

June 25, 2015

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Mr. Keith Nowell
Alameda County Health Care Services Agency
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Subject: **Data Gap Investigation Workplan and Site Conceptual Model**
3101 35th Avenue, Oakland, CA
Fuel Leak Case No. RO0003164; Global ID T10000006539

Dear Mr. Nowell,

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached *Data Gap Workplan and Site Conceptual Model* are true and correct to the best of my knowledge.

Sincerely,



Ms. Mona Hsieh
Responsible Party Representative



***Data Gap Investigation Workplan
And Site Conceptual Model***

**3101 35th Avenue
Oakland, California**

June 25, 2015

Prepared for:

Green Oak Builders
Attn: Ms. Mona Hsieh & Mr. Patrick Kong
888 Brannan Street, #101
Oakland, CA 94103

Prepared by:

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407 Almar Avenue
Santa Cruz, California 95060

TABLE OF CONTENTS	Page No.
1.0 INTRODUCTION	1
2.0 SITE INFORMATION	1
2.1 Physical Setting	1
3.0 DATA GAP INVESTIGATION.....	3
3.1 General Criteria.....	3
3.2 Media-Specific Criteria	4
4.0 PROPOSED SOIL AND WATER INVESTIGATION SCOPE OF WORK	5
4.1 Task 1: Regulatory Liaison, Permitting, and Project Management	5
4.2 Task 2: Drilling and Soil Sampling	5
4.3 Task 3: Groundwater Sampling	6
4.4 Task 4: Laboratory Analysis – Soil and Groundwater Samples.....	6
4.5 Task 5: Backfilling of Borings	6
5.0 PROPOSED SOIL GAS INVESTIGATION SCOPE OF WORK.....	7
5.1 Task 6: Regulatory Liaison, Permitting, and Project Management	7
5.2 Task 7: Boring and Construction of Soil Gas Sampling Points	7
5.3 Task 8: Purging and Sampling of Soil Gas Sampling Points	7
5.4 Task 9: Laboratory Analysis - Soil Gas Sampling Points.....	7
5.5 Task 10: Wastewater and Soil Disposal	8
5.6 Task 11: Reporting	8
6.0 TIMELINE	8
7.0 CERTIFICATION AND DISTRIBUTION.....	9
8.0 REFERENCES	9

FIGURES

- Figure 1 – Site Vicinity Map
- Figure 2 – Aerial Photograph of Site Area
- Figure 3 – Detailed Site Map
- Figure 4 – Detailed Site Map Showing Historical Sampling Locations

TABLES

- Table 1A – Summary of Historical VOC and Hydrocarbon Soil Analytical Data
- Table 1B – Summary of Historical PAHs Soil Analytical Data
- Table 1C – Summary of Historical Metals Soil Analytical Data

APPENDICES

- Appendix A ACHCSA Directive Letters – April 14, 2015 & May 18, 2015
- Appendix B Initial Site Conceptual Model
- Appendix C Client Transmittal Letter

1.0 INTRODUCTION

Almar Environmental (Almar) appreciates the opportunity to work on the 3101 35th Avenue project in Oakland, California (Figures 1 through 3). Almar has been retained by Green Oak Builders to prepare and implement this *Data Gap Investigation Workplan and Site Conceptual Model* for the subject site. In separate Directive Letters dated April 14 and May 18, 2015 (Appendix A) the Alameda County health Care Services Agency (ACHCSA) indicated that the subject case does not currently qualify for closure under the State Water Resources Control Board's (SWRCB's) Low Threat Closure Policy (LTCP) because significant data gaps, including a Site Conceptual Model (SCM), remain unaddressed for the case. Herein, Almar identifies and addresses those data gaps, presents a series of tasks to close those gaps, and presents an initial SCM for the subject site.

2.0 SITE INFORMATION

The project site is located at 3101 35th Avenue in the city of Oakland, California (Figure 1). The site consists of a roughly rectangular property associated with Alameda County Assessor's parcel number 28-951-12-1. The site is located on the northern corner of the intersection of 35th Avenue and School Street. An Aerial Photograph of the Site Area is included as Figure 2 and a detailed Site Map is included as Figure 3.

2.1 Physical Setting

Based on the U.S. Geological Survey Oakland East, California Quadrangle 7.5 Minute Series Topo Map, the subject property is approximately 160 feet (ft) above mean sea level (msl). The topographic slope of the subject property and surrounding areas is generally to the west, towards the San Francisco Bay (Figure 1).

According to the *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*, the site lies upon Pleistocene alluvial fan and fluvial deposits (Qpaf) (Graymer, 1996). Site specific soils, encountered during tank removal activities were described by the tank removal contractor as predominantly silty, low plasticity clays (CL) from the ground surface to approximately two feet below ground surface (bgs). From approximately two feet to the total depths explored (approximately 10 feet bgs) soils consisted of clayey sand (SC) to sandy clay (CL) with some gravels (ERS, 2015).

The nearest surface water to the site is the seasonal Peralta Creek, located approximately 800 feet north and north west of the subject site. The larger San Francisco Bay is located approximately 2.5 miles west of the site (Figure 1). Based upon topography of the area, regional groundwater flow is expected to be to the west/southwest (towards the San Francisco Bay). Site specific groundwater data is unavailable. However, an active leaking underground storage tank case is located directly across School Street from the subject site (Figure 2). The site is a former Exxon Service Station associated with 3055 35th Avenue (ACHCSA Case #RO0000271). Significant groundwater studies have been conducted at this site, including over 50 groundwater monitoring events since 1999. During the most recent groundwater monitoring event conducted at this site, static groundwater was encountered at between 12 and 16 feet bgs and has been shown to consistently flow in a west to west by southwest direction (Weber Hayes, 2013).

2.2 Site History

The subject site appears to have operated as a gasoline service station from at least 1929 until the early 1980s. In the later years the service station was owned and operated by Texaco. Texaco sold the property in 1982. It appears that USTs associated with the former Texaco station were previously located near the southern corner of the property (Figure 3) and were removed sometime prior to 1982. From the mid 1980s until the late 1990s the site was an auto parts sales and auto glass repair facility. The building and associated canopy appear to have remained unoccupied from at least 1995 until the buildings were demolished in 2014. The property is currently a vacant lot surrounded by a chain link fence.

2.3 Summary of Previous Environmental Investigations

Phase I Environmental Site Assessment (ESA) – January, 2005

On January 31, 2005 as part of a property transfer, a Phase I ESA was prepared for the subject site by Martin & Associates of Oakland, California (Martin). Part of the conclusions of that report found:

“No evidence of (current) storage tanks or pipelines was identified. Former USTs were reportedly removed when gasoline service station activities were discontinued in the early 1980s. No further action or investigation is recommended regarding storage tanks or pipelines at the project.”

Based upon these findings and recommendations, the current property owner proceeded with purchasing the property.

Phase I Environmental Site Assessment (ESA) – October, 2014

On October 3, 2014 a second Phase I ESA, as part of a loan process, was prepared for the subject site by Piers Environmental Services, Inc. of Mill Valley, California (Piers). Part of the conclusions of that report found:

*This assessment has revealed evidence of a **Recognized Environmental Condition (REC)** from the prior use of the Property. The Property operated as a gasoline service station from at least 1929 to 1982, apparently with several generations of tank locations.*

*The gasoline service station closed before environmental regulations existed that required the tanks to be removed and inspected by the regulatory agencies. PIERS was unable to obtain any information concerning tank removals. **Therefore, PIERS recommends performing a geophysical survey in the known tank locations to determine if the tanks have been removed.***

A groundwater monitoring well, MW-6, from an adjacent down-gradient LUST case at 3055 35th Avenue has detected 1,800 parts per billion (ppb) of Total Petroleum Hydrocarbons (TPH) as gasoline and 230 ppb of benzene, significantly above the Water Quality Objective of 1,000 ppb and one ppb, respectively.

*PIERS contacted Mr. Keith Nowell of the ACEH regarding the 3055 35th Avenue LUST case and the consultant’s claim that, based on well MW-6 in front of the Property, contamination from the Property was migrating to the 3055 35th site. **Therefore, PIERS recommends conducting a limited soil and groundwater site investigation to determine if the gasoline and benzene concentrations detected in well MW-6 are due to an on-site source of contamination from the Property.***

A Phase II investigation of soil and groundwater conditions and additional effort to determine if there are any tanks remaining at the Property should be completed.

UST Removal Activities – January, 2015

Based upon the findings of the Piers Phase I ESA, an underground survey of the property was conducted and three (3) 350 gallon USTs were identified on the property. Two of the tanks contained gasoline and were located along the western property boundary, along School Street. The third tank was a waste oil tank located near the center of the property. The tank locations are shown on Figure 3. The tanks were subsequently removed under permit by Environmental Restoration Services of Menlo Park, California (ERS). Confirmation soil samples were collected by ERS from below each of the former tanks and the two associated former pump island locations. Elevated concentrations of Total Petroleum Hydrocarbons as gasoline (TPHg) were detected in soil samples collected from below the former western most pump island (Table 1A and Figure 4). A detailed summary of the tank removal and initial sampling activities is documented in ERS's *Underground Tank Technical Closure Report*.

Interim Remedial Action by Overexcavation – April, 2015

Based upon the findings of the elevated hydrocarbon concentrations documented during the tank removal activities, ERS prepared and implemented an *Interim Remedial Action Workplan* for the subject site. Interim remedial activities consisted of overexcavated hydrocarbon impacted soils in the area of the former dispenser location. In total, approximately 25 cubic yards of non-hazardous petroleum impacted soils were excavated and transported to Newby Island Landfill under non-hazardous manifests. Interim remedial activities are documented in ERS's *Report of Interim Remedial Action*.

3.0 DATA GAP INVESTIGATION

In order for the case to qualify for closure under the SWRCB's LTCP, all general and media-specific criteria of the policy must be met. In the following sections each criteria of the LTCP is addressed and any remaining data gaps are identified. If any data gaps remain, proposals to close those gaps are included.

3.1 General Criteria

There are eight specific general criteria (identified as a through h) of the LTCP that must be satisfied prior to closure. The following is a list of each of these eight criteria and whether they have been satisfied or not:

- a. The unauthorized release is located within the service area of a public water system.
 - Yes, this criteria has been met.
- b. The unauthorized release consists only of petroleum.
 - Yes, this criteria has been met. The main constituent of concern (COC) appears to be TPHg.
- c. The unauthorized ("primary") release from the UST system has been stopped.
 - Yes, this criteria has been met. All known USTs and associated pipes and appurtenant structures have been removed.

- d. Free product has been removed to the maximum extent practicable.
 - Yes, this criteria appears to have been met as no free product was encountered during tank removal or initial soil sampling activities. However, it should be noted that site specific groundwater conditions have not yet been addressed. Groundwater specific criteria is considered data gap #1 and is addressed in Section 3.2.
- e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed. Free product has been removed to the maximum extent practicable.
 - Yes, an initial site conceptual model (SCM) for the project has been prepared for the site as part of this Workplan. The SCM is presented in Appendix B. As additional investigations are completed and/or more data becomes available the SCM will be updated as warranted.
- f. Secondary source has been removed to the extent practicable.
 - “Secondary source” is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. It appears that secondary source in soil has been removed as documented in the IRAP prepared by ERS. However, as noted above, groundwater conditions have not yet been addressed. Groundwater specific criteria is considered data gap #1 and is addressed in Section 3.2.
- g. Soil and groundwater have been tested for MtBE and results reported in accordance with Health and Safety Code section 25296.15.
 - Soil samples collected from the site have been tested for MtBE. MtBE was not detected above laboratory test limits in any of the samples submitted for analysis (Table 1A). However, as noted above, groundwater conditions have not yet been addressed. Groundwater specific criteria is considered data gap #1 and is addressed in Section 3.2.
- h. Nuisance as defined by Water Code section 13050 does not exist at the site.
 - No nuisances as defined by the policy are known to exist at the site.

3.2 Media-Specific Criteria

To simplify implementation, the LTCP has identified three media-specific criteria which must be addressed and satisfied. The three media-specific criteria are: 1.) Groundwater, 2.) Vapor Intrusion to Indoor Air, and 3.) Direct Contact and Outdoor Air Exposure. Each of these three criteria are addressed below.

1.) Groundwater-Specific Criteria

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 groundwater sites listed in the LTCP. Which of the five classes the site falls under is determined by plume length, free product status, the location of the nearest water supply well or surface water body, and the dissolved concentrations of benzene and MtBE. However, no site-specific groundwater investigations have been conducted at the site to date. This lack of groundwater data is data gap #1. To address this data gap Almar is presenting a specific set of tasks,

which once approved and implemented, will address the current groundwater conditions at the site. These tasks are presented as a proposed soil and water investigation in Section 4.0 of this workplan.

2.) Petroleum Vapor Intrusion to Indoor Air

Exposure to petroleum vapors migrating from soil or groundwater to indoor air may pose unacceptable human health risks. Because buildings for human occupancy (residential) are reasonably expected to be constructed in the future the vapor intrusion risks to indoor air must be addressed. According to Scenario 4 of the LTCP potential vapor intrusion to indoor air may be addressed by collected soil gas samples from the subsurface bioattenuation zone. To date, no soil gas samples have been collected at the site, this is data gap #2. To address this data gap Almar has outlined a specific set of tasks, which once implemented will address this soil gas data gap. The proposed scope of work is presented in Section 5.0.

3.) Direct Contact and Outdoor Air Exposure

The LTCP describes conditions where direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air poses a low threat to human health. Table 1 of the LTCP describes concentrations of constituents (specifically, benzene, ethylbenzene, naphthalene, and PAHs) in soil that will have no significant risk of adversely affecting human health. Several subsurface samples collected during tank removal and overexcavation activities conducted by ERS were analyzed for these specific constituents of concern. None of the subsurface samples were found to contain concentrations exceeding those described in Table 1 of the LTCP (see tables 1A and 1B). Therefore, this condition of the LTCP has been satisfied.

4.0 PROPOSED SOIL AND WATER INVESTIGATION SCOPE OF WORK

To satisfy the groundwater-specific data gap #1 described in Section 3.3, Almar proposes to conduct a soil and water investigation at the subject site. The investigation will, in general, consist of the collection of soil and “grab” groundwater samples from a total of up to five (5) temporary borings at the subject site. The borings will be referred to as DP-1 through DP-5. A site map showing the proposed boring locations is included as Figure 5. The rationale for the proposed boring locations is based on locations of important site features, historical sampling data, and the assumed groundwater flow direction (i.e., to the west). The actual number and/or locations of the borings may be moved in the field at the discretion of the field geologist based upon encountered subsurface conditions.

4.1 Task 1: Regulatory Liaison, Permitting, and Project Management

Almar will represent the client with regulatory agencies and onsite businesses or residences in meetings and/or communications. A representative of Almar will also coordinate, oversee, and/or conduct all activities detailed in this Workplan. Almar will obtain the appropriate subsurface drilling permit from the ACHCSA. As required by law, Almar will mark the subject property and notify Underground Service Alert (USA) to clear the proposed boring locations of underground utilities prior to drilling activities. A Health and Safety Plan (HASP) will be prepared, maintained onsite, and will comply with 29 CFR 1910.120 and Cal OSHA regulations.

4.2 Task 2: Drilling and Soil Sampling

Soil borings will be drilled by a C57 licensed driller under the direction of a licensed State of California Professional Geologist. As required by law, the top five (5) feet of each boring will be dug by hand to

ensure that underground utilities are not encountered. Following hand clearing, a truck-mounted Geoprobe™ direct-push sampling rig capable of continuous core soil sampling will be used to drill each of the proposed borings (DP-1 through DP-5). The Geoprobe™ will direct-push (hammer) a 2-inch diameter steel Macrocore barrel until groundwater is first encountered (estimated 15 - 20 ft bgs). The core barrels will be lined with clear plastic disposable tubing to facilitate continuous soil coring and soil logging for description. Soils will be logged using the United Soil Classification System (USCS). Soil samples will be collected at five (5) foot intervals, where contamination is observed in the field, and at the soil-groundwater interface. A minimum of two (2) soil samples from each boring will be retained for laboratory analysis. All soil samples will be collected by cutting the desired section of disposable plastic tubing, sealing the ends of the tube with Teflon™ tape, and capped. The caps will be sealed with silicone tape, labeled, sealed in individual plastic bags, and placed in a pre-chilled ice chest with ice to remain at 4° Celsius (°C) until they arrive at the lab.

Soil cuttings generated during drilling operations will be contained 55-gallon drums and remain on site. Water used in the decontamination and cleaning of drilling equipment will also be stored on site in 55-gallon drums.

4.3 Task 3: Groundwater Sampling

Once groundwater is encountered in each of the borings, and a sufficient amount is present for sampling, the Macrocore sampler will be removed from the boring, and a temporary flush threaded, ¾-inch schedule 40 polyvinyl chloride (PVC) casing will be placed within the boring. The bottom cap will be flush threaded, and based on previously observed conditions, the screened casing will be 0.010-inch slots. Groundwater samples will then be collected from the temporary casing using a disposable polyethylene bailer or a peristaltic pump.

Each groundwater sample will be collected in laboratory supplied EPA Testing Method approved containers, labeled, sealed in individual plastic bags, and placed in a pre-chilled ice chest with ice to remain at 4 degrees Celsius (°C) until they arrive at the lab. Samples will be properly decanted into 40 ml VOAs using bailer attachments to minimize agitation of the sample. Samples collected in VOAs will be checked for headspace. VOA vials will be ordered with hydrochloric acid preservative and amber liters without preservatives. Typically, three VOAs will be collected for each groundwater sample.

4.4 Task 4: Laboratory Analysis – Soil and Groundwater Samples

Once all soil and groundwater samples are collected and appropriately packed, they will be transported, observing formal chain-of-custody (COC) procedures to a State of California-certified testing laboratory. All soil and groundwater samples will be collected and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA Test Method 8015 and benzene, toluene, ethylbenzene, xylenes (BTEX), MtBE and naphthalene by EPA Test Method 8260b.

4.5 Task 5: Backfilling of Borings

Once all soil and groundwater samples are collected, each temporary boring will be backfilled with neat cement grout. The backfilling procedures will be witnessed by a representative of the ACHSA as dictated by the permit.

5.0 PROPOSED SOIL GAS INVESTIGATION SCOPE OF WORK

To satisfy the petroleum vapor intrusion to indoor air data gap #2 described in Section 3.3, Almar proposes to conduct a soil gas investigation at the subject site. The investigation will, in general, consist of the collection of soil gas samples from a total of three (3) semi-permanent soil gas sampling points at the subject site. The sample points will be referred to as SG-1 through SG-3. A site map showing the proposed boring locations is included as Figure 5. The rationale for the proposed boring locations is based on locations of important site features, historical sampling data, and the assumed groundwater flow direction (i.e., to the west). The exact locations of the borings may be moved in the field at the discretion of the field geologist based upon encountered subsurface conditions.

5.1 Task 6: Regulatory Liaison, Permitting, and Project Management

Almar will represent the client with regulatory agencies and onsite businesses or residences in meetings and/or communications. A representative of Almar will also coordinate, oversee, and/or conduct all activities detailed in this Workplan. Almar will obtain the appropriate subsurface drilling permit from the ACHCSA. As required by law, Almar will mark the subject property and notify Underground Service Alert (USA) to clear the proposed boring locations of underground utilities prior to drilling activities. A Health and Safety Plan (HASP) will be prepared, maintained onsite, and will comply with 29 CFR 1910.120 and Cal OSHA regulations.

5.2 Task 7: Boring and Construction of Soil Gas Sampling Points

Almar will advance three borings (SG-1 through SG-3) in general accordance with the Department of Toxic Substance Control's (DTSC's) guidelines for Active Soil Gas Investigations. The borings will be advanced with either a direct-push geoprobe rig or by hand auger to approximately 5.5 ft bgs at the locations shown on Figure 5. Almar will then place ¼-inch diameter Teflon tubing attached to a polyethylene vapor implant to 5.0 ft bgs; install a sand pack of #2/12 or #2/16 sand adjacent to the soil-gas implant within the borings from 5.5 to 4.5 feet bgs; place approximately 12-inches of dry granular bentonite above the sand pack, followed by a hydrated bentonite seal to the ground surface. The seal should minimize ambient air from the atmosphere from intruding into the area of the polyethylene probe. A traffic-rated box (or equivalent) will be placed at the surface of each boring to protect the sample points.

5.3 Task 8: Purging and Sampling of Soil Gas Sampling Points

In general accordance with the DTSC's guidelines for Active Soil Gas Investigations, WTI will sample each of the newly installed soil gas sampling points a minimum of 72 hours after installation. Prior to sampling, Almar will purge the Teflon tubing and the voids within the sand-pack and granular bentonite portions of each soil-gas sampling point of three volumes of air using a 60 ml syringe or a SUMA[®] canister (purge canister) and will collect soil gas samples at a flow rate less than 200 milliliters per minute in either one or six liter laboratory-supplied evacuated sample-collection SUMA[®] canisters. Sampling will be aborted if soil gas flow rates are less than 10 ml/minute, or vacuum exceeds 10-in of mercury. Each soil-gas sampling point will be sampled in a Helium enriched atmosphere. The Helium will provide a quantifiable method (inert tracer) to ensure that representative soil gas samples are collected from each well.

5.4 Task 9: Laboratory Analysis - Soil Gas Sampling Points

Soil gas samples collected from the soil gas sampling points will be analyzed at California State-certified laboratory. Each sample will be analyzed for TPHg and VOCs by EPA Test TO-15, percent oxygen, and helium. The samples will be transported to the contract laboratory under chain-of-custody-record, within

a dark ambient temperature container (Suma® canister). An electronic deliverable report (EDF) will be requested in addition a PDF copy of the certified laboratory report of the results for the soil gas sample testing work order.

5.5 Task 10: Wastewater and Soil Disposal

Drill cuttings and decontamination water produced from drilling and sampling activities will be temporarily stored on-site in properly labeled and secured 55-gallon Department of Transportation (DOT) steel drums. The drums will remain on-site and are the responsibility of the client.

5.6 Task 11: Reporting

A written report documenting both the soil, water, and soil gas sampling work performed will be provided by Almar approximately two (2) weeks following completion of the field work and receipt of the laboratory results. The report will include field sheets, boring logs, laboratory data, etc. The report will contain the appropriate conclusions and recommendations based upon the conditions encountered in the field and the laboratory analytical results. The report will be signed and stamped by a registered professional.

6.0 TIMELINE

The following is an estimated timeline to complete the tasks outlined in Sections 4.0 and 5.0:

Tasks 1 and 6 – Will be completed within two (2) weeks of regulatory approval of this Workplan.

Tasks 2, 3, and 7 – Will take place within two (2) weeks of receipt of the required permit from the ACHCSA (Task 1). Almar expects these tasks to be completed in one business day.

Task 4 – Will occur two weeks following completion of Tasks 2 and 3.

Task 5 – Will be completed the same day as Tasks 2 and 3.

Task 8 – Will be completed a minimum of 72 hours after task 7.

Task 9 – Will be completed within one week of completion of task 8.

Task 10 – Is the responsibility of the client.

Task 11 – Will be completed no more than two (2) weeks following receipt of all laboratory analytical data.

7.0 CERTIFICATION AND DISTRIBUTION

To the best of our knowledge, all statements made in this workplan are true and correct. This workplan is based on data provided by the client and others, site conditions observed, samples collected and analytical data. No warranty whatsoever is made that this workplan addresses all contamination found on the site.

Respectfully submitted,



Forrest N. Cook
Owner/Principal Scientist
Almar Environmental
California Professional Geologist #8201 (exp 9/16)

CC:

Mr. Keith Nowell
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Alameda, CA 94502-6577
keith.nowell@acgov.org

8.0 REFERENCES

Environmental Restoration Services. January 27, 2015. *Underground Tank Technical Closure Report*. 3101 35th Avenue, Oakland, California.

Environmental Restoration Services. May 6, 2015. *Report of Interim Remedial Action*. 3101 35th Avenue, Oakland, California.

Graymer, R.W. 1996. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*. U.S. Geological Survey, Menlo Park, CA.

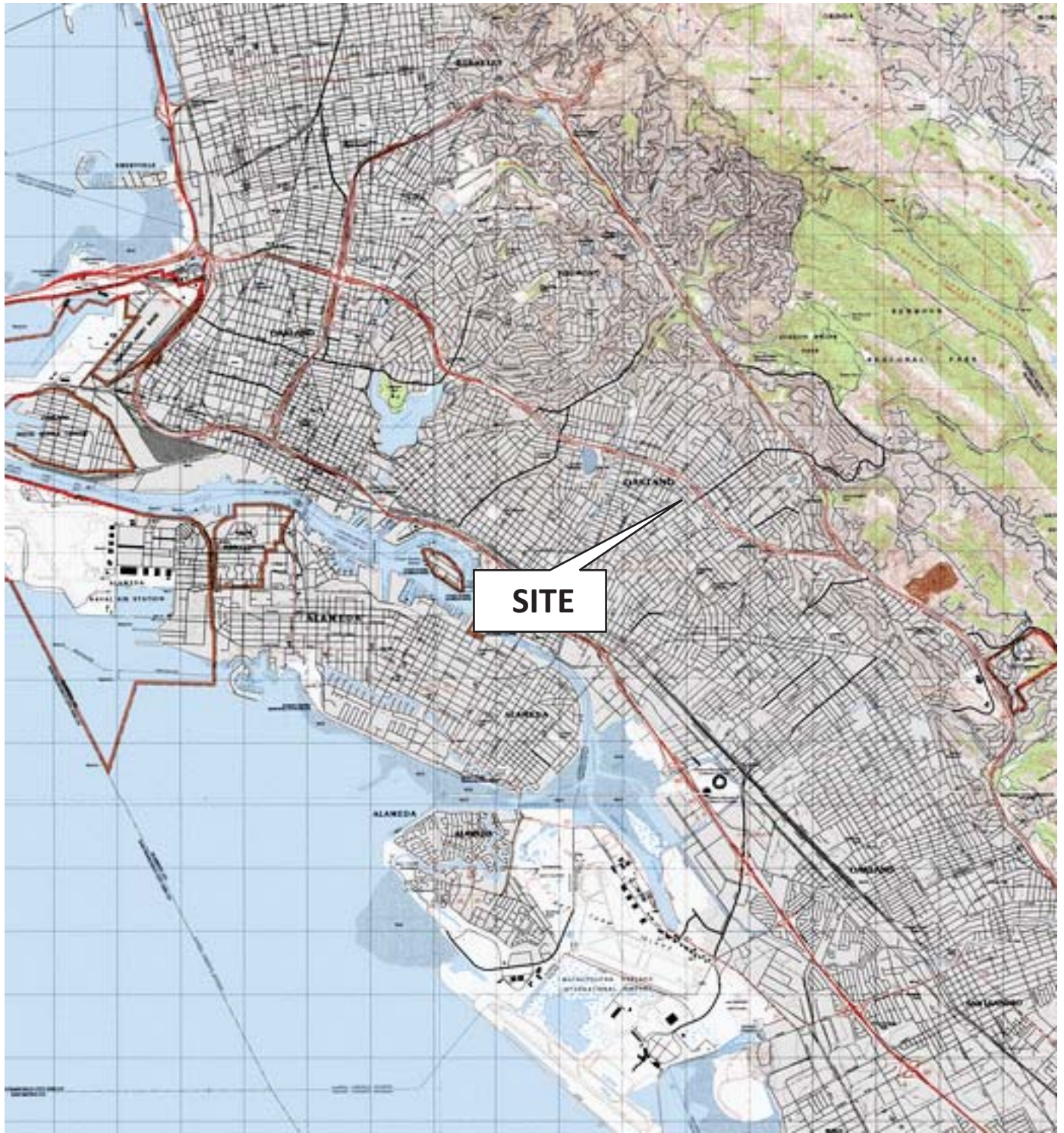
Martin & Associates. January 31, 2005. *Phase I Environmental Site Assessment for 3101 35th Avenue, Oakland, California*.

Piers Environmental Services, Inc. October 2014. *Phase I Environmental Site Assessment for 3101 35th Avenue, Oakland, California*.

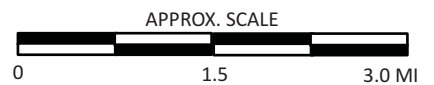
United States Department of the Interior Geologic Survey (USGS). 1954, Revised 1994. Oakland East, California 7.5-Minute Quadrangle.

Weber Hayes & Associates. May 14, 2013. *Quarterly Groundwater Monitoring Report*. Former Exxon Station, 3055 35th Avenue, Oakland, California.

FIGURES



SOURCE: USGS 1:24,000 SCALE SERIES OAKLAND EAST, CA QUAD



3101 35th AVENUE
OAKLAND, CALIFORNIA

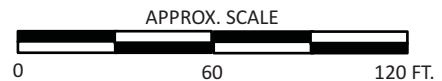
SITE VICINITY TOPO MAP

FIGURE

1



SOURCE: Google Earth, 2015

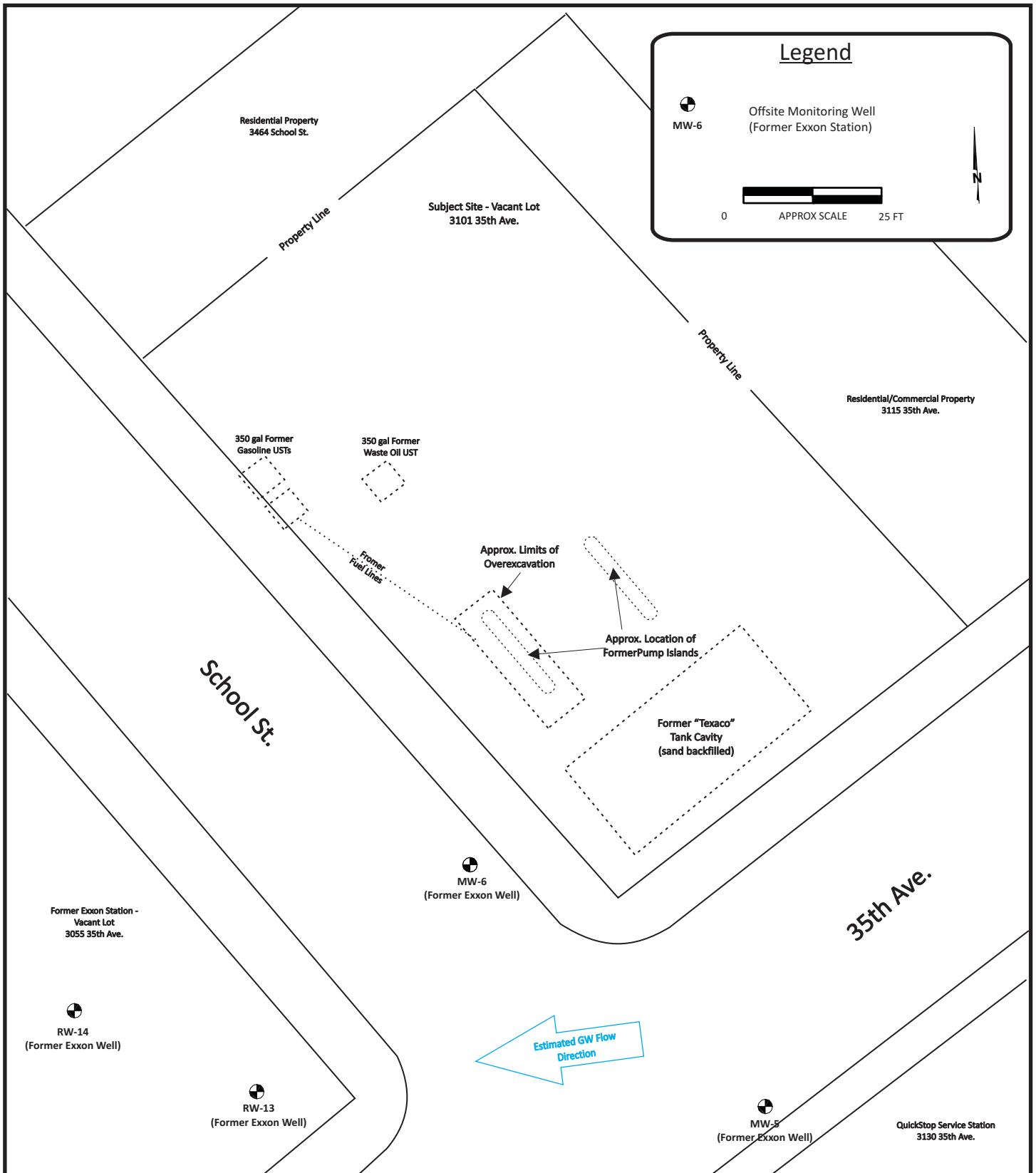


3101 35th AVENUE
OAKLAND, CALIFORNIA

AERIAL PHOTOGRAPH
OF SITE AREA

FIGURE

2

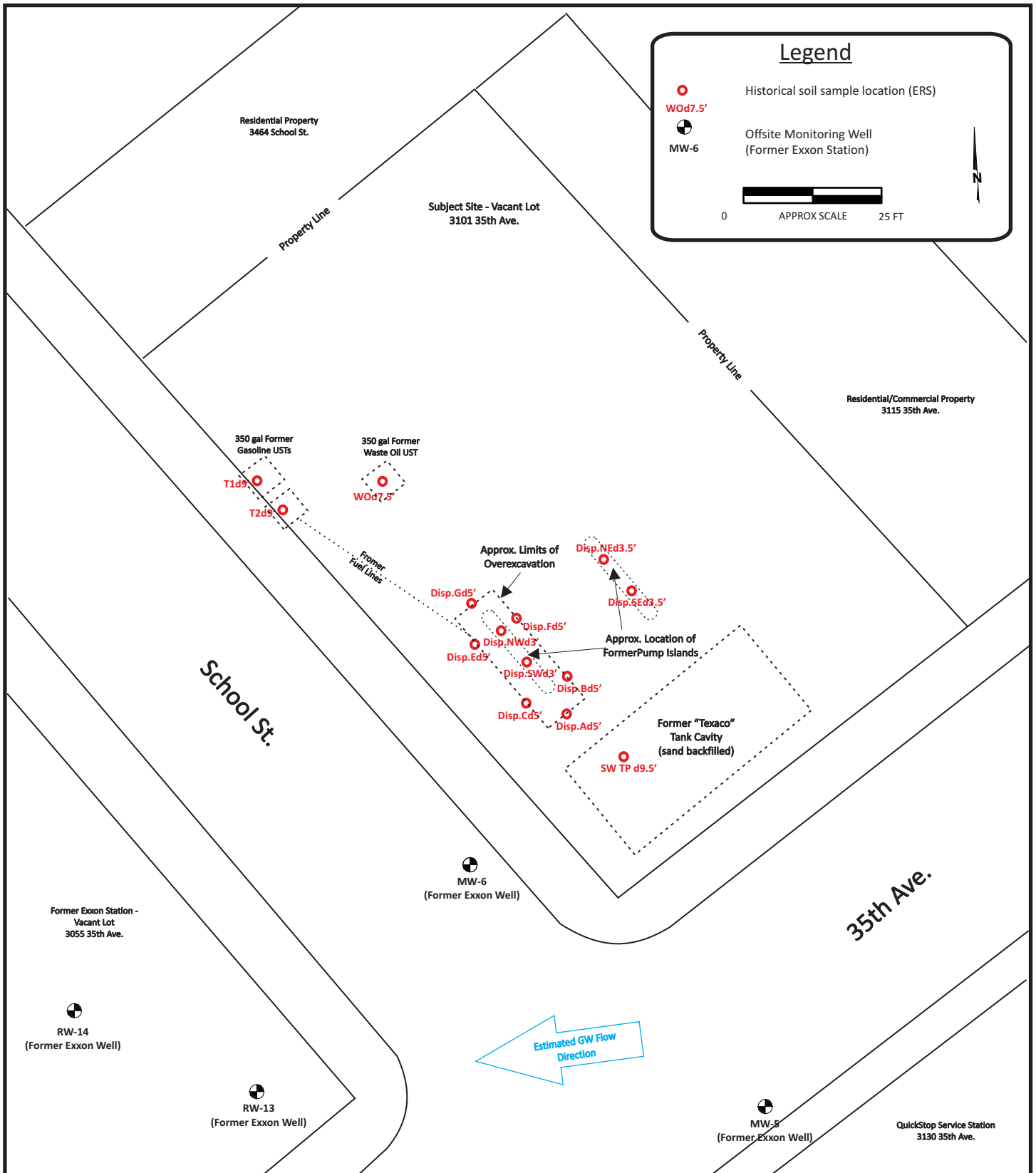


3101 35th AVENUE
OAKLAND, CALIFORNIA

DETAILED SITE MAP

FIGURE

3

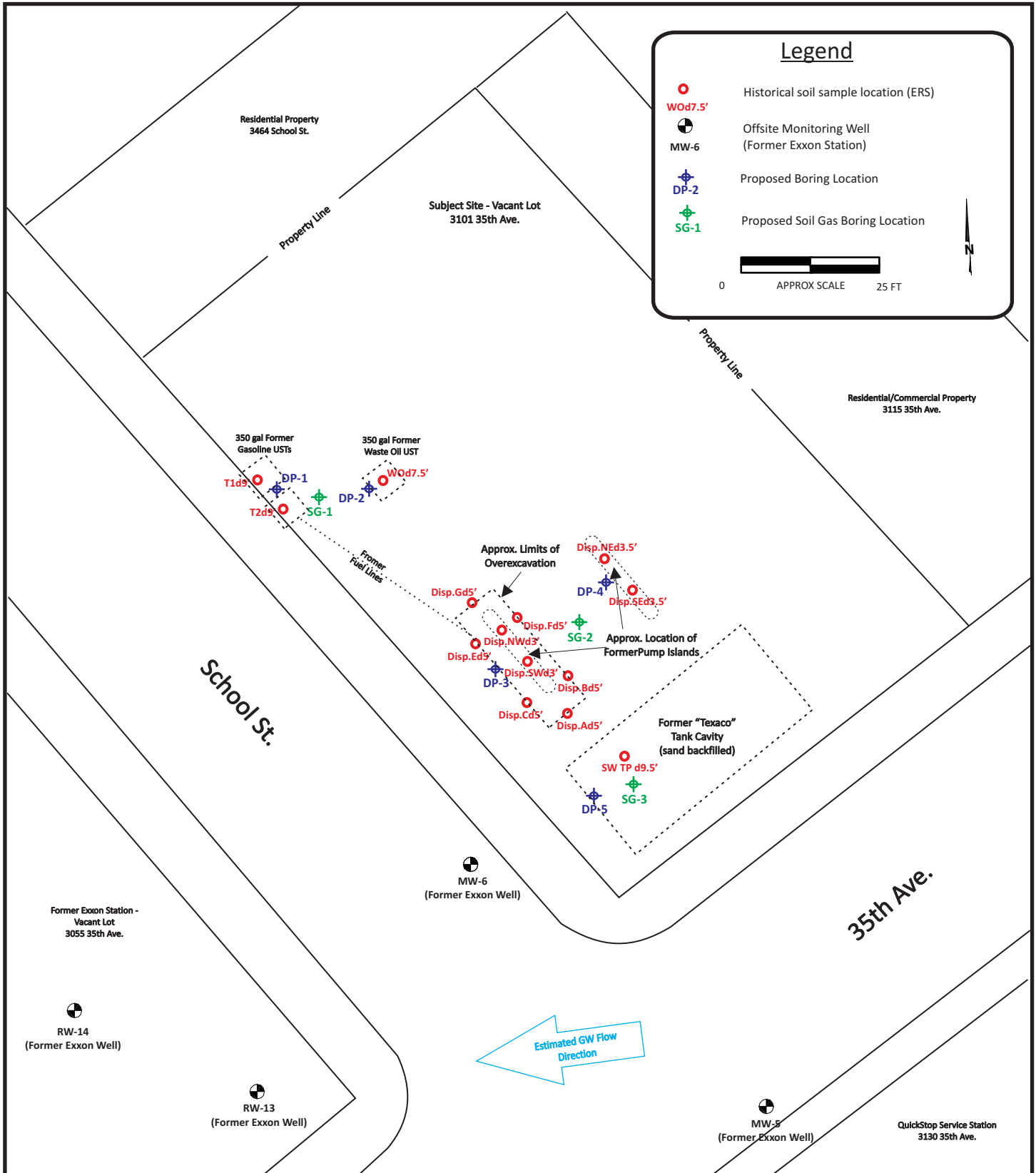


3101 35th AVENUE
OAKLAND, CALIFORNIA

DETAILED SITE MAP
SHOWING HISTORICAL SAMPLING LOCATIONS

FIGURE

4



3101 35th AVENUE
OAKLAND, CALIFORNIA

DETAILED SITE MAP
SHOWING PROPOSED BORING LOCATIONS

FIGURE

5

TABLES

TABLE 1A
SUMMARY OF HISTORICAL VOC AND HYDROCARBON SOIL ANALYTICAL DATA
3101 35th Avenue
Oakland, California

Sample ID	Sample	Sample Date	TPHg (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)	B (mg/Kg)	T (mg/Kg)	E (mg/Kg)	X (mg/Kg)	MtBE (mg/Kg)	Naphth. (mg/Kg)	Other VOCs (mg/Kg)
	Depth (ft.)											
WO d 7.5'	7.5	01/27/15	ND<0.25	ND<1.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.010	All ND
T1 d 9'	9.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
T2 d 9'	9.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Disp. SW d 3'	3.0	01/27/15	230	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Disp. NW d 3'	3.0	01/27/15	850	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Disp. SE d 3.5'	3.5	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Disp. NE d 3'	3.0	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
SW TP d 9.5'	9.5	01/27/15	180	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Dispenser SP	stopckpile	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
Main TP SP	Stockpile	01/27/15	ND<0.25	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	---	All ND
WO SP	Stockpile	01/27/15	32	84	360	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.71	All ND
Disp.Ad5'	5.0	04/16/15	46	---	---	ND<0.005	ND<0.005	ND<0.005	0.069	ND<0.05	---	---
Disp.Bd4'	4.0	04/16/15	1.1	---	---	ND<0.005	ND<0.005	ND<0.005	ND<0.050	ND<0.05	---	---
Disp.Cd5'	5.0	04/16/15	77	---	---	ND<0.001	ND<0.001	0.17	0.22	ND<0.10	---	---
Disp.Dd5'	5.0	04/16/15	110	---	---	ND<0.05	0.21	0.87	0.16	ND<0.05	---	---
Disp.Ed5'	5.0	04/16/15	21	---	---	ND<0.05	0.031	0.012	0.16	ND<0.05	---	---
Disp.Fd5'	5.0	04/16/15	68	---	---	ND<0.05	ND<0.005	ND<0.005	0.035	ND<0.05	---	---
Disp.Gd4'	4.0	04/16/15	ND<1.0	---	---	ND<0.05	ND<0.005	ND<0.005	ND<0.050	ND<0.05	---	---
Disp.Hd4'	4.0	04/16/15	68	---	---	ND<0.05	0.34	ND<0.050	0.093	ND<0.05	---	---
ESL Residential			100	100	500	0.044	2.9	3.3	2.3	0.023	1.2	varies
LTCP Residential (0' to 5')			---	---	---	1.9	---	21.0	---	---	9.7	varies
LTCP Residential (5' to 10')			---	---	---	2.8	---	32.0	---	---	9.7	varies

Notes:

11/25/14 & 4/16/15 samples collected by ERS

--- = Parameter not analyzed

<0.5 / ND = Not present at or above reporting detection limit

mg/Kg = micrograms per kilogram = parts per million = ppm

ESLs = RWQCB Environmental Screening Levels shallow soil (Table A: Potential source of drinking water)

LTCP = Low Threat Closure Policy - Table 1: Concentrations of Petroleum Constituents in soil

that will have no significant risk of adversely affecting human health

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

B = Benzene

MtBE = Methyl-t-butyl ether

Bolded Value =detected concentration

T = Toluene

Shaded Value = concentration exceeds either ESL or LTCP value

E = Ethylbenzene

X = Total Xylenes

TABLE 1B
SUMMARY OF HISTORICAL PAHs SOIL ANALYTICAL DATA
3101 35th Avenue
Oakland, California

Sample ID	WO d 7.5'	WO SP	LTCP	LTCP	Residential
Sample Depth	7.5 ft bgs	Stockpile	Residential	Residential	Residential
Sample Date	01/27/15	01/27/15	0 to 5 ft bgs	5 to 10 ft bgs	ESL
Units	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Acenaphthene	ND<0.010	ND<0.010	0.063	NA	16
Acenaphthylene	ND<0.010	ND<0.010	0.063	NA	13
Anthracene	ND<0.010	ND<0.010	0.063	NA	28
Benzo[a]anthracene	ND<0.010	ND<0.010	0.063	NA	0.38
Benzo[b]fluoranthene	ND<0.010	ND<0.010	0.063	NA	0.38
Benzo[k]fluoranthene	ND<0.010	ND<0.010	0.063	NA	0.38
Benzo[a]pyrene	ND<0.010	ND<0.010	0.063	NA	0.38
Benzo[g,h,i]perylene	ND<0.010	ND<0.010	0.063	NA	27
Chrysene	ND<0.010	ND<0.010	0.063	NA	3.8
Dibenzo[a,h]anthracene	ND<0.010	ND<0.010	0.063	NA	0.11
Fluoranthene	ND<0.010	ND<0.010	0.063	NA	40
Fluorene	ND<0.010	ND<0.010	0.063	NA	8.9
Indeno[1,2,3-cd]pyrene	ND<0.010	ND<0.010	0.063	NA	0.38
1-Methylnaphthalene	ND<0.010	0.66	0.063	NA	NA
2-Methylnaphthalene	ND<0.010	1.2	0.063	NA	NA
Napthalene	ND<0.010	0.71	9.7	9.7	1.2
Phenanthrene	ND<0.010	ND<0.010	0.063	NA	11
Pyrene	ND<0.010	ND<0.010	0.063	NA	85

Notes:

--- = Parameter not analyzed
 <0.5 / ND = Not present at or above reporting detection limit
 mg/Kg = micrograms per kilogram = parts per million = ppm
 ESLs = RWQCB Environmental Screening Levels shallow soil
 (Table A: Potential source of drinking water)
Bolded Value =detected concentration
Shaded Value = concentration exceeds either ESL or LTCP value

TABLE 1C SUMMARY OF HISTORICAL METALS SOIL ANALYTICAL DATA 3101 35th Avenue Oakland, California							
Sample ID	Sample Depth (ft.)	Sample Date	Cadmium	Chromium	Lead	Nickel	Zinc
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
WO d 7.5'	7.5	01/27/15	ND<0.25	46	6.9	100	120
T1 d 9'	9.0	01/27/15	---	---	6.5	---	---
T2 d 9'	9.0	01/27/15	---	---	9.7	---	---
Disp. SW d 3'	3.0	01/27/15	---	---	25	---	---
Disp. NW d 3'	3.0	01/27/15	---	---	35	---	---
Disp. SE d 3.5'	3.5	01/27/15	---	---	13	---	---
Disp. NE d 3'	3.0	01/27/15	---	---	8.3	---	---
SW TP d 9.5'	9.5	01/27/15	---	---	18	---	---
Dispenser SP	stopckpile	01/27/15	---	---	170	---	---
Main TP SP	Stockpile	01/27/15	---	---	43	---	---
WO SP	Stockpile	01/27/15	0.32	52	65	80	160
ESL Residential			12	1,000	80	150	600
LTCP Residential (0' to 5')			---	---	---	---	---
LTCP Residential (5' to 10')			---	---	---	---	---
Notes:							
1/27/15 samples collected by ERS --- = Parameter not analyzed <0.5 / ND = Not present at or above reporting detection limit mg/Kg = micrograms per kilogram = parts per million = ppm ESLs = RWQCB Environmental Screening Levels shallow soil (Table A: Potential source of drinking water) LTCP = Low Threat Closure Policy - Table 1: Concentrations of Petroleum Constituents in soil that will have no significant risk of adversely affecting human health							

APPENDIX A

Directive Letters

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

May 18, 2015

Ms. Mona Hsieh &
Mr. Patrick Kong
Green Oak Builders
888 Brannan Street, #101
San Francisco, CA 94103
(Sent via E-mail to mona.hsieh@yahoo.com)
(Sent via E-mail to patrickykong@gmail.com)

Subject: Approval of Interim Remedial Action Plan, Fuel Leak Case No. RO0003164 and GeoTracker Global ID T10000006539, Green Oak Builders, 3101 35th Avenue, Oakland, CA 94619

Dear Ms. Hsieh and Mr. Kong:

Thank you for the submittal of the document entitled *Underground Tank Technical Closure Report* dated January 27, 2015, prepared by Environmental Restoration Services for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject fuel leak case including the recently re-submitted document entitled, *Interim Remedial Action Workplan* (Work Plan), dated March 16, 2015, also prepared by Environmental Restoration Services for the subject site.

ACEH had previously rejected the Work Plan in a letter dated April 14, 2015, stating it was premature to perform excavation activities without assessing the data gaps at the site against the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP).

During a phone conversation on May 8, 2015 between ACEH and your current environmental consultant, Almar Environmental, it was disclosed the initial excavations performed in January 2015 remain open and that an excavator is present at the site. The current site status was not identified in the Work Plan.

The Work Plan proposes an interim remedial action by excavating an area encompassing the former southwestern dispenser island in order to remove residual petroleum hydrocarbon contaminated soil. The excavated soil, along with the existing stockpiled soil generated from the January 2015 underground storage tank (UST) removals, will be transported off site for disposal. Sidewall and excavation base samples are proposed to be collected prior to excavation backfill.

Based on the status of the open excavation and the presence of the excavator, ACEH approves the Work Plan.

TECHNICAL COMMENTS

In its April 14, 2015 letter, ACEH also requested the submittal of several documents, including the *List of Landowners Form*, an Unauthorized Release form (URF), and GEO_REPORT, GEO_MAP and EFD.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

April 14, 2015

Ms. Mona Hsieh &
Mr. Patrick Kong
Green Oak Builders
888 Brannan Street, #101
San Francisco, CA 94103
(Sent via E-mail to mona.hsieh@yahoo.com)
(Sent via E-mail to patrickkong@gmail.com)

Subject: Interim Remedial Action Plan, Fuel Leak Case No. RO0003164 and GeoTracker Global ID T10000006539, Green Oak Builders, 3101 35th Avenue, Oakland, CA 94619

Dear Ms. Hsieh and Mr. Kong:

Thank you claiming your site on the State Water Resources Control Board's (SWRCBs) GeoTracker website. Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject fuel leak case including the recently submitted document entitled, *Interim Remedial Action Workplan (IRAP)*, dated March 16, 2015, and prepared by Environmental Restoration Services for the subject site.

The IRAP proposes to excavate an area encompassing the former southwestern dispenser island in order to remove residual petroleum hydrocarbon contaminated soil. The excavated soil, along with the existing stockpiled soil generated from the January 2015 underground storage tank (UST) removals, will be transported off site for disposal. Sidewall and excavation base samples are proposed to be collected prior to excavation backfill.

Thank you for the IRAP; however, it appears premature to perform excavation activities prior to assessing the data gaps at the site with respect to the SWRCBs Low Threat Underground Storage Tank Case Closure Policy (LTCP).

ACEH has evaluated the data and recommendations presented in the above-mentioned report, in conjunction with the case files, to determine if the site is eligible for closure as a low risk site under the LTCP. Based on ACEH staff review, we have determined that the site fails to meet the LTCP General Criteria e (Site Conceptual Model), f (Secondary Source Removal) and the Media-Specific Criteria for Groundwater, the Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact (see Geotracker).

Additional data may be available that ACEH is not aware of, or may not have been submitted, and therefore has not been incorporated in to ACEH's review. If additional data is made available, such as the Underground Storage Tank Removal Report for the former Texaco Station, data can be incorporated in future LTCP reviews. The evaluation of the site under the LTCP that is presented below is intended to initiate further discussions, submittal of other available documents, or the collection of additional data in order to determine if or when the site can be closed under the LTCP and to document current LTCP data gaps.

Therefore, at this juncture ACEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below.

TECHNICAL COMMENTS

- 1. LTCP General Criteria e (Site Conceptual Model)** – According to the LTCP, the Site Conceptual Model (SCM) is a fundamental element of a comprehensive site investigation. The SCM establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants). The SCM is relied upon by practitioners as a guide for investigative design and data collection. All relevant site characteristics identified by the SCM shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in the LTCP.

Our review of the case files indicates that insufficient data collection and analysis has not been presented to assess the nature, extent, and mobility of the release and to support compliance with General Criteria f and Media Specific Criteria for Groundwater, Vapor Intrusion to Indoor Air, and Direct Contact and Outdoor Air Exposure as described in Technical Comments 2, 3, 4, and 5 below, respectively.

- 2. General Criteria f – Secondary Source Has Been Removed to the Extent Practicable** – “Secondary source” is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Unless site attributes prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable as described in the policy. “To the extent practicable” means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in this policy.

The *Underground Tank Technical Closure Report* (Closure Report), documents the removal of three USTs- two used for fuel storage and one for storage of waste oil- on January 27, 2015. The Closure Report states small holes were observed in the two fuel USTs. Data presented in the Closure Report indicates secondary source contamination remains under the recently removed western dispenser location, and the vertical and lateral extent of this contamination is undefined.

No documentation has been provided to ACEH evaluating potential residual contamination associated with the former Texaco tank pit and associated pump islands. It is unclear to ACEH if secondary source may be present beneath or within the Texaco tank pit and pump islands that may require removal and if an additional waste oil or hydraulic oil tank(s), may be or have been, present associated with the former service bay.

Additionally, groundwater monitoring well MW-6, associated with ACEH case RO0000271 and GeoTracker Global ID T0600100538, and located adjacent to and downgradient of your site, has demonstrated an increasing concentration of total petroleum hydrocarbons as gasoline (TPHg) and benzene for the three monitoring events MW-6 has been sampled, suggesting residual source remains at your site.

Please present a strategy in the Data Gap Work Plan (described in Technical Comment 6 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies this general criterion in the focused SCM described in Technical Comment 9 below.

- 3. LTCP Media Specific Criteria for 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 listed in the policy.

Our review of the case file indicates that insufficient data collection and analysis has been presented to support the requisite characteristics of plume stability or plume classification. Groundwater monitoring well MW-6, referenced in Technical Comment 2, has demonstrated an increasing concentration of TPHg for the three monitoring events MW-6 has been sampled, increasing from 540 micrograms per liter ($\mu\text{g/L}$) in November 2012 to 3,400 $\mu\text{g/L}$ in June, 2013. The TPHg trend is not indicative of a stable or decreasing plume.

Please present a strategy in the Data Gap Work Plan (described in Technical Comment 6 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Groundwater in the focused SCM described in Technical Comment 6 below.

- 4. LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

Our review of the case files indicates that the site data collection and analysis fail to support the requisite characteristics of one of the four scenarios. Specifically, groundwater monitoring well MW-6, referenced in Technical Comment 2, has demonstrated an increasing concentration of benzene for the three monitoring events it has been sampled, increasing from 44 $\mu\text{g/L}$ in November 2012 to 250 $\mu\text{g/L}$ in June, 2013.

Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Vapor Intrusion to Indoor Air in a SCM that assures that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to occupants of adjacent buildings.

Please note, that if direct measurement of soil gas is proposed, ensure that your strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's Final Vapor Intrusion Guidance (October 2011). Consistent with the guidance, ACEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations.

- 5. LTCP Media Specific Criteria for Direct Contact and Outdoor Air Criteria** – The LTCP describes conditions where direct contact with contaminated soil or inhalation of contaminants volatilized to outdoor air poses a low threat to human health. According to the policy, release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if the maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth below the ground surface (bgs). Alternatively, the policy allows for a site specific risk assessment that demonstrates that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health, or controlling exposure through the use of mitigation measures, or institutional or engineering controls.

Our review of the case files indicates that insufficient data collection and analysis has been presented to satisfy the media-specific criteria for direct contact and outdoor air exposure. Specifically, ACEH is not aware of any evaluation of soil or groundwater performed in the area of the former Texaco USTs.

Therefore, please present a strategy in the Data Gap Work Plan described in Technical Comment 6 below to collect sufficient data to satisfy the LTCP direct contact and outdoor air exposure criteria in areas of former UST locations. Sample and analyze soil within the 0 to five-foot and five- to ten-foot intervals, at the groundwater interface, lithologic changes, and at areas of obvious impact. Also, collect a groundwater sample from each boring and propose the requisite analysis including naphthalene and polycyclic aromatic hydrocarbons (PAH) analysis.

Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Direct Contact and Outdoor Air Exposure in the focused SCM described in Technical Comment 6 below that assures that exposure to petroleum constituents in soil will have no significant risk of adversely affecting human health.

- 6. Data Gap Investigation Work Plan and Focused Site Conceptual Model** – Please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Revised Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example, please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

In order to expedite review, ACEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

- 7. List of Landowners Form** – Pursuant to Section 25297.15 (a), Alameda County Environmental Health (ACEH), the local agency, shall not consider cleanup or site closure proposals from the primary or active responsible party, issue a closure letter, or make a determination that no further action is required with respect to a site upon which there was an unauthorized release of hazardous substances from an underground storage tank subject to this chapter unless all current record owners of fee title to the site of the proposed action have been notified of the proposed action by the primary or active responsible party. ACEH is required to notify the primary or active responsible party of their requirement to certify in writing to the local agency that the notification requirement in the above-mentioned regulation has been satisfied and to provide the local agency with a complete mailing list of all record fee title owners.

To satisfy this requirement, please complete the enclosed *List of Landowners Form*, and mail it back to ACEH by the date identified below.

- 8. Electronic Submittal of Information (ESI)** – Pursuant to California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs, including SLIC programs. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites was required in GeoTracker.

Please see Attachment 1 for limited additional details, and the state GeoTracker website for full details. ACEH requests notification of, and a list of, the documents uploaded to Geotracker. Please upload all submittals to GeoTracker as well as to ACEH's ftp website by the date specified below.

- 9. Unauthorized Release Form (URF)** – A petroleum hydrocarbon fuel release has been documented to have occurred at the site. As requested in ACEHs correspondence dated March 25, 2015, please complete an Unauthorized Release form (URF) and return it to ACEH by the date identified below. The form can be provided to ACEH as an email attachment or by mail. A copy of the URF can be found at the following link:

http://www.waterboards.ca.gov/ust/forms/docs/unauth_release.pdf

TECHNICAL REPORT REQUEST

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

- **May 15, 2015 – Return List of Landowners Form** (file to be named RO0003164_LNDOWNER_F_yyyy-mm-dd)
- **May 15, 2015 – Electronic Submittal of Information**
- **May 15, 2015 – Return Unauthorized Release Form** (file to be named RO0003164_URF_R_yyyy-mm-dd)
- **June 14, 2015 – Data Gap Investigation Plan and Focused Site Conceptual Model**
(File to be named: WP_SCM_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.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6764 or send me an electronic mail message at keith.nowell@acgov.org.

Sincerely,



Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o=Alameda
County, ou=Department of
Environmental Health,
email=keith.nowell@acgov.org, c=US
Date: 2015.04.14 12:30:38 -07'00'

Keith Nowell, P.G., C.H.G.
Hazardous Materials Specialist

Enclosures: Attachment 1 - Responsible Party(ies) Legal Requirements/Obligations &
ACEH Electronic Report Upload (ftp) Instructions

Attachment 2 - List of Landowners Form

Ms. Hsieh and Mr. Kong
RO0003164
April 14, 2015, Page 6

Attachment A – Site Conceptual Model Requisite Elements

cc: Ben Halsted, Environmental Restoration Services, PO Box 2006, Menlo Park, CA 94026
(Sent via E-mail to ben@envirest.com)

Dilan Roe, ACEH (Sent via E-mail to: dilan.roe@acgov.org)

Keith Nowell, ACEH (Sent via E-mail to keith.nowell@acgov.org)

GeoTracker, file

APPENDIX B

Initial Site Conceptual Model

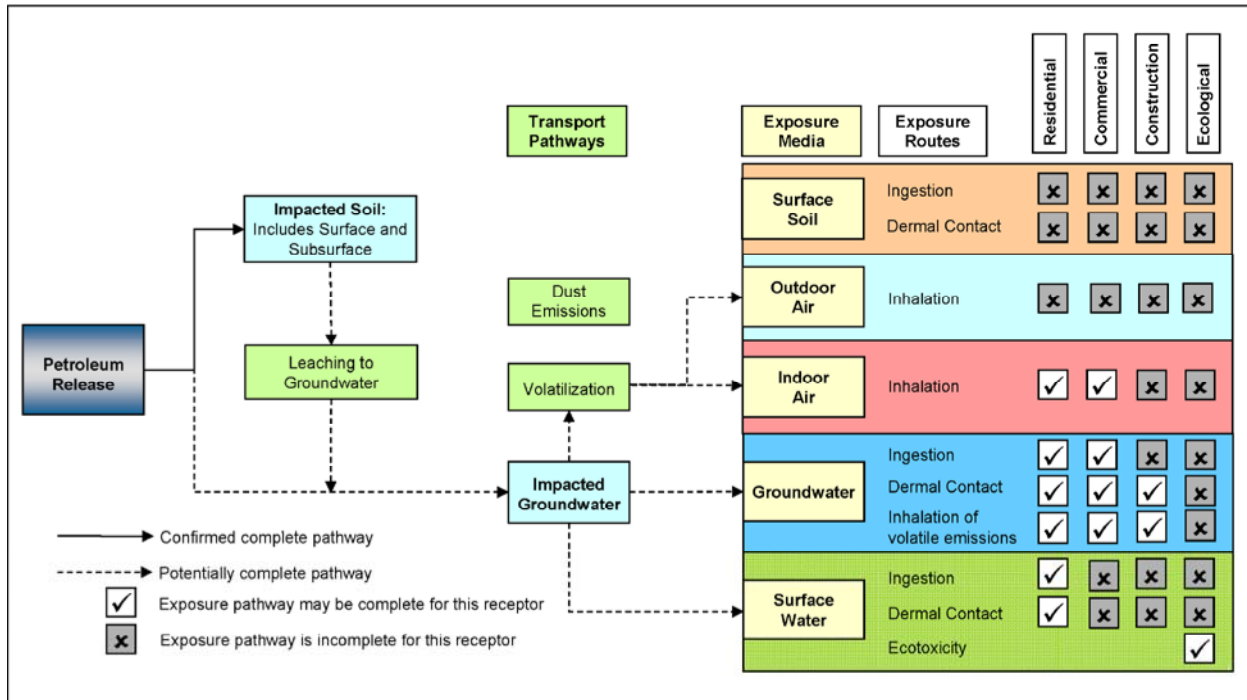


Initial Site Conceptual Model

The purpose of this Initial Site Conceptual Model (ISCM) for the subject site located at 3101 35th Avenue project in Oakland, California is to:

- 1.) Convey an understanding of the origin, nature, and lateral and vertical extent of contamination
- 2.) Identify potential contaminant fate-and-transport processes and pathways.
- 3.) Identify potential human and environmental receptors that may be impacted by contamination associated with the site.
- 4.) Guide site investigation activities and identify additional data needed (if any) to draw reasonable conclusions regarding the source, pathways, and receptors.
- 5.) Frame the evaluation of risk to human health, safety, and the environment posed by the release at the site.

Other than the removal of the LUST, and interim remedial overexcavation activities, no other investigative work has occurred at the subject site to date. The following is a flow diagram illustrating the currently known potential and confirmed exposure pathways and their known risks.



As shown in the above diagram, the only currently confirmed pathway is that subsurface soils have been impacted due to the release, as the investigation progresses this diagram will be updated. Additionally, the following table presents other required elements of the CSM along with known data gaps (if any) and how to potentially address the data gaps.

INITIAL SITE CONCEPTUAL MODEL
3101 35th Avenue
Oakland, California

Origin and Extent of Contamination	The origin of contamination is three approx. 350 gallon gasoline USTs and associated piping and pump islands which were removed from the site in 2015. Based upon soil samples collected at the time of the tank removal the tank was determined to be leaking. Additional USTs were removed from the site in the early 1980s. No further known sampling information is available from these tanks. It is not known at this juncture if groundwater has been affected.	The vertical and lateral extent of both soil and groundwater contamination is unknown.	The results of this current investigation will aid in determining the extent of both soil and groundwater contamination. It is possible that further investigations to completely define the plume will be necessary in the future.
Fate and Transport	Unknown at this time.	No potential fate-and-transport processes and/or pathways have been identified.	Once the plume has been fully defined a conduit study should be conducted to help determine possible pathways.
Human and Environmental Receptors	Unknown at this time.	No potential human and/or environmental receptors have been identified to date.	To be determined.
Cleanup Goals	Although the type and extent of contamination at the site has yet to be determined, the cleanup goals should be those established by the Low Threat Closure Policy (LTCP) for residential properties. The property is currently undeveloped. However, the site will likely be redeveloped for residential use in the near future.	Mutually agreed upon cleanup goals with the oversight agency.	To be determined.

APPENDIX C

Client Transmittal Letter

June 25, 2015

Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Ste. 250
Alameda, CA 94502-6577
keith.nowell@acgov.org

Subject: **Data Gap Investigation Workplan and Site Conceptual Model**
3101 35th Avenue, Oakland, CA
Fuel Leak Case No. RO0003164; Global ID T10000006539

Dear Mr. Nowell,

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached *Data Gap Workplan and Site Conceptual Model* are true and correct to the best of my knowledge.

Sincerely,



Ms. Mona Hsieh
Responsible Party Representative