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**Groundwater Monitoring Report for the  
Quarterly Reporting Period from  
July 1 through September 30, 2008  
Former Cox Cadillac Property  
230 Bay Place  
Oakland, California  
(ACEH Fuel Leak Case Number RO0000148 and  
Geotracker Global ID Number T0600100193)**

**October 31, 2008  
001-09171-17**

Prepared for:  
Bond CC Oakland, LLC  
350 W. Hubbard Street, Suite 4560  
Chicago, Illinois 60610



October 31, 2008

001-09171-17

Mr. Paresh Khatri  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: Groundwater Monitoring Report for the Quarterly Reporting Period from July 1 through September 30, 2008, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (ACEH Fuel Leak Case Number RO0000148 and Geotracker Global ID Number T0600100193)

Dear Mr. Khatri:

LFR Inc. (LFR) has prepared this quarterly groundwater monitoring report on behalf of Bond CC Oakland, LLC, to summarize the activities conducted during the monitoring period from July 1 through September 30, 2008 at the former Cox Cadillac property, located at 230 Bay Place, Oakland, California ("the Site").

The periodic groundwater monitoring was performed in accordance with the Revised Corrective Action Plan (RCAP), dated June 4, 2004. The RCAP superseded the Corrective Action Plan originally submitted to Alameda County Environmental Health (ACEH) on April 8, 2004. The purpose of the RCAP was to summarize the results of the remedial investigations and the interim remedial measures conducted to date at the Site and, based on the results of these site activities, to propose a corrective action for the remediation of soil and groundwater quality at the Site. ACEH subsequently approved the proposed interim remediation work plan, described in the RCAP, in a letter dated October 6, 2004.

In addition to the normal suite of analytes, groundwater samples collected during this monitoring event were submitted for total dissolved solids (TDS) analysis. LFR also qualitatively assessed the likely yield from wells LF-2 and LF-3 after the samples were collected. The TDS analysis and the qualitative assessment of yield were conducted to assess the shallow groundwater's designation as a possible source of drinking water.

As discussed during our meeting on July 10, 2008, the periodic groundwater monitoring and reporting schedule for this project has been reduced in frequency from quarterly to semiannually (twice a year). Therefore, the next monitoring event will take place in March 2009 and will represent the time interval of October 2008 through June 2009. We are aware that this first semiannual monitoring period will include nine months but this will allow the periodic monitoring and reporting schedule to match the calendar. The report for that monitoring event will be



submitted on or before July 31, 2009. If you have any questions or comments, please contact me at (650) 469-7224 or Ron at (510) 652-4500.

Sincerely,

A handwritten signature in blue ink that reads "Charles H. Pardini".

Charles H. Pardini, P.G.  
Principal Geologist  
Operations Manager-Los Altos

A handwritten signature in black ink that reads "Ron Goloubow".

Ron Goloubow  
Senior Associate Geologist

Enclosure

cc: Robert Bond, Bond CC Oakland, LLC  
Alan Lee, Bond CC Oakland, LLC Zachary Walton, Esq., Paul, Hastings, Janofsky & Walker  
LLP



October 31, 2008

Mr. Paresh Khatri  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

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Dear Mr. Khatri:

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call me at (312) 853-0700 or Chuck Pardini of LFR Inc. at (650) 469-7224.

Sincerely,

Bond CC Oakland, LLC

  
Robert Bond  
President

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## CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Inc. California Professional Geologist. \*



Charles H. Pardini  
Principal Geologist  
California Professional Geologist (6444)



Date

\* A professional geologist's certification of conditions comprises a declaration of his or her professional judgment. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations, and ordinances.

## 1.0 INTRODUCTION

### 1.1 Purpose of the Report

LFR Inc. (LFR) has prepared this quarterly groundwater monitoring report on behalf of Bond CC Oakland, LLC (“Bond”) to summarize the activities conducted during the monitoring period from July 1 through September 30, 2008 (“the reporting quarter”) at the former Cox Cadillac property, located at 230 Bay Place, Oakland, California (“the Site”; Alameda County Environmental Health [ACEH] Fuel Leak Case Number RO0000148 and Geotracker Global ID Number T0600100193).

The periodic groundwater monitoring was performed in accordance with the Revised Corrective Action Plan (RCAP), dated June 4, 2004. The RCAP superseded the Corrective Action Plan originally submitted to ACEH on April 8, 2004. The purpose of the RCAP was to summarize the results of the remedial investigations and the interim remedial measures conducted to date at the Site and, based on the results of these site activities, to propose a corrective action for the remediation of soil and groundwater quality at the Site. ACEH subsequently approved the proposed interim remediation work plan, described in the RCAP, in a letter dated October 6, 2004.

### 1.2 Background

The Site was formerly occupied by Cox Cadillac and was used for automobile sales and service. A portion of the facility was formerly used as a sales showroom and offices, while the remainder was formerly used for automobile storage, bodywork, painting, and indoor service. Currently, the Site has been redeveloped into a Whole Foods Market; construction activities were completed and the store opened in September 2007.

The site vicinity is primarily residential, commercial, and light-industrial facilities, mainly automobile dealerships and service stations. Single-family and multi-unit residential buildings occupy the property to the northeast and southeast of the Site. The property to the northwest of the Site is occupied by a church and associated school. An automobile dealership, auto repair shops, and a service station occupy the properties to the south and west of the Site across Bay Place. The surface topography in the site vicinity slopes gently to the west from Vernon Street to Bay Place.

Total petroleum hydrocarbons (TPH) as gasoline (TPHg); TPH as diesel (TPHd); TPH as motor oil (TPHmo); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl tertiary-butyl ether (MTBE; collectively referred to as chemicals of potential concern [COPCs]) have been detected in soil and groundwater samples collected at the Site. A partial summary of the analytical results of groundwater samples previously collected at the Site is included as Appendix A.



The RCAP presented a description and evaluation of the corrective actions that were implemented to reduce the concentrations of the COPCs that have been detected in the soil and groundwater at the Site. The interim remedial actions described in the RCAP and the “Addendum to the Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California,” dated June 17, 2004, were approved by ACEH in a letter dated October 6, 2004. The proposed interim remedial action for the Site was to conduct an excavation to remove the source for the affected groundwater, and to conduct periodic groundwater monitoring and reporting to assess the effectiveness of the removal action.

### **1.3 Excavation and Disposal of Soil**

During the period from September 16 to December 16, 2005, LFR supervised the excavation of affected soil in the vicinity of the former gasoline and waste oil underground storage tanks (USTs) that contained concentrations of target analytes above the remediation goals. A total of approximately 5,000 tons of TPH-affected soil was excavated from this area. The soil excavated from the TPH-affected area was temporarily stockpiled and subsequently disposed of as Class 2 waste material at Allied Waste’s Forward Landfill, located in Manteca, California. In addition, approximately 250 tons of brick and concrete debris removed from the area of excavation were disposed of at Allied Waste’s Keller Canyon Landfill, located in Pittsburg, California. In addition to the 5,000 tons of petroleum-affected soil removed from the Site, approximately 245,000 gallons of potentially petroleum-affected water were removed from the Site after the excavation filled with water.

A detailed description of the activities associated with this excavation work and the findings of the confirmation soil sampling are included in LFR’s report entitled “Results of the Implementation of the Revised Corrective Action Plan, Former Cox Cadillac Site, 230 Bay Place, Oakland, California,” dated August 3, 2007.

### **1.4 Installation of Groundwater Monitoring Wells**

LFR installed five new groundwater monitoring wells at locations illustrated on Figure 2 between August 28 and September 20, 2007. The total depth of each well ranges from approximately 13 feet below ground surface (bgs) at well LF-5 to approximately 23 feet bgs at well LF-1. Each monitoring well was constructed using 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) well casing and machine-slotted Schedule 40 PVC well screens with a 0.010-inch slot size. To comply with a request from ACEH, the well screen intervals were limited to approximately 4 feet. Details regarding the installation of the groundwater monitoring wells were included in the “Groundwater Monitoring Report for the Quarterly Reporting Period from October 1 through December 31, 2007,” dated January 31, 2008 (LFR 2008a).

## 2.0 QUARTERLY GROUNDWATER MONITORING REPORT

In addition to the normal suite of analytes, groundwater samples collected during this monitoring event were submitted for total dissolved solids (TDS) analysis. LFR also qualitatively assessed the likely yield from wells LF-2 and LF-3 after the samples were collected. The TDS analysis and the qualitative assessment of yield were conducted to assess the shallow groundwater's designation as a possible source of drinking water.

The following activities were performed during this reporting quarter:

- Bond and LFR met with ACEH representatives to discuss the regulatory status of the Site on July 10, 2008
- Conducted groundwater monitoring on September 8, 2008
- Assessed the maximum groundwater yield from wells LF-2 and LF-3

The data generated during the latter two activities were evaluated and are presented in this report.

### 2.1 Summary of Meeting

The key issues presented or discussed at the meeting included the following:

- A summary of the investigation and remedial activities conducted at the Site to date
- The designation of the shallow groundwater at the Site as a source of drinking water specifically as to how it relates to the cleanup goals for soil and groundwater at the Site
- The concentrations of MTBE detected in groundwater samples collected at the Site
- A proposal to modify the schedule for periodic groundwater monitoring and reporting
- Site closure

#### 2.1.1 Groundwater Designation

Currently the cleanup goals designated for the Site are for properties where the groundwater is considered a potential source of drinking water. Based on the location of this Site and the depth to the groundwater that is affected, the shallow groundwater in this area of Oakland is likely not a potential source of drinking water. To demonstrate that the groundwater beneath the Site is not a potential source of drinking water, LFR recommended the following specific activities during the groundwater monitoring event:

- Groundwater samples collected from each well during this monitoring event were analyzed for TDS analysis

- Estimating/calculating the volume of groundwater that could be extracted from each well

For groundwater to be considered a drinking water source in California, the TDS must be less than 3,000 milligrams per liter (mg/L; Regional Water Quality Control Board [RWQCB] Basin Plan 2007). The U.S. Environmental Protection Agency (U.S. EPA) drinking water standard for TDS is 500 mg/L. In addition, according to the Basin Plan, a well must produce a minimum of 200 gallons per day or 0.12 gallons per minute (for 24 hours) to be considered a drinking water source in California. As discussed below, LFR submitted groundwater samples collected from each well for TDS analysis. In addition, LFR assessed the potential yield at wells LF-2 and LF-3.

### **2.1.2 Methyl Tertiary-Butyl Ether**

Concentrations of MTBE detected in groundwater samples collected from well LF-3 will likely continue to exceed the proposed cleanup goals for groundwater that is not considered a drinking water source. The ACEH acknowledged that Bond has assessed the lateral and vertical extent of MTBE at locations on and off site. The ACEH has also acknowledged that there is no feasible approach or technology available to further reduce the concentrations of MTBE in groundwater in this portion of the Site. Therefore, our understanding from the meeting is that the ACEH will consider this Site as a “Low Risk Fuel Site.” As such, only periodic groundwater monitoring and reporting will be required.

### **2.1.3 Schedule for Periodic Groundwater Monitoring and Reporting**

The ACEH was informed at the meeting that after one year of quarterly groundwater monitoring and reporting, Bond will propose that the monitoring and reporting schedule be reduced in frequency from quarterly to semiannually (twice a year). The monitoring period of July to September 2008 will represent the completion of one year of quarterly groundwater monitoring and reporting. The recommendation to revise the quarterly groundwater monitoring and reporting schedule is included in this report.

### **2.1.4 Site Closure**

The ACEH indicated that they may provide Bond a letter stating that no further investigation or remediation is necessary at this Site even if the concentrations of MTBE in groundwater are still greater than the cleanup goal. The letter would be prepared after groundwater monitoring and reporting has been completed, and a trend for the analytes is established for the groundwater quality at the Site. The length of time that periodic groundwater monitoring and reporting would be required was not established.

## 2.2 Groundwater Elevation and Gradient

Depth to groundwater was measured in the five groundwater monitoring wells on September 8, 2008. The groundwater elevation in each well was calculated using the surveyed top of casing elevation; results are summarized in Table 1. Groundwater elevation data and contours are presented on Figure 2. The depth to groundwater in the wells measured on September 8, 2008 ranged from 1.98 to 5.47 feet bgs in the five wells.

The groundwater elevation contours indicate that the groundwater flow direction beneath the Site was generally toward the south-southwest on September 8, 2008, with a horizontal groundwater gradient of approximately 0.038 foot per foot measured between wells LF-5 and LF-3. This gradient and flow direction is generally consistent with the historical gradient and flow direction previously observed at this Site by LFR and previous consultants. However, it appears that shallow groundwater preferentially flows more towards the southern portion of the Site, where the large excavation was conducted.

## 2.3 Groundwater Sampling

Groundwater samples were collected from the five monitoring wells on September 8, 2008, using low-flow groundwater sampling techniques. The intake of the low-flow pump was placed in the middle of the screened interval and purged continuously until the basic groundwater parameters stabilized, or until the well had been purged for approximately 30 minutes or of two gallons. Field parameters were recorded on log sheets and are summarized in Table 2.

Groundwater samples were collected directly from the hose of the pump and conveyed into laboratory-supplied sample containers. The containers were labeled with the well identification number, the time and date of collection, the analysis requested, and the initials of the sampler. The samples were stored in an ice-chilled cooler and maintained under strict chain-of-custody protocols as they were submitted to the analytical laboratory.

The groundwater samples were submitted to Curtis & Tompkins, Ltd., a state-certified laboratory located in Berkeley, California, and analyzed for TPHg and TPHd using U.S. EPA test method 8015, modified. The samples were also analyzed for BTEX and fuel oxygenates using EPA test method 8260B and TDS using EPA Test Method SM2540C. Analytical results of groundwater samples are presented in Table 3, and copies of the laboratory data sheets and chain-of-custody documents are presented in Appendix B.

### 2.3.1 Analytical Results for Groundwater Samples

Analytical results for the groundwater samples collected during this monitoring event are summarized in Table 3 and presented on Figure 3. Historical groundwater-quality

results are presented in Appendix A, and the locations of the former wells on the Site are shown on Figure 2. As indicated in Table 3 and on Figure 3, the removal actions that took place at the Site have significantly improved groundwater quality in the vicinity of wells LF-1 and LF-5. Concentrations of TPHg and BTEX were not present above the laboratory reporting limits in samples collected from either well. These analytical results are consistent with the results of samples collected at the Site in October 2007 and February and March 2008 (LFR 2008a). The analytical results for groundwater samples collected at the Site during this reporting quarter have been compared to the RWQCB Environmental Screening Levels (ESLs) for sites where groundwater is and is not considered a source of drinking water (RWQCB 2008).

Concentrations of petroleum hydrocarbons and BTEX detected in samples collected from former well MW-1 (located near the former waste oil UST location), before it was abandoned during the soil remediation activities, were significantly elevated (Appendix A). Notably, during this groundwater monitoring event, TPHg and TPHd were not present above analytical detection limits in the groundwater sample collected from well LF-1 (located near former well MW-1).

BTEX compounds were detected at very low concentrations in samples collected from well LF-4. This is the first time that these compounds have been detected in samples collected from this well. Of the BTEX compounds detected, only benzene was present at a concentration greater than its ESL for sites where groundwater is considered a source of drinking water. None of the compounds were detected at concentrations greater than their respective ESLs for sites where groundwater is not considered a source of drinking water. The concentrations of these compounds will be assessed during future groundwater monitoring periods.

Concentrations of MTBE in groundwater samples collected during this reporting quarter ranged from below laboratory reporting limits in the sample collected from well LF-1 to 9,300 micrograms per liter ( $\mu\text{g}/\text{L}$ ) in the sample collected from well LF-3. In samples collected from wells LF-2, LF-3, and LF-4, MTBE was detected at concentrations above its ESL of 5.0  $\mu\text{g}/\text{L}$  for sites where groundwater is considered a source of drinking water. However, only the sample collected from well LF-3 contained MTBE at a concentration above its ESL for sites where groundwater is not considered a source of drinking water. These analytical results are consistent with the results of samples collected at the Site after the removal action was completed.

TPHd was detected in samples collected from wells LF-2, LF-3, LF-4, and LF5 at 1,400  $\mu\text{g}/\text{L}$ , 200  $\mu\text{g}/\text{L}$ , 80/75 (duplicate sample)  $\mu\text{g}/\text{L}$ , and 53  $\mu\text{g}/\text{L}$ , respectively. These concentrations are near or above the ESL of 100  $\mu\text{g}/\text{L}$  for TPHd for sites where groundwater is considered a source of drinking water. Each of these concentrations is below the ESL of 2,500  $\mu\text{g}/\text{L}$  for TPHd for sites where groundwater is not considered a source of drinking water. The laboratory reported that the sample did not exhibit a chromatographic pattern consistent with their standard for TPHd. The laboratory has provided this comment for previous samples collected from this well and indicates that the TPHd is degraded and not indicative of a recent release. This comment is consistent

with the comment for the samples collected at the Site in October 2007 and February 2008.

Groundwater quality in the vicinity of monitoring wells LF-2 and LF-3 indicates the presence of petroleum hydrocarbons at significant concentrations (Table 3 and Figure 3). Because these wells are located farther downgradient (south and southwest) from the former UST locations, the effect of the removal actions may not be observed as quickly as the effect observed closer to the former UST locations. The analytical results of grab groundwater samples collected from soil borings SB-8, UB-1, and SBA, collected in 2004 and 2005 (see Figure 7 in Appendix A), indicate that the lateral extent of shallow groundwater affected by MTBE is limited to the area near well LF-3 and former wells MW-2 and TW-7. Petroleum hydrocarbon concentrations at the Site will be monitored during future monitoring events.

Analytical results for TDS ranged from 10,200 mg/L in the sample collected from well LF-1 to 900 mg/L in the sample collected from well LF-4; the concentrations of TDS for samples collected from wells LF-2, LF-3, and LF-4 were 1,300 mg/L, 1,610 mg/L, and 3,340 mg/L, respectively. Each of these concentrations exceeds the U.S. EPA drinking water standard for TDS of 500 mg/L. TDS concentrations exceeded the RWQCB Basin Plan drinking water standard for TDS of 3,000 mg/L for two of the five samples collected. Based on these data, the groundwater at the Site is of poor quality and would not likely be considered a source of drinking water.

### 2.3.2 Evaluation of Pumping Rates

To assess the pumping rate that the saturated sediments at the Site could sustain, short-term step-drawdown tests were conducted at wells LF-2 and LF-3. In a typical step-drawdown test, the well is initially pumped at a low constant rate until the drawdown (depth to water) within the well stabilizes (i.e., until a steady state is reached). The pumping rate is then increased to a higher constant rate and the well is pumped until the drawdown stabilizes again.

Wells LF-2 and LF-3 were selected for the step-drawdown tests because they sustained the highest pumping rates during the development of the wells and while samples were being collected from the wells. Graphs illustrating the depth to water measured over time during the step-drawdown tests are presented in Appendix C.

#### 2.3.2.1 *Well L-F2*

Initially the pumping rate was set at well LF-2 at approximately 1,000 milliliters per minute (ml/min) or 0.26 gallons per minute (gpm). However, the water level in the well decreased approximately 1 foot in approximately 10 minutes (see chart in Appendix C). Based on this result, the pumping rate in well LF-2 was decreased to between approximately 600 and 700 ml/min. This pumping rate was sustained for 60 minutes. Based on this short-term step-drawdown test it appears that this well could sustain a pumping rate of between approximately 600 and 700 ml/min or 0.18 gpm for

40 minutes. Based on a 0.18 gpm pumping rate, it was extrapolated that the well could potentially yield approximately 260 gallons in 24 hours of continuous pumping. Given the relatively thin saturated sediment interval at the well LF-2 location (approximately 6 feet), it is unlikely that the well could sustain a pumping rate of 0.18 gpm for 24 hours and yield the 200 gallons of water needed to designate the groundwater as a source of drinking water.

### **2.3.2.2 Well LF-3**

Initially the pumping rate was set at well LF-3 at approximately 750 ml/min or 0.20 gpm. However, the well dewatered in approximately 50 minutes (see chart in Appendix C). Based on this short-term test, it appears that this well could not sustain a pumping rate of approximately 750 ml/min or 0.20 gpm. Given the failure of this well to sustain a significant yield (more than 200 gallons per day), the saturated sediments at this well are not a source of drinking water.

## **3.0 SCHEDULE**

As discussed during our meeting on July 10, 2008 the periodic groundwater monitoring and reporting schedule for this project is now going to be on a semiannual basis (twice a year). Therefore the next sampling will take place in March 2009, which will represent the time interval of October 2008 through June 2009. This first semiannual monitoring period will include nine months but this will allow the periodic monitoring and reporting schedule to match the calendar. The report for that monitoring event will be submitted on or before July 31, 2009.

## **4.0 REFERENCES**

- LFR Inc. (LFR). 2008a. Groundwater Monitoring Report for the Quarterly Reporting Period from October 1 through December 31, 2007, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148). January 31.
- . 2008b. Groundwater Monitoring Report for the Quarterly Reporting Period from April 1 through June 30, 2008, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148). April 30.
- LFR Levine-Fricke (LFR). 2004a. Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California. June 4.
- . 2004b. Addendum to the Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California. June 17.

Regional Water Quality Control Board (RWQCB). 2007. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). January 18.

———. 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (Interim Final – November 2007); Environmental Screening Levels (“ESLs”). Technical Document. October.



**Table 1**  
**Groundwater Elevations**  
**Former Cox Cadillac Property**  
**230 Bay Place, Oakland, California**

Location ID	Date Collected	Top-of-Casing Elevation <sup>(1)</sup>	Depth to Groundwater <sup>(2)</sup>	Groundwater Elevation <sup>(1)</sup>
LF-1	10/8/2007	13.40	2.56	10.84
	2/26/2008	13.40	2.33	11.07
	5/6/2008	13.40	2.15	11.25
	9/8/2008	13.40	1.98	11.42
LF-2	10/8/2007	13.13	3.71	9.42
	2/26/2008	13.13	3.78	9.35
	5/6/2008	13.13	4.05	9.08
	9/8/2008	13.13	4.01	9.12
LF-3	10/8/2007	13.15	5.24	7.91
	2/26/2008	13.15	5.08	8.07
	5/6/2008	13.15	5.11	8.04
	9/8/2008	13.15	5.24	7.91
LF-4	10/8/2007	13.32	5.74	7.58
	2/26/2008	13.32	5.55	7.77
	5/6/2008	13.32	5.61	7.71
	9/8/2008	13.32	5.47	7.85
LF-5	10/8/2007	15.92	3.46	12.46
	2/26/2008	15.92	2.97	12.95
	5/6/2008	15.92	2.38	13.54
	9/8/2008	15.92	4.13	11.79

**Notes:**

<sup>(1)</sup> Top-of-casing and groundwater elevation in North America Vertical Datum 1988

<sup>(2)</sup> Depth to water measured in feet below top of casing

**Table 2**  
**Results of Field Parameters**  
**in Groundwater Samples**  
**Former Cox Cadillac Property**  
**230 Bay Place, Oakland, California**

Location ID	Date Collected	Volume Purged (gallons)	Temperature (° Celsius)	Dissolved Oxygen (mg/L)	pH (units)	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)
LF-1	10/8/2007	5.25	18.36	5.82	6.70	10.700	1.65	--
	2/6/2008	1.75	17.15	2.74	6.79	13.279	15.2	57.10
	5/6/2008	5.50	16.95	0.72	6.59	13.187	--	170.30
	9/8/2008	2.5	18.00	0.32	6.59	9.760	--	-153.80
LF-2	10/8/2007	0.75	22.57	0.28	7.18	1.983	1.33	--
	2/6/2008	2.00	17.73	1.35	6.77	2.580	1.50	-113.20
	5/6/2008	2.00	20.16	0.19	6.49	3.378	--	-137.60
	9/8/2008	2.5	24.16	0.17	6.61	2.452	--	-143.30
LF-3	10/8/2007	5.00	20.52	6.07	6.51	2.169	3.92	--
	2/6/2008	1.00	16.64	2.60	6.57	2.047	2.40	158.00
	5/6/2008	2.00	18.82	0.19	6.30	2.338	--	37.10
	9/8/2008	2.5	27.07	0.42	6.43	2.080	--	-37.50
LF-4	10/8/2007	0.75	20.00	0.62	6.81	1.465	0.75	--
	2/6/2008	2.00	15.88	1.06	6.96	1.368	1.40	136.20
	5/6/2008	1.50	18.81	0.20	6.83	1.443	--	13.00
	9/8/2008	2.5	23.16	0.46	7.69	0.654	--	54.60
LF-5	10/8/2007	1.25	20.55	3.36	7.37	1.014	25.50	--
	2/6/2008	1.50	15.02	5.61	7.58	1.346	30.40	126.20
	5/6/2008	1.50	18.98	1.73	7.73	1.206	--	119.50
	9/8/2008	2.5	22.00	0.23	6.79	0.895	--	17.60

**Notes:**

Parameters measured using field instruments; data were collected by LFR Inc.

mg/L - milligrams per liter

mS/cm = milliSiemens per centimeter

NTU = nephelometric turbidity units

ORP = oxidation-reduction potential

mV = millivolts

-- = parameter not measured

**Table 3**  
**Analytical Results for Volatile Organic Compounds**  
**in Groundwater Samples**  
**Former Cox Cadillac Property**  
**230 Bay Place, Oakland, California**  
*Concentrations in micrograms per liter*

Location ID	Date Collected	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHmo	TPHg	TPHd	MTBE	TDS mg/L
LF-1	10/8/2007	<0.50	<0.50	<0.50	<0.50	<300	<250	<50	<0.50	NA
	2/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	55Y	<2.0	NA
	5/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	<50	<0.50	NA
	9/8/2008	<0.50	<0.50	<0.50	<0.50	NA	<50	<50	<0.50	10,200
LF-2	10/8/2007	<2.5	<2.5	<2.5	<2.5	900	<250	1,900Y	280	NA
	Duplicate 10/8/2007	<0.50	<0.50	<0.50	<0.50	1,100	<130	2,100Y	250	NA
Duplicate	2/6/2008	<2.5	<2.5	<2.5	<2.5	880	<50	1,800Y	260C	NA
	2/6/2008	<0.50	<0.50	<0.50	<0.50	800	<50	1,700Y	270C	NA
Duplicate	5/6/2008	<0.50	0.54	<0.50	0.63C	840	52Y	1,500Y	360	NA
	9/8/2008	<2.0	<2.0	<2.0	<2.0	NA	<50	1,400Y	320	1,300
	LF-3	10/8/2007	<50	<50	<50	<50	<300	<5,000	350Y	<b>12,000</b>
Duplicate	2/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	290Y	<b>15,000C</b>	NA
	5/6/2008	<0.50	0.70C	<0.50	0.94	<300	58Y	320Y	<b>16,000</b>	NA
Duplicate	9/8/2008	<63	<63	<63	<63	NA	<50	200Y	<b>9,300</b>	1,610
LF-4	10/8/2007	<1.3	<1.3	<1.3	<1.3	<300	<130	220Y	230	NA
	2/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	130Y	77C	NA
Duplicate	5/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	95Y	130	NA
	5/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	120Y	59	NA
Duplicate	9/8/2008	0.8	0.6	1.7	2.3	<300	<50	80Y	24	3,200
	9/8/2008	1.7	1.4	4.1	5.9	NA	<50	75Y	24	3,340
LF-5	10/8/2007	<0.50	<0.50	<0.50	<0.50	<300	<50	200Y	<0.50	NA
	2/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	51Y	<2.0	NA
	5/6/2008	<0.50	<0.50	<0.50	<0.50	<300	<50	91Y	28	NA
	9/8/2008	<0.50	<0.50	<0.50	<0.50	NA	<50	53Y	<0.50	900

**Screening Criteria**

ESL at a property where groundwater is considered a source of drinking	1.0	40	30	13	100	100	100	5.0	NE
ESL at a property where groundwater is not considered a source of drinking water	540	400	300	5,300	2,500	5,000	2,500	1,800	NE

**Notes:**

**Bold font** denotes analytical results are above ESLs where groundwater is not a source of drinking water.

Samples were analyzed by Curtis & Tompkins, Ltd., using EPA Test Methods 8260B and 8015B.

mg/L = milligrams per liter

NA = not analyzed

NE = not established

Duplicate = duplicate sample

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHmo = total petroleum hydrocarbons as motor oil

TDS = total dissolved solids

MTBE = methyl tertiary-butyl ether

Y = Sample exhibits chromatographic pattern that does not resemble standard.

C = Presence confirmed, but relative percent difference between columns exceeds 40%.

<2.5 = less than laboratory analytical reporting limits

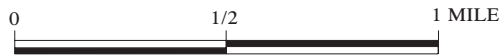
ESL denotes environmental screening criteria established by the Regional Water Quality Control Board in November 2007 to address environmental protection. Under most circumstances, the presence of a chemical in soil or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health. ESLs can be obtained from <http://www.swrcb.ca.gov/rwqcb2/ESL.htm>.





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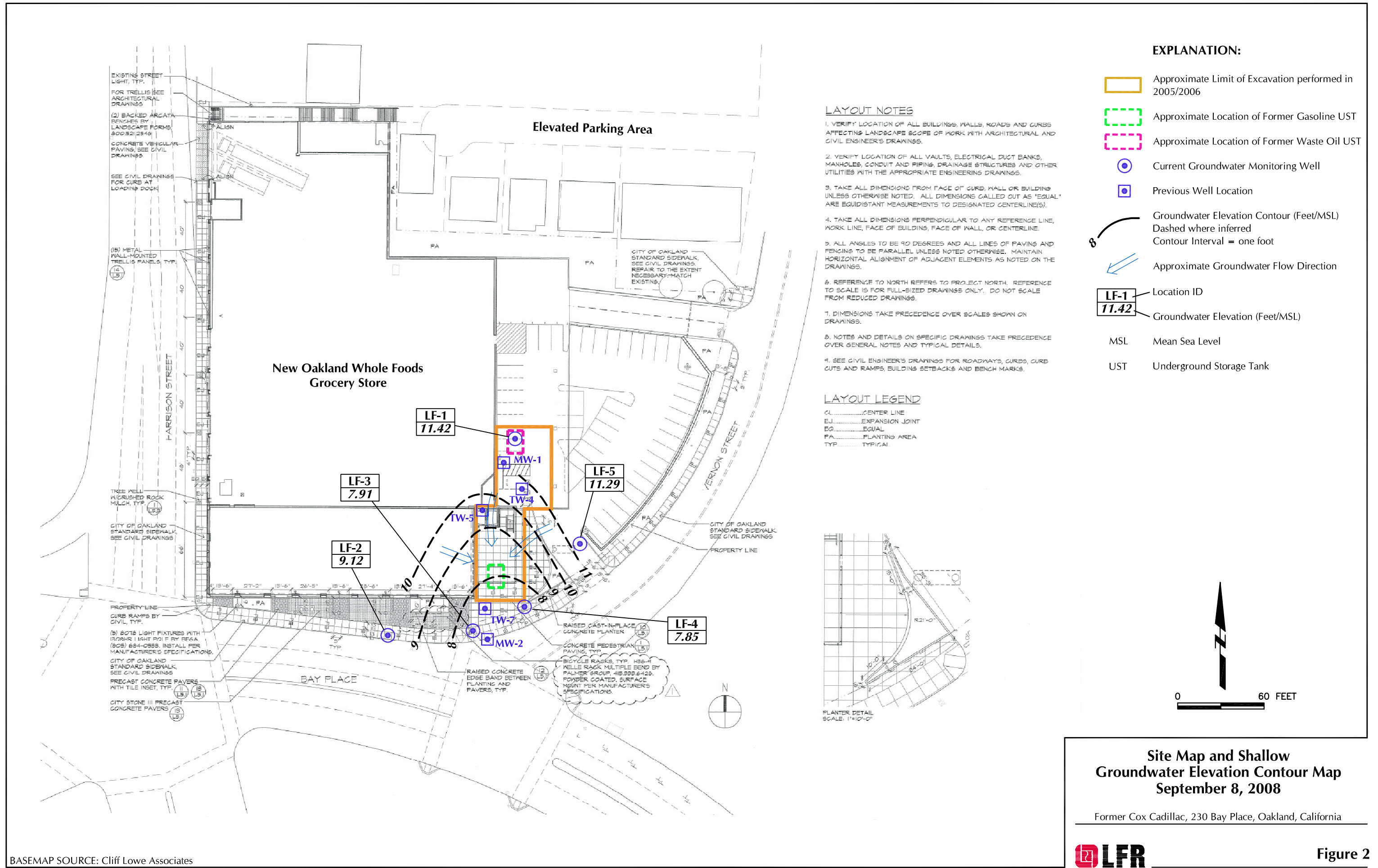
### Site Vicinity Map

Former Cox Cadillac, 230 Bay Place, Oakland, California



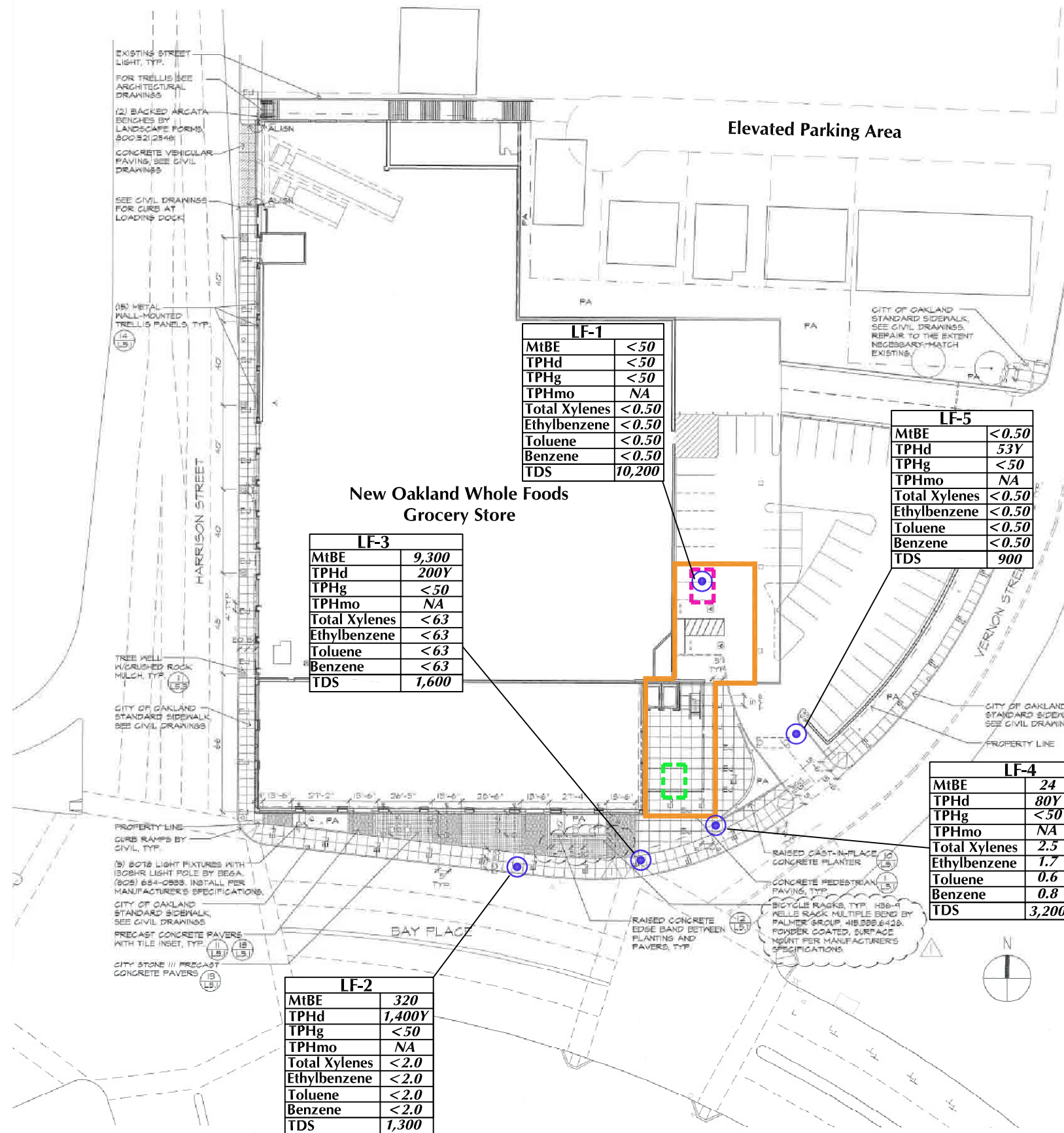
Figure 1





**Site Map and Shallow  
Groundwater Elevation Contour Map  
September 8, 2008**

Former Cox Cadillac, 230 Bay Place, Oakland, California

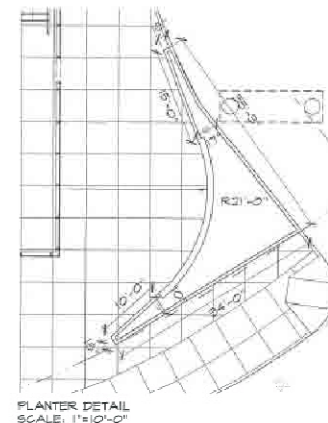


**LAYOUT NOTES**

1. VERIFY LOCATION OF ALL BUILDINGS, WALLS, ROADS AND CURBS AFFECTING LANDSCAPE SCOPE OF WORK WITH ARCHITECTURAL AND CIVIL ENGINEER'S DRAWINGS.
2. VERIFY LOCATION OF ALL VAULTS, ELECTRICAL DUCT BANKS, MANHOLES, CONDUIT AND PIPING, DRAINAGE STRUCTURES AND OTHER UTILITIES WITH THE APPROPRIATE ENGINEERING DRAWINGS.
3. TAKE ALL DIMENSIONS FROM FACE OF CURB, WALL OR BUILDING UNLESS OTHERWISE NOTED. ALL DIMENSIONS CALLED OUT AS "EQUAL" ARE EQUIDISTANT MEASUREMENTS TO DESIGNATED CENTERLINE(S).
4. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, FACE OF BUILDING, FACE OF WALL, OR CENTERLINE.
5. ALL ANGLES TO BE 90 DEGREES AND ALL LINES OF PAVING AND FENCING TO BE PARALLEL UNLESS NOTED OTHERWISE. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON THE DRAWINGS.
6. REFERENCE TO NORTH REFERS TO PROJECT NORTH. REFERENCE TO SCALE IS FOR FULL-SIZED DRAWINGS ONLY. DO NOT SCALE FROM REDUCED DRAWINGS.
7. DIMENSIONS TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.
8. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
9. SEE CIVIL ENGINEER'S DRAWINGS FOR ROADWAYS, CURBS, CURB CUTS AND RAMPS, BUILDING SETBACKS AND BENCH MARKS.

**LAYOUT LEGEND**

- CL.....CENTER LINE
- EJ.....EXPANSION JOINT
- EQ.....EQUAL
- PA.....PLANTING AREA
- TYP.....TYPICAL



**EXPLANATION:**

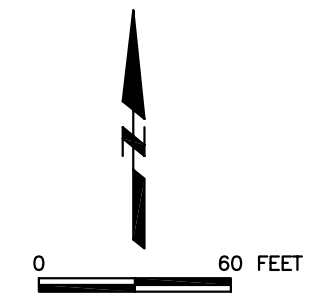
- Approximate Limit of Excavation performed in 2005/2006
- Approximate Location of Former Gasoline UST
- Approximate Location of Former Waste Oil UST
- Groundwater Monitoring Well
- UST Underground Storage Tank

LF-4		
MtBE	24	24
TPHd	80Y	75Y
TPHg	<50	<50
TPHmo	NA	NA
Total Xylenes	2.5	5.9
Ethylbenzene	1.7	4.1
Toluene	0.6	1.4
Benzene	0.8	1.7
TDS	3,200	3,340

Duplicate Sample Chemical Concentration in micrograms per liter (µg/L). TDS in milligrams per liter.

- MtBE methyl tertiary-butyl ether
- TPHd Total petroleum hydrocarbons as diesel
- TPHg Total petroleum hydrocarbons as gas
- TPHmo Total petroleum hydrocarbons as motor oil
- TDS Total dissolved solids in milligrams per liter

Y Sample exhibits chromatographic pattern which does not resemble standard



**Total Petroleum Hydrocarbon and Volatile Organic Compound Concentrations in Shallow Groundwater - September 8, 2008**

Former Cox Cadillac, 230 Bay Place, Oakland, California



Figure 3

## **APPENDIX A**

### **Historical Analytical Data in Groundwater**



**Table 2**  
**Groundwater Analytical Data**  
**Former Cox Cadillac**  
**230 Bay Place**  
**Oakland, California**

Concentration (µg/L)

Well Number	Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Dissolved	
															Lead	Ethanol
MW-1	03/03/93	8,500	7,500	4,400	15,000	110,000	--	350	--	--	--	--	--	--	--	--
MW-1	10/13/93	6,100	4,800	4,000	11,000	74,000	--	350	80	--	--	--	--	--	--	--
MW-1	12/22/94	18,000	11,000	2,800	16,000	110,000	--	130	--	--	--	--	--	<1.0	--	--
MW-1	03/24/95	3,700	1,800	2,200	4,700	25,000	--	130	--	--	--	--	--	<5.0	23	--
MW-1	06/29/95	5,300	2,100	3,200	7,500	28,000	--	110	--	--	--	--	--	<2.0	14	--
MW-1	09/29/95	5,600	2,200	3,800	7,400	43,000	--	98	--	--	--	--	--	<1.0	16	--
MW-1	02/23/96	4,800	3,000	3,400	7,700	46,000	--	96	--	--	--	--	--	<1.0	24	--
MW-1	01/12/99	2,600	970	2,900	5,700	39,000	800	--	--	--	--	--	--	--	--	--
MW-1	04/13/99	1,500	500	<50	4,000	29,000	520	--	--	--	--	--	--	--	--	--
MW-1	07/07/99	1,900	870	1,600	3,900	31,000	<250	--	--	--	--	--	--	--	--	--
MW-1	10/06/99	2,100	910	1,800	4,400	32,000	<250	a	--	--	--	--	--	--	--	--
MW-1	01/11/00	52	3.9	63	12	2,400	<5.0	a	--	--	--	--	--	--	--	--
MW-1	04/06/01	4,300	3,200	2,600	7,300	32,000	<10	a	--	--	--	--	--	--	--	--
MW-1	07/25/01	2,300	1,300	2,500	6,200	24,000	<25	a	--	--	--	--	--	--	--	--
MW-1	11/20/01	2,100	890	2,500	3,600	33,000	<100	a	--	--	--	--	--	--	--	--
MW-1	01/23/02	2,400	1,400	2,500	5,900	28,000	350	--	--	--	--	--	--	--	--	--
MW-1	04/26/02	3,200	2,400	2,700	6,300	39,000	2,800	--	--	--	--	--	--	--	--	--
MW-1	07/25/02	2,300	1,300	2,500	4,700	26,000	<500	--	--	--	--	--	--	--	--	--
MW-1	10/22/02	2,800	1,300	4,300	8,600	42,000	<10	<50	<50	<50	<100	<50	<50	--	--	--
MW-1	01/27/03	1,600	660	2,100	3,100	20,000	<20	<100	<100	<100	<200	<100	<100	--	--	--
MW-1	10/22/03	b 2,000	800	1,600	2,800	22,000	<20	<20	<20	<20	<200	<40	<20	--	--	<1,000
MW-1	01/30/04	2,700	1,400	2,900	5,800	32,000	<25	<25	<25	<25	<250	<50	<25	--	--	<1,300
MW-2	01/12/99	1.5	<0.50	<0.50	<0.50	<50	2,900	--	--	--	--	--	--	--	--	--
MW-2	04/13/99	0.76	<0.50	<0.50	<0.50	<50	3,800	--	--	--	--	--	--	--	--	--
MW-2	07/07/99	<25	<25	<25	<25	<2,500	7,000	a	--	--	--	--	--	--	--	--
MW-2	10/06/99	73	<25	<25	<25	2,800	300	a	--	--	--	--	--	--	--	--
MW-2	01/11/00	890	<100	<100	<100	11,000	8,400	a	--	--	--	--	--	--	--	--
MW-2	04/06/01	210	<25	<25	<25	2,800	3,800	a	--	--	--	--	--	--	--	--
MW-2	07/25/01	250	<12.5	<12.5	<12.5	3,400	4,200	a	--	--	--	--	--	--	--	--
MW-2	11/20/01	870	<100	<100	200	12,000	8,700	--	--	--	--	--	--	--	--	--
MW-2	01/23/02	100	<25	<25	<25	3,900	3,300	--	--	--	--	--	--	--	--	--
MW-2	04/26/02	13	<0.50	<0.50	<1.5	90	6,900	--	--	--	--	--	--	--	--	--
MW-2	07/25/02	<50	<50	<50	<100	<5,000	6,600	--	--	--	--	--	--	--	--	--
MW-2	10/22/02	<5.0	<5.0	<5.0	<10	7,800	7,000	<250	<250	<250	<500	<250	<250	--	--	--
MW-2	01/27/03	90	100	60	78	6,100	6,400	<250	<250	<250	<500	<250	<250	--	--	--
MW-2	10/22/03	b <10	<10	<10	<20	2,000	g 3,000	<10	<10	<10	<100	<20	<10	--	--	<500
MW-2	01/30/04	<25	<25	<25	<50	<2,500	2,100	<25	<25	<25	<250	<50	<25	--	--	<1,300



**Table 2**  
**Groundwater Analytical Data**  
**Former Cox Cadillac**  
**230 Bay Place**  
**Oakland, California**

Concentration (µg/L)

Well Number	Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	L,1-DCA	Dissolved	
															Lead	Ethanol
TW-1	10/13/93	<0.50	<0.50	<0.50	<0.50	<50	--	<0.50	<0.50	--	--	--	--	--	--	--
TW-2	10/13/93	<0.50	<0.50	<0.50	<0.50	<50	--	<0.50	<0.50	--	--	--	--	--	--	--
TW-2	01/12/99	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	04/13/99	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	07/07/99	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	10/06/99	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	01/11/00	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	04/06/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	07/25/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	11/20/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	01/23/02	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	04/26/02	<0.50	<0.50	<0.50	<1.5	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	07/25/02	<0.50	<0.50	<0.50	<1.0	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-2	10/22/02	<0.50	<0.50	<0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
TW-2	01/27/03	<0.50	<0.50	<0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
TW-2	10/22/03	b <0.50	<0.50	<0.50	<1.0	53	g <0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-2	01/30/04	<0.50	<0.50	<0.50	<1.0	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-3	10/13/93	<0.50	<0.50	<0.50	<0.50	<50	--	<0.50	<0.50	--	--	--	--	--	--	--
TW-4	10/13/93	65	18	49	33	2,000	--	<5.0	<5.0	--	--	--	--	--	--	--
TW-4	10/03/03	b <0.50	0.97	0.63	1.4	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-5	10/13/93	20,000	25,000	3,800	23,000	140,000	--	<100	<100	--	--	--	--	--	--	--
TW-5	10/03/03	b 4,400	1,700	820	2,900	21,000	<100	<100	<100	<100	<100	<200	<100	--	--	<5,000
TW-6	10/14/93	3,800	1,600	110	540	4,100	--	<1.0	<1.0	--	--	--	--	--	--	--
TW-6	12/22/94	5,400	2,700	3,100	6,800	24,000	--	<1.0	--	--	--	--	--	<1.0	--	--
TW-6	03/24/95	4,900	530	270	380	10,000	--	<2.0	--	--	--	--	--	<2.0	<3.0	--
TW-6	06/29/95	12,000	6,600	1,000	3,000	28,000	--	<1.0	--	--	--	--	--	<1.0	4.2	--
TW-6	09/29/95	19,000	5,200	1,500	4,000	47,000	--	<1.0	--	--	--	--	--	<1.0	3.3	--
TW-6	02/23/96	13,000	5,200	1,100	2,770	25,000	--	<1.0	--	--	--	--	--	<1.0	5.2	--
TW-6	01/12/99	9,900	4,100	1,000	4,000	29,000	210	--	--	--	--	--	--	--	--	--
TW-6	04/13/99	0.70	<0.50	<0.50	0.62	<50	22	--	--	--	--	--	--	--	--	--
TW-6	07/07/99	13	<0.50	<0.50	2.2	55	8.1	a --	--	--	--	--	--	--	--	--
TW-6	10/06/99	0.59	<0.50	<0.50	<0.50	<50	<5	--	--	--	--	--	--	--	--	--
TW-6	01/11/00	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	04/06/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--

**Table 2**  
**Groundwater Analytical Data**  
**Former Cox Cadillac**  
**230 Bay Place**  
**Oakland, California**

Concentration (µg/L)

Well Number	Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Dissolved	
															Lead	Ethanol
TW-6	07/25/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	11/20/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	01/23/02	<0.50	<0.50	<0.50	<0.50	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	04/26/02	<0.50	<0.50	<0.50	<1.5	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	07/25/02	0.60	<0.50	<0.50	<1	<50	<5.0	--	--	--	--	--	--	--	--	--
TW-6	10/22/02	<0.50	<0.50	<0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
TW-6	01/27/03	<0.50	<0.50	<0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
TW-6	10/22/03	b	<0.50	<0.50	<1.0	<50	<5.0	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-6	01/30/04	<0.50	<0.50	<0.50	<1.0	<50	<5.0	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-7	10/14/93	48,000	15,000	3,400	16,000	100,000	--	<50	<50	--	--	--	--	--	--	--
TW-7	12/22/94	49,000	33,000	7,300	28,000	210,000	--	<1.0	--	--	--	--	--	<1.0	--	--
TW-7	03/24/95	13,000	7,000	1,500	5,600	56,000	--	<2.0	--	--	--	--	--	<2.0	<3.0	--
TW-7	06/29/95	39,000	8,100	3,000	8,300	100,000	--	<1.0	--	--	--	--	--	<1.0	3.5	--
TW-7	09/29/95	32,000	8,700	2,900	8,600	74,000	--	<1.0	--	--	--	--	--	<1.0	3.5	--
TW-7	02/23/96	22,000	8,400	2,700	6,900	50,000	--	<5.0	--	--	--	--	--	<5.0	3.8	--
TW-7	01/12/99	7,300	670	2,700	960	29,000	<100	--	--	--	--	--	--	--	--	--
TW-7	04/13/99	4,500	1,800	180	8,200	54,000	1,200	--	--	--	--	--	--	--	--	--
TW-7	07/07/99	8,000	4,500	1,200	3,500	42,000	2,200	a	--	--	--	--	--	--	--	--
TW-7	10/06/99	9,700	1,600	1,600	2,100	29,000	580	a	--	--	--	--	--	--	--	--
TW-7	01/11/00	8,500	7,100	1,600	6,700	52,000	2,600	a	--	--	--	--	--	--	--	--
TW-7	04/06/01	4,800	1,800	2,200	3,400	22,000	690	a	--	--	--	--	--	--	--	--
TW-7	07/25/01	5,100	660	1,400	2,100	20,000	1,100	a	--	--	--	--	--	--	--	--
TW-7	11/20/01	6,400	1,100	1,000	2,400	26,000	1,600	--	--	--	--	--	--	--	--	--
TW-7	01/23/02	5,100	510	2,200	3,900	25,000	1,200	--	--	--	--	--	--	--	--	--
TW-7	04/26/02	4,400	1,300	2,900	2,370	29,000	1,600	--	--	--	--	--	--	--	--	--
TW-7	07/25/02	4,900	470	1,600	1,700	21,000	1,900	--	--	--	--	--	--	--	--	--
TW-7	10/22/02	6,700	410	1,100	1,500	31,000	1,700	a	<100	<100	<100	<200	<100	<100	--	--
TW-7	01/27/03	2,700	710	1,900	1,100	17,000	680	--	<100	<100	<100	<200	<100	<100	--	--
TW-7	10/22/03	b	2,900	130	310	370	13,000	660	<13	<13	<13	<130	<25	<13	--	<630
TW-7	01/30/04	2,500	520	1,900	550	16,000	300	--	<25	<25	<25	<250	<50	<25	--	<1,300

**Table 2  
Groundwater Analytical Data  
Former Cox Cadillac  
230 Bay Place  
Oakland, California**

Concentration (µg/L)

Well Number	Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Dissolved Lead Ethanol	
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**Notes:**

TPHg - Total Petroleum Hydrocarbons as gasoline

MTBE - Methyl tertiary butyl ether

DCA - Dichloroethane

EDB - Ethylene dibromide

TAME - Tertiary amyl methyl ether

TBA - Tertiary butyl alcohol

DIPE - Di-isopropyl ether

ETBE - Ethyl tertiary butyl ether

µg/L = Micrograms per liter.

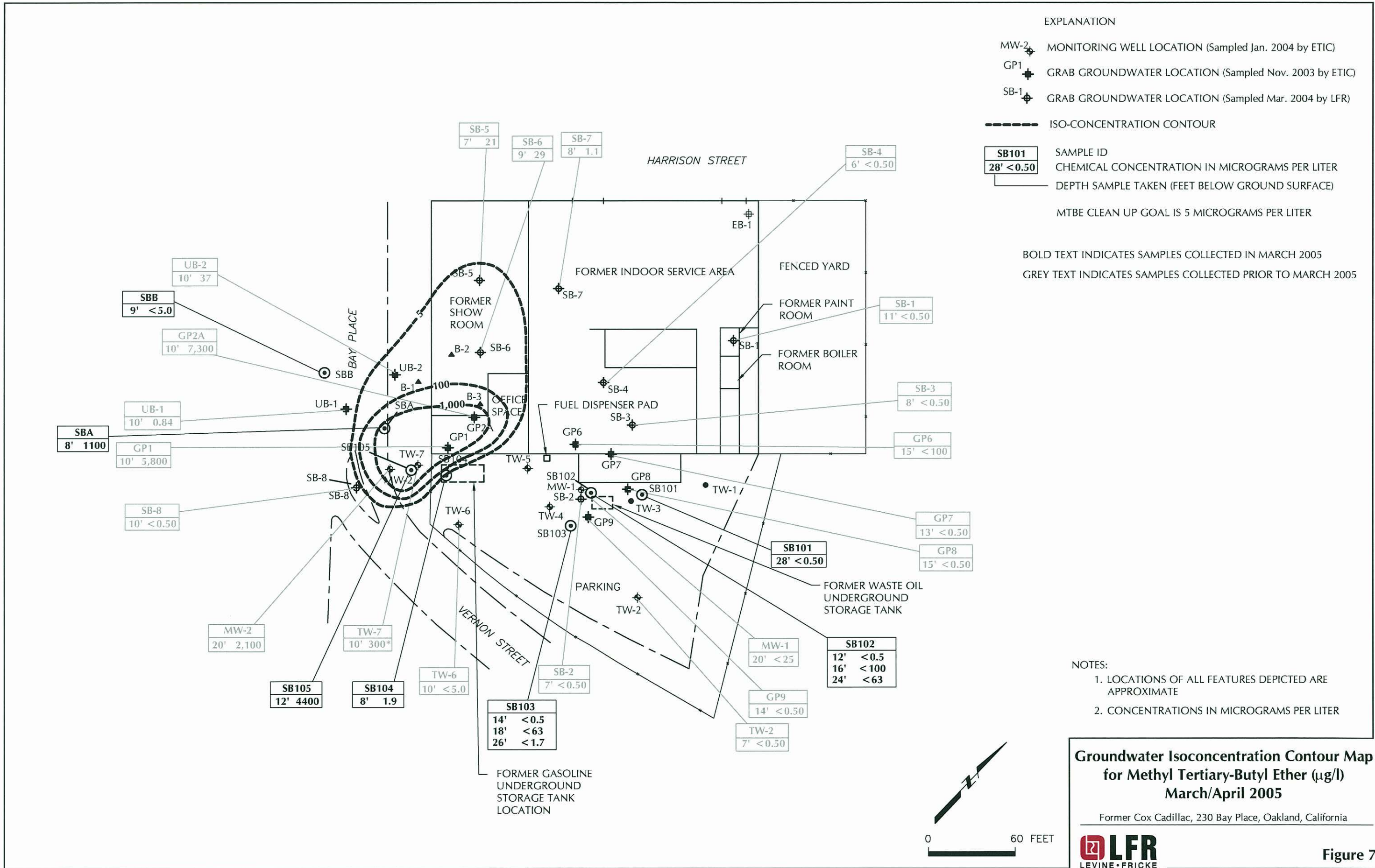
< = Not detected at or above indicated laboratory reporting limit.

- = Not Analyzed

a = MTBE Confirmation by EPA Method 8260B.

b = Samples were analyzed by EPA Method 8260B.

g = hydrocarbon reported in gasoline range does not match our gasoline standard.



EXPLANATION

- MW-2 MONITORING WELL LOCATION (Sampled Jan. 2004 by ETIC)
- GP1 GRAB GROUNDWATER LOCATION (Sampled Nov. 2003 by ETIC)
- SB-1 GRAB GROUNDWATER LOCATION (Sampled Mar. 2004 by LFR)

- ISO-CONCENTRATION CONTOUR
- SB101** SAMPLE ID
- 28' <0.50** CHEMICAL CONCENTRATION IN MICROGRAMS PER LITER
- DEPTH SAMPLE TAKEN (FEET BELOW GROUND SURFACE)
- MTBE CLEAN UP GOAL IS 5 MICROGRAMS PER LITER

BOLD TEXT INDICATES SAMPLES COLLECTED IN MARCH 2005  
 GREY TEXT INDICATES SAMPLES COLLECTED PRIOR TO MARCH 2005

- NOTES:
1. LOCATIONS OF ALL FEATURES DEPICTED ARE APPROXIMATE
  2. CONCENTRATIONS IN MICROGRAMS PER LITER

**Groundwater Isoconcentration Contour Map  
 for Methyl Tertiary-Butyl Ether (µg/l)  
 March/April 2005**

Former Cox Cadillac, 230 Bay Place, Oakland, California



Figure 7

## **APPENDIX B**

### **Laboratory Analytical Reports**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 205870  
ANALYTICAL REPORT

LFR Levine Fricke  
1900 Powell Street  
Emeryville, CA 94608


Project : 001-09171-17  
Location : Whole Foods  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
TB090807	205870-001
LF-1	205870-002
LF-2	205870-003
LF-3	205870-004
LF-4	205870-005
LF-5	205870-006
LF-4D	205870-007

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:   
Project Manager

Date: 09/16/2008

Signature:   
Quality Assurance Director

Date: 09/16/2008

### CASE NARRATIVE

Laboratory number: 205870  
Client: LFR Levine Fricke  
Project: 001-09171-17  
Location: Whole Foods  
Request Date: 09/09/08  
Samples Received: 09/09/08

This hardcopy data package contains sample and QC results for seven water samples, requested for the above referenced project on 09/09/08. The samples were received cold and intact. All data were e-mailed to Ron Goloubow on 09/16/08.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

Low recovery was observed for gasoline C7-C12 in the MSD for batch 142283; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

**Total Dissolved Solids (TDS) (SM2540C):**

No analytical problems were encountered.







## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC459372	Batch#:	142283
Matrix:	Water	Analyzed:	09/09/08
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,077	108	78-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	61-149
Bromofluorobenzene (FID)	111	65-146

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	142283
MSS Lab ID:	205877-001	Sampled:	09/09/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/10/08
Diln Fac:	1.000		

Type: MS Lab ID: QC459373

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	32.19	2,000	1,362	66	65-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	142	61-149
Bromofluorobenzene (FID)	117	65-146

Type: MSD Lab ID: QC459374

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,293	63 *	65-120	5	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	148	61-149
Bromofluorobenzene (FID)	122	65-146

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference





## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09171-17	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	142346
Units:	ug/L	Prepared:	09/10/08
Diln Fac:	1.000	Analyzed:	09/12/08

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC459678

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,725	69	52-120

Surrogate	%REC	Limits
Hexacosane	92	58-127

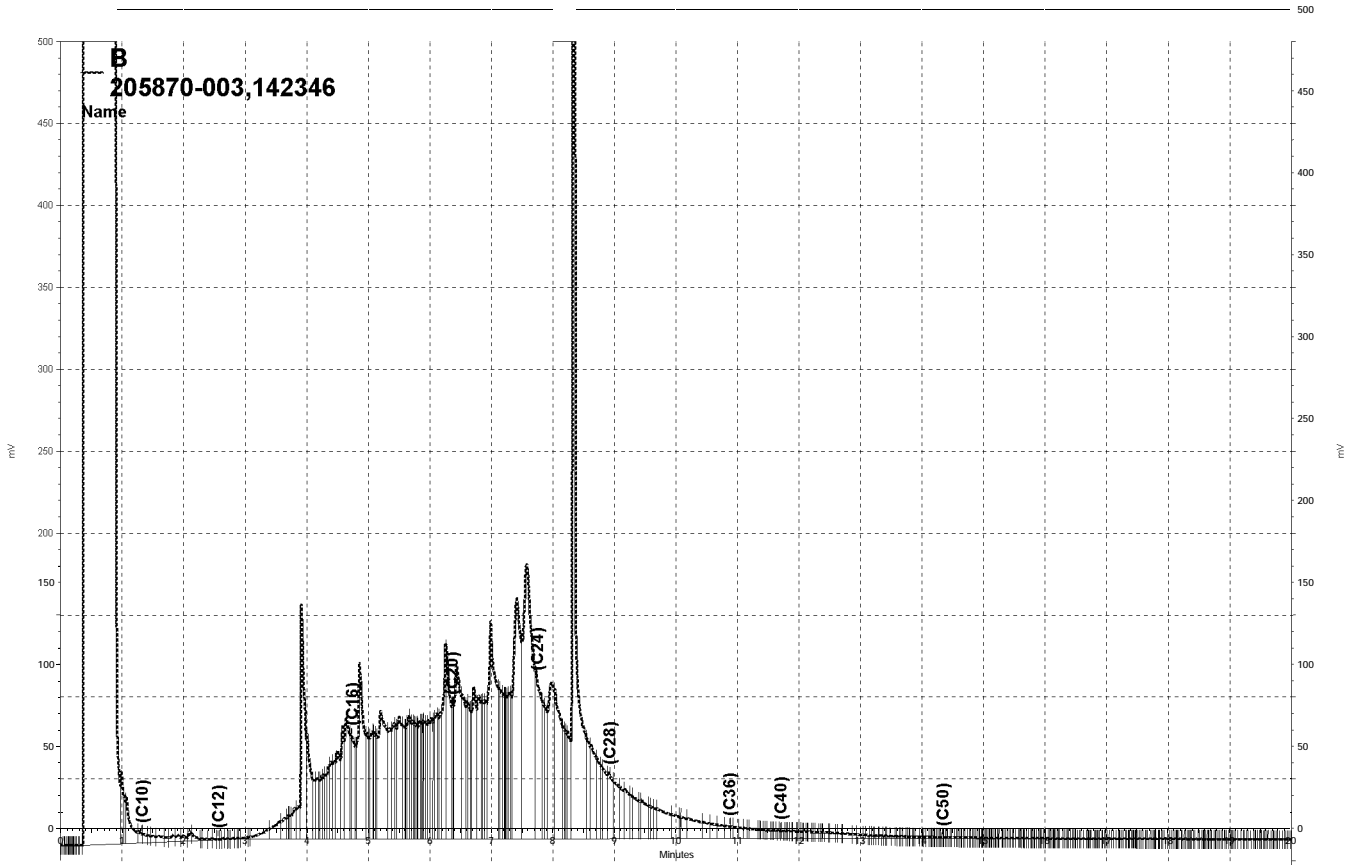
Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC459679

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,751	70	52-120	1	30

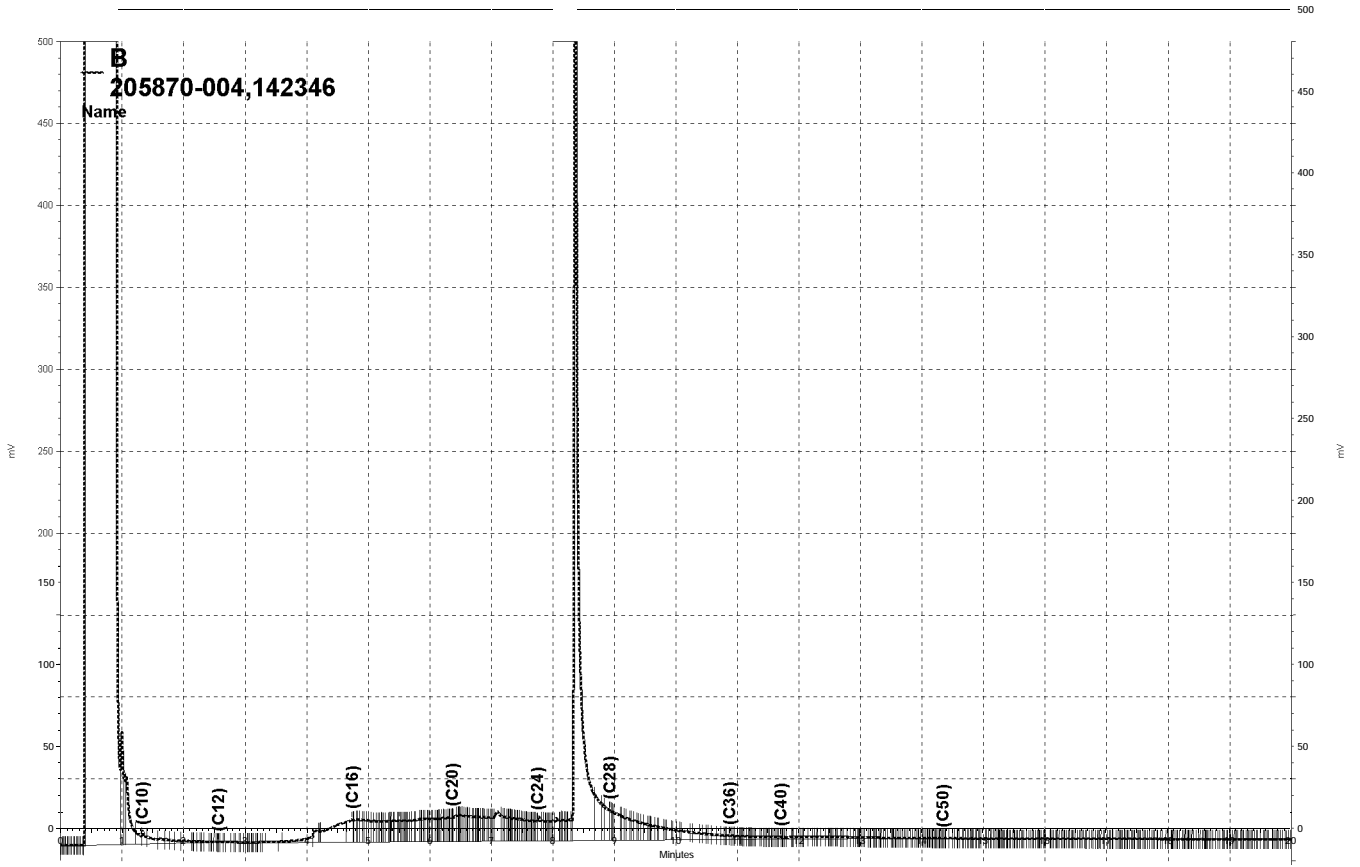
  

Surrogate	%REC	Limits
Hexacosane	90	58-127

RPD= Relative Percent Difference



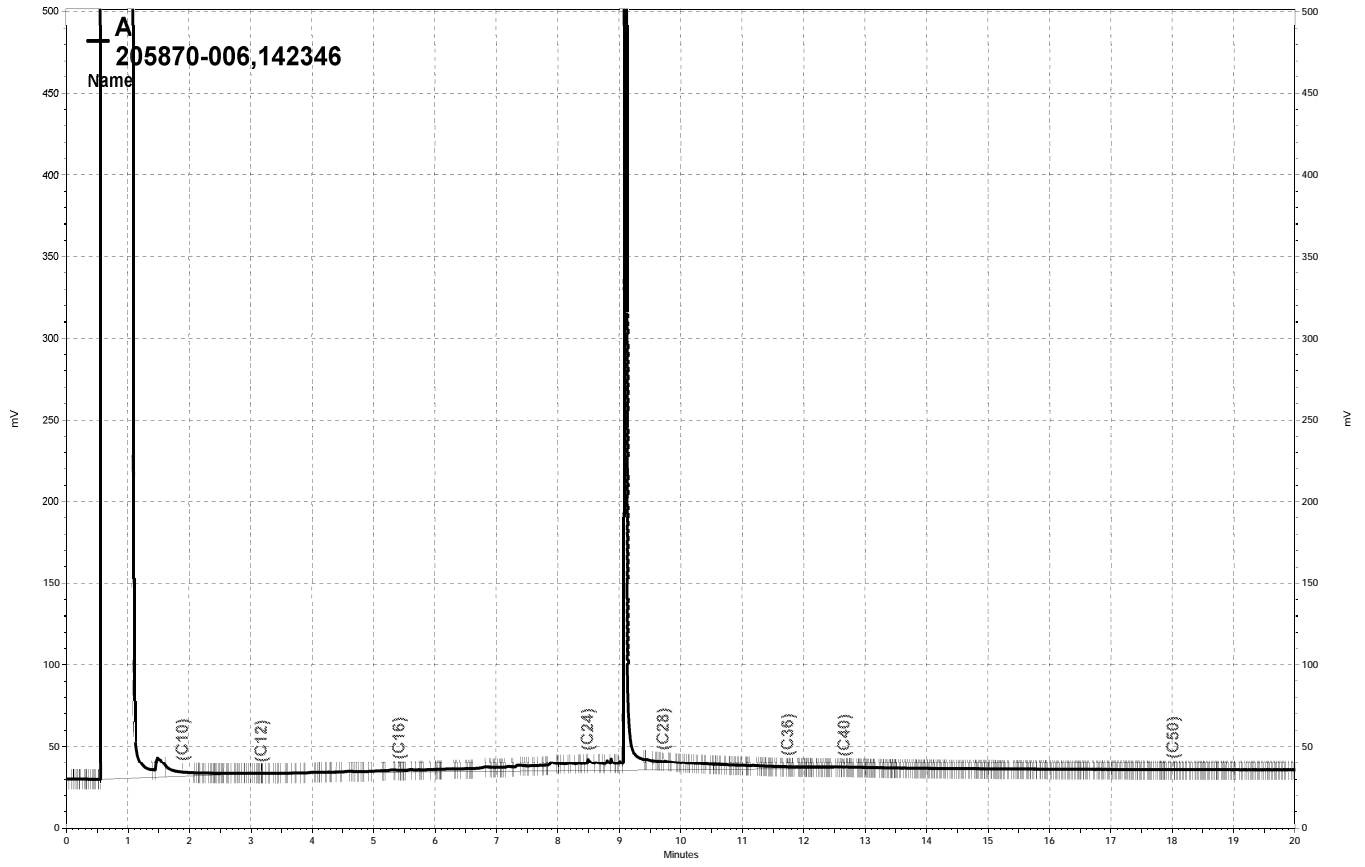
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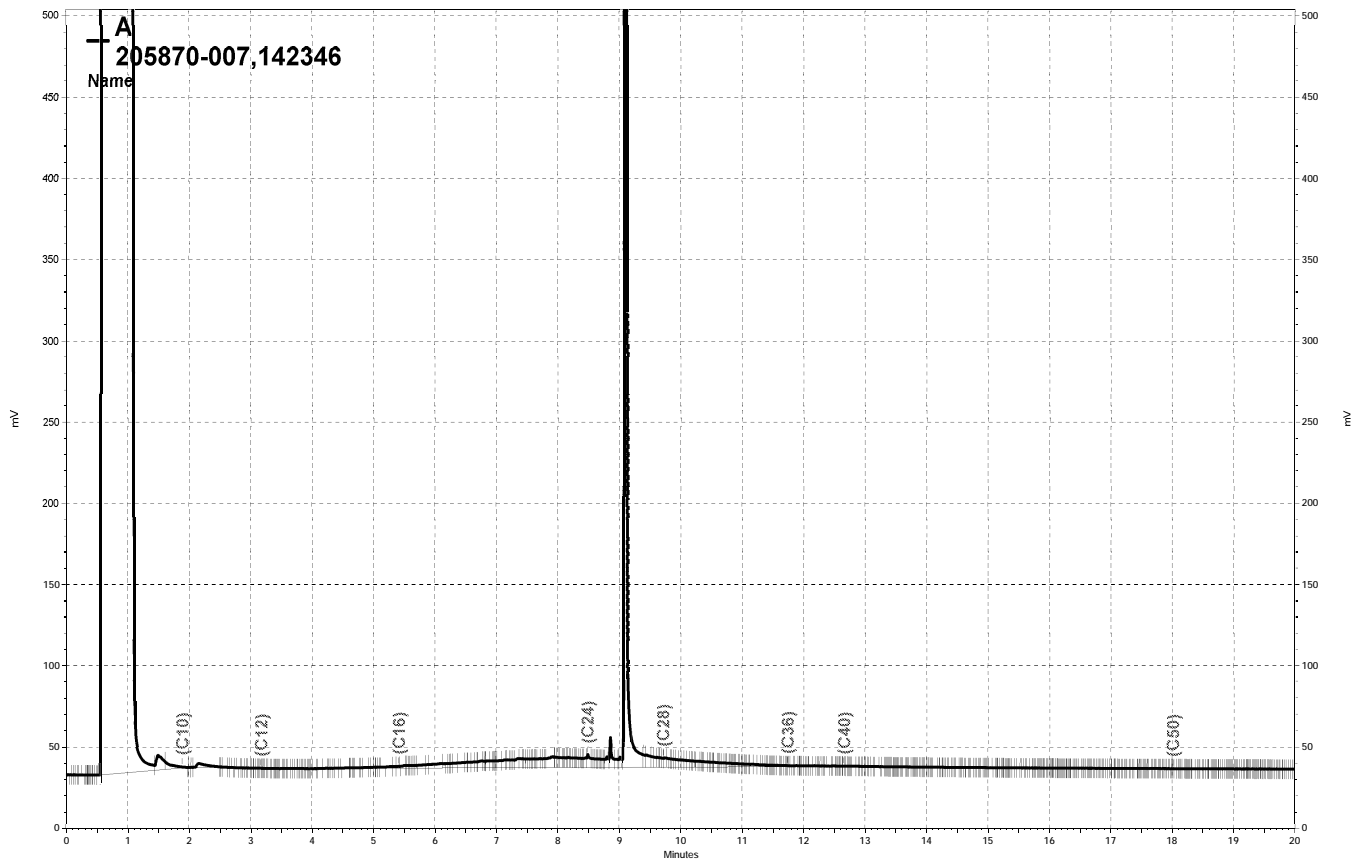
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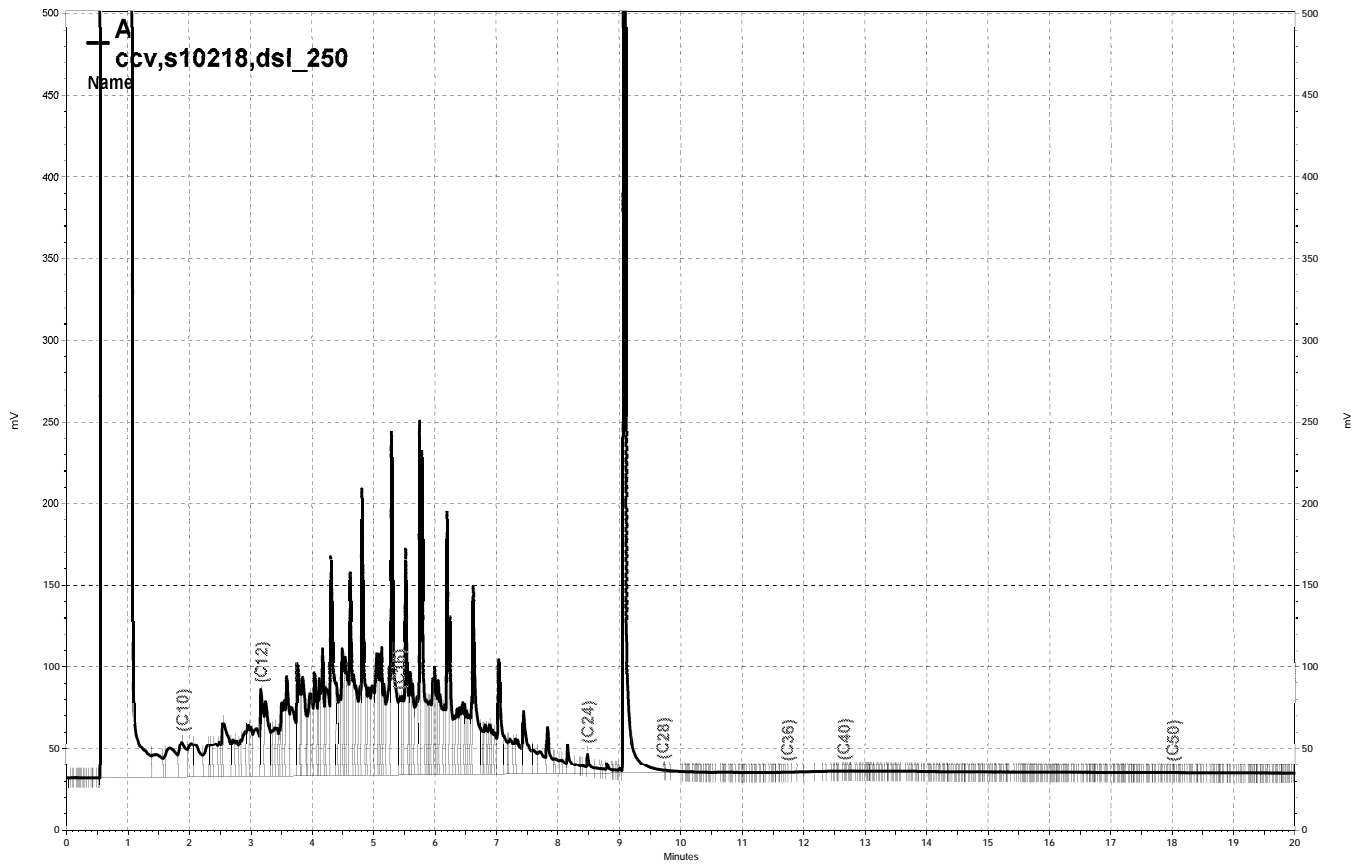




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<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	TB090807	Batch#:	142419
Lab ID:	205870-001	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	1.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	95	80-125
1,2-Dichloroethane-d4	102	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	112	80-122

ND= Not Detected  
 RL= Reporting Limit

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-1	Batch#:	142456
Lab ID:	205870-002	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/13/08
Diln Fac:	1.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	99	80-125
1,2-Dichloroethane-d4	106	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	115	80-122

ND= Not Detected  
 RL= Reporting Limit

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-2	Batch#:	142419
Lab ID:	205870-003	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	4.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	40
MTBE	320	2.0
Isopropyl Ether (DIPE)	ND	2.0
Ethyl tert-Butyl Ether (ETBE)	ND	2.0
1,2-Dichloroethane	ND	2.0
Benzene	ND	2.0
Methyl tert-Amyl Ether (TAME)	ND	2.0
Toluene	ND	2.0
1,2-Dibromoethane	ND	2.0
Ethylbenzene	ND	2.0
m,p-Xylenes	ND	2.0
o-Xylene	ND	2.0

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	95	80-125
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	98	80-120
Bromofluorobenzene	114	80-122

ND= Not Detected  
 RL= Reporting Limit

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-3	Batch#:	142419
Lab ID:	205870-004	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	125.0		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	1,300
MTBE	9,300	63
Isopropyl Ether (DIPE)	ND	63
Ethyl tert-Butyl Ether (ETBE)	ND	63
1,2-Dichloroethane	ND	63
Benzene	ND	63
Methyl tert-Amyl Ether (TAME)	ND	63
Toluene	ND	63
1,2-Dibromoethane	ND	63
Ethylbenzene	ND	63
m,p-Xylenes	ND	63
o-Xylene	ND	63

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	95	80-125
1,2-Dichloroethane-d4	98	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	111	80-122

ND= Not Detected  
 RL= Reporting Limit



<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-4	Batch#:	142419
Lab ID:	205870-005	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	1.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	24	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.8	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	0.6	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	1.7	0.5
m,p-Xylenes	1.5	0.5
o-Xylene	0.8	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	99	80-125
1,2-Dichloroethane-d4	103	80-137
Toluene-d8	98	80-120
Bromofluorobenzene	110	80-122

ND= Not Detected  
 RL= Reporting Limit

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-5	Batch#:	142419
Lab ID:	205870-006	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	1.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	100	80-125
1,2-Dichloroethane-d4	106	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	117	80-122

ND= Not Detected  
 RL= Reporting Limit

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	LF-4D	Batch#:	142419
Lab ID:	205870-007	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	1.000		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	24	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	1.7	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	1.4	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	4.1	0.5
m,p-Xylenes	3.8	0.5
o-Xylene	2.1	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	100	80-125
1,2-Dichloroethane-d4	107	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	113	80-122

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC459970	Batch#:	142419
Matrix:	Water	Analyzed:	09/12/08
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	95	80-125
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	112	80-122

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	142419
Units:	ug/L	Analyzed:	09/12/08
Diln Fac:	1.000		

Type: BS Lab ID: QC459971

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	108.5	87	59-152
MTBE	25.00	24.40	98	70-125
Isopropyl Ether (DIPE)	25.00	25.33	101	67-126
Ethyl tert-Butyl Ether (ETBE)	25.00	25.38	102	69-127
1,2-Dichloroethane	25.00	24.65	99	78-132
Benzene	25.00	26.70	107	80-120
Methyl tert-Amyl Ether (TAME)	25.00	26.05	104	80-122
Toluene	25.00	26.67	107	80-120
1,2-Dibromoethane	25.00	25.38	102	80-120
Ethylbenzene	25.00	27.16	109	80-122
m,p-Xylenes	50.00	56.85	114	80-126
o-Xylene	25.00	26.53	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-125
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC459972

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	109.9	88	59-152	1	20
MTBE	25.00	23.85	95	70-125	2	20
Isopropyl Ether (DIPE)	25.00	24.28	97	67-126	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.72	99	69-127	3	20
1,2-Dichloroethane	25.00	23.65	95	78-132	4	20
Benzene	25.00	25.28	101	80-120	5	20
Methyl tert-Amyl Ether (TAME)	25.00	25.04	100	80-122	4	20
Toluene	25.00	25.30	101	80-120	5	20
1,2-Dibromoethane	25.00	25.44	102	80-120	0	20
Ethylbenzene	25.00	25.80	103	80-122	5	20
m,p-Xylenes	50.00	54.09	108	80-126	5	20
o-Xylene	25.00	26.44	106	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-125
1,2-Dichloroethane-d4	96	80-137
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-122

RPD= Relative Percent Difference

## Batch QC Report

BTXE & Oxygenates			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC460111	Batch#:	142456
Matrix:	Water	Analyzed:	09/13/08
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-125
1,2-Dichloroethane-d4	103	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	113	80-122

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC460113	Batch#:	142456
Matrix:	Water	Analyzed:	09/13/08
Units:	ug/L		

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	109.2	87	59-152
MTBE	25.00	23.08	92	70-125
Isopropyl Ether (DIPE)	25.00	24.40	98	67-126
Ethyl tert-Butyl Ether (ETBE)	25.00	23.90	96	69-127
1,2-Dichloroethane	25.00	23.77	95	78-132
Benzene	25.00	25.45	102	80-120
Methyl tert-Amyl Ether (TAME)	25.00	24.70	99	80-122
Toluene	25.00	24.96	100	80-120
1,2-Dibromoethane	25.00	24.77	99	80-120
Ethylbenzene	25.00	25.09	100	80-122
m,p-Xylenes	50.00	51.44	103	80-126
o-Xylene	25.00	25.34	101	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	97	80-125
1,2-Dichloroethane-d4	96	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-122

**Batch QC Report**

<b>BTXE &amp; Oxygenates</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09171-17	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	142456
MSS Lab ID:	205970-002	Sampled:	09/10/08
Matrix:	Water	Received:	09/11/08
Units:	ug/L	Analyzed:	09/14/08
Diln Fac:	1.000		

Type: MS Lab ID: QC460126

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	2.008	125.0	120.2	95	65-150
MTBE	<0.1000	25.00	23.88	96	74-124
Isopropyl Ether (DIPE)	<0.1000	25.00	25.19	101	73-127
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	25.16	101	74-125
1,2-Dichloroethane	0.7101	25.00	25.04	97	80-133
Benzene	<0.1000	25.00	27.10	108	80-121
Methyl tert-Amyl Ether (TAME)	<0.1000	25.00	25.09	100	80-120
Toluene	<0.1000	25.00	26.31	105	80-120
1,2-Dibromoethane	<0.1024	25.00	25.74	103	80-120
Ethylbenzene	<0.1525	25.00	26.95	108	80-120
m,p-Xylenes	<0.1000	50.00	53.52	107	80-121
o-Xylene	<0.1000	25.00	26.86	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-125
1,2-Dichloroethane-d4	98	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-122

Type: MSD Lab ID: QC460127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	119.9	94	65-150	0	20
MTBE	25.00	24.67	99	74-124	3	20
Isopropyl Ether (DIPE)	25.00	25.98	104	73-127	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.65	103	74-125	2	20
1,2-Dichloroethane	25.00	25.78	100	80-133	3	20
Benzene	25.00	27.64	111	80-121	2	20
Methyl tert-Amyl Ether (TAME)	25.00	25.43	102	80-120	1	20
Toluene	25.00	27.20	109	80-120	3	20
1,2-Dibromoethane	25.00	25.88	104	80-120	1	20
Ethylbenzene	25.00	26.90	108	80-120	0	20
m,p-Xylenes	50.00	55.35	111	80-121	3	20
o-Xylene	25.00	27.26	109	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-125
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-122

RPD= Relative Percent Difference



Total Dissolved Solids (TDS)			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	METHOD
Project#:	001-09171-17	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Sampled:	09/08/08
Matrix:	Water	Received:	09/09/08
Units:	mg/L	Prepared:	09/11/08
Batch#:	142394	Analyzed:	09/12/08

Field ID	Type	Lab ID	Result	RL	Diln Fac
LF-1	SAMPLE	205870-002	10,200	50	5.000
LF-2	SAMPLE	205870-003	1,300	13	1.250
LF-3	SAMPLE	205870-004	1,610	14	1.429
LF-4	SAMPLE	205870-005	3,200	13	1.250
LF-5	SAMPLE	205870-006	900	11	1.111
LF-4D	SAMPLE	205870-007	3,340	13	1.250
	BLANK	QC459878	ND	10	1.000

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Total Dissolved Solids (TDS)</b>			
Lab #:	205870	Location:	Whole Foods
Client:	LFR Levine Fricke	Prep:	METHOD
Project#:	001-09171-17	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Batch#:	142394
Field ID:	ZZZZZZZZZZ	Sampled:	09/10/08
MSS Lab ID:	205919-001	Received:	09/10/08
Matrix:	Water	Prepared:	09/11/08
Units:	mg/L	Analyzed:	09/12/08

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Diln	Fac
BS	QC459879		104.0	102.0		98	73-120			1.000	
BSD	QC459880		104.0	100.0		96	73-120	2	22	1.000	
SDUP	QC459881	4,690		4,740	50.00			1	20	5.000	

RL= Reporting Limit

RPD= Relative Percent Difference



COOLER RECEIPT CHECKLIST



Login # 205870 Date Received 9/8/8 Number of coolers 1
Client LFR Project WHOLE FOODS

Date Opened 9/8/8 By (print) SAM EVANS (sign)
Date Logged in 9-9-08 By (print) F Nichols (sign)

1. Did cooler come with a shipping slip (airbill, etc)? YES NO
Shipping info

2A. Were custody seals present? YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)
Bubble Wrap Foam blocks Bags None
Cloth material Cardboard Styrofoam Paper towels

7. Temperature documentation:
Type of ice used: Wet Blue/Gel None Temp(C) 1
Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS

## **APPENDIX C**

### **Step-Drawdown Test Data**

Project No. 001-097171-17 Date: 9/8/08 Page 1 of 2

Project Name: Whole Foods Sampling Location: \_\_\_\_\_

Sampler's Name: M. Sullivan Sample No.: \_\_\_\_\_  FB

Sampling Plan By: R. Colanbaw Dated: \_\_\_\_\_ C.O.C. No.: \_\_\_\_\_  DUP

Purge Method:  Centrifugal Pump  Disposable Bailor  Hand Bail  Submersible Pump  Teflon Bailor  Other Parasulfite Low-Flow

Purge Water Storage Container Type: 55 gallon drum Storage Location: onsite

Date Purge Water Disposed: \_\_\_\_\_ Where Disposed: \_\_\_\_\_

Analyses Requested	No. and Type of Bottles Used

Lab Name: \_\_\_\_\_  
Delivery By  Courier  Hand

Well No. LF-3 Depth of Water 5.28  
Well Diameter: \_\_\_\_\_ Well Depth 1590  
 2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height \_\_\_\_\_  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume \_\_\_\_\_

375 / 30 sec  
750 ml/min  
~ 11.8 gallons/hr  
80% DTW

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
<u>1006</u>									<u>Start</u>
<u>1007</u>		<u>5.28</u>	<u>750 ml</u>						
<u>1008</u>		<u>6.05</u>	<u>1500 ml</u>						
<u>1009</u>		<u>6.64</u>	<u>2250 ml</u>						
<u>1010</u>		<u>7.73</u>	<u>3000 ml</u>						
<u>1011</u>		<u>8.26</u>	<u>3750 ml</u>						<u>✓ Rate 750 ml/min</u>
<u>1012</u>		<u>8.87</u>	<u>4500 ml</u>						
<u>1013</u>		<u>9.60</u>	<u>5250 ml</u>						
<u>1014</u>		<u>10.16</u>	<u>6000 ml</u>						
<u>1015</u>		<u>10.84</u>	<u>6750 ml</u>						
<u>1016</u>		<u>11.30</u>	<u>7500 ml</u>						<u>✓ Rate 750 ml/min</u>
<u>1017</u>		<u>11.85</u>	<u>8250 ml</u>						
<u>1018</u>		<u>12.34</u>	<u>9000 ml</u>						
<u>1019</u>		<u>12.34</u>	<u>9750</u>						
<u>1020</u>		<u>12.35</u>	<u>10,500</u>						

Continue remarks on reverse, if needed.

Project No. 001-09 ~~352~~ 2171 17 Date: 9/9/08 Page 7 of 2

Project Name: whole foods Sampling Location: Oakland

Sampler's Name: Mc Sullivan Sample No.: \_\_\_\_\_  FB

Sampling Plan By: R. Colaninno Dated: \_\_\_\_\_ C.O.C. No.: \_\_\_\_\_  DUP

Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Teflon Bailer  Other Parastatic Low-Flow

Purge Water Storage Container Type: 55 gallon Drum Storage Location: onsite

Date Purge Water Disposed: \_\_\_\_\_ Where Disposed: \_\_\_\_\_

Analyses Requested \_\_\_\_\_ No. and Type of Bottles Used \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Lab Name: \_\_\_\_\_  
 Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. LF-3 Depth of Water \_\_\_\_\_  
 Well Diameter: 2 Well Depth 1590  
 2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height \_\_\_\_\_  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume \_\_\_\_\_

80% DTW \_\_\_\_\_

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1025		12.35	14,250						✓ Rate 750 ml/min
1030		13.00	18,000						
1033		13.26	<del>20,000</del>						
1035		13.56	21,750						
1038		13.89							✓ Rate 750 ml/min
1040		14.12	25,500						
1045		14.69	29,250						~ 8 gallons in 40 minutes
1047		14.89							
1050		15.10	33,000						
1056		15.75							
1057		Drawn Dry End Pump test							
		~ 9 gallons removed in 30 minutes							
1059		15.62							
1100		15.39							
1102		15.16							
1103		15.08							

Continue remarks on reverse, if needed.

Project No. 001-097171-17 Date: 9/9/08 Page 1 of 2  
 Project Name: Whole Foods Sampling Location: Oakland  
 Sampler's Name: M. Sullivan Sample No.: \_\_\_\_\_  FB  
 Sampling Plan By: R. Golubnow Dated: \_\_\_\_\_ C.O.C. No.: \_\_\_\_\_  DUP  
 Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Teflon Bailer  Other Parastatic Low-Flow  
 Purge Water Storage Container Type: \_\_\_\_\_ Storage Location: \_\_\_\_\_  
 Date Purge Water Disposed: \_\_\_\_\_ Where Disposed: \_\_\_\_\_

Analyses Requested \_\_\_\_\_ No. and Type of Bottles Used \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Lab Name: \_\_\_\_\_  
 Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. LF-2 Depth of Water 4119  
 Well Diameter: 2" Well Depth \_\_\_\_\_  
 2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height \_\_\_\_\_  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume \_\_\_\_\_

*Max = 1000 ml/min*  
  
  
  
  
  
  
  
  
  
80% DTW \_\_\_\_\_

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
<del>1150</del>									<i>start</i>
<del>1151</del>									
1152		4.88	1,000						<i>1000 ml/min</i>
1153		5.25	2,000						
1156		5.04	3,800						<i>Slow to 600 ml/min</i>
1158		5.08	4,200						<i>~ 9.6 gallons/hour</i>
1159		5.11	4,800						
1200		5.14	5,400						
1201		5.20	6,000						<i>✓ Rate 600 ml/min</i>
1202		5.22	6,600						
1203		5.22	7,200						
1204		5.23	7,800						
1205		5.23	8,400						
1210		5.26	11,400						<i>✓ Rate 700 ml/min</i>
1215		5.30	14,400						<i>✓ Rate 700 ml/min</i>

Continue remarks on reverse, if needed.



Project No. 001-07771-17 Date: 9/9/08 Page 2 of 2  
 Project Name: Whole Foods Sampling Location: Oakland  
 Sampler's Name: Mc Sullivan Sample No.: \_\_\_\_\_  FB  
 Sampling Plan By: R. Goloubaev Dated: \_\_\_\_\_ C.O.C. No.: \_\_\_\_\_  DUP  
 Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Teflon Bailer  Other Parasaltic  
 Purge Water Storage Container Type: 55 gallon drum Storage Location: onsite  
 Date Purge Water Disposed: \_\_\_\_\_ Where Disposed: \_\_\_\_\_

Analyses Requested \_\_\_\_\_ No. and Type of Bottles Used \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Lab Name: \_\_\_\_\_  
 Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. LF-2 Depth of Water 4.19  
 Well Diameter: 2" Well Depth \_\_\_\_\_  
 2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height \_\_\_\_\_  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume \_\_\_\_\_

80% DTW \_\_\_\_\_

Time	Inlet Depth	Depth to Water	Volume ml Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1220		5.32	17,400						Recharge
1225		<del>5.32</del> 5.22	20,400		1251	5.05			Pump rate 700 ml/min slow to 600 ml/min
1230		5.30	23,400		1252	4.63			✓ Rate 600 ml/min
1235		5.32	26,400		1253	4.47			Pump up rate to MAX
1240		5.33	29,400		1254	4.45			Purged ~ 8 gallons in 50 min
1241		5.40	32,400		1255	4.42			step up to 800 ml/min
1242		5.55	35,400		1256	4.35			
1243		5.60	36,200		1257	4.33			
1244		5.62	37,000		1258	4.52			
1245		5.63			1259	4.31			
1246		5.63			1300	4.31			
1247		5.62							✓ 750 ml/min
1248		5.60							
1249		5.61							
1250		5.63	~ 10 gallons Purged						

Continue remarks on reverse, if needed.