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Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED
By Alameda County Environmental Health 2:36 pm, Jul 24, 2015

Re: Former Signal Oil Station No. 206145
800 Center Street
Oakland, CA

I have reviewed the *Soil and Groundwater Management Plan* (Revised) dated July 21, 2015.

This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by GHD, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Mark E Horne

Mark Horne
Project Manager

Attachment: Soil and Groundwater Management Plan

SOIL AND GROUNDWATER MANAGEMENT PLAN
Former Signal Oil Service Station 206145
800 Center Street
Oakland, Alameda County, California

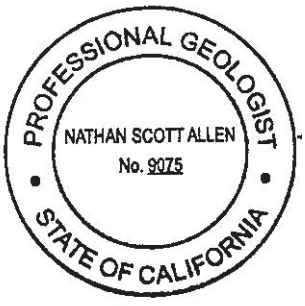
July 21, 2015

SOIL AND GROUNDWATER MANAGEMENT AND NOTIFICATION PLAN
FORMER SIGNAL OIL SERVICE STATION 206145
800 Center Street
Oakland, Alameda County, California

July 21, 2015

Prepared by:

GHD
10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670



Nate Allen, PG

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SOIL AND GROUNDWATER MANAGEMENT AND NOTIFICATION PLAN
FORMER SIGNAL OIL SERVICE STATION 206145

1. INTRODUCTION

GHD Inc. (GHD) prepared this Soil and Groundwater Management and Notification Plan (Notification) at the request of Chevron Environmental Management Company (CEMC) for the property located at 800 Center Street, Oakland, Alameda County, California (the "Property"). The Property is owned by Chevron U.S.A. Inc. and zoned for residential use. A portion of the Property was formerly operated as a Signal Oil (now Chevron U.S.A. Inc.) service station, and CEMC performed environmental assessment and remediation work to address petroleum hydrocarbon releases from the service station to soil and groundwater. That investigation and remediation work was conducted over a period of 25 years, and was been completed in accordance with agency standards and state law, though residual petroleum hydrocarbons and other contaminants of potential concern (COPC) remain in soil and groundwater on the Property. This Notification provides contact information for use by any future property owner that may wish to address with CEMC issues associated with COPC impacts on the Property. A contact sheet is provided as Appendix A.

2. SITE CONDITIONS

2.1 SITE DESCRIPTION

The Property is shown on Figure 1, and is located on Assessor's Parcel Number (APN) 4-67-16. The former Signal Oil service station was located on the northeast corner of the intersection of 8th Street and Center Street, and operated by Chevron from 1932 until it was closed in 1973. In 2005, a former owner of the Property acquired the service station parcel and two adjoining residential parcels for the purpose of constructing a small, multi-family development. The developer joined the three parcels and obtained land use approval from the City of Oakland for the proposed development. In 2012, Chevron acquired the Property, which at this time was undeveloped and surrounded by a temporary chain-link fence.

2.2 SITE GEOLOGY AND HYDROGEOLOGY

The site is part of the Oakland sub-area of the East Bay Plain. Sediments beneath the site are likely Holocene and late Pleistocene alluvial fans.[1] Local topography is relatively flat and the site is approximately 15 feet above mean sea level. Subsurface sediments consist of medium permeability sand and silty sand to the maximum depth explored of 80 feet below grade (fbg). Silt with clay is encountered between approximately 50 and 65 fbg.

[1] East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA prepared by the California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee, June 1999

Groundwater was monitored at the site from 1995 to 2014. Both shallow and deeper water-bearing zones were monitored, with historical depth to groundwater in the shallow screened wells ranging from approximately 3 to 13 fbg and levels in the deeper screened wells ranging from 7 to 19 fbg. Shallow groundwater flows consistently toward the southwest and deeper groundwater flow varies from southwest to northeast.

2.3 SITE INVESTIGATION AND REMEDIATION SUMMARY

Environmental investigation has been ongoing since 1989. To date, 17 monitoring wells, 8 air sparge wells, 58 soil borings, and 11 soil vapor probes have been installed/advanced at and near the Property (Figure 2). A remedial excavation was completed in 2002 removing approximately 1,600 tons of soil, and a low-flow air sparge pilot test was conducted from January through April 2011.

2.4 SITE CONTAMINANTS OF POTENTIAL CONCERN

The primary COPC are total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), benzene, ethylbenzene, naphthalene, lead, polychlorinated biphenyls (PCBs) and organochlorine pesticides. Secondary COPC include toluene, xylenes and methyl tertiary butyl ether (MTBE). COPC associated with the former UST release are considered low-threat based on evaluation in CRA's November 9, 2014 *Closure Report*, with the exception of a small area in the south central portion of the site (Figure 2). The most current soil data collected from this area exceed the criteria in California's Low-Threat Underground Storage Tank Case Closure Policy for benzene, ethylbenzene, and naphthalene concentrations in soil (5 to 10 fbg) for utility worker direct contact and volatilization to outdoor air in both residential and commercial land use scenarios. Details are presented in CRA's June 27, 2014 *Site Assessment Report and Updated Site Conceptual Model*.

Analytical results from shallow soil sampling conducted in 2010 indicated that lead concentrations exceed the San Francisco Bay Regional Water Quality Control Board's December 2013 Commercial/Industrial Direct Exposure Soil Screening Levels (ESLs) in the northern and eastern areas of the site property (Figures 3 and 4). PCBs and organochlorine pesticides were also detected in soil samples collected during this event, but the concentrations were lower than human health ESLs for a commercial/industrial worker exposure scenario. Analytical results are presented in Tables 1-3 below.

3. SOIL AND GROUNDWATER MANAGEMENT AND NOTIFICATION

3.1 SOIL AND GROUNDWATER MANAGEMENT

No soil disturbance is to be undertaken onsite unless approved in writing by the ACEH. Any potentially contaminated soil which is excavated or stockpiled during future redevelopment activities will be managed as required by all local, state and federal laws.

If any excavation is to be undertaken during site redevelopment activities, a site specific Health and Safety Plan (HASP) must be generated, and used and understood by all site workers. This document must meet the State and Federal Occupational Safety and Health (OSHA) standards for hazardous waste operations.

If soil and/or groundwater are stockpiled/contained onsite during Property redevelopment/construction activities, samples of the soil and/or groundwater should be collected by the property owner for profiling purposes. Soil and/or groundwater samples must be collected by the methods described in Appendix B or equivalent, and the results submitted to the ACEH. If, based on a review of the profiling results, ACEH prohibits the excavated soil from being reused on the Site and/or groundwater discharged to land or to sewer due to the presence of petroleum hydrocarbons, lead, PCBs or organochlorine pesticides, CEMC will coordinate with the property owner regarding the proper off-site disposal of that excavated soil and/or groundwater. Chevron USA, or the current property owner(s), should ensure that any excavated soil or collected water is stockpiled/contained using Best Management Practices to allow for proper profiling, management, and disposal.

3.4 NOTIFICATION

In the event Chevron sells the Property, it will provide the ACEH notice of the sale and will have disclosed environmental conditions to the purchaser, including, as appropriate, the existence of residual soil and groundwater contamination.

Figures

SOURCE: USGS QUADRANGLE MAP: OAKLAND WEST, CA. 1993

Figure 1

VICINITY MAP
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2015(PRES005)GN-WA004 JUL 13/2015

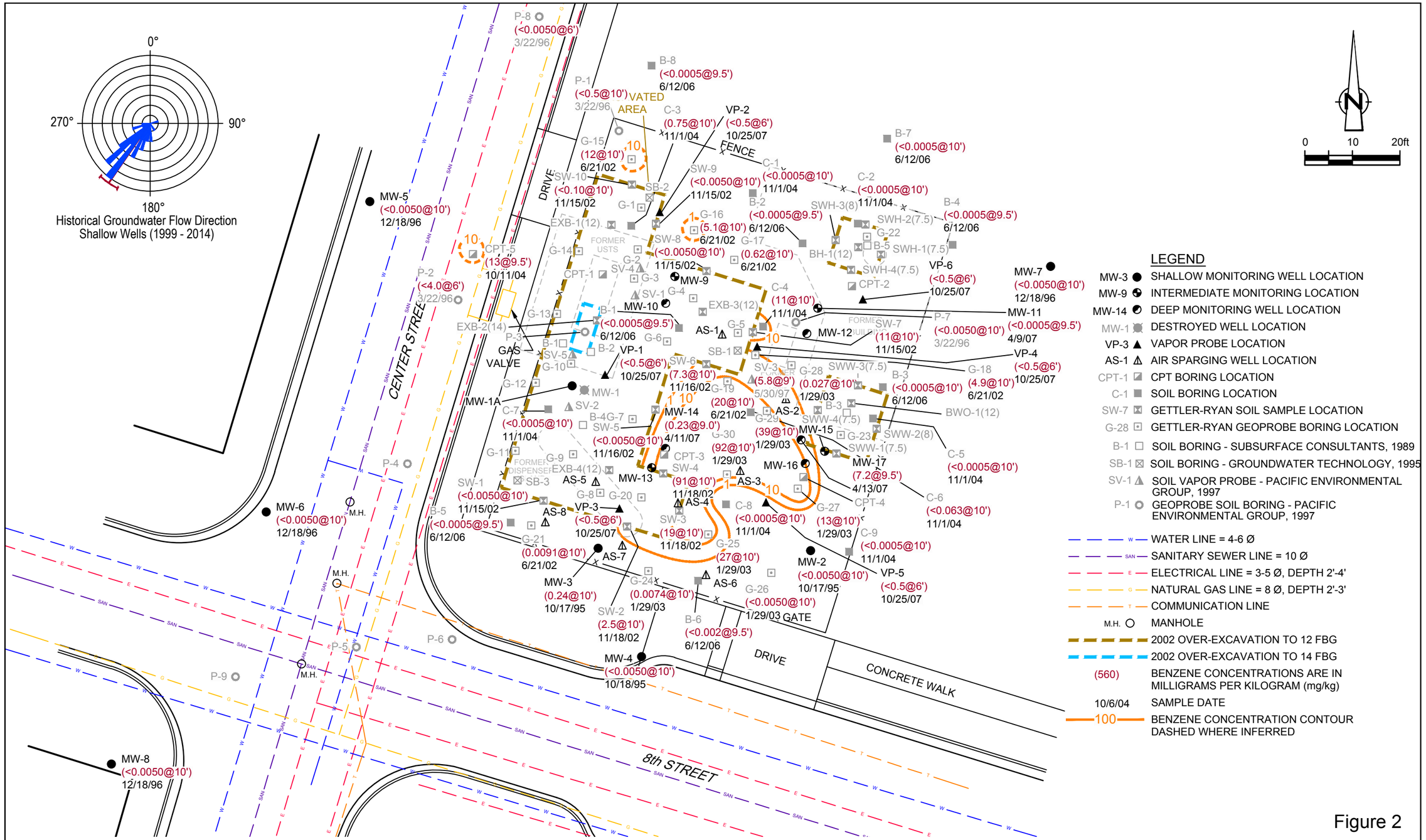


Figure 2

RESIDUAL BENZENE CONCENTRATIONS IN SOIL - (>5-10 FBG)
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2015(PRES005)GN-WA005 JUL 13/2015

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-1	1/27/2010	0	**753**	<0.0033
SS-1	1/27/2010	0.5	**806**	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-2	1/27/2010	0	**980**	<0.0033
SS-2	1/27/2010	0.5	5.85	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-3	1/27/2010	0	**491**	0.098
SS-3	1/27/2010	0.5	**5760**	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-4	1/27/2010	0	8.24	<0.0033
SS-4	1/27/2010	0.5	7.06	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-5	1/27/2010	0	237	0.013
SS-5	1/27/2010	0.5	123	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-7	1/27/2010	0	5.98	<0.0033
SS-7	1/27/2010	0.5	6.38	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-8	1/27/2010	0	13.4	<0.0033
SS-8	1/27/2010	0.5	23.7	<0.0033

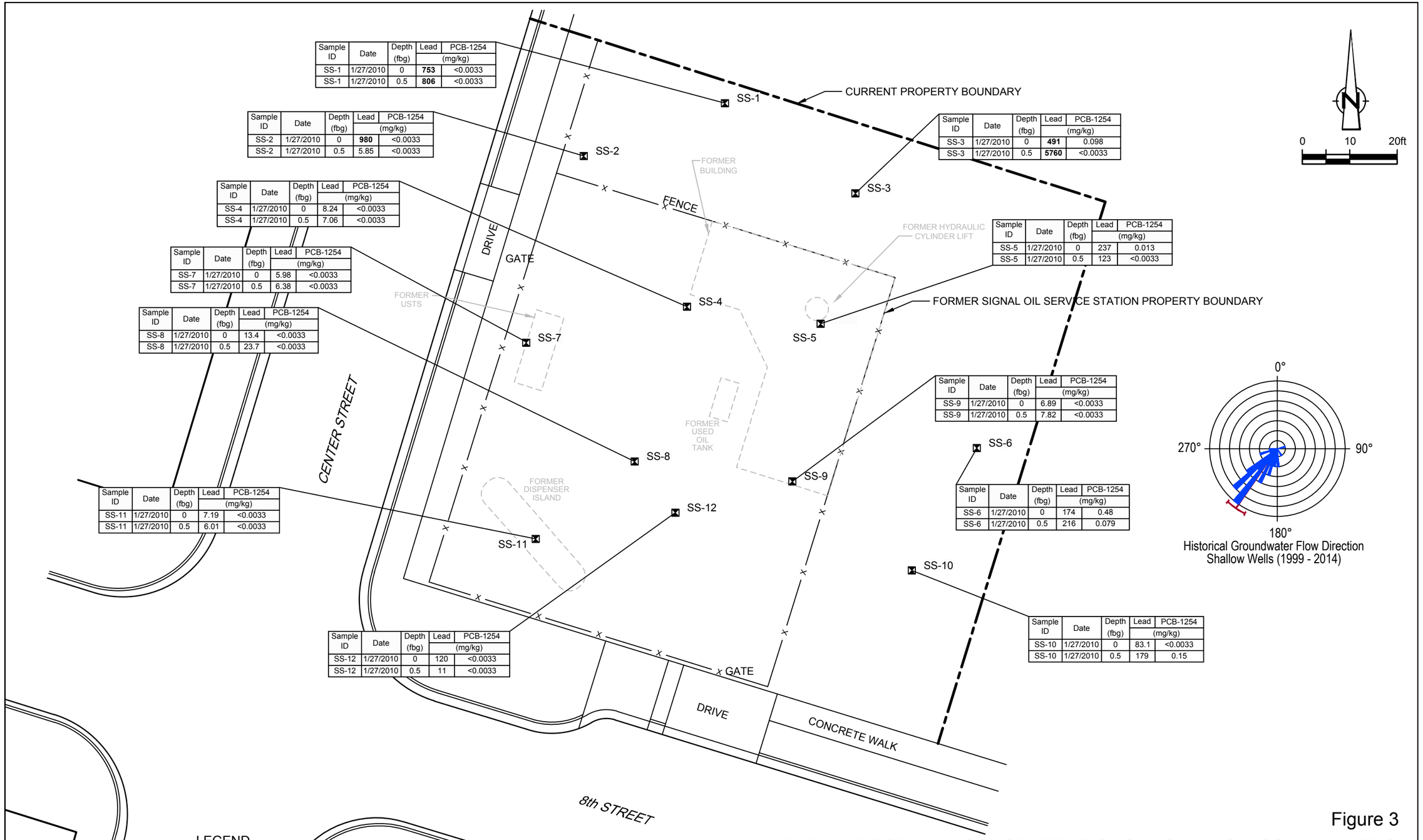
Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-9	1/27/2010	0	6.89	<0.0033
SS-9	1/27/2010	0.5	7.82	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-6	1/27/2010	0	174	0.48
SS-6	1/27/2010	0.5	216	0.079

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-10	1/27/2010	0	83.1	<0.0033
SS-10	1/27/2010	0.5	179	0.15

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-11	1/27/2010	0	7.19	<0.0033
SS-11	1/27/2010	0.5	6.01	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-12	1/27/2010	0	120	<0.0033
SS-12	1/27/2010	0.5	11	<0.0033



Historical Groundwater Flow Direction
Shallow Wells (1999 - 2014)

LEGEND

SS-1 ⊠ SOIL SAMPLING LOCATION

491 RESULTS IN BOLD INDICATE VALUES ABOVE SFRWQCB 2013 ESLs FOR DIRECT EXPOSURE FOR A COMMERCIAL/INDUSTRIAL WORKER EXPOSURE SCENARIO

Figure 3

LEAD AND PCB-1254 CONCENTRATIONS IN SHALLOW SOIL, 0-0.5 FBG
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2015(PRES005)GN-WA002 JUL 13/2015

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-1	1/27/2010	2.5	55	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-2	1/27/2010	2.5	2.29	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-3	1/27/2010	2.5	4.63	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-4	1/27/2010	2.5	3.02	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-5	1/27/2010	2.5	2.11	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-7	1/27/2010	2	6.03	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-9	1/27/2010	1.5	24.1	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-11	1/27/2010	1.5	6.36	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-6	1/27/2010	1.5	**699**	0.15

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-12	1/27/2010	2.5	2.17	<0.0033

Sample ID	Date	Depth (fbg)	Lead (mg/kg)	PCB-1254 (mg/kg)
SS-10	1/27/2010	2.5	198	<0.0033

CURRENT PROPERTY BOUNDARY

FORMER SIGNAL OIL SERVICE STATION PROPERTY BOUNDARY

SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 *Not Measured* SS-9 SS-10 SS-11 SS-12

FENCE

GATE

GATE

DRIVE

DRIVE

CONCRETE WALK

FORMER BUILDING

FORMER HYDRAULIC CYLINDER LIFT

FORMER USTS

FORMER USED OIL TANK

FORMER DISPENSER ISLAND

CENTER STREET

8th STREET

N

0 10 20ft

0° 90° 180° 270°

Historical Groundwater Flow Direction
Shallow Wells (1999 - 2014)

LEGEND

SS-1 SOIL SAMPLING LOCATION

699 RESULTS IN BOLD INDICATE VALUES ABOVE SFRWQCB 2013 ESLs FOR DIRECT EXPOSURE FOR A COMMERCIAL/INDUSTRIAL WORKER EXPOSURE SCENARIO

Figure 4

LEAD AND PCB-1254 CONCENTRATIONS IN SHALLOW SOIL, >0.5-2.5 FBG
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET
Oakland, California

312002-2015(PRES005)GN-WA003 JUL 13/2015

Tables:

TABLE 1
(Revised 07/2015)
LEAD ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*Lead Reported in milligrams per kilogram (mg/kg)*
ESL - Residential Direct Exposure			***80***
ESL - Commercial Direct Exposure			***320***
SS-1	1/27/2010	0.0	**753**
SS-1	1/27/2010	0.5	**806**
SS-1	1/27/2010	2.5	55.0
SS-2	1/27/2010	0.0	**980**
SS-2	1/27/2010	0.5	5.85
SS-2	1/27/2010	2.5	2.29
SS-3	1/27/2010	0.0	**491**
SS-3	1/27/2010	0.5	**5,760**
SS-3	1/27/2010	2.5	4.63
SS-4	1/27/2010	0.0	8.24
SS-4	1/27/2010	0.5	7.06
SS-4	1/27/2010	2.5	3.02
SS-5	1/27/2010	0.0	**237**
SS-5	1/27/2010	0.5	**123**
SS-5	1/27/2010	2.5	2.11
SS-6	1/27/2010	0.0	**174**
SS-6	1/27/2010	0.5	**216**
SS-6	1/27/2010	1.5	**669**
SS-7	1/27/2010	0.0	5.98
SS-7	1/27/2010	0.5	6.38
SS-7	1/27/2010	2.0	6.03
SS-8	1/27/2010	0.0	13.4
SS-8	1/27/2010	0.5	23.7
SS-9	1/27/2010	0.0	6.89
SS-9	1/27/2010	0.5	7.82
SS-9	1/27/2010	1.5	24.1
SS-10	1/27/2010	0.0	**83.1**
SS-10	1/27/2010	0.5	**179**
SS-10	1/27/2010	2.5	**198**
SS-11	1/27/2010	0.0	7.19
SS-11	1/27/2010	0.5	6.01

TABLE 1
(Revised 07/2015)
LEAD ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*Lead Reported in milligrams per kilogram (mg/kg)*
ESL - Residential Direct Exposure			***80***
ESL - Commercial Direct Exposure			***320***
SS-11	1/27/2010	1.5	6.36
SS-12	1/27/2010	0.0	**120**
SS-12	1/27/2010	0.5	11
SS-12	1/27/2010	2.5	2.17

Notes/Abbreviations:
Lead analyzed by EPA method 6010B
Fbg = feet below grade

ESL = Environmental screening levels for Direct Exposure Soil Screening Levels Summary Tables K-1 and K-2 in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* prepared by the California Regional Water Quality Control Board - San Francisco Bay Region - December 2013.
Bold = Concentration exceeds the more conservative screening level listed

TABLE 2
(Revised 7/2015)
ORGANOCHLORINE ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*Aldrin*	*Gamma BHC - Lindane*	*Alpha Chlordane*	*Chlordane*	*Gamma Chlordane*	*p,p-DDD*	*p,p-DDE*	*p,p-DDT*	*Dieldrin*	*Heptachlor*
			← *Reported in micrograms per kilogram (µg/kg)* →									
ESL - Residential - Direct Exposure			***32***	***21,000***		***440***		***2,400***	***1,700***	***1,700***	***34***	***130***
ESL - Commercial - Direct Exposure			***130***	***230,000***		***1,700***		***10,000***	***7,000***	***7,000***	***130***	***520***
SS-1	1/27/2010	0.5	<0.85	4.5	<1.3	<20	<0.94	3.0	2.6	<1.7	<1.7	<0.85
SS-1	1/27/2010	2.5	<0.17	<0.17	<0.24	<4.0	<0.23	<0.33	<0.33	<0.33	<0.33	<0.85
												<0.17
SS-2	1/27/2010	0.0	<0.85	11	4.3	37	3.6	39	9.8	800	3.2	
SS-2	1/27/2010	0.5	<0.17	<0.17	<0.45	<4.0	<0.47	<0.33	0.71	4.3	<0.33	<0.85
SS-2	1/27/2010	2.5	<0.17	<0.17	<0.40	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
												<0.17
SS-3	1/27/2010	0.0	<0.85	3.6	<2.5	<20	4.2	30	43	130	4.3	
SS-3	1/27/2010	0.5	1.2	15	<3.0	<20	6.4	5.7	10	70	2.8	<0.85
SS-3	1/27/2010	2.5	<0.17	<0.17	<0.22	<4.0	<0.29	<0.33	<0.33	<0.33	<0.33	<0.85
												<0.17
SS-4	1/27/2010	0.0	<0.17	1.3	<0.18	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	
SS-4	1/27/2010	0.5	<0.17	1.3	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-4	1/27/2010	2.5	<0.17	<0.17	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
												<0.17
SS-5	1/27/2010	0.0	0.22	0.63	0.94	11	1.2	0.34	<0.33	1	<0.33	
SS-5	1/27/2010	0.5	<0.17	0.32	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-5	1/27/2010	2.5	<0.17	<0.17	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
												<0.17
SS-6	1/27/2010	0.0	1.1	<0.85	28	140	18	11	46	87	**75**	
SS-6	1/27/2010	0.5	<0.85	<0.85	6.2	33	3.7	3.9	7.6	42	8.1	<0.85
SS-6	1/27/2010	1.5	<0.85	2.1	12	<20	12	11	19	200	7.2	<0.85
												<0.85
SS-7	1/27/2010	0.0	<0.17	1.1	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	
SS-7	1/27/2010	0.5	<0.17	1.1	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-7	1/27/2010	2.0	<0.17	0.82	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17

TABLE 2
(Revised 7/2015)
ORGANOCHLORINE ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*Aldrin*	*Gamma BHC - Lindane*	*Alpha Chlordane*	*Chlordane*	*Gamma Chlordane*	*p,p-DDD*	*p,p-DDE*	*p,p-DDT*	*Dieldrin*	*Heptachlor*
			← *Reported in micrograms per kilogram (µg/kg)* →									
ESL - Residential - Direct Exposure			***32***	***21,000***		***440***		***2,400***	***1,700***	***1,700***	***34***	***130***
ESL - Commercial - Direct Exposure			***130***	***230,000***		***1,700***		***10,000***	***7,000***	***7,000***	***130***	***520***
SS-8	1/27/2010	0.0	<0.17	0.74	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-8	1/27/2010	0.5	<0.17	1.3	<0.17	<4.0	2.8	<0.33	0.84	3.2	0.48	<0.17
SS-9	1/27/2010	0.0	<0.17	0.99	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-9	1/27/2010	0.5	<0.17	1.6	<0.17	<4.0	<0.17	0.83	<0.33	<0.33	<0.33	<0.17
SS-9	1/27/2010	1.5	<0.17	0.62	1.7	18	1.9	2.7	0.87	2.3	0.89	<0.17
SS-10	1/27/2010	0.0	0.19	2.0	<2.3	<44	1.7	1.3	1.6	12	**4.1**	<0.17
SS-10	1/27/2010	0.5	<0.85	1.2	<3.3	<140	2.0	5.2	5.3	51	**9.1**	0.30
SS-10	1/27/2010	2.5	<0.85	1.8	<5.8	<20	2.5	2.5	30	86	**17**	<0.85
SS-11	1/27/2010	0.0	<0.17	0.92	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.85
SS-11	1/27/2010	0.5	<0.17	0.95	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-11	1/27/2010	1.5	<0.17	1.2	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-12	1/27/2010	0.0	<0.17	0.41	<0.17	<4.0	0.30	<0.33	<0.33	3.8	0.52	<0.17
SS-12	1/27/2010	0.5	<0.17	0.18	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17
SS-12	1/27/2010	2.5	<0.17	<0.17	<0.17	<4.0	<0.17	<0.33	<0.33	<0.33	<0.33	<0.17

TABLE 2
(Revised 7/2015)
ORGANOCHLORINE ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*Aldrin*	*Gamma BHC - Lindane*	*Alpha Chlordane*	*Chlordane*	*Gamma Chlordane*	*p,p-DDD*	*p,p-DDE*	*p,p-DDT*	*Dieldrin*	*Heptachlor*
			← *Reported in micrograms per kilogram (µg/kg)* →									
ESL - Residential - Direct Exposure			***32***	***21,000***		***440***		***2,400***	***1,700***	***1,700***	***34***	***130***
ESL - Commercial - Direct Exposure			***130***	***230,000***		***1,700***		***10,000***	***7,000***	***7,000***	***130***	***520***

Notes/Abbreviations:
Aldrin, gamma BHC-lindane, alpha chlordane, chlordane, gamma chlordane, p,p-DDD, p,p-DDE, p,p-DDT, dieldrin and heptachlore analyzed by EPA Method 8081A
fbg = feet below grade
ESL = Environmental screening levels for Direct Exposure Soil Screening Levels Summary Tables K-1 and K-2 in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* prepared by the California Regional Water Quality Control Board - San Francisco Bay Region - December 2013.
<x = not detected above laboratory method detection limit
Bold = Concentration exceeds the lowest screening level listed

TABLE 3
(Revised 07/2015)
PCB ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*PCB-1016*	*PCB-1221*	*PCB-1232*	*PCB-1248*	*PCB-1254*	*PCB-1260*
			Reported in milligrams per kilogram (mg/kg)					
ESL - Residential Direct Exposure			*0.22*					
ESL - Commercial Direct Exposure			*0.74*					
SS-1	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.080
SS-1	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.030
SS-1	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-2	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.070
SS-2	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-2	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-3	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	0.098	0.029
SS-3	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.068
SS-3	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-4	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-4	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-4	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-5	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	0.013	<0.0033
SS-5	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-5	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-6	1/27/2010	0.0	<0.017	<0.017	<0.017	<0.017	**0.48**	0.059
SS-6	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	0.079	0.046
SS-6	1/27/2010	1.5	<0.0033	<0.0033	<0.0033	<0.0033	0.15	0.044
SS-7	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-7	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-7	1/27/2010	2.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-8	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-8	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.0057
SS-9	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-9	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-9	1/27/2010	1.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-10	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	0.034
SS-10	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	0.15	0.040
SS-10	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-11	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-11	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033

TABLE 3
(Revised 07/2015)
PCB ANALYTICAL RESULTS IN SURFICIAL SOIL
FORMER SIGNAL OIL SERVICE STATION 206145
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*PCB-1016*	*PCB-1221*	*PCB-1232*	*PCB-1248*	*PCB-1254*	*PCB-1260*
			← *Reported in milligrams per kilogram (mg/kg)* →					
ESL - Residential Direct Exposure			←		*0.22*			→
ESL - Commercial Direct Exposure			←		*0.74*			→
SS-11	1/27/2010	1.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-12	1/27/2010	0.0	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-12	1/27/2010	0.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
SS-12	1/27/2010	2.5	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033

Notes/Abbreviations:
Polychlorinated biphenyl (PCB)-1016, PCB-1221, PCB1232, PCB-1248, PCB-1254 and PCB-1260 analyzed by EPA Method 8082
Fbg = feet below grade
ESL = Environmental screening levels for Direct Exposure Soil Screening Levels Summary Tables K-1 and K-2 in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* prepared by the California Regional Water Quality Control Board - San Francisco Bay Region - December 2013.
<x = not detected above laboratory method detection limit
Bold = Concentration exceeds the more conservative screening level listed

Appendix A: Contact Sheet

APPENDIX A:
CONTACT SHEET

Chevron Environmental Management Company

Project Manager
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San Ramon, California 94583-0712
(800) 338-5434

Consultant

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10969 Trade Center Drive, Suite 107
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(916) 889-8900

Regulatory Oversight

San Francisco Bay RWQCB
Attn: Ms. Cherie McCaulou
1515 Clay Street, Suite 1400
Oakland, California 94612
(510) 622-2300

Alameda County Environmental Health
Attn: Mr. Mark Detterman
1131 Harbor Bay Parkway, Suite 250
Alameda, California, 94502
(510) 567-6876

Appendix B:
Soil and Groundwater Profile Sampling and Analytical Methods

Soil Stockpile Sampling:

Collect a minimum of a 4-point composite sample per 500 cubic yards of material stockpiled using EPA Methodology SW-846 in the sampling and analysis techniques.

Analyses:

(8015) TPH quantified in the following ranges with contingencies for 96 hour fish bioassay if the following levels are observed:

1. TPHd ≥ 10,000 mg/kg
2. TPHg ≥ 5,000 mg/kg

- (8260) BTEX – TCLP benzene if the total benzene meets or exceeds 10 mg/kgs.
- (8081) Organochlorine pesticides
- (8082) Polychlorinated Biphenyls
- (6010) Total Lead and contingency analysis for the following

    - STLC analysis if initial total lead meets or exceeds 50 mg/kg
    - TCLP analysis if initial total lead meets or exceeds 100 mg/kg
    - (8270) “organoleads” if initial total lead value meets or exceeds 13 mg/kg.

ContainedWater Sampling:

For liquid sampling, only one sample is needed if the collected water is observed to be a homogenous mixture in the same container(s). If there are multiple containers and it cannot be determined that all containers contain the same homogenous mixture (such as drums), collect an additional sample from each non-homogenous container.

Analyses:

- (8015) Total TPH quantified in the following ranges with contingencies for 96 hour fish bioassay (ONLY IF the following initial total results are observed):

    - TPHd ≥ 10,000 mg/L
    - TPHg ≥ 5,000 mg/L

- (8260) BTEX
- (8081) Organochlorine pesticides
- (8082) Polychlorinated Biphenyls
- (6010) Total Lead, with contingency analysis as follows:
    - (8270) “organoleads”, only if the initial total lead value meets or exceeds 13 mg/L.
- pH
- Flash point