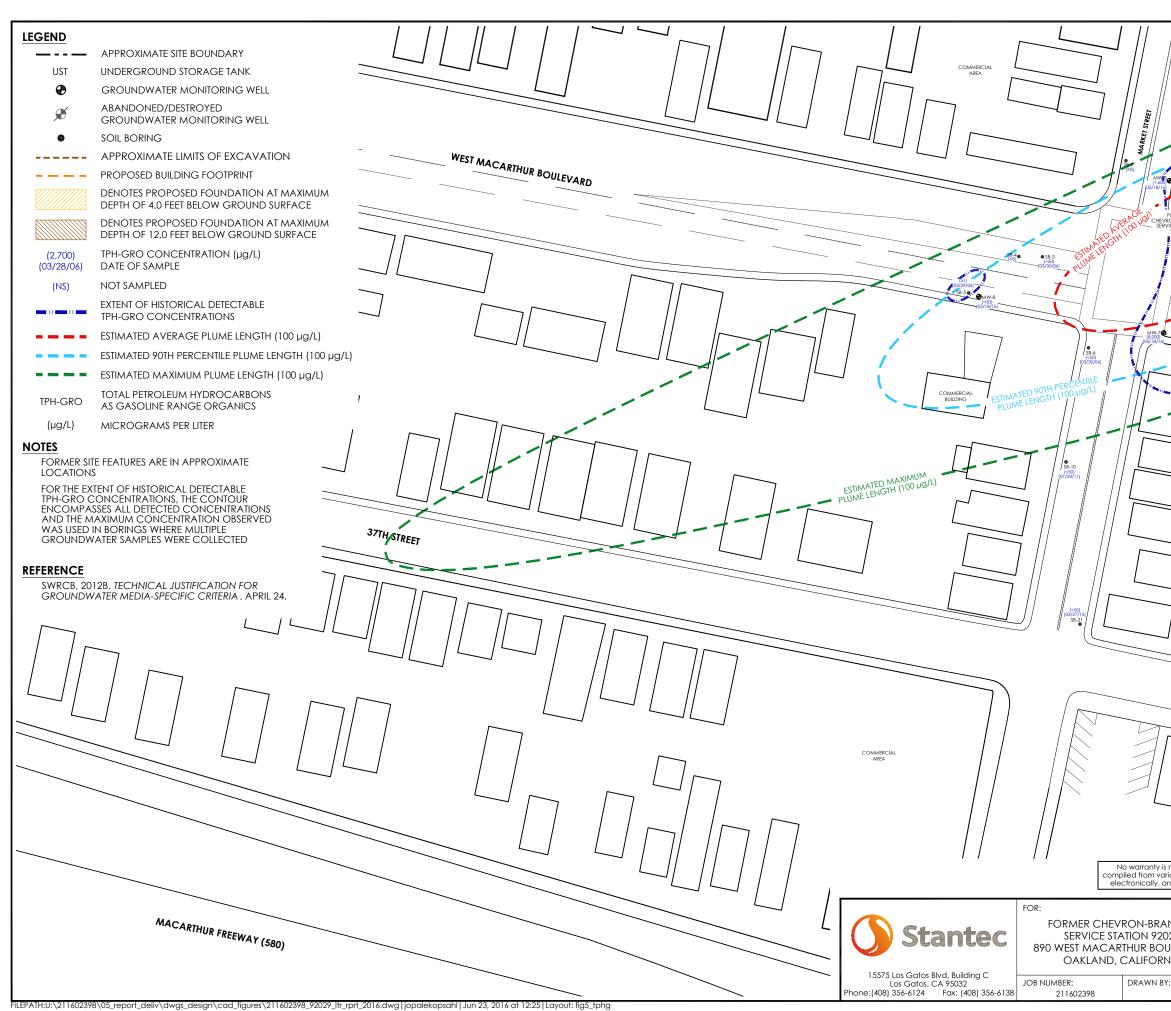
PROJECTION DISTANCE

PROJECTION DIRECTION

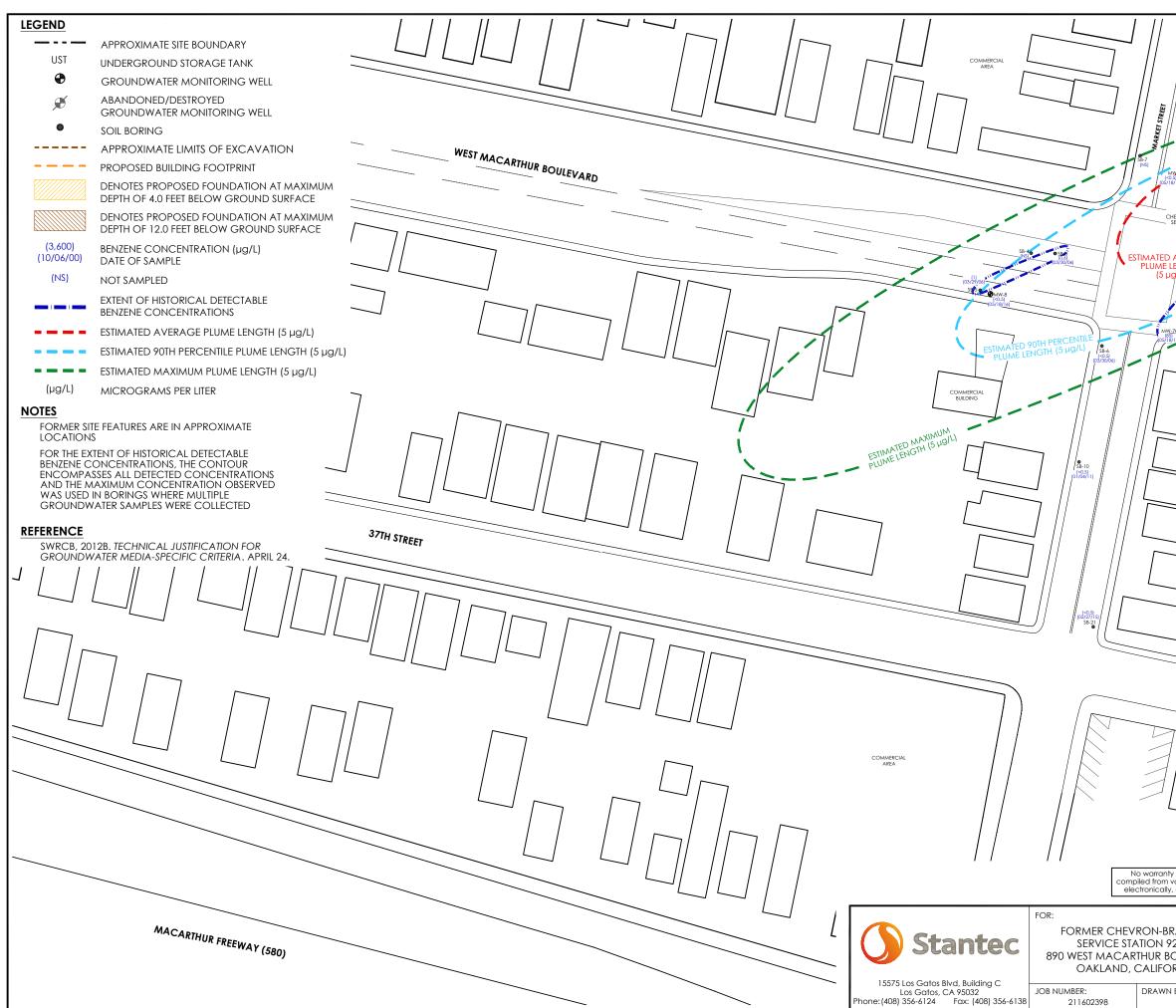
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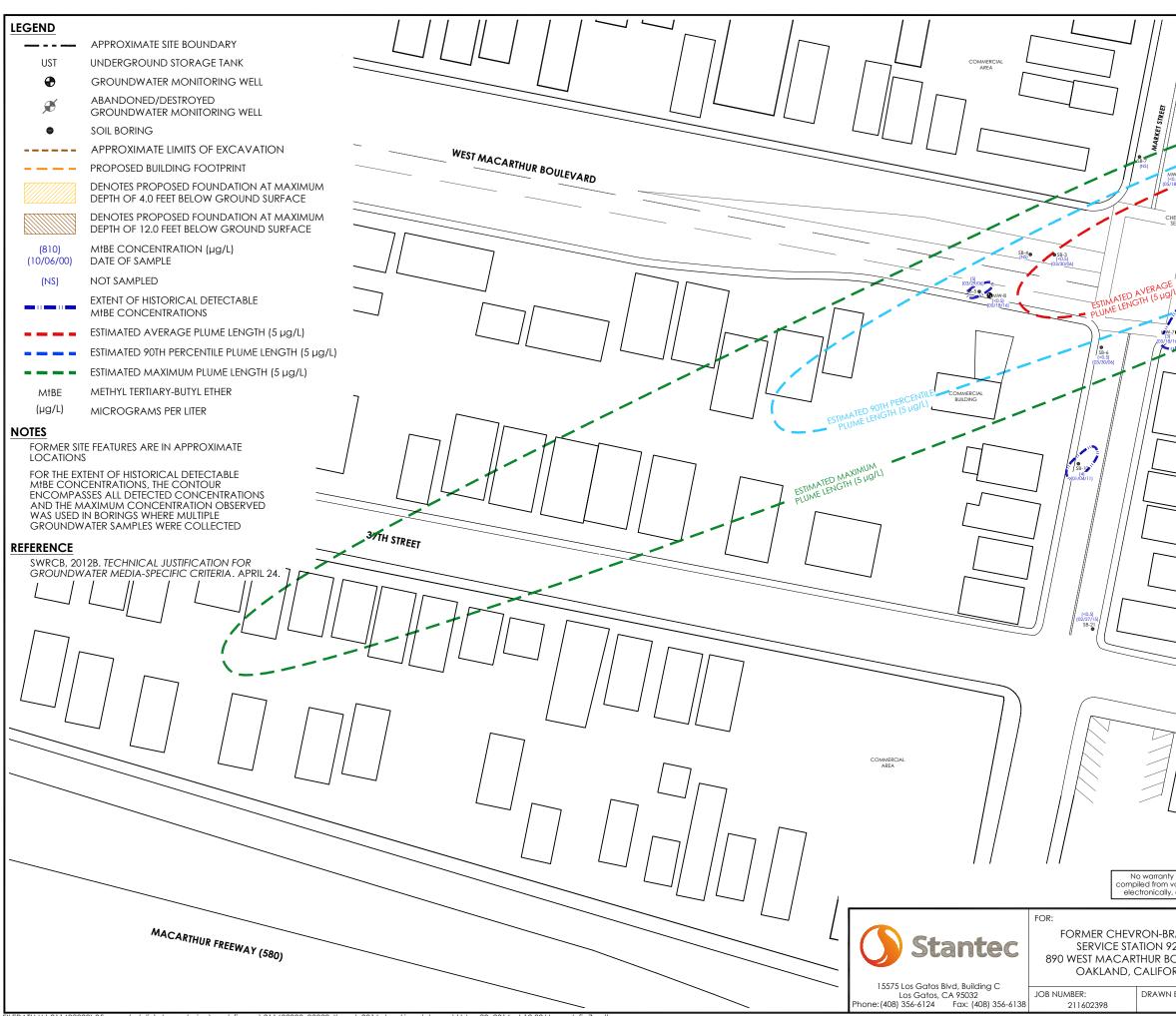
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ATTACHMENT A ACEH Correspondence, dated April 12, 2016

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



REBECCA GEBHART, Acting Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

April 12, 2016

Mr.Carryl MacLeod Chevron Environmental Management Co. 6101 Bollinger Canyon Road San Ramon, CA 94583 (sent via electronic mail to: <u>CMacleod@chevron.com</u>) WestMac LLCMr. Buyandalai Itgel1842 21 st Avenue787 Marlesta RoadSan Francisco, CA 94122Pinole, CA 94564(sent via electronic mail to:(sent via electronic mail to:gathconstruc@aol.com)teamspirit74@yahoo.com)and sokaneconst@hotmail.com

Subject: Request for Site Residential Redevelopment Analysis; Fuel Leak Case No. RO00002438; Chevron #9-2029 (Global ID #T0600173887), 890 MacArthur Blvd, Oakland, CA 94608

Dear Ms. MacLeod, WestMac LLC, and Mr. Itgel:

Alameda County Department of Environmental Health (ACDEH) would like to thank you for attending the April 8, 2016 meeting regarding the site. The meeting was requested in the October 29, 2015, directive letter to discuss the site with respect to the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP), and the pending redevelopment of the site as a residential complex. Specifically, ACDEH requested the meeting in order to understand the implications of the construction of an underground parking structure associated with the proposed residential redevelopment at the site. To allow the construction of the underground parking structure the site. As discussed, this effectively removes the separation distance between a potential receptor at the surface and residual contamination at the site.

As discussed during the meeting a vapor mitigation barrier is planned for the proposed development; however, consistent with Department of Toxic Substance Control (DTSC) guidance, ACDEH does not recognize mitigation as a stand-alone solution, but recognizes vapor mitigation as a part of a solution. As discussed in the meeting, in order to understand the effect of residual contamination to affect the proposed structure, ACDEH requests a site specific analysis that is tailored to the specific proposed redevelopment. The intent of the analysis is to efficiently communicate the scope of a redevelopment, including depth of excavations, remaining proposed residual contamination after excavation, if any, lateral extent of contamination, determine if data has been collected to evaluate sensitive pathways (elevator pits, etc), or potential sources areas with respect to the new site configuration. The tables and figures very quickly and efficiently indicate this to ACDEH and also facilitate communication with the public at the time of public notifications, as well as to future tenants.

Therefore, based on the review of the case file ACDEH requests that you address the following technical comments and send us the documents requested below.

TECHNICAL COMMENTS

Re-Development Tools - Due to significant redevelopment activities in Alameda County, ACDEH has developed a standard set of required figures and tables for sites with active redevelopment which have been successful at quickly conveying site data to ACDEH and project proponents, as well as to the general public at important junctures, such as at required public notifications prior to corrective actions or case closure. Due to the essentially imminent residential redevelopment of the site, ACDEH requests the site be analyzed with these tools. The generation of a Site Management Plan (SMP) can also be undertaken as the tools are expected to support the use of a SMP (see below). The tools include the following at a minimum:

Ms. MacLeod, WestMac LLC, and Mr. Itgel RO0002438 April 12, 2016, Page 2

- a. Plan Set In order to determine and support a level of protectiveness from any residual contamination at a site for future occupants or tenants, ACDEH requests the submittal of an electronic copy of the most recent existing development plan set (this may require Dropbox or another large file transfer program). ACDEH additionally requests that future site figures additionally depict <u>future building plot plans</u> relative to the excavation and media samples in order to quickly determine sample location and analytical data suitability for the planned future building. Typically this may require several figures to convey both historic and proposed future site plans relative to the same data. The intent is to convey the extent of removal of contamination due to historic site use areas, and the protectiveness of any residual contamination to future site uses.
- b. Cross-Sections In order to determine the vertical and lateral distribution of any residual contamination at a site, and determine the appropriateness of its location relative to the proposed development, ACDEH requests multiple cross-sections across a site, including more detailed investigation area cross-sections (source or residual contamination areas), that depict the excavation base elevation, historic and proposed foundation depth elevations, any proposed cut / fill lines, old soil bore locations along that cross section, depth-correct residual analytical proposed to remain below the foundation, depth of groundwater and any analytical data that documents residual groundwater contamination. Below the future proposed foundation elevation, lithology can be depicted if it plays an important role; however, one intent is to depict the location of residual contamination relative to the proposed building foundation / slab and the proposed lowest building level (or higher if appropriate), and proposed future use areas (commercial / residential / day care / senior care / etc.). Lithology or data above a proposed excavation depth can be removed as it won't be of consequence to the future development once excavated, but the analytical data will remain in the tables (see below). If proposed or existing infrastructure (utilities or similar, as determined by development plans, including those extending onsite from public right-of-ways) cross areas of contamination they are to be depicted in the cross sections in order to quickly convey the potential, or lack of the potential, to act as preferential pathways for contamination.
- **c. Data Tables -** Tables are requested to include all historic and current analytical data, with excavated soil (historic and / or future planned) indicated by shading or strike out (but still legible). If it is useful to distinguish between historic removed and proposed, the use of shadings may be appropriate. A column labeled "Depth Below Future Foundation" may be useful for sites with significant excavation and foundation depth interval changes. This column quickly conveys the depth of residual contamination relative to the new foundation, as well as the appropriateness of the use of ESLs at that location relative to the new foundation (see below).
- d. Non-Detectable Data Non-detectable tabulated analytical data is requested to be listed by individual chemical detection limit (<x), and highlighting / bolding of detections, or of non-detectable concentrations, over site goals (ESLs or other goals). This aspect can partly be combined with a professional signed statement that your consultant has reviewed all analytical data and has found it is below ESLs or other goals for the site.</p>
- e. Appropriate Use of ESLs If ESLs are identified as the remedial goals, the use of ESLs requires the recognition that ESLs assume a minimum distance of 10 feet between a receptor and groundwater concentrations, and a minimum distance of 5 feet between a receptor and a soil vapor concentrations. This may be important relative to future proposed foundation elevations. For example, a groundwater or a vapor sample at a site may have been 10 feet below grade surface (bgs) or 5 feet bgs, respectively, but may now be 2 ft below the foundation, and would not meet the 10 foot separation distance groundwater ESLs assume or 5 foot separation that vapor ESLs assume / require. This applies to horizontal distances as well as vertical distances.
- f. Project Schedule Where is the project in entitlement project planning, CEQA, building and planning department approvals, when construction is hoped to realistically begin, a realistic time frame for regulatory review (the standard is 60 days, but we'll try for 30 days or better if we can), when and what project proponents will need something in writing from ACDEH for financing, and recognition that if mitigation measures are involved closure cannot be provided

until a final installation confirmation and verification sampling report is submitted and reviewed (60 days). The submittal of a Gantt chart is appropriate so that we can all set realistic time frames, and incorporate changes as events and environmental discoveries occur.

- g. Mitigation Measures The requested analysis is expected to determine the extent that mitigation measures will be needed at the site. If mitigation measures are required, then the site will need a RAP and / or a HHRA to evaluate risk with and without mitigation measures (assuming no removal of residual contamination below or adjacent to the future foundation). Mitigation must be approved by ACDEH and then incorporated into the building plans, which requires coordination with ACDEH, the building department, and the consultant throughout the final plan approval to ensure changes made during building department or planning review do not conflict with ACDEH approved plans. This is a consistent issue ACDEH has had a redevelopment sites. All plan changes will also require a professional signed statement from the environmental consultant that the changes do not affect the proposed mitigation measures.
- h. Potential For Deed Restriction Because the site does not meet the LTCP Vapor Intrusion Media Specific criteria for the existing commercial land use, ACDEH has made the determination that due to the essentially imminent residential redevelopment, it is appropriate to evaluate the proposed site redevelopment as a part of this environmental case. Please be aware, that the SWRCB may at some point disagree and require that the site be closed to the existing use as a commercial property. With this potential outcome, ACDEH would require that the residential redevelopment be opened as a self-funded Voluntary Remedial Action Program (VRAP) case to continue to provide oversight. It is also possible that associated parties may determine that it is appropriate to move the site into the VRAP at a yet undetermined juncture in the future. Please be aware that with this change in programs, the Porter-Cologne Water Quality Act requires that any regulatory agency in California use a deed restriction / land use covenant (LUC) if contamination above identified goals (ESLs or other) is proposed to remain at a site. Deed restrictions can be detrimental to certain projects. LUCs take time to word, sign, and record at the County.

Thus it may be appropriate to remove any contamination above identified goals prior to site redevelopment, or provided that the extent is well characterized and is relatively limited in extent, removal of contamination can be conducted concurrent with site development with the use of a SMP at the time of redevelopment. Please be aware that a large removal is essentially a Corrective Action, and a 30 day public notification may be required per state requirements (affecting the Gantt chart inputs). Minor cleanup of contamination may not be a corrective action.

i. Site Management Plan – The generation of a robust SMP to deal with known limited contamination (volumes, destinations, etc.) or unexpected contamination found during redevelopment, dust management / monitoring for onsite and offsite receptors, stormwater, step-out contingency, discovery of potential USTs, such as a contingency for contact info with the ACDEH CUPA group, etc, may be appropriate.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with Attachment 1 and the following specified file naming convention and schedule:

• July 8, 2016 – Site Redevelopment Analysis File to be named: RO2438_MISC_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Ms. MacLeod, WestMac LLC, and Mr. Itgel RO0002438 April 12, 2016, Page 4

Online case files are available for review at the following website: <u>http://www.acgov.org/aceh/index.htm</u>. If your email address does not appear on the cover page of this notification, ACDEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Thank you for your cooperation. If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at <u>mark.detterman@acqov.org</u>.

Sincerely,

Digitally signed by Mark Detterman DN: cn=Mark Detterman, o=ACEH, ou=ACEH, email=mark.detterman@acgov.org, c=US Date: 2016.04.12 13:15:02 -07'00'

Mark E. Detterman, PG, CEG Senior Hazardous Materials Specialist

- Enclosures: Attachment 1 Responsible Party (ies) Legal Requirements / Obligations and Electronic Report Upload (ftp) Instructions
- cc: Travis Flora, Stantec Consulting Services, Inc, 15575 Los Gatos Blvd, Bldg C, Los Gatos, CA 95032 (sent via electronic mail to: <u>Travis.Flora@Stantec.com</u>)

Dan McGue, Paragon Real Estate Group, 1400 Van Ness Avenue, San Francisco, CA 94109 (sent via electronic mail to: <u>DanMcGue@paragon.re.com</u>)

Dilan Roe (sent via electronic mail to <u>dilan.roe@acgov.org</u>) Mark Detterman (sent via electronic mail to <u>mark.detterman@acgov.org</u>) Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please SWRCB visit the website for more information on these requirements (http://www.waterboards.ca.gov/water issues/programs/ust/electronic submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alemente County Fravino na ontol Cleanum	REVISION DATE: May 15, 2014
Alameda County Environmental Cleanup	ISSUE DATE: July 5, 2005
Oversight Programs (LOP and SLIC)	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Please <u>do not</u> submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection.
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- Do not password protect the document. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. Documents with password protection <u>will not</u> be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to <u>deh.loptoxic@acgov.org</u>
 - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to http://alcoftp1.acgov.org
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to <u>deh.loptoxic@acgov.org</u> notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B Estimated Project Schedule

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	3	Forming, rebars, retaining wall, piers, concrete placement	Thu 12/1/16	Tue 2/28/17			Ľ	
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ATTACHMENT C SWRCB LTCP Checklist

Site meets the criteria of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.¹

General Criteria	
General criteria that must be satisfied by all candidate sites:	
Is the unauthorized release located within the service area of a public water system?	🗷 Yes 🗆 No
Does the unauthorized release consist only of petroleum?	🗷 Yes 🗆 No
Has the unauthorized ("primary") release from the UST system been stopped?	🗷 Yes 🗆 No
Has free product been removed to the maximum extent practicable?	🗆 Yes 🗆 No 🗷 NA
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	⊠ Yes □ No
Has secondary source been removed to the extent practicable?	🗷 Yes 🗆 No
Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?	🗷 Yes 🗆 No
Does nuisance as defined by Water Code section 13050 exist at the site?	🗆 Yes 🗷 No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	□ Yes 🗷 No
Media-Specific Criteria Candidate sites must satisfy all three of these media-specific criteria:	
1. Groundwater: To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:	
To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent,	⊠ Yes □ No □ NA
To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites: Is the contaminant plume that exceeds water quality objectives stable	⊠ Yes □ No □ NA ⊠ Yes □ No □ NA
To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites: Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent? Does the contaminant plume that exceeds water quality objectives meet	

¹ Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?	□Yes □No ⊠NA
2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.	
Is the site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	□ Yes ⊠ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?	⊡Yes ⊠ No ⊡ NA
If YES, check applicable scenarios:	
b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?	□ Yes 🗷 No □ NA
C. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	🗶 Yes 🗆 No 🗆 NA
3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?	⊠ Yes □ No □ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	□Yes □No ⊠NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?	□Yes □No ⊠NA