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**Groundwater Monitoring Report  
October 1 through December 31, 2008  
Former Hot Mix Asphalt Plant Area (AOC #1)  
Hanson Aggregates Radum Facility  
3000 Busch Road, Pleasanton, California  
(ACEH Case #RO0002941 and  
Geotracker Global ID #SLT19719376)**

**February 10, 2009  
001-09567-07**

Prepared for:  
Lehigh Hanson Heidleburg Cement Group  
Hanson Aggregates West Region  
12667 Alcosta Boulevard, Suite 400  
San Ramon, California 94583

Prepared by  
LFR Inc.  
1900 Powell Street, 12<sup>th</sup> Floor  
Emeryville, California 94608



February 10, 2009

Mr. Jerry Wickham  
Alameda County Health Care Services  
Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: **Groundwater Monitoring Report, October 1 through December 31, 2008,  
Former Hot Mix Asphalt Plant Area (AOC #1), Hanson Aggregates Radum  
Facility, 3000 Busch Road, Pleasanton, California (ACEH Case #RO0002941  
and Geotracker Global ID # SLT19719376)**

Dear Mr. Wickham:

The enclosed Groundwater Monitoring Report was prepared by LFR Inc. (LFR) on behalf of Hanson Aggregates West Region for the former hot mix asphalt plant area (located within area of concern [AOC] #1) of the former Hanson Aggregates Radum Facility, located at 3000 Busch Road, Pleasanton, California ("the Site"). This Report presents and discusses the results of the third of four planned quarterly groundwater monitoring events conducted at the Site.

The investigation and groundwater monitoring were conducted in accordance with the February 28, 2008 work plan approved by Alameda County Environmental Health in its technical comment letter dated March 31, 2008. Results are in agreement with previous investigation results and confirm that groundwater beneath the Site has not been affected by total petroleum hydrocarbons previously detected in limited areas of the Site. LFR plans to conduct the fourth groundwater monitoring event during first quarter of 2009.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached Report are true and correct to the best of my knowledge.

If you have any questions or comments concerning this Report, please call me at (925) 244-6584 or Ron Goloubow of LFR at (510) 652-4500.

Sincerely,

A handwritten signature in blue ink that reads "Lee W. Cover".

Lee W. Cover  
Environmental Manager  
Hanson Aggregates Northern California

Attachment

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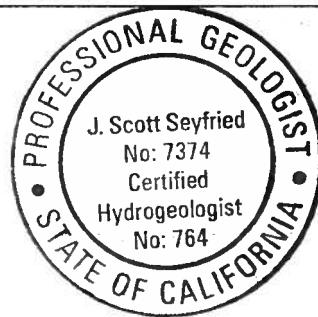
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## CERTIFICATIONS

LFR Inc. has prepared this Groundwater Monitoring Report on behalf of Hanson Aggregates West Region in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This report was prepared under the technical direction of the undersigned California Professional Geologist.

*JSS*  
J. Scott Seyfried, P.G., C.HG.  
Principal Hydrogeologist  
California Professional Geologist (7374)  
Registered Hydrogeologist (764)

2/10/09  
Date



*RG*  
Ron Goloubow  
Senior Associate Geologist

February 9, 2009  
Date

## EXECUTIVE SUMMARY

This Groundwater Monitoring Report for the period October 1 through December 31, 2008 ("the reporting period") presents the results of the third quarterly groundwater monitoring event conducted by LFR Inc. (LFR) in the former hot mix asphalt plant area of the Hanson Aggregates Radum Facility located in Pleasanton, California ("the Site").

The groundwater monitoring event that was completed during this reporting period represents the third periodic groundwater monitoring event for the Site. The first and second groundwater monitoring events were conducted in June 2008 and September 2008, respectively. Depth-to-groundwater measurements were made prior to sampling. Equipotential contours drawn based on groundwater elevations indicate that the local groundwater flow direction is toward the northwest, with a horizontal groundwater gradient of approximately 0.018 foot per foot.

Wells MW-1 through MW-3 and MW-5 through MW-10 were purged and sampled on January 9, 12, and 13, 2009. Well MW-4 could not be sampled due to an insufficient amount of water in the well. Although these monitoring data were collected in January 2009, as discussed with Mr. Jerry Wickham of Alameda County Environmental Health on January 5, 2009, the groundwater data provided in this report represent the fourth quarter of 2008. Analytical results indicate that none of the analyzed constituents were detected above laboratory reporting limits in any of the groundwater samples collected during this monitoring event. These analytical results are consistent with the previous results and confirm that groundwater beneath the Site has not been affected by the total petroleum hydrocarbons (TPH) or TPH-related compounds detected in limited areas in soil.

LFR will conduct the fourth groundwater monitoring event for the project during the first quarter of 2009, likely in March 2009. Groundwater samples will be collected and analyzed for the same parameters analyzed for during the current reporting period.

## 1.0 INTRODUCTION

This Groundwater Monitoring Report presents the results of groundwater monitoring activities conducted for the period from October 1 through December 31, 2008 (“the reporting period”) by LFR Inc. (LFR) on behalf of Hanson Aggregates West Region in the former hot mix asphalt plant area of the Hanson Aggregates Radum Facility located at 3000 Busch Road, Pleasanton, California (“the Site”; Figure 1). The groundwater monitoring event that was completed during this reporting period represents the third periodic groundwater monitoring and reporting event for the Site. The Site is located within area of concern #1 (AOC #1). Three new wells were installed during June 2008 to increase the groundwater monitoring network at the Site, and quarterly groundwater monitoring was initiated to monitor groundwater quality and groundwater flow direction and gradient for approximately one year.

The scope of work for investigations conducted at the Site during June 2008 was described in the “Work Plan for Additional Well Installations and Quarterly Groundwater Monitoring and Reporting in the Former Hot Mix Asphalt Plant Area (AOC #1) of the Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, SLIC Case #RO0002941 and Geotracker ID SLT19719376” (“the Work Plan”), which was submitted to Alameda County Environmental Health (ACEH) on February 28, 2008. ACEH approved the Work Plan on March 31, 2008. In its approval letter, ACEH requested that sampling for dissolved metals be conducted during the second quarterly groundwater monitoring event instead of the first as proposed in the Work Plan, to allow additional time to pass between installing the three new groundwater monitoring wells and sampling for dissolved metals.

LFR completed the well installation work during June 9 through 11, 2008, and conducted the first of four planned quarterly groundwater monitoring events on June 16, 2008. As requested by ACEH in its March 31, 2008 letter, LFR submitted a report that presented a summary of the well installation activities completed and the results of the quarterly groundwater monitoring event in the “Combined Well Installation and Groundwater Monitoring Report for the Period of April 1 through June 30, 2008, Former Hot Mix Asphalt Plant Area (AOC #1), Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, ACEH Case #RO0002941 and Geotracker Global ID #SLT19719376,” which was submitted on July 23, 2008.

LFR completed the second groundwater monitoring event on September 15, 2008. Results from this monitoring event were presented to ACEH on November 10, 2008.

## **2.0 METHODOLOGY**

### **2.1 Quarterly Groundwater Monitoring**

The third of four planned quarterly groundwater monitoring events was conducted on January 9 to 13, 2009. This monitoring event consisted of measuring depth to groundwater and of purging and sampling groundwater monitoring wells MW-1 through MW-10. The methodology of the groundwater monitoring event is described in this section, and results are presented and discussed in Section 3.0.

#### **2.1.1 Groundwater Elevation Monitoring**

Depth-to-groundwater monitoring was conducted prior to purging and sampling, using a Solinst water level indicator, and with respect to the top of casing (TOC). Depth-to-groundwater measurements were recorded on a field sheet, a copy of which is included in Appendix A. Groundwater elevations were calculated by subtracting the depth-to-groundwater measurement from the TOC elevation.

#### **2.1.2 Groundwater Well Purging and Sampling**

Wells MW-1 through MW-10 (except for well MW-4) were purged and sampled using single-use, disposable bailers on January 9 to 13, 2009. Well MW-4 did not contain a sufficient amount of groundwater for purging and sampling. The Work Plan proposed that a low-flow purging and sampling technique would be used during the quarterly groundwater monitoring events. During implementation of this purging method, it was discovered that the yield for many of the wells is not sufficient to sustain a consistent water level during low-flow sampling; however, the wells could produce three casing volumes. Therefore, three casing volumes of groundwater were purged from each well before the groundwater sample was collected. This method of sample collection was also used during the October 2007, June 2008, and September 2008 sampling events.

Depth-to-groundwater and general water-quality parameters were monitored during purging, and the parameters were recorded on field sheets, copies of which are included in Appendix A. The wells were considered sufficiently purged after at least three casing volumes were removed from each well and general water-quality parameters stabilized. Groundwater samples were collected after purging was completed.

Groundwater samples were collected in clean, laboratory-provided sample containers, properly labeled, and stored in an ice-chilled cooler for transport to the analytical laboratory under chain-of-custody protocol. One field duplicate sample was collected from well MW-6. In addition, a field blank was collected and submitted to the laboratory for quality control purposes. A trip blank did not accompany the groundwater samples due to the close proximity of the analytical laboratory to the Site.

### 2.1.3 Quarterly Monitoring Laboratory Analyses

Groundwater samples were submitted to TestAmerica Laboratories, Inc., a California-certified analytical laboratory located in Pleasanton, California. All samples were analyzed for the following parameters, and in accordance with the sample matrix presented in Table 1:

- Total petroleum hydrocarbons (TPH) as diesel and TPH as motor oil by U.S. Environmental Protection Agency (EPA) Method 8015 (after undergoing silica-gel cleanup)
- TPH as gasoline by EPA Method 8260
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260
- Fuel oxygenates by EPA Method 8260
- Lead scavengers by EPA Method 8260
- Semivolatile organic compounds by EPA Method 8270

Analytical results for the quarterly groundwater monitoring event are summarized in Table 3 based on laboratory-certified analytical reports included in Appendix B.

## 3.0 RESULTS

A summary of analytical results is presented in Table 3. Analytical results for groundwater samples collected during the current quarterly groundwater monitoring event are presented and summarized on Figure 4. Groundwater elevation data and interpreted groundwater equipotential contours are presented on Figure 5. Relevant San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (ESLs) are included in the summary tables, and compounds detected at concentrations that exceeded the ESLs are highlighted in the appropriate summary tables and figures.

### 3.1 Groundwater Elevations

Groundwater elevations are summarized in Table 2. Groundwater elevation data and contours are presented on Figure 5.

The groundwater elevation contours indicate that the groundwater flow direction beneath the Site was approximately to the northwest on January 9, 2009, with a horizontal groundwater gradient of approximately 0.018 foot per foot. These results are similar to results from previous groundwater elevation monitoring conducted at the Site on October 22, 2007, June 16, 2008, and September 15, 2008.

### **3.2 Groundwater Analytical Results**

Analytical results for the samples collected for this quarterly groundwater sampling event are presented on Figure 4. Table 3 presents current and historical analytical data for the samples collected from the groundwater monitoring wells at the Site.

Analytical results indicate that none of the compounds analyzed for in the groundwater monitoring wells were detected above laboratory reporting limits (Table 4). These data are generally consistent with analytical results from groundwater samples collected during previous quarterly groundwater sampling events. The analytical results from the current quarterly groundwater monitoring event confirm that groundwater beneath the Site has not been affected by the TPH or TPH-related compounds that have been detected in soil within limited areas at the Site.

## **4.0 SUMMARY AND RECOMMENDATIONS**

The results from this groundwater monitoring event are consistent with the results of previous data collected from the Site. Groundwater elevation data indicate that the direction of groundwater flow beneath the Site during this quarterly sampling event was approximately to the northwest, with a horizontal groundwater gradient of approximately 0.018 foot per foot.

Groundwater samples were collected from all groundwater monitoring wells, except for MW-4, which could not be sampled due to an insufficient amount of water in this well. Analytical results for samples collected at the Site indicate that the compounds analyzed for were not present above laboratory reporting limits in any of the wells sampled during the second groundwater monitoring event with the exception of well MW-2. These results are consistent with the two previous groundwater monitoring events and indicate that groundwater beneath the Site has not been affected by the TPH or TPH-related compounds that have been detected in soil samples beneath limited areas of the Site .

As described in the Work Plan and approved by ACEH, LFR will conduct the fourth of four planned groundwater monitoring events for the Site during the first quarter of 2009. Groundwater samples collected during this monitoring event will be analyzed for the same parameters analyzed for during the current quarter (Table 1). The next groundwater monitoring report will be submitted to ACEH by May 11, 2009.

## **5.0 LIMITATIONS**

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally

prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the Site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

## 6.0 REFERENCES

- Alameda County Environmental Health (ACEH). 2008. Letter from Jerry Wickham to Lee Cover of Hanson Aggregates West Region, re: SLIC Case RO0002941 and Geotracker Global ID STL19719376, Hanson Aggregates Radum Plant, 3000 Busch Road, Pleasanton, CA 94566. March 31.
- LFR Inc. (LFR). 2008a. Work Plan for Additional Well Installations and Quarterly Groundwater Monitoring and Reporting in the Former Hot Mix Asphalt Plant Area (AOC #1) of the Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, SLIC Case #RO0002941 and GeoTracker ID SLT19719376. February 28.
- \_\_\_\_\_. 2008b. Combined Well Installation and Groundwater Monitoring Report for the Period of April 1 through June 30, 2008, Former Hot Mix Asphalt Plant Area (AOC #1), Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, ACEH Case #RO0002941 and Geotracker Global ID # SLT19719376. July 23.
- \_\_\_\_\_. 2008c. Groundwater Monitoring Report, July 1 through September 30, 2008, Former Hot Mix Asphalt Plant Area (AOC #1), Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California, ACEH Case #RO0002941 and Geotracker Global ID # SLT19719376. November 10.
- Regional Water Quality Control Board, San Francisco Bay Region. 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (Interim Final – November 2007); Environmental Screening Levels (“ESLs”). Technical Document. May.

**Table 1**  
**Quarterly Groundwater Monitoring Sample Matrix**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

Well ID	Date Installed	Approximate Screen Interval top (feet bgs)	Approximate Screen Interval bottom (feet bgs)	TPHd / TPHmo	TPHg	BTEX	Fuel Ox	Lead Scav	SVOCs	Dissolved Metals
		8015	8260	8260	8260	8260	8260	8270	8270	6010B
<i>Groundwater Monitoring Wells</i>										
MW-1	10/3/2007	45	60	X	X	X	X	X	X	-
MW-2	10/2/2007	45	60	X	X	X	X	X	X	-
MW-3	10/4/2007	45	60	X	X	X	X	X	X	once <sup>1</sup>
MW-4	10/5/2007	43	48	X	X	X	X	X	X	-
MW-5	10/9/2007	69	74	X	X	X	X	X	X	-
MW-6	10/10/2007	45	55	X	X	X	X	X	X	-
MW-7	10/1/2007	50	65	X	X	X	X	X	X	-
MW-8	6/9/2008	51	61	X	X	X	X	X	X	once <sup>1</sup>
MW-9	6/10/2008	42	52	X	X	X	X	X	X	once <sup>1</sup>
MW-10	6/11/2008	44	54	X	X	X	X	X	X	-
<i>Quality Assurance and Quality Control Samples <sup>2</sup></i>										
Field Blank	na	na	na	X	X	X	X	X	X	-
Trip Blank	na	na	na	-	X	X	X	X	-	-

**Notes:**

feet bgs = feet below ground surface

"x" = to be analyzed quarterly for four consecutive quarters

"-" = not analyzed

na = not applicable

<sup>1</sup> Samples for dissolved metals were collected only once, during the second groundwater monitoring event on September 16, 2008.

<sup>2</sup> One field blank (FB) sample will be collected during each quarterly monitoring event, and one trip blank (TB) sample will be collected for every cooler of samples transported to the laboratory during every quarterly monitoring event.

TPHd = total petroleum hydrocarbons as diesel by EPA Method 8015 (with silica gel cleanup)

TPHmo = total petroleum hydrocarbons as motor oil by EPA Method 8015 (with silica gel cleanup)

TPHg = total petroleum hydrocarbons as gasoline by EPA Method 8260

BTEX = benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8260

Fuel Ox = fuel oxygenates by EPA Method 8260

Lead Scav = lead scavengers by EPA Method 8260

SVOCs = semivolatile organic compounds by EPA Method 8270

Dissolved Metals = CAM 17 list of dissolved metals (laboratory filtered samples) by EPA Method 6010B

**Table 2**  
**Groundwater Monitoring Well Construction Details**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

Monitoring Well ID	Installation Date	Boring Hole Diameter (inches)	Casing Diameter (inches)	Approximate Total Well Depth (feet bgs)	Approximate Screened Interval (feet bgs)	Top of Casing Elevation <sup>1</sup> (feet msl)	Depth to Groundwater Measured on 1/09/09 (feet TOC)	Groundwater Elevation (feet msl)
MW-1	10/3/07	8.0	2.0	60	45 - 60	374.67	57.79	316.88
MW-2	10/2/07	8.0	2.0	60	45 - 60	376.33	56.05	320.28
MW-3	10/4/07	8.0	2.0	60	45 - 60	374.95	55.00	319.95
MW-4	10/5/07	8.0	2.0	48	43 - 48	372.94	48.85	DRY
MW-5	10/9/07	8.0	2.0	74	69 - 74	374.35	75.04	299.31
MW-6	10/10/07	8.0	2.0	55	45 - 55	375.03	49.67	325.36
MW-7	10/1/07	8.0	2.0	65	50 - 65	377.68	58.14	319.54
MW-8	6/9/08	8.0	2.0	61	51 - 61	378.60	56.22	322.38
MW-9	6/10/08	8.0	2.0	52	42 - 52	375.75	51.88	323.87
MW-10	6/11/08	8.0	2.0	54	44 - 54	375.62	51.64	323.98

**Notes:**

ID = identification; monitoring well identification number

feet bgs = feet below ground surface

feet msl = feet relative to mean sea level

feet TOC = feet below top of casing

<sup>1</sup> Top of casing elevation and land survey, conducted by Kier & Wright Civil Engineers & Surveyors, Inc., is approximately 3.0 feet above ground surface.

**Table 3**  
**Groundwater Monitoring Well Analytical Results**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

Monitoring Well ID	Date	Total Petroleum Hydrocarbons			BTEX (ug/l)	Fuel Ox (ug/l)	Lead Scav (ug/l)	SVOCs (ug/l)	Dissolved Metals (ug/l)
		TPHd (ug/l)	TPHmo (ug/l)	TPHg (ug/l)					
MW-1	10/22/07	< 50	< 300	< 50	ND	ND	ND	-	-
	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/15/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	1/13/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-2	10/22/07	< 50	< 300	< 50	ND	ND	ND	-	-
	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/15/08	<50/<50	<300/<300	<50/<50	ND	ND	ND	ND <sup>3</sup>	-
	1/9/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-3	10/22/07	<50/<50	<300/<300	<50/<50	0.3J / 0.3J <sup>1</sup>	ND/ND	ND	-	-
	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	ND <sup>4</sup>
	1/13/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-4	10/22/07	-	-	-	-	-	-	-	-
	6/16/08	-	-	-	-	-	-	-	-
	9/15/08	-	-	-	-	-	-	-	-
	1/9/09	-	-	-	-	-	-	-	-
MW-5	10/22/07	< 50	< 300	< 50	0.4J <sup>2</sup>	ND	ND	-	-
	6/16/08	<50/<50	<300/<300	<50/<50	ND	ND	ND	ND	-
	9/15/08	-	-	-	-	-	-	-	-
	1/9/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-6	10/22/07	< 50	< 300	< 50	ND	ND	ND	-	-
	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/15/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	1/13/09	<50/<50	<300/<300	<50/<50	ND / ND	ND / ND	ND / ND	ND / ND	-
MW-7	10/22/07	< 50	< 300	< 50	ND	ND	ND	-	-
	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	1/13/09	< 50	< 300	< 50	ND	ND	ND	ND	-

**Table 3**  
**Groundwater Monitoring Well Analytical Results**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

Monitoring Well ID	Date	Total Petroleum Hydrocarbons			BTEX	Fuel Ox	Lead Scav	SVOCs	Dissolved Metals (ug/l)
		TPHd (ug/l)	TPHmo (ug/l)	TPHg (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
MW-8	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	ND <sup>4</sup>
	1/12/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-9	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	ND <sup>4,5</sup>
	1/9/09	< 50	< 300	< 50	ND	ND	ND	ND	-
MW-10	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	1/13/09	< 50	< 300	< 50	ND	ND	ND	ND	-
Field Blank	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	1/13/09	< 50	< 300	< 50	ND	ND	ND	ND	-
Trip Blank	6/16/08	-	< 300	< 50	ND	ND	ND	-	-
	9/16/08	-	< 300	< 50	ND	ND	ND	-	-
ESL groundwater		100	100	100	various	various	various	various	various

**Notes:**

MW ID = identification; monitoring well identification number

ug/l = micrograms per liter

ND = not detected; no compounds were detected above their respective laboratory reporting limits

J = reported concentration is estimated below the laboratory reporting limit

"-" = sample not analyzed or no ESL exists

"<" = not detected above the laboratory report given

TPHd = total petroleum hydrocarbons as diesel

TPHmo = total petroleum hydrocarbons as motor oil

TPHg = total petroleum hydrocarbons as gasoline

BTEX = benzene, toluene, ethylbenzene, and total xylenes

Fuel Ox = fuel oxygenates

Lead Scav = lead scavengers

SVOCs = semivolatile organic compounds

ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board, May 2008, for Groundwater beneath Industrial/Commercial Land Use Areas where Groundwater is a Current or Potential Source of Drinking Water.

<sup>1</sup> Toluene was detected at a low concentration of 0.3 ug/l estimated below the laboratory reporting limit in both the primary and duplicate samples collected from well MW-3 on 10/22/07.

<sup>2</sup> Toluene was detected at a low concentration of 0.4 ug/l estimated below the laboratory reporting limit in the sample collected from well MW-4 on 10/22/07.

**Table 3**  
**Groundwater Monitoring Well Analytical Results**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

Monitoring Well ID	Date	Total Petroleum Hydrocarbons			BTEX (ug/l)	Fuel Ox (ug/l)	Lead Scav (ug/l)	SVOCs (ug/l)	Dissolved Metals (ug/l)
		TPHd (ug/l)	TPHmo (ug/l)	TPHg (ug/l)					

<sup>3</sup> Bis(2-ethylhexyl)phthalate detected at 9.8 ug/l in MW-2 and not in MW-2 Duplicate (ESL is 4.0 ug/l).

<sup>4</sup> Barium was detected in MW-3, MW-8, and MW-9 at 160, 230, and 150 ug/l, respectively (ESL is 1,000 ug/l).

<sup>5</sup> Copper was detected in MW-9 at 5.0 ug/l (ESL is 3.1 ug/l).

**Bold** font indicates that analyte detected was above the ESL.

**Table 4**  
**Groundwater Monitoring Well Analytical Results for Third Quarter 2008**  
**Former Hot Mix Asphalt Plant Area**  
**Hanson Radum Facility, 3000 Busch Road, Pleasanton, California**

(Concentrations reported in micrograms per liter [ug/l])

Sample ID	Date Sampled	Approximate Screen Interval (feet bgs)	Matrix	BTEX compounds					Fuel Oxygenates					Lead Scavengers				
				TPHd (ug/l)	TPHmo (ug/l)	TPHg (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	m,p-X (ug/l)	o-X (ug/l)	MTBE (ug/l)	TAME (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TBA (ug/l)	EDB (ug/l)	EDC (ug/l)
<b>Groundwater Monitoring Wells</b>																		
MW-1	1/13/08	45 - 60	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-2	1/9/09	45 - 60	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-3	1/13/09	45 - 60	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-4 <sup>1</sup>	NS	43 - 48	water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	1/9/09	69 - 74	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-6	1/13/09	45 - 55	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-6 (Dup)	1/13/09	45 - 55	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-7	1/13/09	50 - 65	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-8	1/12/09	51 - 61	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-9	1/9/09	42 - 52	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
MW-10	1/13/09	44 - 54	water	< 50	< 300	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
Field Blank	1/13/09	na	water	-	-	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 10	< 0.5	< 0.5
ESL groundwater				100	100	100	1	40	30	20	20	5	-	-	-	-	0.05	0.5

**Notes:**

feet bgs = feet below ground surface

na = not applicable

NS = not sampled

TPHd = total petroleum hydrocarbons as diesel

TPHmo = total petroleum hydrocarbons as motor oil

TPHg = total petroleum hydrocarbons as gasoline

BTEX = benzene, toluene, ethylbenzene, and total xylenes

(Dup) = a duplicate sample collected immediately after primary sample was collected

"-" = sample not analyzed or no ESL exists

"<" = not detected above the laboratory report given

<sup>1</sup> No groundwater sample could be collected from well MW-4 because insufficient water was present in the well at the time of sampling.

ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board (May 2008)

for Groundwater beneath Industrial/Commercial Land Use Areas where Groundwater is a Current or Potential Source of Drinking Water.

B = benzene

T = toluene

E = ethylbenzene

m,p-X = m,p-xylenes

o-X = o-xylenes

MTBE = methyl tertiary-butyl ether

TAME = tert-amyl methyl ether (methyl tert-amyl ether)

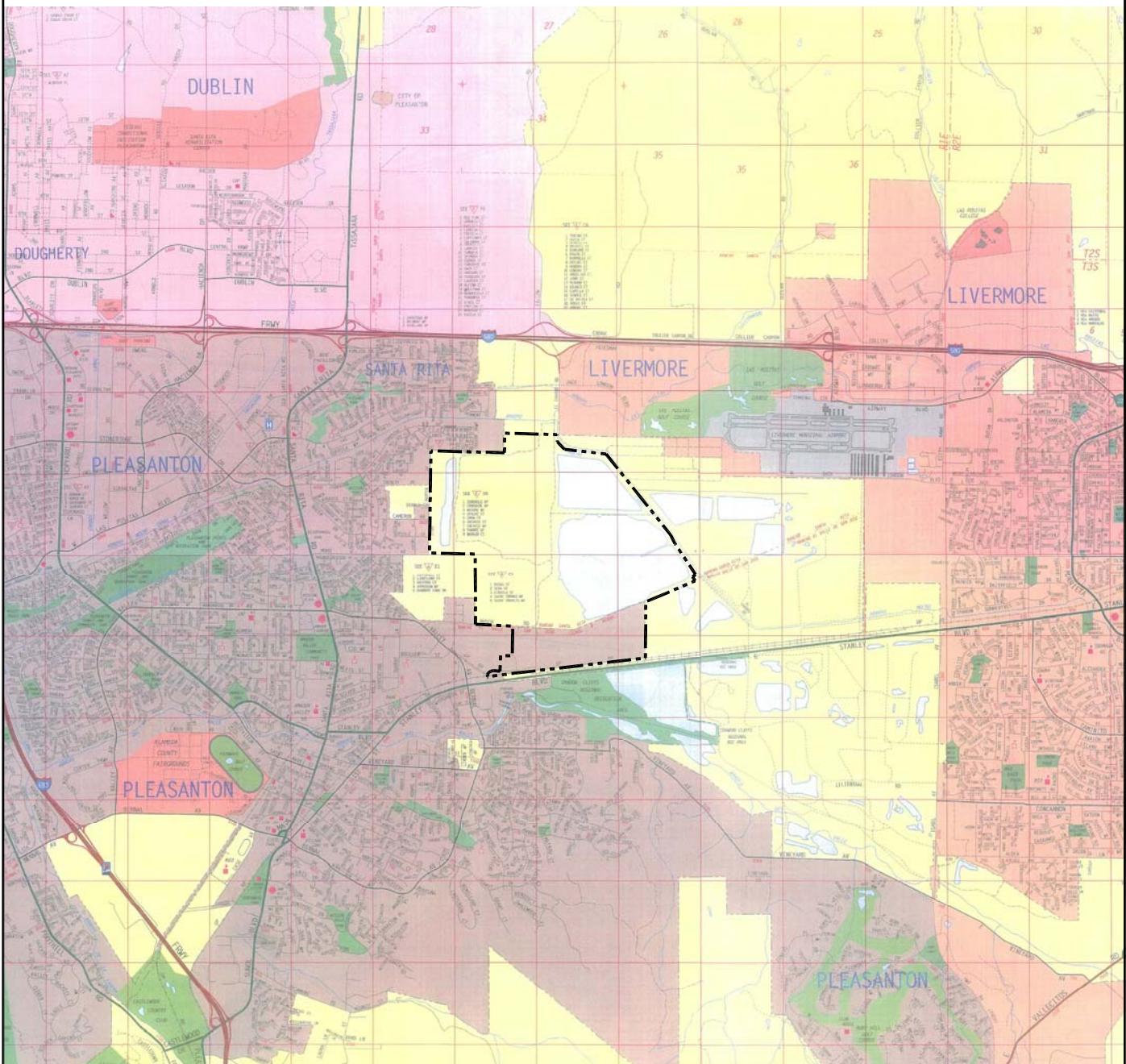
DIPE = diisopropyl ether (isopropyl ether)

ETBE = ethyl tert-butyl ether

TBA = tert-butyl alcohol

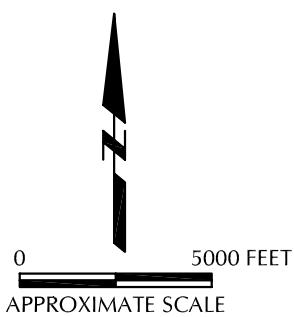
EDB = 1,2-dibromoethane (ethylene dibromide)

EDC = 1,2-dichloroethane



#### EXPLANATION

— — — — Approximate Site Boundary

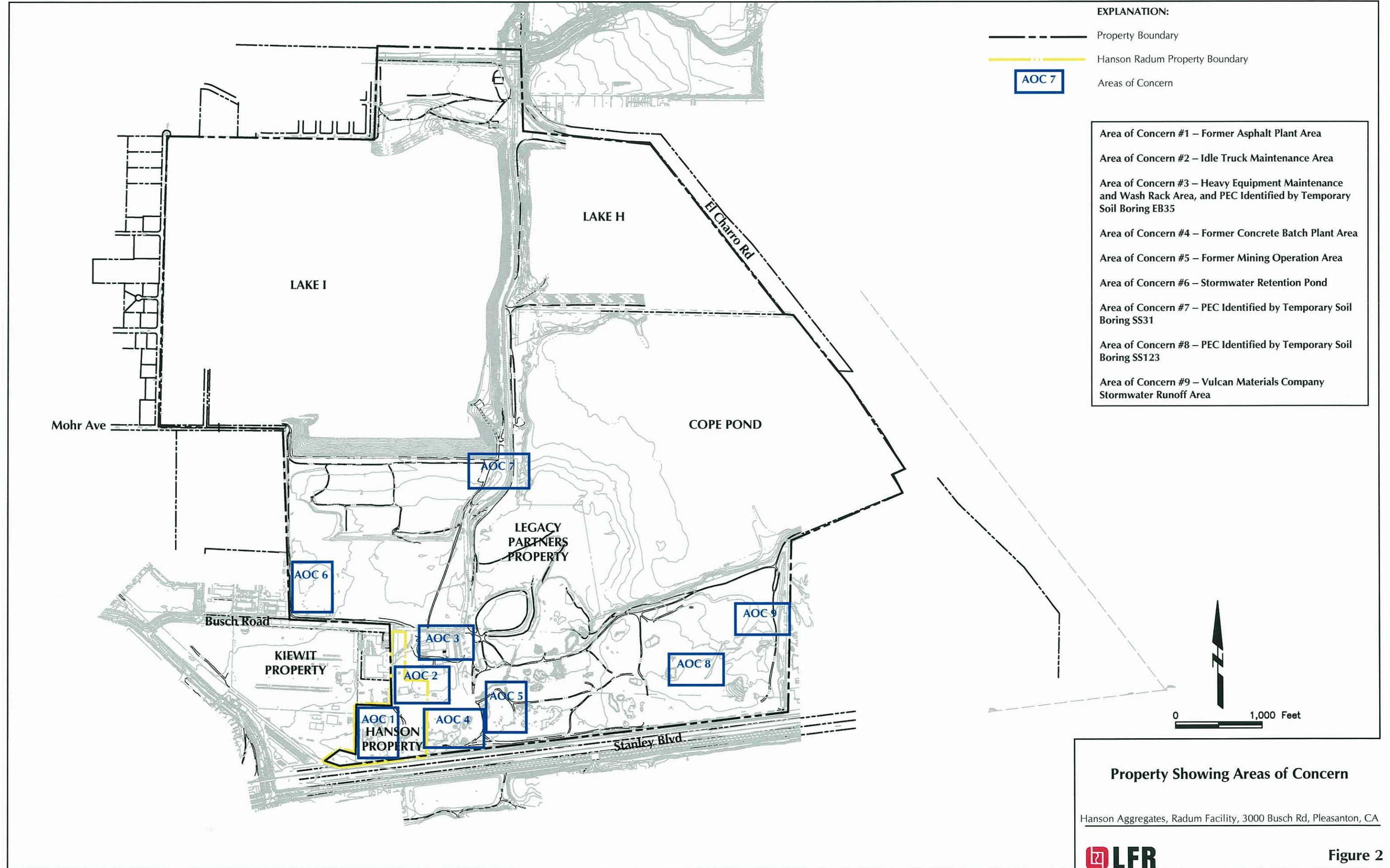


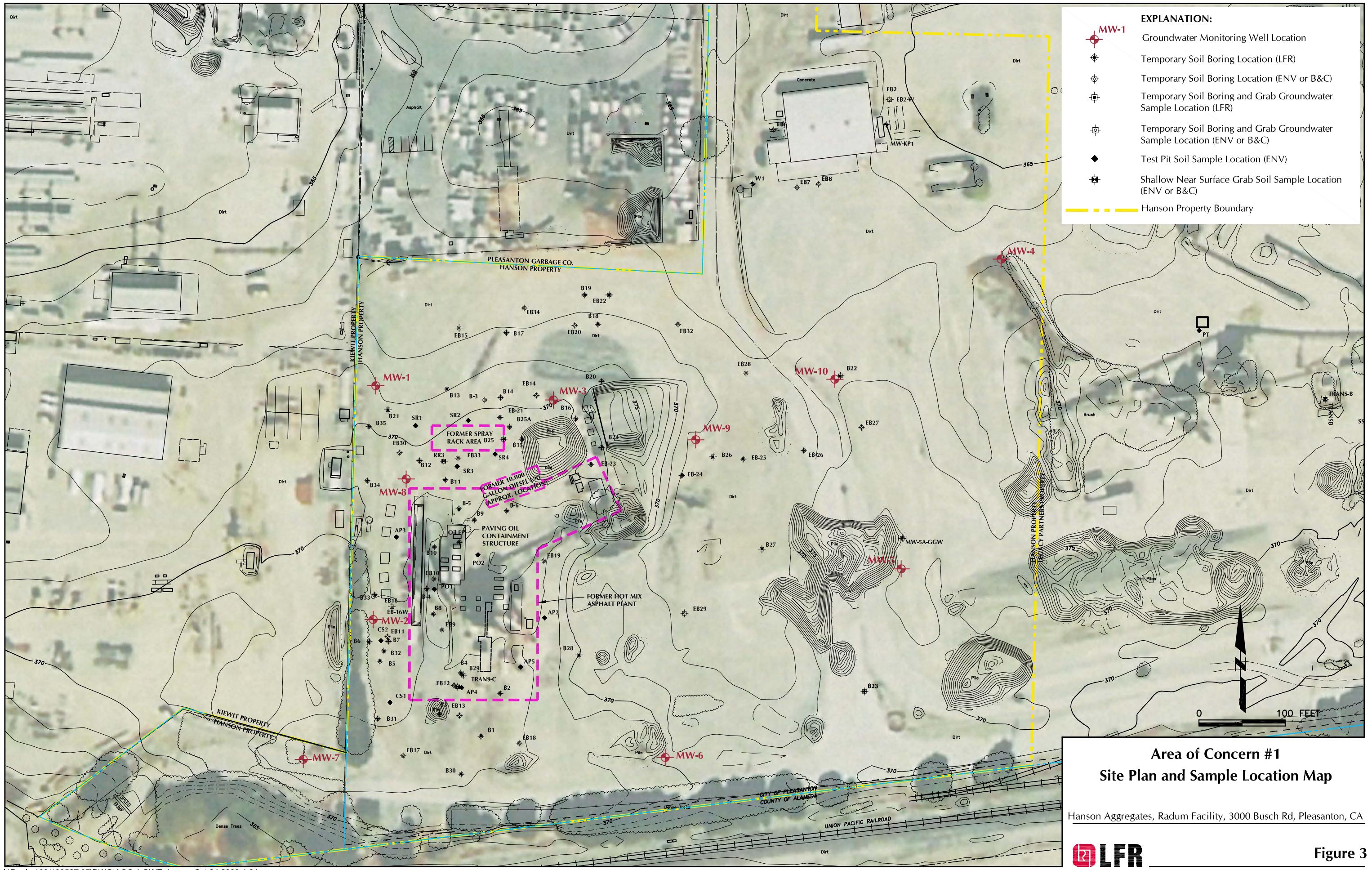
#### Site Location Map

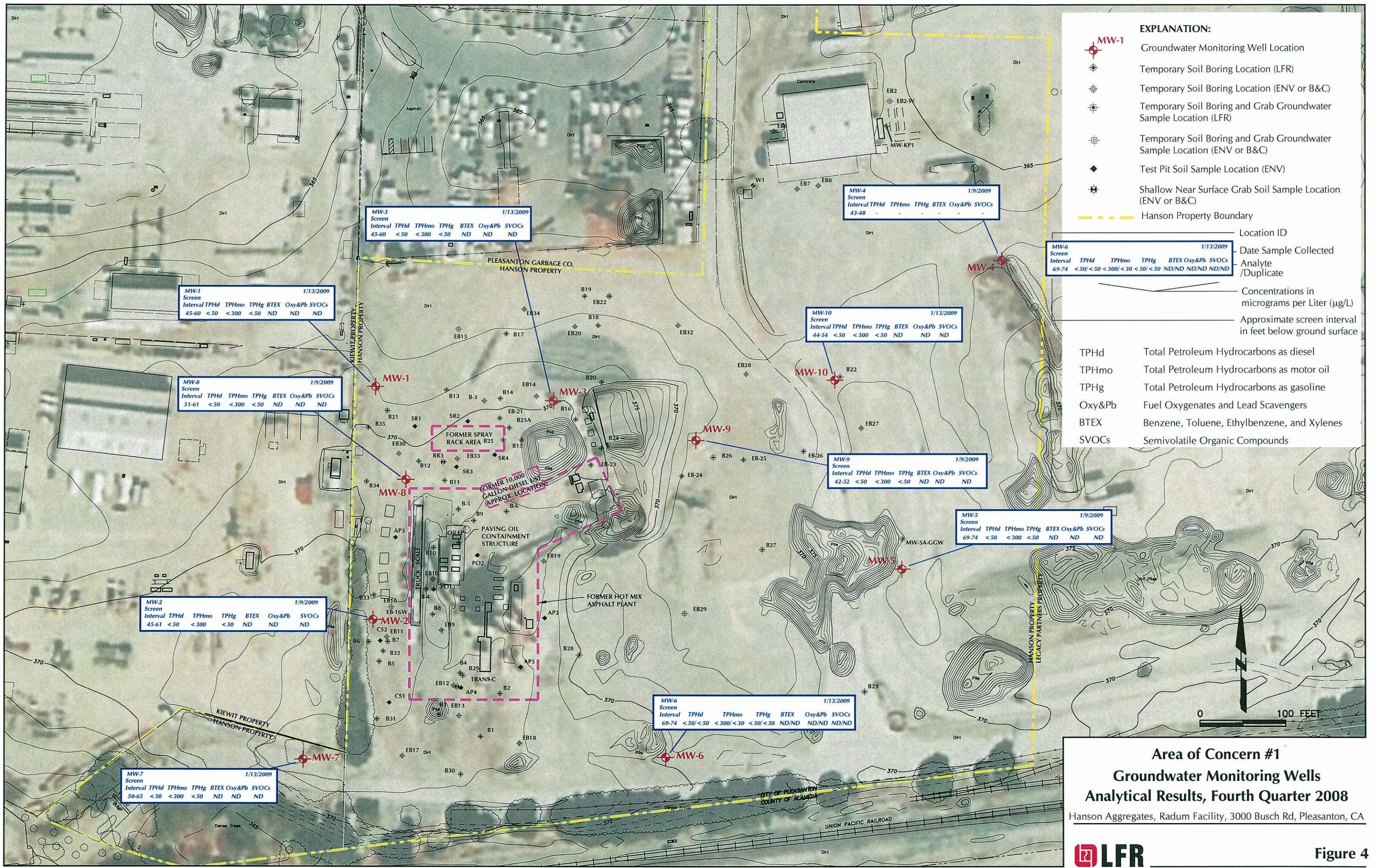
Hanson Aggregates, Radium Facility, 3000 Busch Rd, Pleasanton, CA



**Figure 1**





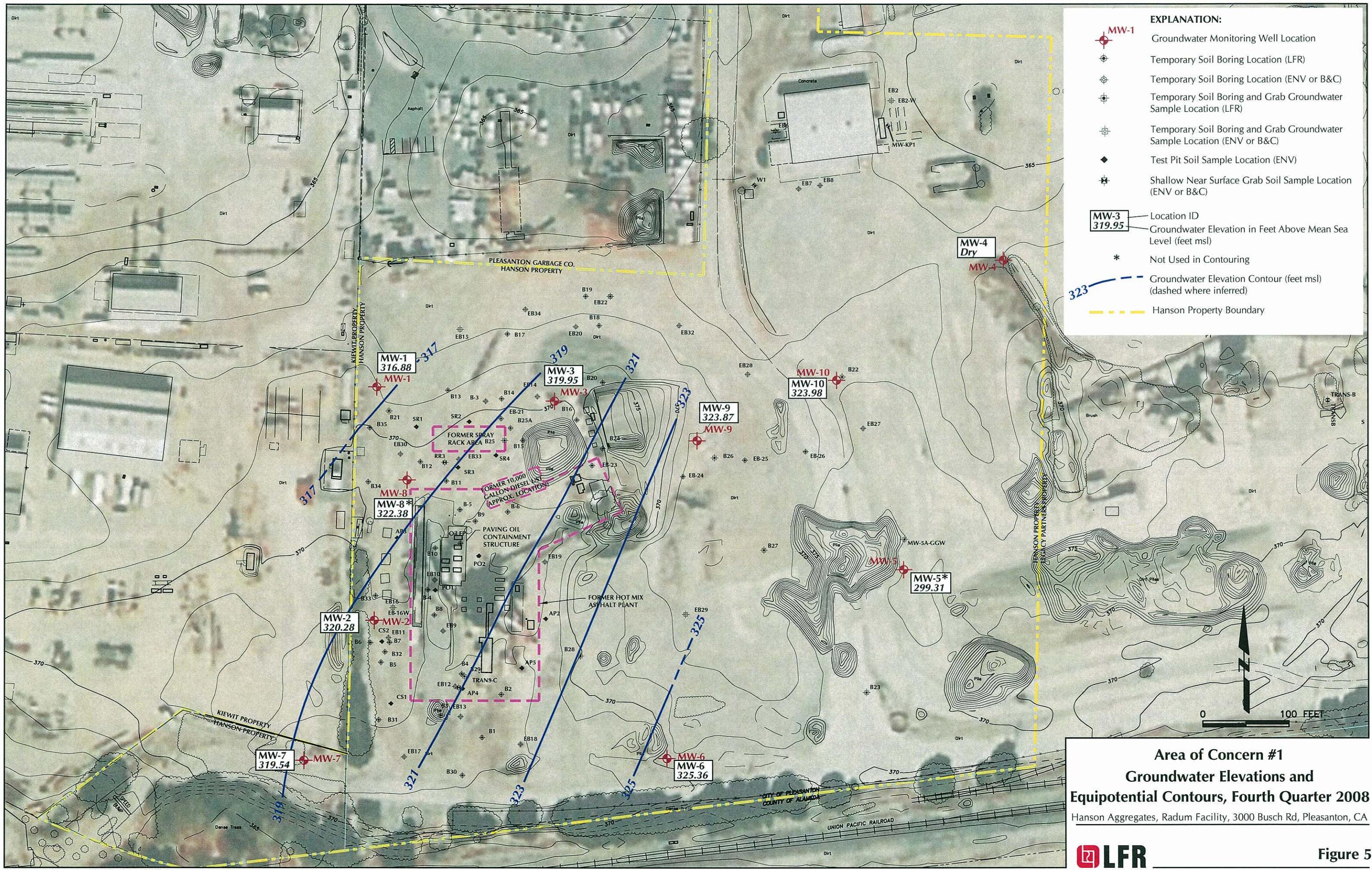


**Area of Concern #1  
Groundwater Monitoring Wells  
Analytical Results, Fourth Quarter 2008**

Hanson Aggregates, Radum Facility, 3000 Busch Rd, Pleasanton, CA



**Figure 4**



## **APPENDIX A**

### **Groundwater Monitoring Well Development and Sampling Field Sheets**

## **WATER-LEVEL MEASUREMENTS LOG**

Project No. 001-09567-07

Date 1/9/09

Page \_\_\_\_\_ of \_\_\_\_\_

Project Name Hanson - Radium

Day:  Sun  Mon  Tues  Weds  Thurs  Fri  Sat

Field Personnel Tom Collins

General Observations Sunny

WELL NO.	WELL ELEVATION	DEPTH TO WATER		WATER ELEVATION	WELL SECURE?		REMARKS (UNITS = FEET)
		1	2		Y	N	
MW-1	10:03	57.74	57.79				
MW-2	10:11	56.05	56.05				
MW-3	9:57	55.00	55.00				
MW-4	9:10	48.85	48.85				depth to bottom/mud line
MW-5	10:30	75.04	75.04				
MW-6	10:21	49.67	49.67				
MW-7	10:18	58.14	58.14				
MW-8	10:15	56.22	56.22				
MW-9	10:26	51.88	51.88				
MW-10	9:19	51.64	51.64				





## WATER-QUALITY SAMPLING LOG

Project No. 001-09567-07

Date 1/9/08 Page    of

Project Name Hansah Raduan

Sampling Location MW-2

Sampler's Name Tom Collins

Sample No. MU-2  FB

Sampler's Name \_\_\_\_\_ ?  
Sampling Plan By \_\_\_\_\_

Dated \_\_\_\_\_ C.O.C. No. \_\_\_\_\_  DUP \_\_\_\_\_

Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Teflon Bailer  Other \_\_\_\_\_

Purge Method: Drain Storage Location: on site

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

Date Purge Water Disposed \_\_\_\_\_

**Analyses Requested**      **No. and Type of Bottles Used**

**Analyses Requested**      **No. and Type of Bottles Used**

$$56.05 + 1.3$$

Lab Name Test America

Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. MW-2 Depth of Water 56.03

Well Diameter: 2" Well Depth 62.55

2" (0.16 gal/feet)    5" (1.02 gal/feet)   Water Column Height 6.5 (1)   80% DTW 57.35

4" (0.65 gal/feet)     6" (1.47 gal/feet)    Well Volume 1.04 ~ (1)    100' ft    0.2 P

Continue remarks on reverse, if needed.



## WATER-QUALITY SAMPLING LOG

Project No. 001-04567-07

Date 1 / 13 / 09

Page 1 of 1

Project Name Hansoh Radun

Sampling Location MW-3

Sampler's Name Tom Collins

Sample No. MW-3  FB

Sampling Plan By \_\_\_\_\_ Dated \_\_\_\_\_

Dated \_\_\_\_\_ C.O.C. No. \_\_\_\_\_  DUP \_\_\_\_\_

C.O.C. No. \_\_\_\_\_  DUP \_\_\_\_\_

Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Teflon Bailer  Other \_\_\_\_\_

Purge Water Storage Container Type Drum Storage Location On Site

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

1-484 + 5524

Date Purge Water Disposed	Where Disposed
Analyses Requested	No. and Type of Bottles Used
Lab Name <u>Test America</u>	
Delivery By <input type="checkbox"/> Courier	<input checked="" type="checkbox"/> Hand
Well No. <u>MW-3</u>	Depth of Water <u>55.04</u>
Well Diameter: <u>2"</u>	Well Depth <u>62.46</u>
<input checked="" type="checkbox"/> 2" (0.16 gal/feet)	Water Column Height <u>7.42</u>
<input type="checkbox"/> 4" (0.65 gal/feet)	Well Volume <u>1.19 ~ 1.25</u>
<input type="checkbox"/> 5" (1.02 gal/feet)	80% DTW <u>56.52</u>
<input type="checkbox"/> 6" (1.47 gal/feet)	

Continue remarks on reverse, if needed.





## WATER-QUALITY SAMPLING LOG

Project No. 001-09567-07

Date 1/13/08 Page    of

Project Name Hanson Radium

Sampling Location Hanson Rudum

Sampler's Name Tom Collins

Sample No. m w - 6  FE

Sampling Plan By ?

Dated \_\_\_\_\_ C.O.C. No. \_\_\_\_\_  DUP \_\_\_\_\_

Purge Method:  Centrifugal Pump  Disposable Bailer

Non-browsable Drift  Teflon Bailer  Other \_\_\_\_\_

Purge Water Storage Container Type Drum

Storage Location On Site

Date Purge Water Disposed \_\_\_\_\_

Where Disposed \_\_\_\_\_

#### **Analyses Requested**

No. and Type of Bottles Used

TPH 2,nd, g. Btex

## (Lead) Scavengers

Fuer ox

S U C ' S

Lab Name \_\_\_\_\_

Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. M W-6 \_\_\_\_\_ Depth of Water \_\_\_\_\_

Depth of Water 49.70

Well Diameter: 7" Well Depth 3'

Well Depth 57.97

2" (0.16 gal/feet)     5" (1.02 gal/feet)    Water Column H

Water Column Height 8.27

4" (0.65 gal/feet)     6" (1.47 gal/feet)    Well Volume \_\_\_\_\_

Well Volume 1.32 ~ (1.25)  
OPT MSF

Continue remarks on reverse, if needed.



## WATER-QUALITY SAMPLING LOG

Project No. 001 09567 07

Date 1/13/09 Page    of

Project Name Harrison Reader

Sampling Location H R

Sampler's Name Tom Collins

Sample No. m w-7  FE

Sampling Plan By \_\_\_\_\_

Dated 1/13/08 C.O.C. No. \_\_\_\_\_  DUP \_\_\_\_\_

Purge Method:  Centrifugal Pump  Disposable Bailer

Bail  Submersible Pump  Telon Bailer  Other \_\_\_\_\_

Date Purge Water Disposed \_\_\_\_\_

Where Disposed \_\_\_\_\_

#### Analyses Requested

#### No. and Type of Bottles Used

~~1.762~~  
1.762 + 58.20

Lab Name Test American

Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No. W-7

Depth of Water 58.20

Well Diameter: 2"

Well Depth 67.01

2" (0.16 gal/feet)     5" (1.02 gal/feet)

Water Column Height 7.718 8.1

4" (0.65 gal/feet)     6" (1.47 gal/feet)

Well Volume 1.409 ~ 1.5

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (°C)	pH (SU)	Cond (μmhos)	Turb (NTU)	Remarks
1021			1.5	144.2	17.37	6.51	991	2.37	well casing is loose
1025			3	138.3	17.71	6.41	975	2.66	
1034			34.5	122.9	17.68	6.31	975	3.07	
1039			6	121.6	17.64	6.35	973	3.61	
1044			7.5	123.3	17.66	6.35	972	3.73	
1050			59.88	Sample					

JRC

Continue remarks on reverse, if needed.





## WATER-QUALITY SAMPLING LOG

Project No. 001-09567-01

Date 11/9/09 Page    of

Project No. \_\_\_\_\_  
Project Name Hanson Radium

Sampling Location Hafsoo Radium

Sampler's Name Tom Collins

Dated \_\_\_\_\_ C.O.C. No. \_\_\_\_\_ DOP \_\_\_\_\_

Sampling Plan By \_\_\_\_\_ Dated \_\_\_\_\_ C.O.C. No. \_\_\_\_\_  
 Hand Bail     Submersible Pump     Teflon Bailer     Other \_\_\_\_\_

Purge Method:  Centrifugal Pump  Disposable Bailer  Hand Bail  Submersible Pump  Tillon Bailer  Other \_\_\_\_\_

Purge Water Storage Container Type \_\_\_\_\_ Storage Location \_\_\_\_\_

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

Date Purge Water Disposed \_\_\_\_\_ Date Last Used \_\_\_\_\_ Bottles Used \_\_\_\_\_

**Analyses Requested** \_\_\_\_\_ **No. and Type of Bottles Used** \_\_\_\_\_ **Specimen No.** \_\_\_\_\_

( $E + \epsilon_1 E$ )

63 + \$1.88

~~Final - March 2012~~

Lab Name TEST american

Delivery By  Courier \_\_\_\_\_  Hand \_\_\_\_\_

Well No MW - 9 Depth of Water 51.88

Well No. 100-3 Well Depth 55.13  
Well Diameter 2"

Well Diameter: 2  2" (0.16 gal/feet)  5" (1.02 gal/feet) Well Depth: 3.25 Water Column Height 3.25 80% RTW 52.53

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Weight \_\_\_\_\_  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume \_\_\_\_\_ 52 ~ (5) 80% DTW 50.5

4' (0.65 gavels)  6' (1.47 gavels) **DO** **MS/cm GRP**

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (°C)	pH (SU)	Cond (μmhos)	Turb (NTU)	Remarks
14:00		5 feet		Purge					
14:06			0.5	2.66	18.26	7.00	.965	216.0	
14:09			1.0	3.21	17.97	6.84	.953	212.8	
14:11			1.5	2.13	17.69	6.73	.950	212.0	
14:13			2.0	2.99	17.88	6.72	.949	209.4	
14:15			2.5	2.53	17.92	6.69	.949	212.6	
14:17			3.0	2.62	18.01	6.66	.947	215.6	
14:23			3.5	1.88	17.79	6.62	.948	214.9	
14:25			4.0	2.33	17.97	6.65	.944	216.8	
14:28			4.5	2.36	17.83	6.68	.940	213.2	
14:30			5.0	2.33	17.92	6.69	.943	211.3	
14:35		Sample		51.90 DTW					
				TRC					

Continue remarks on reverse, if needed.



## **APPENDIX B**

### **Laboratory Certified Analytical Reports**

## ANALYTICAL REPORT

Job Number: 720-17589-1

Job Description: Hanson Radum

For:  
LFR, Inc.  
1900 Powell St 12th Floor  
Emeryville, CA 94608-1827  
Attention: Mr. Ron Goloubow



Approved for release.  
Melissa Brewer  
Project Manager I  
1/16/2009 4:03 PM

---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
01/16/2009

**Job Narrative  
720-J17589-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

**GC/MS Semi VOA**

Method 8270C: The %RPD of the laboratory control standard (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 45689 exceeded control limits for the following analyte : Hexachlorocyclopentadiene.

Method 8270C: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for three (03) analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 45689 had one (01) analytes outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## **EXECUTIVE SUMMARY - Detections**

Client: LFR, Inc.

Job Number: 720-17589-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
--------------------------	------------------	--------------------	--------------------	-------	--------

No Detections

## METHOD SUMMARY

Client: LFR, Inc.

Job Number: 720-17589-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS Purge and Trap	TAL SF TAL SF	SW846 8260B/CA_LUFTMS SW846 5030B	
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF	SW846 8270C	
Diesel Range Organics (DRO) (GC) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF TAL SF	SW846 8015B	SW846 3510C SW846 3510C SGC

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: LFR, Inc.

Job Number: 720-17589-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-17589-1	MW-2	Water	01/09/2009 1555	01/09/2009 1645
720-17589-2	MW-5	Water	01/09/2009 1245	01/09/2009 1645
720-17589-3	MW-9	Water	01/09/2009 1435	01/09/2009 1645

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-2

Lab Sample ID: 720-17589-1

Date Sampled: 01/09/2009 1555

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45777	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011309\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/13/2009 1645			Final Weight/Volume:	10 mL
Date Prepared:	01/13/2009 1645				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	102		78 - 112
1,2-Dichloroethane-d4 (Surr)	94		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-5

Lab Sample ID: 720-17589-2

Date Sampled: 01/09/2009 1245

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45777	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011309\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/13/2009 1708			Final Weight/Volume:	10 mL
Date Prepared:	01/13/2009 1708				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	102		78 - 112
1,2-Dichloroethane-d4 (Surr)	70		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-9

Lab Sample ID: 720-17589-3

Date Sampled: 01/09/2009 1435

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45777	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011309\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/13/2009 1731			Final Weight/Volume:	10 mL
Date Prepared:	01/13/2009 1731				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	93		78 - 112
1,2-Dichloroethane-d4 (Surr)	88		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

Client Sample ID: MW-2

Lab Sample ID: 720-17589-1

Client Matrix: Water

Date Sampled: 01/09/2009 1555

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/13/2009 1514			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND	*	5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

Client Sample ID: MW-2

Lab Sample ID: 720-17589-1

Date Sampled: 01/09/2009 1555

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/13/2009 1514			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	42		6 - 98
2-Fluorobiphenyl	48		6 - 103
Terphenyl-d14	83		36 - 106
2-Fluorophenol	20		1 - 66
Phenol-d5	11		1 - 47
2,4,6-Tribromophenol	56		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-5

Lab Sample ID: 720-17589-2

Date Sampled: 01/09/2009 1245

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	940 mL
Date Analyzed:	01/13/2009 1547			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.1
Bis(2-chloroethyl)ether	ND		2.1
2-Chlorophenol	ND		2.1
1,3-Dichlorobenzene	ND		2.1
1,4-Dichlorobenzene	ND		2.1
Benzyl alcohol	ND		5.3
1,2-Dichlorobenzene	ND		2.1
2-Methylphenol	ND		2.1
4-Methylphenol	ND		2.1
N-Nitrosodi-n-propylamine	ND		2.1
Hexachloroethane	ND		2.1
Nitrobenzene	ND		2.1
Isophorone	ND		2.1
2-Nitrophenol	ND		2.1
2,4-Dimethylphenol	ND		2.1
Bis(2-chloroethoxy)methane	ND		5.3
2,4-Dichlorophenol	ND		5.3
1,2,4-Trichlorobenzene	ND		2.1
Naphthalene	ND		2.1
4-Chloroaniline	ND		2.1
Hexachlorobutadiene	ND		2.1
4-Chloro-3-methylphenol	ND		5.3
2-Methylnaphthalene	ND		2.1
Hexachlorocyclopentadiene	ND	*	5.3
2,4,6-Trichlorophenol	ND		2.1
2,4,5-Trichlorophenol	ND		2.1
2-Chloronaphthalene	ND		2.1
2-Nitroaniline	ND		11
Dimethyl phthalate	ND		5.3
Acenaphthylene	ND		2.1
3-Nitroaniline	ND		5.3
Acenaphthene	ND		2.1
2,4-Dinitrophenol	ND		11
4-Nitrophenol	ND		11
Dibenzofuran	ND		2.1
2,4-Dinitrotoluene	ND		2.1
2,6-Dinitrotoluene	ND		5.3
Diethyl phthalate	ND		5.3
4-Chlorophenyl phenyl ether	ND		5.3
Fluorene	ND		2.1
4-Nitroaniline	ND		11
2-Methyl-4,6-dinitrophenol	ND		11
N-Nitrosodiphenylamine	ND		2.1
4-Bromophenyl phenyl ether	ND		5.3

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

Client Sample ID: MW-5

Lab Sample ID: 720-17589-2

Date Sampled: 01/09/2009 1245

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	940 mL
Date Analyzed:	01/13/2009 1547			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.1
Pentachlorophenol	ND		11
Phenanthrene	ND		2.1
Anthracene	ND		2.1
Di-n-butyl phthalate	ND		5.3
Fluoranthene	ND		2.1
Pyrene	ND		2.1
Butyl benzyl phthalate	ND		5.3
3,3'-Dichlorobenzidine	ND		5.3
Benzo[a]anthracene	ND		5.3
Bis(2-ethylhexyl) phthalate	ND		11
Chrysene	ND		2.1
Di-n-octyl phthalate	ND		21
Benzo[b]fluoranthene	ND		2.1
Benzo[a]pyrene	ND		2.1
Benzo[k]fluoranthene	ND		2.1
Indeno[1,2,3-cd]pyrene	ND		2.1
Benzo[g,h,i]perylene	ND		2.1
Benzoic acid	ND		11
Azobenzene	ND		2.1
Dibenz(a,h)anthracene	ND		2.1
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	49		6 - 98
2-Fluorobiphenyl	58		6 - 103
Terphenyl-d14	67		36 - 106
2-Fluorophenol	30		1 - 66
Phenol-d5	16		1 - 47
2,4,6-Tribromophenol	64		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

Client Sample ID: MW-9

Lab Sample ID: 720-17589-3

Date Sampled: 01/09/2009 1435

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/13/2009 1654			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND	*	5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

Client Sample ID: MW-9

Lab Sample ID: 720-17589-3

Date Sampled: 01/09/2009 1435

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45751	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45689	Lab File ID:	d:\data\200901\011309\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/13/2009 1654			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1233			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	43		6 - 98
2-Fluorobiphenyl	46		6 - 103
Terphenyl-d14	68		36 - 106
2-Fluorophenol	22		1 - 66
Phenol-d5	14		1 - 47
2,4,6-Tribromophenol	55		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-2

Lab Sample ID: 720-17589-1

Date Sampled: 01/09/2009 1555

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45767	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45684	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/13/2009 1305			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1232			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-5

Lab Sample ID: 720-17589-2

Date Sampled: 01/09/2009 1245

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45767	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45684	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/13/2009 1332			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1232			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	90		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17589-1

**Client Sample ID:** MW-9

Lab Sample ID: 720-17589-3

Date Sampled: 01/09/2009 1435

Client Matrix: Water

Date Received: 01/09/2009 1645

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45767	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45684	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/13/2009 1521			Final Weight/Volume:	1 mL
Date Prepared:	01/12/2009 1232			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 114

## **DATA REPORTING QUALIFIERS**

Client: LFR, Inc.

Job Number: 720-17589-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS Semi VOA	*	RPD of the LCS and LCSD exceeds the control limits

# Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
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### GC/MS VOA

#### Analysis Batch: 720-45777

LCS 720-45777/13	Lab Control Spike	T	Water	8260B/CA_LUFT
LCSD 720-45777/12	Lab Control Spike Duplicate	T	Water	8260B/CA_LUFT
MB 720-45777/3	Method Blank	T	Water	8260B/CA_LUFT
720-17589-1	MW-2	T	Water	8260B/CA_LUFT
720-17589-2	MW-5	T	Water	8260B/CA_LUFT
720-17589-3	MW-9	T	Water	8260B/CA_LUFT

#### Report Basis

T = Total

### GC/MS Semi VOA

#### Prep Batch: 720-45689

LCS 720-45689/2-A	Lab Control Spike	T	Water	3510C
LCSD 720-45689/3-A	Lab Control Spike Duplicate	T	Water	3510C
MB 720-45689/1-A	Method Blank	T	Water	3510C
720-17589-1	MW-2	T	Water	3510C
720-17589-2	MW-5	T	Water	3510C
720-17589-3	MW-9	T	Water	3510C

#### Analysis Batch: 720-45751

LCS 720-45689/2-A	Lab Control Spike	T	Water	8270C	720-45689
LCSD 720-45689/3-A	Lab Control Spike Duplicate	T	Water	8270C	720-45689
MB 720-45689/1-A	Method Blank	T	Water	8270C	720-45689
720-17589-1	MW-2	T	Water	8270C	720-45689
720-17589-2	MW-5	T	Water	8270C	720-45689
720-17589-3	MW-9	T	Water	8270C	720-45689

#### Report Basis

T = Total

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC Semi VOA</b>					
<b>Prep Batch: 720-45684</b>					
LCS 720-45684/2-A	Lab Control Spike	A	Water	3510C SGC	
LCSD 720-45684/3-A	Lab Control Spike Duplicate	A	Water	3510C SGC	
MB 720-45684/1-A	Method Blank	A	Water	3510C SGC	
720-17589-1	MW-2	A	Water	3510C SGC	
720-17589-2	MW-5	A	Water	3510C SGC	
720-17589-3	MW-9	A	Water	3510C SGC	
<b>Analysis Batch: 720-45767</b>					
LCS 720-45684/2-A	Lab Control Spike	A	Water	8015B	720-45684
LCSD 720-45684/3-A	Lab Control Spike Duplicate	A	Water	8015B	720-45684
MB 720-45684/1-A	Method Blank	A	Water	8015B	720-45684
720-17589-1	MW-2	A	Water	8015B	720-45684
720-17589-2	MW-5	A	Water	8015B	720-45684
720-17589-3	MW-9	A	Water	8015B	720-45684

#### Report Basis

A = Silica Gel Cleanup

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### Method Blank - Batch: 720-45777

**Method: 8260B/CA\_LUFTMS**  
**Preparation: 5030B**

Lab Sample ID: MB 720-45777/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 0935  
Date Prepared: 01/13/2009 0935

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\mb-w:  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	% Rec		Acceptance Limits
Toluene-d8 (Surr)	103		78 - 112
1,2-Dichloroethane-d4 (Surr)	94		67 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45777

Method: 8260B/CA\_LUFTMS  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-45777/13  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1258  
Date Prepared: 01/13/2009 1258

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\ls-wa-  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-45777/12  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1321  
Date Prepared: 01/13/2009 1321

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\ld-wa-9  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline Range Organics (GRO)-C5-C12	59	59	43 - 95	0	20		
Benzene	103	96	67 - 120	7	20		
Toluene	89	74	73 - 122	19	20		
MTBE	94	96	61 - 134	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	111		93		78 - 112		
1,2-Dichloroethane-d4 (Surr)	68		97		67 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### Method Blank - Batch: 720-45689

Method: 8270C

Preparation: 3510C

Lab Sample ID: MB 720-45689/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1440  
Date Prepared: 01/12/2009 1233

Analysis Batch: 720-45751  
Prep Batch: 720-45689  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011309\mb  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.0
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.0
2,4-Dichlorophenol	ND		5.0
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.0
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.0
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.0
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.0
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.0
Diethyl phthalate	ND		5.0
4-Chlorophenyl phenyl ether	ND		5.0
Fluorene	ND		2.0
4-Nitroaniline	ND		10

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### Method Blank - Batch: 720-45689

**Method: 8270C**  
**Preparation: 3510C**

Lab Sample ID: MB 720-45689/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1440  
Date Prepared: 01/12/2009 1233

Analysis Batch: 720-45751  
Prep Batch: 720-45689  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011309\mb  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.0
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.0
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.0
3,3'-Dichlorobenzidine	ND		5.0
Benzo[a]anthracene	ND		5.0
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	% Rec	Acceptance Limits	
Nitrobenzene-d5	50	6 - 98	
2-Fluorobiphenyl	57	6 - 103	
Terphenyl-d14	76	36 - 106	
2-Fluorophenol	31	1 - 66	
Phenol-d5	17	1 - 47	
2,4,6-Tribromophenol	61	22 - 124	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45689**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45689/2-A	Analysis Batch: 720-45751	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45689	Lab File ID: d:\data\200901\011309\LC:
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/13/2009 1621		Final Weight/Volume: 1 mL
Date Prepared: 01/12/2009 1233		Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45689/3-A	Analysis Batch: 720-45751	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45689	Lab File ID: d:\data\200901\011309\LC:
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/13/2009 1406		Final Weight/Volume: 1 mL
Date Prepared: 01/12/2009 1233		Injection Volume: 1.0 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	23	28	12 - 89	21	35		
Bis(2-chloroethyl)ether	56	69	43 - 126	20	35		
2-Chlorophenol	50	62	23 - 134	21	25		
1,3-Dichlorobenzene	44	47	17 - 153	8	35		
1,4-Dichlorobenzene	41	48	36 - 97	16	30		
Benzyl alcohol	48	60	10 - 130	22	35		
1,2-Dichlorobenzene	44	54	37 - 92	21	35		
2-Methylphenol	52	67	10 - 130	25	35		
4-Methylphenol	43	55	10 - 130	25	35		
N-Nitrosodi-n-propylamine	61	79	10 - 130	26	34		
Hexachloroethane	41	48	30 - 103	17	35		
Nitrobenzene	63	75	48 - 106	18	35		
Isophorone	71	87	47 - 180	20	35		
2-Nitrophenol	57	73	45 - 166	24	35		
2,4-Dimethylphenol	66	85	42 - 109	26	35		
Bis(2-chloroethoxy)methane	62	76	43 - 164	20	35		
2,4-Dichlorophenol	66	77	53 - 121	16	35		
1,2,4-Trichlorobenzene	50	58	44 - 142	15	35		
Naphthalene	58	70	36 - 119	19	35		
4-Chloroaniline	38	45	10 - 130	17	35		
Hexachlorobutadiene	50	59	38 - 102	16	35		
4-Chloro-3-methylphenol	69	81	22 - 147	17	31		
2-Methylnaphthalene	60	69	10 - 130	14	35		
Hexachlorocyclopentadiene	53	88	10 - 130	49	35	*	
2,4,6-Trichlorophenol	61	73	47 - 108	18	35		
2,4,5-Trichlorophenol	72	85	20 - 120	16	35		
2-Chloronaphthalene	63	75	10 - 130	17	35		
2-Nitroaniline	66	79	10 - 130	18	35		
Dimethyl phthalate	83	92	10 - 130	10	35		
Acenaphthylene	78	95	54 - 126	20	35		
3-Nitroaniline	65	82	10 - 130	24	35		
Acenaphthene	72	81	48 - 104	13	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45689**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45689/2-A	Analysis Batch: 720-45751	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45689	Lab File ID: d:\data\200901\011309\LC:
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/13/2009 1621		Final Weight/Volume: 1 mL
Date Prepared: 01/12/2009 1233		Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45689/3-A	Analysis Batch: 720-45751	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45689	Lab File ID: d:\data\200901\011309\LC:
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/13/2009 1406		Final Weight/Volume: 1 mL
Date Prepared: 01/12/2009 1233		Injection Volume: 1.0 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	75	84	10 - 130	11	35		
4-Nitrophenol	38	46	1 - 132	19	35		
Dibenzofuran	66	77	10 - 130	15	35		
2,4-Dinitrotoluene	81	90	39 - 139	10	35		
2,6-Dinitrotoluene	82	90	10 - 130	9	35		
Diethyl phthalate	77	85	10 - 130	9	35		
4-Chlorophenyl phenyl ether	65	77	39 - 144	16	35		
Fluorene	74	77	55 - 111	5	35		
4-Nitroaniline	82	98	10 - 130	17	35		
2-Methyl-4,6-dinitrophenol	94	102	53 - 110	8	35		
N-Nitrosodiphenylamine	91	96	14 - 170	5	35		
4-Bromophenyl phenyl ether	92	100	10 - 130	8	35		
Hexachlorobenzene	101	95	8 - 140	6	35		
Pentachlorophenol	76	85	45 - 125	12	35		
Phenanthrene	90	90	44 - 125	1	35		
Anthracene	88	93	44 - 118	6	35		
Di-n-butyl phthalate	84	92	9 - 111	9	35		
Fluoranthene	92	96	43 - 121	4	35		
Pyrene	86	90	52 - 115	4	35		
Butyl benzyl phthalate	77	90	10 - 139	16	35		
3,3'-Dichlorobenzidine	83	90	9 - 212	9	35		
Benzo[a]anthracene	77	83	42 - 133	8	35		
Bis(2-ethylhexyl) phthalate	74	87	29 - 136	16	35		
Chrysene	76	81	42 - 139	6	35		
Di-n-octyl phthalate	83	82	10 - 130	1	35		
Benzo[b]fluoranthene	80	92	42 - 140	13	35		
Benzo[a]pyrene	68	80	32 - 148	17	35		
Benzo[k]fluoranthene	70	77	26 - 145	9	35		
Indeno[1,2,3-cd]pyrene	80	93	10 - 150	15	35		
Benzo[g,h,i]perylene	90	92	10 - 140	3	35		
Benzoic acid	23	30	10 - 130	30	35		
Azobenzene	72	77	12 - 89	8	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45689

Method: 8270C  
Preparation: 3510C

LCS Lab Sample ID: LCS 720-45689/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1621  
Date Prepared: 01/12/2009 1233

Analysis Batch: 720-45751  
Prep Batch: 720-45689  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011309\LC:  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45689/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1406  
Date Prepared: 01/12/2009 1233

Analysis Batch: 720-45751  
Prep Batch: 720-45689  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011309\LC:  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dibenz(a,h)anthracene	88	88	10 - 130	1	35		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
Nitrobenzene-d5	63		73			6 - 98	
2-Fluorobiphenyl	64		83			6 - 103	
Terphenyl-d14	80		88			36 - 106	
2-Fluorophenol	32		38			1 - 66	
Phenol-d5	23		28			1 - 47	
2,4,6-Tribromophenol	71		87			22 - 124	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17589-1

### **Method Blank - Batch: 720-45684**

Lab Sample ID: MB 720-45684/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/13/2009 1022  
 Date Prepared: 01/12/2009 1151

Analysis Batch: 720-45767  
 Prep Batch: 720-45684  
 Units: ug/L

**Method: 8015B**  
**Preparation: 3510C SGC**  
**Silica Gel Cleanup**

Instrument ID: HP DRO5  
 Lab File ID: N/A  
 Initial Weight/Volume: 250 mL  
 Final Weight/Volume: 1 mL  
 Injection Volume:  
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	% Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 114
<b>Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45684</b>		<b>Method: 8015B</b> <b>Preparation: 3510C SGC</b> <b>Silica Gel Cleanup</b>	
LCS Lab Sample ID: LCS 720-45684/2-A	Analysis Batch: 720-45767 Prep Batch: 720-45684 Units: ug/L	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY	

LCSD Lab Sample ID: LCSD 720-45684/3-A	Analysis Batch: 720-45767 Prep Batch: 720-45684 Units: ug/L	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
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Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	70	62	41 - 103	12	30		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
p-Terphenyl	88		91			46 - 114	

Calculations are performed before rounding to avoid round-off errors in calculated results.

**CHAIN OF CUSTODY ANALYSES REQUEST FORM**

114076

## Login Sample Receipt Check List

Client: LFR, Inc.

Job Number: 720-17589-1

**Login Number: 17589**

**Creator: Mullen, Joan**

**List Number: 1**

**List Source: TestAmerica San Francisco**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 720-17613-1

Job Description: Hanson Radum

For:  
LFR, Inc.  
1900 Powell St 12th Floor  
Emeryville, CA 94608-1827  
Attention: Mr. Ron Goloubow



Approved for release.  
Melissa Brewer  
Project Manager I  
1/19/2009 5:07 PM

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Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
01/19/2009

**Job Narrative**  
**720-J17613-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## **EXECUTIVE SUMMARY - Detections**

Client: LFR, Inc.

Job Number: 720-17613-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
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No Detections

## METHOD SUMMARY

Client: LFR, Inc.

Job Number: 720-17613-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS Purge and Trap	TAL SF TAL SF	SW846 8260B/CA_LUFTMS SW846 5030B	
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF	SW846 8270C	
Diesel Range Organics (DRO) (GC) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF TAL SF	SW846 8015B	SW846 3510C SW846 3510C SGC

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: LFR, Inc.

Job Number: 720-17613-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-17613-1	MW-8	Water	01/12/2009 1600	01/12/2009 1634

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17613-1

**Client Sample ID:** MW-8

Lab Sample ID: 720-17613-1

Date Sampled: 01/12/2009 1600

Client Matrix: Water

Date Received: 01/12/2009 1634

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45777	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011309\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/13/2009 1947			Final Weight/Volume:	10 mL
Date Prepared:	01/13/2009 1947				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	88		78 - 112
1,2-Dichloroethane-d4 (Surr)	102		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17613-1

Client Sample ID: MW-8

Lab Sample ID: 720-17613-1

Date Sampled: 01/12/2009 1600

Client Matrix: Water

Date Received: 01/12/2009 1634

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1818			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17613-1

Client Sample ID: MW-8

Lab Sample ID: 720-17613-1

Date Sampled: 01/12/2009 1600

Client Matrix: Water

Date Received: 01/12/2009 1634

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1818			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	67		6 - 98
2-Fluorobiphenyl	69		6 - 103
Terphenyl-d14	74		36 - 106
2-Fluorophenol	34		1 - 66
Phenol-d5	20		1 - 47
2,4,6-Tribromophenol	66		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17613-1

**Client Sample ID:** MW-8

Lab Sample ID: 720-17613-1

Date Sampled: 01/12/2009 1600

Client Matrix: Water

Date Received: 01/12/2009 1634

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/15/2009 1957			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	86		46 - 114

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
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# Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-45777</b>					
LCS 720-45777/13	Lab Control Spike	T	Water	8260B/CA_LUFT	
LCSD 720-45777/12	Lab Control Spike Duplicate	T	Water	8260B/CA_LUFT	
MB 720-45777/3	Method Blank	T	Water	8260B/CA_LUFT	
720-17613-1	MW-8	T	Water	8260B/CA_LUFT	
<b>Report Basis</b>					
T = Total					
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 720-45740</b>					
LCS 720-45740/2-A	Lab Control Spike	T	Water	3510C	
LCSD 720-45740/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 720-45740/1-A	Method Blank	T	Water	3510C	
720-17613-1	MW-8	T	Water	3510C	
<b>Analysis Batch:720-45867</b>					
LCS 720-45740/2-A	Lab Control Spike	T	Water	8270C	720-45740
LCSD 720-45740/3-A	Lab Control Spike Duplicate	T	Water	8270C	720-45740
MB 720-45740/1-A	Method Blank	T	Water	8270C	720-45740
720-17613-1	MW-8	T	Water	8270C	720-45740
<b>Report Basis</b>					
T = Total					
<b>GC Semi VOA</b>					
<b>Prep Batch: 720-45780</b>					
LCS 720-45780/2-A	Lab Control Spike	A	Water	3510C SGC	
LCSD 720-45780/3-A	Lab Control Spike Duplicate	A	Water	3510C SGC	
MB 720-45780/1-A	Method Blank	A	Water	3510C SGC	
720-17613-1	MW-8	A	Water	3510C SGC	
<b>Analysis Batch:720-45940</b>					
LCS 720-45780/2-A	Lab Control Spike	A	Water	8015B	720-45780
LCSD 720-45780/3-A	Lab Control Spike Duplicate	A	Water	8015B	720-45780
MB 720-45780/1-A	Method Blank	A	Water	8015B	720-45780
720-17613-1	MW-8	A	Water	8015B	720-45780

## Report Basis

A = Silica Gel Cleanup

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Method Blank - Batch: 720-45777

**Method: 8260B/CA\_LUFTMS**  
**Preparation: 5030B**

Lab Sample ID: MB 720-45777/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 0935  
Date Prepared: 01/13/2009 0935

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\mb-w:  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	% Rec		Acceptance Limits
Toluene-d8 (Surr)	103		78 - 112
1,2-Dichloroethane-d4 (Surr)	94		67 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45777

Method: 8260B/CA\_LUFTMS  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-45777/13  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1258  
Date Prepared: 01/13/2009 1258

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\ls-wa-  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-45777/12  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/13/2009 1321  
Date Prepared: 01/13/2009 1321

Analysis Batch: 720-45777  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011309\ld-wa-9  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline Range Organics (GRO)-C5-C12	59	59	43 - 95	0	20		
Benzene	103	96	67 - 120	7	20		
Toluene	89	74	73 - 122	19	20		
MTBE	94	96	61 - 134	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	111		93		78 - 112		
1,2-Dichloroethane-d4 (Surr)	68		97		67 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Method Blank - Batch: 720-45740

Method: 8270C

Preparation: 3510C

Lab Sample ID: MB 720-45740/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1349  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\MB  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.0
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.0
2,4-Dichlorophenol	ND		5.0
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.0
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.0
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.0
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.0
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.0
Diethyl phthalate	ND		5.0
4-Chlorophenyl phenyl ether	ND		5.0
Fluorene	ND		2.0
4-Nitroaniline	ND		10

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Method Blank - Batch: 720-45740

Lab Sample ID: MB 720-45740/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1349  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

**Method: 8270C**  
**Preparation: 3510C**

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\MB  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.0
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.0
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.0
3,3'-Dichlorobenzidine	ND		5.0
Benzo[a]anthracene	ND		5.0
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	% Rec	Acceptance Limits	
Nitrobenzene-d5	64	6 - 98	
2-Fluorobiphenyl	69	6 - 103	
Terphenyl-d14	81	36 - 106	
2-Fluorophenol	38	1 - 66	
Phenol-d5	24	1 - 47	
2,4,6-Tribromophenol	71	22 - 124	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45740/2-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1242		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1316		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	26	29	12 - 89	12	35		
Bis(2-chloroethyl)ether	72	81	43 - 126	12	35		
2-Chlorophenol	62	69	23 - 134	9	25		
1,3-Dichlorobenzene	50	54	17 - 153	8	35		
1,4-Dichlorobenzene	48	51	36 - 97	6	30		
Benzyl alcohol	57	59	10 - 130	5	35		
1,2-Dichlorobenzene	55	58	37 - 92	5	35		
2-Methylphenol	59	65	10 - 130	10	35		
4-Methylphenol	51	53	10 - 130	4	35		
N-Nitrosodi-n-propylamine	71	73	10 - 130	3	34		
Hexachloroethane	48	54	30 - 103	11	35		
Nitrobenzene	86	77	48 - 106	11	35		
Isophorone	88	82	47 - 180	7	35		
2-Nitrophenol	79	83	45 - 166	4	35		
2,4-Dimethylphenol	85	81	42 - 109	5	35		
Bis(2-chloroethoxy)methane	79	76	43 - 164	4	35		
2,4-Dichlorophenol	80	78	53 - 121	1	35		
1,2,4-Trichlorobenzene	61	59	44 - 142	2	35		
Naphthalene	68	71	36 - 119	4	35		
4-Chloroaniline	47	43	10 - 130	9	35		
Hexachlorobutadiene	65	55	38 - 102	16	35		
4-Chloro-3-methylphenol	72	73	22 - 147	1	31		
2-Methylnaphthalene	69	69	10 - 130	1	35		
Hexachlorocyclopentadiene	79	89	10 - 130	11	35		
2,4,6-Trichlorophenol	78	78	47 - 108	1	35		
2,4,5-Trichlorophenol	76	85	20 - 120	11	35		
2-Chloronaphthalene	81	81	10 - 130	0	35		
2-Nitroaniline	78	82	10 - 130	5	35		
Dimethyl phthalate	92	96	10 - 130	4	35		
Acenaphthylene	96	98	54 - 126	2	35		
3-Nitroaniline	79	81	10 - 130	2	35		
Acenaphthene	86	80	48 - 104	7	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45740/2-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1242		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1316		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	93	93	10 - 130	0	35		
4-Nitrophenol	45	46	1 - 132	3	35		
Dibenzofuran	82	74	10 - 130	9	35		
2,4-Dinitrotoluene	91	87	39 - 139	5	35		
2,6-Dinitrotoluene	98	92	10 - 130	6	35		
Diethyl phthalate	93	89	10 - 130	4	35		
4-Chlorophenyl phenyl ether	85	85	39 - 144	0	35		
Fluorene	86	82	55 - 111	5	35		
4-Nitroaniline	94	91	10 - 130	3	35		
2-Methyl-4,6-dinitrophenol	99	101	53 - 110	2	35		
N-Nitrosodiphenylamine	96	102	14 - 170	6	35		
4-Bromophenyl phenyl ether	92	93	10 - 130	1	35		
Hexachlorobenzene	94	86	8 - 140	9	35		
Pentachlorophenol	83	83	45 - 125	0	35		
Phenanthrene	84	90	44 - 125	7	35		
Anthracene	96	94	44 - 118	3	35		
Di-n-butyl phthalate	87	96	9 - 111	10	35		
Fluoranthene	91	91	43 - 121	1	35		
Pyrene	85	92	52 - 115	7	35		
Butyl benzyl phthalate	87	92	10 - 139	5	35		
3,3'-Dichlorobenzidine	84	86	9 - 212	2	35		
Benzo[a]anthracene	79	87	42 - 133	10	35		
Bis(2-ethylhexyl) phthalate	82	85	29 - 136	3	35		
Chrysene	78	86	42 - 139	10	35		
Di-n-octyl phthalate	85	84	10 - 130	1	35		
Benzo[b]fluoranthene	93	82	42 - 140	13	35		
Benzo[a]pyrene	84	76	32 - 148	9	35		
Benzo[k]fluoranthene	77	90	26 - 145	16	35		
Indeno[1,2,3-cd]pyrene	88	91	10 - 150	4	35		
Benzo[g,h,i]perylene	94	91	10 - 140	3	35		
Benzoic acid	27	27	10 - 130	2	35		
Azobenzene	83	81	12 - 89	3	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740

Method: 8270C  
Preparation: 3510C

LCS Lab Sample ID: LCS 720-45740/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1242  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1316  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	89	95	10 - 130	7	35		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Nitrobenzene-d5	82		78		6 - 98		
2-Fluorobiphenyl	77		86		6 - 103		
Terphenyl-d14	82		89		36 - 106		
2-Fluorophenol	39		42		1 - 66		
Phenol-d5	26		29		1 - 47		
2,4,6-Tribromophenol	88		80		22 - 124		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17613-1

### Method Blank - Batch: 720-45780

Lab Sample ID: MB 720-45780/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/15/2009 1146  
Date Prepared: 01/14/2009 1235

Analysis Batch: 720-45940  
Prep Batch: 720-45780  
Units: ug/L

**Method: 8015B**  
**Preparation: 3510C SGC**  
**Silica Gel Cleanup**

Instrument ID: HP DRO5  
Lab File ID: N/A  
Initial Weight/Volume: 250 mL  
Final Weight/Volume: 1 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		500
Surrogate	% Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	88		46 - 114

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 720-45780**

LCS Lab Sample ID: LCS 720-45780/2-A      Analysis Batch: 720-45940      Instrument ID: HP DRO5  
Client Matrix: Water      Prep Batch: 720-45780      Lab File ID: N/A  
Dilution: 1.0      Units: ug/L      Initial Weight/Volume: 250 mL  
Date Analyzed: 01/15/2009 1213      Final Weight/Volume: 1 mL  
Date Prepared: 01/14/2009 1235      Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-45780/3-A	Analysis Batch: 720-45940	Instrument ID: HP DRO5
Client Matrix: Water	Prep Batch: 720-45780	Lab File ID: N/A
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 250 mL
Date Analyzed: 01/15/2009 1240		Final Weight/Volume: 1 mL
Date Prepared: 01/14/2009 1235		Injection Volume: Column ID: PRIMARY

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	97	98	41 - 103	1	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
p-Terphenyl	111		114		46 - 114		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Brewer, Melissa

---

**From:** Goloubow, Ron [Ron.Goloubow@lfr.com]  
**Sent:** Tuesday, January 13, 2009 5:24 PM  
**To:** Brewer, Melissa  
**Subject:** RE: Sample Login Confirmation for 720-17613: Hanson Radum

Silica Gel is formally requested. Thanks

Ron Goloubow  
LFR Inc.  
510-596-9550 Direct Dial  
510-501-1789 Cell  
510-652-4906 Facsimile  
[ron.goloubow@lfr.com](mailto:ron.goloubow@lfr.com)

---

**From:** Brewer, Melissa [mailto:[melissa.brewer@testamericainc.com](mailto:melissa.brewer@testamericainc.com)]  
**Sent:** Tuesday, January 13, 2009 5:06 PM  
**To:** Goloubow, Ron  
**Subject:** Sample Login Confirmation for 720-17613: Hanson Radum

Again, Tom told Dimple on the phone today that he needs Silica Gel Cleanup on this sample. Could you please verify this?

Thanks.

## MELISSA BREWER

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 925.484.1919  
[www.testamericainc.com](http://www.testamericainc.com)

Reference: [036967]  
Attachments: 3

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**CHAIN OF CUSTODY / ANALYSIS REQUEST FORM**

114096

SAMPLE COLLECTOR: <b>LFR</b> 1900 Powell Street, 12th Floor Emeryville, California 94608 (510) 652-4500 Fax: (510) 652-2246	PROJECT NO.: <b>001-0956707</b>	SECTION NO.:	DATE: <b>1/12/09</b>	SAMPLER'S INITIALS: <b>TRC</b>	SERIAL NO.: <b>Nº 203297</b>
PROJECT NAME: <b>Hanson Redden</b>		SAMPLER (Signature): <b>Tom</b>			

SAMPLE			ANALYSES								REMARKS			
SAMPLE ID.	DATE	TIME	Lab Sample No.	No. of Containers	TYPE	TPHd (EPA 8015M) <i>&amp; NO</i>	TPHmo (EPA 8015M)	TPHg (EPA 8015M)	BTEX (EPA 8021/802)	VOCs (EPA 8260/624)	Metals (EPA 8010/7000)	SVOC's lead scavengers Fuel Oxy's	TAT	*VOCs:    **Metals:
														<input type="checkbox"/> 8260 List <input type="checkbox"/> CAM17
MW-8	Y/12	1600		X	X X X X					X X X		X		<input type="checkbox"/> 8240 List <input type="checkbox"/> RCRA
														<input type="checkbox"/> 8010 List <input type="checkbox"/> LUFT
														<input type="checkbox"/> 624 List

<b>SAMPLE RECEIPT:</b>		<b>Cooler Temp:</b> <u>5.3°C</u>	<b>METHOD OF SHIPMENT:</b> <u>Hand</u>	<b>RELINQUISHED BY:</b> <u>Tom Collins</u> <u>1/12/09</u>	<b>1 RELINQUISHED BY:</b> <u>(SIGNATURE)</u> <u>(DATE)</u>	<b>2 RELINQUISHED BY:</b> <u>(SIGNATURE)</u> <u>(DATE)</u>
<input checked="" type="checkbox"/> Intact	<input type="checkbox"/> Cold	<b>LAB REPORT NO.:</b>	<b>(SIGNATURE)</b> <u>Tom Collins</u> <u>16:34</u>	<b>(DATE)</b> <u>(TIME)</u>	<b>(SIGNATURE)</b> <u>(PRINTED NAME)</u>	<b>(DATE)</b> <u>(TIME)</u>
<input checked="" type="checkbox"/> On Ice	<input type="checkbox"/> Ambient	<b>FAX COC CONFIRMATION TO:</b> <u>Ron Goldbow</u>	<b>(PRINTED NAME)</b> <u>LFR</u>	<b>(TIME)</b>	<b>(PRINTED NAME)</b> <u>(COMPANY)</u>	<b>(TIME)</b>
<b>PRESERVATIVE CORRECT?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<b>FAX RESULTS TO:</b> <u>Ron Goldbow</u>	<b>RECEIVED BY:</b> <u>T. Bullock</u> <u>1/12/09</u>	<b>1 RECEIVED BY:</b> <u>(SIGNATURE)</u> <u>(DATE)</u>	<b>2 RECEIVED BY (LABORATORY):</b> <u>(SIGNATURE)</u> <u>(DATE)</u>	
<b>ANALYTICAL LABORATORY:</b>		<b>SEND HARDCOPY TO:</b> <u>Ron G.</u>	<b>(SIGNATURE)</b> <u>T. Bullock</u> <u>16:34</u>	<b>(DATE)</b> <u>(TIME)</u>	<b>(PRINTED NAME)</b> <u>(COMPANY)</u>	<b>(TIME)</b>
		<b>SEND EDD TO:</b> <u>ENV.LABEDDS.COM</u>	<b>(PRINTED NAME)</b> <u>TEST AMERLICAT</u>	<b>(TIME)</b>	<b>(PRINTED NAME)</b> <u>(COMPANY)</u>	<b>(TIME)</b>

## Login Sample Receipt Check List

Client: LFR, Inc.

Job Number: 720-17613-1

**Login Number:** 17613  
**Creator:** Bullock, Tracy  
**List Number:** 1

**List Source:** TestAmerica San Francisco

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 720-17626-1

Job Description: Hanson Radum

For:  
LFR, Inc.  
1900 Powell St 12th Floor  
Emeryville, CA 94608-1827  
Attention: Mr. Ron Goloubow



Approved for release.  
Melissa Brewer  
Project Manager I  
1/29/2009 1:29 PM

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Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
01/29/2009  
Revision: 1

**Job Narrative**  
**720-J17626-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## **EXECUTIVE SUMMARY - Detections**

Client: LFR, Inc.

Job Number: 720-17626-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
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No Detections

## METHOD SUMMARY

Client: LFR, Inc.

Job Number: 720-17626-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS Purge and Trap	TAL SF TAL SF	SW846 8260B/CA_LUFTMS SW846 5030B	
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF	SW846 8270C	
Diesel Range Organics (DRO) (GC) Liquid-Liquid Extraction (Separatory Funnel)	TAL SF TAL SF	SW846 8015B	SW846 3510C SW846 3510C SGC

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: LFR, Inc.

Job Number: 720-17626-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-17626-1	MW-3	Water	01/13/2009 1225	01/13/2009 1505
720-17626-2	MW-6	Water	01/13/2009 0930	01/13/2009 1505
720-17626-3	MW-6-D	Water	01/13/2009 0940	01/13/2009 1505
720-17626-4	MW-1	Water	01/13/2009 1150	01/13/2009 1505
720-17626-5	MW-7	Water	01/13/2009 1050	01/13/2009 1505
720-17626-6	FB	Water	01/13/2009 1330	01/13/2009 1505
720-17626-7	MW-10	Water	01/13/2009 1415	01/13/2009 1505

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-3

Lab Sample ID: 720-17626-1

Date Sampled: 01/13/2009 1225

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011409\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/14/2009 1716			Final Weight/Volume:	10 mL
Date Prepared:	01/14/2009 1716				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	107		78 - 112
1,2-Dichloroethane-d4 (Surr)	112		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-6

Lab Sample ID: 720-17626-2

Date Sampled: 01/13/2009 0930

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011409\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/14/2009 1738			Final Weight/Volume:	10 mL
Date Prepared:	01/14/2009 1738				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	100		78 - 112
1,2-Dichloroethane-d4 (Surr)	75		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-6-D

Lab Sample ID: 720-17626-3

Date Sampled: 01/13/2009 0940

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B	Lab File ID:	e:\data\2009\011409\sa-wa-		
Dilution:	1.0	Initial Weight/Volume:	10 mL		
Date Analyzed:	01/14/2009 1801	Final Weight/Volume:	10 mL		
Date Prepared:	01/14/2009 1801				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	104		78 - 112
1,2-Dichloroethane-d4 (Surr)	87		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-1

Lab Sample ID: 720-17626-4

Date Sampled: 01/13/2009 1150

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B	Lab File ID:	e:\data\2009\011409\sa-wa-		
Dilution:	1.0	Initial Weight/Volume:	10 mL		
Date Analyzed:	01/14/2009 1824	Final Weight/Volume:	10 mL		
Date Prepared:	01/14/2009 1824				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	97		78 - 112
1,2-Dichloroethane-d4 (Surr)	97		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-7

Lab Sample ID: 720-17626-5

Date Sampled: 01/13/2009 1050

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B	Lab File ID:	e:\data\2009\011409\sa-wa-		
Dilution:	1.0	Initial Weight/Volume:	10 mL		
Date Analyzed:	01/14/2009 1846	Final Weight/Volume:	10 mL		
Date Prepared:	01/14/2009 1846				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	103		78 - 112
1,2-Dichloroethane-d4 (Surr)	86		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** FB

Lab Sample ID: 720-17626-6

Date Sampled: 01/13/2009 1330

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B			Lab File ID:	e:\data\2009\011409\sa-wa-
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	01/14/2009 1909			Final Weight/Volume:	10 mL
Date Prepared:	01/14/2009 1909				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	110		78 - 112
1,2-Dichloroethane-d4 (Surr)	111		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-10

Lab Sample ID: 720-17626-7

Date Sampled: 01/13/2009 1415

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch:	720-45853	Instrument ID:	Varian 3900A
Preparation:	5030B	Lab File ID:	e:\data\2009\011409\sa-wa-		
Dilution:	1.0	Initial Weight/Volume:	10 mL		
Date Analyzed:	01/14/2009 1932	Final Weight/Volume:	10 mL		
Date Prepared:	01/14/2009 1932				

Analyte	Result (ug/L)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	101		78 - 112
1,2-Dichloroethane-d4 (Surr)	96		67 - 126

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-3

Lab Sample ID: 720-17626-1

Date Sampled: 01/13/2009 1225

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	990 mL
Date Analyzed:	01/14/2009 1852			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-3

Lab Sample ID: 720-17626-1

Date Sampled: 01/13/2009 1225

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	990 mL
Date Analyzed:	01/14/2009 1852			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	60		6 - 98
2-Fluorobiphenyl	63		6 - 103
Terphenyl-d14	66		36 - 106
2-Fluorophenol	28		1 - 66
Phenol-d5	17		1 - 47
2,4,6-Tribromophenol	60		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-6

Lab Sample ID: 720-17626-2

Date Sampled: 01/13/2009 0930

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1926			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-6

Lab Sample ID: 720-17626-2

Date Sampled: 01/13/2009 0930

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1926			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	67		6 - 98
2-Fluorobiphenyl	71		6 - 103
Terphenyl-d14	75		36 - 106
2-Fluorophenol	36		1 - 66
Phenol-d5	20		1 - 47
2,4,6-Tribromophenol	74		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-6-D

Lab Sample ID: 720-17626-3

Date Sampled: 01/13/2009 0940

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1959			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-6-D

Lab Sample ID: 720-17626-3

Date Sampled: 01/13/2009 0940

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 1959			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	71		6 - 98
2-Fluorobiphenyl	82		6 - 103
Terphenyl-d14	82		36 - 106
2-Fluorophenol	40		1 - 66
Phenol-d5	22		1 - 47
2,4,6-Tribromophenol	80		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-1

Lab Sample ID: 720-17626-4

Date Sampled: 01/13/2009 1150

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/14/2009 2033			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.1
Bis(2-chloroethyl)ether	ND		2.1
2-Chlorophenol	ND		2.1
1,3-Dichlorobenzene	ND		2.1
1,4-Dichlorobenzene	ND		2.1
Benzyl alcohol	ND		5.2
1,2-Dichlorobenzene	ND		2.1
2-Methylphenol	ND		2.1
4-Methylphenol	ND		2.1
N-Nitrosodi-n-propylamine	ND		2.1
Hexachloroethane	ND		2.1
Nitrobenzene	ND		2.1
Isophorone	ND		2.1
2-Nitrophenol	ND		2.1
2,4-Dimethylphenol	ND		2.1
Bis(2-chloroethoxy)methane	ND		5.2
2,4-Dichlorophenol	ND		5.2
1,2,4-Trichlorobenzene	ND		2.1
Naphthalene	ND		2.1
4-Chloroaniline	ND		2.1
Hexachlorobutadiene	ND		2.1
4-Chloro-3-methylphenol	ND		5.2
2-Methylnaphthalene	ND		2.1
Hexachlorocyclopentadiene	ND		5.2
2,4,6-Trichlorophenol	ND		2.1
2,4,5-Trichlorophenol	ND		2.1
2-Chloronaphthalene	ND		2.1
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.2
Acenaphthylene	ND		2.1
3-Nitroaniline	ND		5.2
Acenaphthene	ND		2.1
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.1
2,4-Dinitrotoluene	ND		2.1
2,6-Dinitrotoluene	ND		5.2
Diethyl phthalate	ND		5.2
4-Chlorophenyl phenyl ether	ND		5.2
Fluorene	ND		2.1
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.1
4-Bromophenyl phenyl ether	ND		5.2

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-1

Lab Sample ID: 720-17626-4

Date Sampled: 01/13/2009 1150

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/14/2009 2033			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.1
Pentachlorophenol	ND		10
Phenanthrene	ND		2.1
Anthracene	ND		2.1
Di-n-butyl phthalate	ND		5.2
Fluoranthene	ND		2.1
Pyrene	ND		2.1
Butyl benzyl phthalate	ND		5.2
3,3'-Dichlorobenzidine	ND		5.2
Benzo[a]anthracene	ND		5.2
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.1
Di-n-octyl phthalate	ND		21
Benzo[b]fluoranthene	ND		2.1
Benzo[a]pyrene	ND		2.1
Benzo[k]fluoranthene	ND		2.1
Indeno[1,2,3-cd]pyrene	ND		2.1
Benzo[g,h,i]perylene	ND		2.1
Benzoic acid	ND		10
Azobenzene	ND		2.1
Dibenz(a,h)anthracene	ND		2.1
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	79		6 - 98
2-Fluorobiphenyl	76		6 - 103
Terphenyl-d14	80		36 - 106
2-Fluorophenol	38		1 - 66
Phenol-d5	22		1 - 47
2,4,6-Tribromophenol	78		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-7

Lab Sample ID: 720-17626-5

Date Sampled: 01/13/2009 1050

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 2106			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.1
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.1
2,4-Dichlorophenol	ND		5.1
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.1
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.1
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.1
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.1
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.1
Diethyl phthalate	ND		5.1
4-Chlorophenyl phenyl ether	ND		5.1
Fluorene	ND		2.0
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.1

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: MW-7

Lab Sample ID: 720-17626-5

Date Sampled: 01/13/2009 1050

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	980 mL
Date Analyzed:	01/14/2009 2106			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.1
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.1
3,3'-Dichlorobenzidine	ND		5.1
Benzo[a]anthracene	ND		5.1
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	79		6 - 98
2-Fluorobiphenyl	84		6 - 103
Terphenyl-d14	86		36 - 106
2-Fluorophenol	41		1 - 66
Phenol-d5	23		1 - 47
2,4,6-Tribromophenol	85		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: FB

Lab Sample ID: 720-17626-6

Date Sampled: 01/13/2009 1330

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	960 mL
Date Analyzed:	01/14/2009 2140			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.1
Bis(2-chloroethyl)ether	ND		2.1
2-Chlorophenol	ND		2.1
1,3-Dichlorobenzene	ND		2.1
1,4-Dichlorobenzene	ND		2.1
Benzyl alcohol	ND		5.2
1,2-Dichlorobenzene	ND		2.1
2-Methylphenol	ND		2.1
4-Methylphenol	ND		2.1
N-Nitrosodi-n-propylamine	ND		2.1
Hexachloroethane	ND		2.1
Nitrobenzene	ND		2.1
Isophorone	ND		2.1
2-Nitrophenol	ND		2.1
2,4-Dimethylphenol	ND		2.1
Bis(2-chloroethoxy)methane	ND		5.2
2,4-Dichlorophenol	ND		5.2
1,2,4-Trichlorobenzene	ND		2.1
Naphthalene	ND		2.1
4-Chloroaniline	ND		2.1
Hexachlorobutadiene	ND		2.1
4-Chloro-3-methylphenol	ND		5.2
2-Methylnaphthalene	ND		2.1
Hexachlorocyclopentadiene	ND		5.2
2,4,6-Trichlorophenol	ND		2.1
2,4,5-Trichlorophenol	ND		2.1
2-Chloronaphthalene	ND		2.1
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.2
Acenaphthylene	ND		2.1
3-Nitroaniline	ND		5.2
Acenaphthene	ND		2.1
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.1
2,4-Dinitrotoluene	ND		2.1
2,6-Dinitrotoluene	ND		5.2
Diethyl phthalate	ND		5.2
4-Chlorophenyl phenyl ether	ND		5.2
Fluorene	ND		2.1
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.1
4-Bromophenyl phenyl ether	ND		5.2

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

Client Sample ID: FB

Lab Sample ID: 720-17626-6

Date Sampled: 01/13/2009 1330

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	960 mL
Date Analyzed:	01/14/2009 2140			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.1
Pentachlorophenol	ND		10
Phenanthrene	ND		2.1
Anthracene	ND		2.1
Di-n-butyl phthalate	ND		5.2
Fluoranthene	ND		2.1
Pyrene	ND		2.1
Butyl benzyl phthalate	ND		5.2
3,3'-Dichlorobenzidine	ND		5.2
Benzo[a]anthracene	ND		5.2
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.1
Di-n-octyl phthalate	ND		21
Benzo[b]fluoranthene	ND		2.1
Benzo[a]pyrene	ND		2.1
Benzo[k]fluoranthene	ND		2.1
Indeno[1,2,3-cd]pyrene	ND		2.1
Benzo[g,h,i]perylene	ND		2.1
Benzoic acid	ND		10
Azobenzene	ND		2.1
Dibenz(a,h)anthracene	ND		2.1
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	56		6 - 98
2-Fluorobiphenyl	64		6 - 103
Terphenyl-d14	86		36 - 106
2-Fluorophenol	28		1 - 66
Phenol-d5	17		1 - 47
2,4,6-Tribromophenol	66		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-10

Lab Sample ID: 720-17626-7

Date Sampled: 01/13/2009 1415

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/14/2009 2214			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Phenol	ND		2.1
Bis(2-chloroethyl)ether	ND		2.1
2-Chlorophenol	ND		2.1
1,3-Dichlorobenzene	ND		2.1
1,4-Dichlorobenzene	ND		2.1
Benzyl alcohol	ND		5.2
1,2-Dichlorobenzene	ND		2.1
2-Methylphenol	ND		2.1
4-Methylphenol	ND		2.1
N-Nitrosodi-n-propylamine	ND		2.1
Hexachloroethane	ND		2.1
Nitrobenzene	ND		2.1
Isophorone	ND		2.1
2-Nitrophenol	ND		2.1
2,4-Dimethylphenol	ND		2.1
Bis(2-chloroethoxy)methane	ND		5.2
2,4-Dichlorophenol	ND		5.2
1,2,4-Trichlorobenzene	ND		2.1
Naphthalene	ND		2.1
4-Chloroaniline	ND		2.1
Hexachlorobutadiene	ND		2.1
4-Chloro-3-methylphenol	ND		5.2
2-Methylnaphthalene	ND		2.1
Hexachlorocyclopentadiene	ND		5.2
2,4,6-Trichlorophenol	ND		2.1
2,4,5-Trichlorophenol	ND		2.1
2-Chloronaphthalene	ND		2.1
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.2
Acenaphthylene	ND		2.1
3-Nitroaniline	ND		5.2
Acenaphthene	ND		2.1
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.1
2,4-Dinitrotoluene	ND		2.1
2,6-Dinitrotoluene	ND		5.2
Diethyl phthalate	ND		5.2
4-Chlorophenyl phenyl ether	ND		5.2
Fluorene	ND		2.1
4-Nitroaniline	ND		10
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.1
4-Bromophenyl phenyl ether	ND		5.2

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-10

Lab Sample ID: 720-17626-7

Date Sampled: 01/13/2009 1415

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch:	720-45867	Instrument ID:	Sat 2K1
Preparation:	3510C	Prep Batch:	720-45740	Lab File ID:	d:\data\200901\011409\720-
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/14/2009 2214			Final Weight/Volume:	1 mL
Date Prepared:	01/13/2009 1652			Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
Hexachlorobenzene	ND		2.1
Pentachlorophenol	ND		10
Phenanthrene	ND		2.1
Anthracene	ND		2.1
Di-n-butyl phthalate	ND		5.2
Fluoranthene	ND		2.1
Pyrene	ND		2.1
Butyl benzyl phthalate	ND		5.2
3,3'-Dichlorobenzidine	ND		5.2
Benzo[a]anthracene	ND		5.2
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.1
Di-n-octyl phthalate	ND		21
Benzo[b]fluoranthene	ND		2.1
Benzo[a]pyrene	ND		2.1
Benzo[k]fluoranthene	ND		2.1
Indeno[1,2,3-cd]pyrene	ND		2.1
Benzo[g,h,i]perylene	ND		2.1
Benzoic acid	ND		10
Azobenzene	ND		2.1
Dibenz(a,h)anthracene	ND		2.1
Surrogate	%Rec		Acceptance Limits
Nitrobenzene-d5	68		6 - 98
2-Fluorobiphenyl	80		6 - 103
Terphenyl-d14	81		36 - 106
2-Fluorophenol	38		1 - 66
Phenol-d5	23		1 - 47
2,4,6-Tribromophenol	84		22 - 124

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-3

Lab Sample ID: 720-17626-1

Date Sampled: 01/13/2009 1225

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/15/2009 2333			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	79		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-6

Lab Sample ID: 720-17626-2

Date Sampled: 01/13/2009 0930

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/16/2009 0000			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	82		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-6-D

Lab Sample ID: 720-17626-3

Date Sampled: 01/13/2009 0940

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/16/2009 0027			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	82		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-1

Lab Sample ID: 720-17626-4

Date Sampled: 01/13/2009 1150

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/16/2009 0053			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-7

Lab Sample ID: 720-17626-5

Date Sampled: 01/13/2009 1050

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/16/2009 0120			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	92		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** FB

Lab Sample ID: 720-17626-6

Date Sampled: 01/13/2009 1330

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-46280	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-46001	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/21/2009 1022			Final Weight/Volume:	1 mL
Date Prepared:	01/20/2009 1804			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	96		46 - 114

## Analytical Data

Client: LFR, Inc.

Job Number: 720-17626-1

**Client Sample ID:** MW-10

Lab Sample ID: 720-17626-7

Date Sampled: 01/13/2009 1415

Client Matrix: Water

Date Received: 01/13/2009 1505

### 8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-45940	Instrument ID:	HP DRO5
Preparation:	3510C SGC	Prep Batch:	720-45780	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	250 mL
Date Analyzed:	01/16/2009 0214			Final Weight/Volume:	1 mL
Date Prepared:	01/14/2009 1235			Injection Volume:	
				Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	%Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	60		46 - 114

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
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# Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-45853</b>					
LCS 720-45853/6	Lab Control Spike	T	Water	8260B/CA_LUFT	
LCSD 720-45853/3	Lab Control Spike Duplicate	T	Water	8260B/CA_LUFT	
MB 720-45853/7	Method Blank	T	Water	8260B/CA_LUFT	
720-17626-1	MW-3	T	Water	8260B/CA_LUFT	
720-17626-2	MW-6	T	Water	8260B/CA_LUFT	
720-17626-3	MW-6-D	T	Water	8260B/CA_LUFT	
720-17626-4	MW-1	T	Water	8260B/CA_LUFT	
720-17626-5	MW-7	T	Water	8260B/CA_LUFT	
720-17626-6	FB	T	Water	8260B/CA_LUFT	
720-17626-7	MW-10	T	Water	8260B/CA_LUFT	
<b>Report Basis</b>					
T = Total					
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 720-45740</b>					
LCS 720-45740/2-A	Lab Control Spike	T	Water	3510C	
LCSD 720-45740/3-A	Lab Control Spike Duplicate	T	Water	3510C	
MB 720-45740/1-A	Method Blank	T	Water	3510C	
720-17626-1	MW-3	T	Water	3510C	
720-17626-2	MW-6	T	Water	3510C	
720-17626-3	MW-6-D	T	Water	3510C	
720-17626-4	MW-1	T	Water	3510C	
720-17626-5	MW-7	T	Water	3510C	
720-17626-6	FB	T	Water	3510C	
720-17626-7	MW-10	T	Water	3510C	
<b>Analysis Batch:720-45867</b>					
LCS 720-45740/2-A	Lab Control Spike	T	Water	8270C	720-45740
LCSD 720-45740/3-A	Lab Control Spike Duplicate	T	Water	8270C	720-45740
MB 720-45740/1-A	Method Blank	T	Water	8270C	720-45740
720-17626-1	MW-3	T	Water	8270C	720-45740
720-17626-2	MW-6	T	Water	8270C	720-45740
720-17626-3	MW-6-D	T	Water	8270C	720-45740
720-17626-4	MW-1	T	Water	8270C	720-45740
720-17626-5	MW-7	T	Water	8270C	720-45740
720-17626-6	FB	T	Water	8270C	720-45740
720-17626-7	MW-10	T	Water	8270C	720-45740

## Report Basis

T = Total

# Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC Semi VOA</b>					
<b>Prep Batch: 720-45780</b>					
LCS 720-45780/2-A	Lab Control Spike	A	Water	3510C SGC	
LCSD 720-45780/3-A	Lab Control Spike Duplicate	A	Water	3510C SGC	
MB 720-45780/1-A	Method Blank	A	Water	3510C SGC	
720-17626-1	MW-3	A	Water	3510C SGC	
720-17626-2	MW-6	A	Water	3510C SGC	
720-17626-3	MW-6-D	A	Water	3510C SGC	
720-17626-4	MW-1	A	Water	3510C SGC	
720-17626-5	MW-7	A	Water	3510C SGC	
720-17626-7	MW-10	A	Water	3510C SGC	
<b>Analysis Batch: 720-45940</b>					
LCS 720-45780/2-A	Lab Control Spike	A	Water	8015B	720-45780
LCSD 720-45780/3-A	Lab Control Spike Duplicate	A	Water	8015B	720-45780
MB 720-45780/1-A	Method Blank	A	Water	8015B	720-45780
720-17626-1	MW-3	A	Water	8015B	720-45780
720-17626-2	MW-6	A	Water	8015B	720-45780
720-17626-3	MW-6-D	A	Water	8015B	720-45780
720-17626-4	MW-1	A	Water	8015B	720-45780
720-17626-5	MW-7	A	Water	8015B	720-45780
720-17626-7	MW-10	A	Water	8015B	720-45780
<b>Prep Batch: 720-46001</b>					
LCS 720-46001/2-A	Lab Control Spike	A	Water	3510C SGC	
LCSD 720-46001/3-A	Lab Control Spike Duplicate	A	Water	3510C SGC	
MB 720-46001/1-A	Method Blank	A	Water	3510C SGC	
720-17626-6	FB	A	Water	3510C SGC	
<b>Analysis Batch: 720-46280</b>					
LCS 720-46001/2-A	Lab Control Spike	A	Water	8015B	720-46001
LCSD 720-46001/3-A	Lab Control Spike Duplicate	A	Water	8015B	720-46001
MB 720-46001/1-A	Method Blank	A	Water	8015B	720-46001
720-17626-6	FB	A	Water	8015B	720-46001

### Report Basis

A = Silica Gel Cleanup

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Method Blank - Batch: 720-45853

**Method: 8260B/CA\_LUFTMS**  
**Preparation: 5030B**

Lab Sample ID: MB 720-45853/7  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1007  
Date Prepared: 01/14/2009 1007

Analysis Batch: 720-45853  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011409\mb-w:  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Gasoline Range Organics (GRO)-C5-C12	ND		50
Benzene	ND		0.50
Toluene	ND		0.50
Ethylbenzene	ND		0.50
Xylenes, Total	ND		1.0
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
MTBE	ND		0.50
DIPE	ND		1.0
TBA	ND		5.0
EDB	ND		0.50
1,2-DCA	ND		0.50
Surrogate	% Rec		Acceptance Limits
Toluene-d8 (Surr)	101		78 - 112
1,2-Dichloroethane-d4 (Surr)	104		67 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45853

Method: 8260B/CA\_LUFTMS  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-45853/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1421  
Date Prepared: 01/14/2009 1421

Analysis Batch: 720-45853  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011409\ls-wa-  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-45853/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1444  
Date Prepared: 01/14/2009 1444

Analysis Batch: 720-45853  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\011409\ld-wa-9  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline Range Organics (GRO)-C5-C12	53	56	43 - 95	6	20		
Benzene	99	98	67 - 120	0	20		
Toluene	84	82	73 - 122	3	20		
MTBE	80	94	61 - 134	16	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	105		103		78 - 112		
1,2-Dichloroethane-d4 (Surr)	78		104		67 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Method Blank - Batch: 720-45740

Lab Sample ID: MB 720-45740/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1349  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

### Method: 8270C Preparation: 3510C

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\MB  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
Phenol	ND		2.0
Bis(2-chloroethyl)ether	ND		2.0
2-Chlorophenol	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
Benzyl alcohol	ND		5.0
1,2-Dichlorobenzene	ND		2.0
2-Methylphenol	ND		2.0
4-Methylphenol	ND		2.0
N-Nitrosodi-n-propylamine	ND		2.0
Hexachloroethane	ND		2.0
Nitrobenzene	ND		2.0
Isophorone	ND		2.0
2-Nitrophenol	ND		2.0
2,4-Dimethylphenol	ND		2.0
Bis(2-chloroethoxy)methane	ND		5.0
2,4-Dichlorophenol	ND		5.0
1,2,4-Trichlorobenzene	ND		2.0
Naphthalene	ND		2.0
4-Chloroaniline	ND		2.0
Hexachlorobutadiene	ND		2.0
4-Chloro-3-methylphenol	ND		5.0
2-Methylnaphthalene	ND		2.0
Hexachlorocyclopentadiene	ND		5.0
2,4,6-Trichlorophenol	ND		2.0
2,4,5-Trichlorophenol	ND		2.0
2-Chloronaphthalene	ND		2.0
2-Nitroaniline	ND		10
Dimethyl phthalate	ND		5.0
Acenaphthylene	ND		2.0
3-Nitroaniline	ND		5.0
Acenaphthene	ND		2.0
2,4-Dinitrophenol	ND		10
4-Nitrophenol	ND		10
Dibenzofuran	ND		2.0
2,4-Dinitrotoluene	ND		2.0
2,6-Dinitrotoluene	ND		5.0
Diethyl phthalate	ND		5.0
4-Chlorophenyl phenyl ether	ND		5.0
Fluorene	ND		2.0
4-Nitroaniline	ND		10

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Method Blank - Batch: 720-45740

Lab Sample ID: MB 720-45740/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1349  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

### Method: 8270C Preparation: 3510C

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\MB  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		10
N-Nitrosodiphenylamine	ND		2.0
4-Bromophenyl phenyl ether	ND		5.0
Hexachlorobenzene	ND		2.0
Pentachlorophenol	ND		10
Phenanthrene	ND		2.0
Anthracene	ND		2.0
Di-n-butyl phthalate	ND		5.0
Fluoranthene	ND		2.0
Pyrene	ND		2.0
Butyl benzyl phthalate	ND		5.0
3,3'-Dichlorobenzidine	ND		5.0
Benzo[a]anthracene	ND		5.0
Bis(2-ethylhexyl) phthalate	ND		10
Chrysene	ND		2.0
Di-n-octyl phthalate	ND		20
Benzo[b]fluoranthene	ND		2.0
Benzo[a]pyrene	ND		2.0
Benzo[k]fluoranthene	ND		2.0
Indeno[1,2,3-cd]pyrene	ND		2.0
Benzo[g,h,i]perylene	ND		2.0
Benzoic acid	ND		10
Azobenzene	ND		2.0
Dibenz(a,h)anthracene	ND		2.0
Surrogate	% Rec	Acceptance Limits	
Nitrobenzene-d5	64	6 - 98	
2-Fluorobiphenyl	69	6 - 103	
Terphenyl-d14	81	36 - 106	
2-Fluorophenol	38	1 - 66	
Phenol-d5	24	1 - 47	
2,4,6-Tribromophenol	71	22 - 124	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45740/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1242  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1316  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte		% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD	Limit				
Phenol	26	29	12 - 89	12	35		
Bis(2-chloroethyl)ether	72	81	43 - 126	12	35		
2-Chlorophenol	62	69	23 - 134	9	25		
1,3-Dichlorobenzene	50	54	17 - 153	8	35		
1,4-Dichlorobenzene	48	51	36 - 97	6	30		
Benzyl alcohol	57	59	10 - 130	5	35		
1,2-Dichlorobenzene	55	58	37 - 92	5	35		
2-Methylphenol	59	65	10 - 130	10	35		
4-Methylphenol	51	53	10 - 130	4	35		
N-Nitrosodi-n-propylamine	71	73	10 - 130	3	34		
Hexachloroethane	48	54	30 - 103	11	35		
Nitrobenzene	86	77	48 - 106	11	35		
Isophorone	88	82	47 - 180	7	35		
2-Nitrophenol	79	83	45 - 166	4	35		
2,4-Dimethylphenol	85	81	42 - 109	5	35		
Bis(2-chloroethoxy)methane	79	76	43 - 164	4	35		
2,4-Dichlorophenol	80	78	53 - 121	1	35		
1,2,4-Trichlorobenzene	61	59	44 - 142	2	35		
Naphthalene	68	71	36 - 119	4	35		
4-Chloroaniline	47	43	10 - 130	9	35		
Hexachlorobutadiene	65	55	38 - 102	16	35		
4-Chloro-3-methylphenol	72	73	22 - 147	1	31		
2-Methylnaphthalene	69	69	10 - 130	1	35		
Hexachlorocyclopentadiene	79	89	10 - 130	11	35		
2,4,6-Trichlorophenol	78	78	47 - 108	1	35		
2,4,5-Trichlorophenol	76	85	20 - 120	11	35		
2-Chloronaphthalene	81	81	10 - 130	0	35		
2-Nitroaniline	78	82	10 - 130	5	35		
Dimethyl phthalate	92	96	10 - 130	4	35		
Acenaphthylene	96	98	54 - 126	2	35		
3-Nitroaniline	79	81	10 - 130	2	35		
Acenaphthene	86	80	48 - 104	7	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### **Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 720-45740/2-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1242		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A	Analysis Batch: 720-45867	Instrument ID: Sat 2K1
Client Matrix: Water	Prep Batch: 720-45740	Lab File ID: d:\data\200901\011409\lcs
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 1000 mL
Date Analyzed: 01/14/2009 1316		Final Weight/Volume: 1 mL
Date Prepared: 01/13/2009 1409		Injection Volume: 1.0 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	93	93	10 - 130	0	35		
4-Nitrophenol	45	46	1 - 132	3	35		
Dibenzofuran	82	74	10 - 130	9	35		
2,4-Dinitrotoluene	91	87	39 - 139	5	35		
2,6-Dinitrotoluene	98	92	10 - 130	6	35		
Diethyl phthalate	93	89	10 - 130	4	35		
4-Chlorophenyl phenyl ether	85	85	39 - 144	0	35		
Fluorene	86	82	55 - 111	5	35		
4-Nitroaniline	94	91	10 - 130	3	35		
2-Methyl-4,6-dinitrophenol	99	101	53 - 110	2	35		
N-Nitrosodiphenylamine	96	102	14 - 170	6	35		
4-Bromophenyl phenyl ether	92	93	10 - 130	1	35		
Hexachlorobenzene	94	86	8 - 140	9	35		
Pentachlorophenol	83	83	45 - 125	0	35		
Phenanthrene	84	90	44 - 125	7	35		
Anthracene	96	94	44 - 118	3	35		
Di-n-butyl phthalate	87	96	9 - 111	10	35		
Fluoranthene	91	91	43 - 121	1	35		
Pyrene	85	92	52 - 115	7	35		
Butyl benzyl phthalate	87	92	10 - 139	5	35		
3,3'-Dichlorobenzidine	84	86	9 - 212	2	35		
Benzo[a]anthracene	79	87	42 - 133	10	35		
Bis(2-ethylhexyl) phthalate	82	85	29 - 136	3	35		
Chrysene	78	86	42 - 139	10	35		
Di-n-octyl phthalate	85	84	10 - 130	1	35		
Benzo[b]fluoranthene	93	82	42 - 140	13	35		
Benzo[a]pyrene	84	76	32 - 148	9	35		
Benzo[k]fluoranthene	77	90	26 - 145	16	35		
Indeno[1,2,3-cd]pyrene	88	91	10 - 150	4	35		
Benzo[g,h,i]perylene	94	91	10 - 140	3	35		
Benzoic acid	27	27	10 - 130	2	35		
Azobenzene	83	81	12 - 89	3	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45740

Method: 8270C  
Preparation: 3510C

LCS Lab Sample ID: LCS 720-45740/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1242  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 720-45740/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/14/2009 1316  
Date Prepared: 01/13/2009 1409

Analysis Batch: 720-45867  
Prep Batch: 720-45740  
Units: ug/L

Instrument ID: Sat 2K1  
Lab File ID: d:\data\200901\011409\lcs  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	89	95	10 - 130	7	35		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Nitrobenzene-d5	82		78		6 - 98		
2-Fluorobiphenyl	77		86		6 - 103		
Terphenyl-d14	82		89		36 - 106		
2-Fluorophenol	39		42		1 - 66		
Phenol-d5	26		29		1 - 47		
2,4,6-Tribromophenol	88		80		22 - 124		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### Method Blank - Batch: 720-45780

Lab Sample ID: MB 720-45780/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/15/2009 1146  
Date Prepared: 01/14/2009 1235

Analysis Batch: 720-45940  
Prep Batch: 720-45780  
Units: ug/L

**Method: 8015B**  
**Preparation: 3510C SGC**  
**Silica Gel Cleanup**

Instrument ID: HP DRO5  
Lab File ID: N/A  
Initial Weight/Volume: 250 mL  
Final Weight/Volume: 1 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	% Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	88		46 - 114

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-45780

**Method: 8015B**  
**Preparation: 3510C SGC**  
**Silica Gel Cleanup**

LCS Lab Sample ID: LCS 720-45780/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/15/2009 1213  
Date Prepared: 01/14/2009 1235

Analysis Batch: 720-45940  
Prep Batch: 720-45780  
Units: ug/L

Instrument ID: HP DRO5  
Lab File ID: N/A  
Initial Weight/Volume: 250 mL  
Final Weight/Volume: 1 mL  
Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-45780/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 01/15/2009 1240  
Date Prepared: 01/14/2009 1235

Analysis Batch: 720-45940  
Prep Batch: 720-45780  
Units: ug/L

Instrument ID: HP DRO5  
Lab File ID: N/A  
Initial Weight/Volume: 250 mL  
Final Weight/Volume: 1 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C9-C24]	96	97	41 - 103	1	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
p-Terphenyl	111		114			46 - 114	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: LFR, Inc.

Job Number: 720-17626-1

### **Method Blank - Batch: 720-46001**

Lab Sample ID: MB 720-46001/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 01/21/2009 1144  
 Date Prepared: 01/20/2009 1804

Analysis Batch: 720-46280  
 Prep Batch: 720-46001  
 Units: ug/L

**Method: 8015B**  
**Preparation: 3510C SGC**  
**Silica Gel Cleanup**

Instrument ID: HP DRO5  
 Lab File ID: N/A  
 Initial Weight/Volume: 250 mL  
 Final Weight/Volume: 1 mL  
 Injection Volume:  
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Motor Oil Range Organics [C24-C36]	ND		300
Diesel Range Organics [C9-C24]	ND		50
Surrogate	% Rec		Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 114
<b>Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-46001</b>		<b>Method: 8015B</b> <b>Preparation: 3510C SGC</b> <b>Silica Gel Cleanup</b>	
LCS Lab Sample ID: LCS 720-46001/2-A Client Matrix: Water Dilution: 1.0 Date Analyzed: 01/21/2009 1050 Date Prepared: 01/20/2009 1804	Analysis Batch: 720-46280 Prep Batch: 720-46001 Units: ug/L	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY	

LCSD Lab Sample ID: LCSD 720-46001/3-A Client Matrix: Water Dilution: 1.0 Date Analyzed: 01/21/2009 1117 Date Prepared: 01/20/2009 1804	Analysis Batch: 720-46280 Prep Batch: 720-46001 Units: ug/L	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 250 mL Final Weight/Volume: 1 mL Injection Volume: Column ID: PRIMARY
---	---	---

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C9-C24]	LCS      LCSD		41 - 103	1	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
p-Terphenyl	98		99		46 - 114		

Calculations are performed before rounding to avoid round-off errors in calculated results.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Report To

Attn: Ron Goldow  
 Company: LFR  
 Address: 1900 Powell St., Emeryville, CA  
 Phone: 510 596-9500 Email:  
 Bill To: above  
 Sampled By: TRC  
 Attr.: Phone:

## TESTAMERICA San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756  
 Phone: (925) 484-1919 Fax: (925) 600-3002

**700-17626**

Reference #: 14116

Date 1/13/09 Page 1 of 1

### Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - □ 00150021 X 8280B TPH EPA - □ Gas w/ GTEX □ MTBE TPH EPA - □ 8280B	TPH EPA 6015M* X Silica Gel Diesel X Motor Oil/Ether Fuel Tests EPA 8280B: □ Gas □ TTEX □ Five Oxenates □ DGA, EDGs □ Dioxins	Purgeable Halocarbons (NVC) X EPA 8022 by GC/MS EPA 8260B □ 524	Volatile Organics GC/MS (VOCS) EPA 8260B □ 524	Semivolatile GC/MS EPA 8220 □ 625	Organic Grease □ Petroleum EPA 1664 □ Total	PCBs EPA 8081 □ 608 EPA 8082 □ 608	PNAS by X 827C □ 8310 CAM17 Metals (EPA 6015/7470/7471)	Metals □ Lead □ Li/Al/Ti □ IGRAs Other	Low Level Metals DW EPA 2001/BNSC20 (ICP-MS)	WFT (ST-C) TCLP	Hexavalent Chromium X 81 (24 hr hold time for H2O)	Spec Cond. □ Alkalinity TSS □ TDS □ Anions □ Cl □ SO4 □ NO3 □ PO4 H+ □ NO2 □ PO4	Lead Scavenging X/S Fuel Oxygenates 8360
MW-3	1/13	12:25	W	X	X	X	X	X	X	X	X	X	X	X	X			
MW-6	1/13	9:30	W	X	X	X	X	X	X	X	X	X	X	X	X			
MW-6-D	1/13	9:40	W	X	X	X	X	X	X	X	X	X	X	X	X			
MW-1	1/13	11:56	W	X	X	X	X	X	X	X	X	X	X	X	X			
MW-7	1/13	10:50	W	X	X	X	X	X	X	X	X	X	X	X	X			
FB	1/13	13:30	W	X	X	X	X	X	X	X	X	X	X	X	X			
MW-10	1/13	14:15	W	X	X	X	X	X	X	X	X	X	X	X	X			

### Project Info.

### Sample Receipt

Project Name: Harbor Ratna

# of Containers

Project #: 001 09167

Head Space:

PO#:

Temp: 41.1 / 12

Credit Card#:

Conforms to record:

T A S Day 72h 48h 24h Other

Report:  Routine  Level 3  Level 4  EDD  Site Tank Fund EDD

Guest ID

Special Instructions: Comments:

See Terms and Conditions on reverse

\* TestAmerica SF reports 6015M from C<sub>1</sub>-C<sub>22</sub> industry norm. Default for 8015B is C<sub>1</sub>-C<sub>12</sub>

### 1) Relinquished by:

*Ron Goldow*

15:05

Signature: *Tom Collins*

Time: 1/13

Printed Name: *LFR*

Date:

Company:

### 1) Received by:

*John Miller* /565

Signature: *John Miller*

Time: 1/13/09

Printed Name: *John Miller*

Date: 1/13/09

Company: *Test America*

### 2) Relinquished by:

*Tom Collins*

Time:

Signature:

Date:

Printed Name:

Date:

Company:

### 2) Received by:

*John Miller* /565

Signature: *John Miller*

Time: 1/13/09

Printed Name: *John Miller*

Date: 1/13/09

Company: *Test America*

### 3) Relinquished by:

*John Miller*

Time:

Signature:

Date:

Printed Name:

Date:

Company:

### 3) Received by:

*John Miller* /565

Signature: *John Miller*

Time: 1/13/09

Printed Name: *John Miller*

Date: 1/13/09

Company: *Test America*

## Login Sample Receipt Check List

Client: LFR, Inc.

Job Number: 720-17626-1

**Login Number:** 17626  
**Creator:** Mullen, Joan  
**List Number:** 1

**List Source:** TestAmerica San Francisco

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	