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**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, 2008  
001-09567-07**

Prepared for  
Hanson Aggregates West Region  
3000 Busch Road  
Pleasanton, California 94566

Prepared by  
LFR Inc.  
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November 10, 2008

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, 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)**

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 Hanson Aggregates Radum Facility, located at 3000 Busch Road, Pleasanton, California (“the Site”). This Report presents and discusses the results of the second of four planned quarterly groundwater monitoring events conducted at the Site, which was conducted in during September 2008.

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 third groundwater monitoring event during fourth quarter 2008.

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) 426-4170 or Ron Goloubow of LFR at (510) 652-4500.

Sincerely,



Lee W. Cover  
Environmental Manager  
Hanson Aggregates Northern California

Attachment

**CONTENTS**

CERTIFICATIONS .....iii

EXECUTIVE SUMMARY ..... vii

1.0 INTRODUCTION ..... 1

2.0 BACKGROUND .....2

    2.1 Site Description and History .....2

    2.2 Regional and Site Geology and Hydrogeology .....3

        2.2.1 Regional Geology and Hydrogeology .....3

        2.2.2 Site Geology and Hydrogeology .....3

    2.3 Summary of Previous Site Investigations Conducted at the Site.....4

    2.4 Regulatory Determinations .....5

3.0 METHODOLOGY.....6

    3.1 Quarterly Groundwater Monitoring .....6

        3.1.1 Groundwater Elevation Monitoring .....6

        3.1.2 Groundwater Well Purging and Sampling.....6

        3.1.3 Quarterly Monitoring Laboratory Analyses.....7

4.0 RESULTS .....7

    4.1 Groundwater Elevations.....7

    4.2 Groundwater Analytical Results .....8

5.0 SUMMARY AND RECOMMENDATIONS.....9

6.0 LIMITATIONS .....9

7.0 REFERENCES ..... 11

## TABLES

- 1 Quarterly Groundwater Monitoring Sample Matrix
- 2 Groundwater Monitoring Well Construction Details
- 3 Groundwater Monitoring Well Analytical Results

## FIGURES

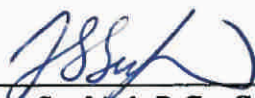
- 1 Site Location Map
- 2 Property Showing Areas of Concern
- 3 Area of Concern #1 Site Plan and Sample Location Map
- 4 Area of Concern #1 Groundwater Monitoring Wells, Analytical Results, September 15 and 16, 2008
- 5 Area of Concern #1 Groundwater Elevations and Equipotential Contours, September 15, 2008

## APPENDICES

- A Groundwater Monitoring Well Development and Sampling Field Sheets
- B Laboratory Certified Analytical Reports

## 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.



October 31, 2008

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

Date



October 31, 2008



Ron Goloubow  
Senior Associate Geologist

Date

## EXECUTIVE SUMMARY

This Groundwater Monitoring Report for the period of July 1 through September 30, 2008 presents the results of the second quarterly groundwater monitoring event conducted by LFR Inc. (LFR) in the former hot mix asphalt plant area of the Hanson Aggregates Radum Facility (“the Site”).

### *Quarterly Groundwater Monitoring Event*

The groundwater monitoring event that was completed during this reporting period represents the second periodic groundwater monitoring event for the Site. The first groundwater monitoring event was conducted in June 2008. 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 0.015 to 0.025 foot per foot.

Wells MW-1 through MW-3 and MW-6 through MW-10 were purged and sampled on September 15 and 16, 2008. Wells MW-4 and MW-5 could not be sampled due to an insufficient amount of water in each well. Analytical results indicate that petroleum hydrocarbons were not detected above laboratory reporting limits in any of the groundwater samples collected during this monitoring event. Reported analyte detections were limited to one detection of a semivolatile organic compound at a very low concentration that was not confirmed in the duplicate sample, and low concentrations of two metals. 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 third groundwater monitoring event during fourth quarter 2008. Groundwater samples will be collected and analyzed for the same parameters analyzed for during the current quarter, with the exception of dissolved phase metals. Based on the results of metals analysis conducted during this quarter (July 1 through September 30, 2008), LFR recommends that future groundwater monitoring events not include analysis for metals.

## 1.0 INTRODUCTION

This Groundwater Monitoring Report presents the results of groundwater monitoring activities conducted during the period of July 1 through September 30, 2008 (“the reporting period”) by LFR Inc. (LFR) on behalf of Hanson Aggregates West Region (“Hanson”) 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 second 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”), 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,” submitted on July 23, 2008.

This second Groundwater Monitoring Report is organized as follows.

- Section 2.0 presents background information including a site history and summary of previous environmental investigations conducted at the Site.
- Section 3.0 describes the methodology of groundwater sampling activities.
- Section 4.0 presents and discusses the results of the second quarterly groundwater monitoring event.

- Section 5.0 summarizes the overall conclusions of environmental conditions at the Site based on the results of the groundwater monitoring completed and presents recommendations.
- Section 6.0 defines LFR's professional limitations.
- Section 7.0 provides a reference list of primary documents related to environmental investigations conducted at the Site and throughout the Radum property to date.

## 2.0 BACKGROUND

### 2.1 Site Description and History

The approximately 1,050-acre property consisting of the former Radum facility is located at 3000 Busch Road, Pleasanton, California, partly within the city limits of Pleasanton and partly within an unincorporated area of Alameda County (Figures 1 and 2). The property includes three large ponds or lakes (Lake I, Lake H, and Cope Pond), created during historical aggregate mining operations, and approximately 320 acres of developable land (approximately the southern third; Figure 2). During 2007, the majority of the property was transferred to Legacy Partners ("Legacy") as part of a real estate transaction. Hanson retained ownership of an approximately 15-acre parcel (Parcel 1; AOC #1) located in the southwestern corner of the property, and also retained the responsibility for conducting the characterization investigations of petroleum hydrocarbon-affected soil and groundwater in the SS-123 area within AOC #8.

As described in the Phase I Environmental Site Assessment (ESA) by ENV America Inc. (ENV 2006a), mining of sand and gravel in the Livermore-Amador Valley began prior to 1900. Mining at the property began in approximately 1938 by Kaiser Sand and Gravel. Reportedly, as sections of the property were mined out, the former mining pits were used for storage and/or as disposal ponds for water (from dewatering of new pits) and fine-grained sediments (silt and sand) washed out of the aggregate material. In addition, some mining pits likely were backfilled with debris and mine waste, as is evident from debris encountered during drilling in various areas of the property. Hanson purchased the property in 1991 and continued mining operations until 2001 when mining was discontinued due to lack of available aggregate materials. Based on subsurface investigations conducted throughout the property, historical mining and aggregate processing operations have resulted in localized petroleum hydrocarbon-affected soil and groundwater in certain areas.

The Site includes a former hot mix asphalt plant area where paving oil, lubricants, and diesel fuel were used. Most of the structures associated with the former hot mix asphalt plant have been demolished. Currently visible at the Site are the concrete base of the truck scale, the base of the paving oil containment structure, several concrete pads, and



miscellaneous debris. Standing water and petroleum product have been observed in the paving oil containment structure.

## **2.2 Regional and Site Geology and Hydrogeology**

### **2.2.1 Regional Geology and Hydrogeology**

The regional geology and hydrogeology summarized in this section are based on information provided in the most recent Zone 7 Water Agency, Alameda County Flood Control and Water Conservation District (“Zone 7”) Annual Report for the Groundwater Management Program (Zone 7 2007). The Radum property is located in the Livermore-Amador Valley, an east-west trending valley surrounded by north-south trending faults and hills that are part of the Diablo Range. The Site lies within the Main Basin of the Livermore-Amador Valley Groundwater Basin and, more specifically, within the Amador Sub-Basin (Zone 7 2007).

The regional geology consists primarily of alluvial deposits (fan, stream, and lake) that range in thickness from a few feet at the margins to almost 800 feet in the west-central portions of the valley (Zone 7 2007). The alluvial deposits consist primarily of gravels and sands and are underlain by the Livermore Formation, which consists of relatively less permeable clayey gravels and sands, and silts and clays. Two major aquifer zones have been identified: the “Upper Aquifer Zone” and the “Lower Aquifer Zone.” The Upper Aquifer Zone is generally unconfined and consists of unconsolidated coarse-grained alluvial sediments (primarily sandy gravel and sandy clayey gravel) encountered beneath surficial clays and between approximately 20 to 40 feet below ground surface (bgs) and 80 to 150 feet bgs. Permeable sediments encountered beneath the Upper Aquifer Zone and the underlying clay aquitard are grouped into the Lower Aquifer Zone, which is semi-confined to confined.

### **2.2.2 Site Geology and Hydrogeology**

Subsurface investigations conducted by LFR and others at the Site have encountered unconsolidated sediments consisting predominantly of coarse-grained sediments (mostly gravels) and intervals of finer-grained sediments (clays and silts). Because of the historical aggregate mining activities throughout the property, some areas (including at the Site) likely contain fill material in addition to native sediment. The locations of the former mining pits are not well known or documented. In some soil borings advanced at the Site, particularly in the northern and western portions of the Site, approximately uniformly sized fine-grained gravel (“pea gravel”) and concrete and metal pieces were encountered at depths up to approximately 35 feet bgs, indicative of historical mining pits subsequently filled with sorted aggregate material and/or debris.

Groundwater beneath the Site has been encountered between approximately 45 and 65 feet bgs in temporary soil borings advanced by LFR and other consultants during the previous and current investigations. Based on groundwater elevations in groundwater

monitoring wells recently installed at the Site, the local groundwater flow direction appears to be generally to the northwest at a gradient of approximately 0.015 to 0.025 foot per foot.

### **2.3 Summary of Previous Site Investigations Conducted at the Site**

Several subsurface investigations have been conducted throughout the Radum property (including at the Site) by various consultants, including Baseline Environmental Consulting, Brown & Caldwell, ENV, and LFR, on behalf of Hanson and Legacy. The results of these previous investigations have been described in reports prepared by ENV and LFR and submitted to ACEH.

The most recent subsurface investigation conducted at the Site was completed by LFR during October 2007. The primary objectives of this investigation were:

- to further characterize the lateral and/or vertical extent of petroleum hydrocarbons to the south, southwest, and northwest of the former asphalt plant;
- to investigate the nature of the deep soil contamination identified in the northern half of the Site between approximately 30 to 40 feet bgs; and
- to install groundwater monitoring wells to monitor groundwater flow and quality over time.

These objectives were met by advancing 11 temporary soil borings to collect depth-discrete soil samples and grab groundwater samples for laboratory analyses, collecting samples from the free product encountered in the former paving oil structure and from the deep soil contamination for specialized leaching and fingerprinting analyses, and installing seven groundwater monitoring wells approximately around and in the vicinity of the former hot mix asphalt plant. The new wells were developed and surveyed, and initial groundwater samples were collected for laboratory analyses.

Based on the results from the October 2007 investigation and well installation activities, LFR concluded that:

- The lateral and/or vertical extent of petroleum hydrocarbons in soil had been sufficiently characterized at the Site.
- Soil contamination encountered at depth is relatively old, of limited extent, and immobile; was probably buried in place during historical mining operations; and is unlikely to further affect soil or significantly affect groundwater beneath the Site.
- The local groundwater flow direction in October 2007 was approximately to the west-northwest.
- Groundwater beneath the Site does not appear to have been significantly affected by total petroleum hydrocarbons (TPH) detected in soil beneath the Site.

LFR recommended initiation of a periodic groundwater monitoring and reporting program at the Site, comprised of sampling groundwater monitoring wells on a quarterly basis for approximately one year. If after one year of quarterly monitoring, no significant concentrations of compounds are detected in samples collected from the groundwater monitoring wells, groundwater monitoring should stop and the wells should be abandoned. In addition, LFR recommended that remaining debris and water and petroleum product in the paving oil containment structure be removed and properly disposed of, and that shallow soils affected by petroleum hydrocarbons be removed and confirmation sampling be conducted. LFR submitted a summary report to ACEH on December 21, 2007, presenting the results of the October 2007 subsurface investigation and aforementioned recommendations (LFR 2007d).

LFR installed three new monitoring wells (MW-8 through MW-10) on June 9 through 11, 2008. Wells MW-8 through MW-10 were installed to monitor groundwater immediately downgradient from the former truck scale (well MW-8), former soil boring B26 (well MW-9), and former soil boring B22 (well MW-10). The wells were constructed with wells screens intersecting first encountered groundwater, similarly to existing wells MW-1 through MW-7. In addition, LFR initiated quarterly groundwater monitoring at the Site on June 16, 2008.

## 2.4 Regulatory Determinations

ACEH reviewed LFR's December 21, 2007 summary report and generally concurred with the conclusions and recommendations in LFR's report in a comment letter dated January 11, 2008. In particular, ACEH concurred that no further depth-discrete soil or grab groundwater sampling to further characterize the nature and extent of contamination be conducted at the Site at this time. ACEH requested that three additional groundwater monitoring wells be installed at the Site and that a work plan for quarterly groundwater monitoring be presented. In accordance with the ACEH request, a plan for soil excavation, removal, and confirmation sampling was submitted under separate cover and the soil excavation scope of work is being conducted under a separate work plan and effort to be completed at a later date.

The February 28, 2008 Work Plan describing the scope of work to install three additional groundwater monitoring wells and to initiate quarterly groundwater monitoring at the Site was approved by ACEH in a comment letter dated March 31, 2008. ACEH requested one change in the proposed scope of work, namely that the groundwater monitoring wells proposed to be sampled for dissolved metals be sampled during the second quarterly sampling event instead of the first.

## **3.0 METHODOLOGY**

### **3.1 Quarterly Groundwater Monitoring**

The second of four planned quarterly groundwater monitoring events was completed on September 15 and 16, 2008. 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 quarterly monitoring event is described in this section, and results are presented and discussed in Section 4.0.

#### **3.1.1 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. Calculated groundwater elevations are presented in Table 2 and on Figure 5.

#### **3.1.2 Groundwater Well Purging and Sampling**

Wells MW-1 through MW-10 (except for wells MW-4 and MW-5) were purged and sampled using single-use disposable bailers on September 15 and 16, 2008. Wells MW-4 and MW-5 did not contain sufficient water for purging and sampling. Note that the Work Plan proposed that a low-flow purging and sampling technique would be used during the quarterly groundwater monitoring events. However, to accelerate the purging and sampling event, as well as to provide additional, more vigorous purging of the wells to lower turbidity, purging and sampling during the reporting quarter were conducted using disposable bailers. This method was also used during the October 2007 and June 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-5. In addition, field blank and trip blank samples were collected and submitted to the laboratory for quality control purposes.

### 3.1.3 Quarterly Monitoring Laboratory Analyses

Groundwater samples were submitted to Curtis & Tompkins, Ltd., a California-certified analytical laboratory located in Berkeley, California. All samples were analyzed for the following parameters, and in accordance with the sample matrix presented in Table 1:

- TPH as diesel (TPHd) and TPH as motor oil (TPHmo) by U.S. Environmental Protection Agency (EPA) Method 8015 (after undergoing silica-gel cleanup)
- TPH as gasoline (TPHg) 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 (SVOCs) by EPA Method 8270
- Dissolved metals by EPA Method 6010

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

## 4.0 RESULTS

Results from the quarterly groundwater monitoring event conducted during September 2008 are discussed in this section. 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. Analytical results were compared to the November 2007 San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for deep soils and groundwater beneath commercial/industrial land use areas where water is considered a current or potential drinking water source (RWQCB 2007). Relevant 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.

### 4.1 Groundwater Elevations

Depth to groundwater was measured in the 10 groundwater monitoring wells on September 15, 2008, and groundwater elevations were calculated using the surveyed TOC elevation. Results 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 September 15, 2008, with a horizontal groundwater gradient of approximately 0.015 to 0.025 foot per foot. These results are similar to results from previous groundwater monitoring conducted on October 22, 2007 and June 16, 2008.

## 4.2 Groundwater Analytical Results

Analytical results from the September 15 and 16, 2008 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.

Groundwater samples were collected for laboratory analyses from eight of the ten groundwater monitoring wells during the reporting quarter. A sample could not be collected from well MW-4 and MW-5 due to insufficient water in the well. Analytical results indicate that none of the compounds analyzed for in the groundwater monitoring wells were detected above laboratory reporting limits (Table 4) except in wells MW-2, MW-3, MW-8, and MW-9.

One SVOC, bis(2-ethylhexyl)phthalate, was detected at a concentration of 9.8 micrograms per liter ( $\mu\text{g}/\text{l}$ ) in the sample collected from MW-2. However, this detection was not confirmed in the field replicate sample collected from that well. Based on the low concentration detected, the lack of confirmation in the field replication, and the lack of any other reported SVOC, this reported detection of bis(2-ethylhexyl)phthalate in MW-2 is not considered a concern.

Dissolved metal analysis was performed on three wells (MW-3, MW-8, and MW-9). Barium was detected in wells MW-3, MW-8, and MW-9 at concentrations of 160, 230, and 150  $\mu\text{g}/\text{l}$ , respectively, well below the ESL for barium of 1,000  $\mu\text{g}/\text{l}$ . Copper was the only other metal detected (a sample from MW-9 at a concentration of 5.0  $\mu\text{g}/\text{l}$ ). Given that this concentration is only slightly above the ESL for copper of 3.1  $\mu\text{g}/\text{l}$ , and due to the lack of detection of copper or other metals in the other groundwater monitoring wells, LFR does not consider metals a concern for groundwater at the Site.

These data are generally consistent with analytical results from groundwater samples collected from wells MW-1 through MW-7 on October 22, 2007. In the October 2007 groundwater samples, only low concentrations of toluene (estimated to be present at concentrations below the laboratory reporting limits) were reported for samples collected from wells MW-3 and MW-5 (Table 5). Toluene was not detected in any groundwater samples collected in June 2008.

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 detected in limited areas in soil.

## 5.0 SUMMARY AND RECOMMENDATIONS

Three new groundwater monitoring wells (MW-8 through MW-10) were added to the groundwater monitoring network at the Site on June 9 through 11, 2008, and the first and second quarterly groundwater monitoring events were conducted during June 2008 and September 2008. Equipotential contours drawn based on groundwater elevations indicate that the local groundwater flow direction is approximately to the northwest, with a horizontal groundwater gradient of approximately 0.015 to 0.025 foot per foot. The results from the June 2008 and September 2008 groundwater monitoring events are consistent with groundwater monitoring data from wells MW-1 through MW-7 previously monitored on October 22, 2007.

Groundwater samples were collected from all groundwater monitoring wells, except for MW-4 and MW-5, which could not be sampled due to an insufficient amount of water in these wells. Analytical results show that none of the compounds analyzed for were detected above laboratory reporting limits in any of the wells sampled during the previous sampling event and only wells MW-2, MW-3, MW-8, and MW-9 had detections of SVOCs and dissolved metals above laboratory reporting limits during the current sampling event. The results of the current groundwater monitoring event confirm that groundwater beneath the Site has not been affected by the TPH or TPH-related compounds detected in limited areas in soil.

As described in the Work Plan and approved by ACEH, LFR will conduct the next groundwater monitoring event during the fourth quarter of 2008. Groundwater samples collected during this monitoring event will be analyzed for the same parameters analyzed for during the current quarter, except for dissolved metals in accordance with the sample matrix presented in Table 1. The next groundwater monitoring report will be submitted to ACEH by January 30, 2009.

## 6.0 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, express 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.



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**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		TPHd / TPHmo 8015	TPHg 8260	BTEX 8260	Fuel Ox 8260	Lead Scav 8260	SVOCs 8270	Dissolved Metals 6010B
		top (feet bgs)	bottom (feet bgs)							
<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 will be collected only once, during the second quarterly groundwater monitoring event.

<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 9/15/08 (feet TOC)	Groundwater Elevation (feet msl)
MW-1	10/3/07	8.0	2.0	60	45 - 60	374.67	57.59	317.08
MW-2	10/2/07	8.0	2.0	60	45 - 60	376.33	55.73	320.60
MW-3	10/4/07	8.0	2.0	60	45 - 60	374.95	54.74	320.21
MW-4	10/5/07	8.0	2.0	48	43 - 48	372.94	48.71	324.23
MW-5	10/9/07	8.0	2.0	74	69 - 74	374.35	70.16	304.19
MW-6	10/10/07	8.0	2.0	55	45 - 55	375.03	49.49	325.54
MW-7	10/1/07	8.0	2.0	65	50 - 65	377.68	57.79	319.89
MW-8	6/9/08	8.0	2.0	61	51 - 61	378.60	55.99	322.61
MW-9	6/10/08	8.0	2.0	52	42 - 52	375.75	51.71	324.04
MW-10	6/11/08	8.0	2.0	54	44 - 54	375.62	51.58	324.04

**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.

**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	-
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>	-
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>
MW-4	10/22/07	-	-	-	-	-	-	-	-
	6/16/08	-	-	-	-	-	-	-	-
	9/15/08	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-
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	-
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	-
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>
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>
MW-10	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 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 (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)					
Field Blank	6/16/08	< 50	< 300	< 50	ND	ND	ND	ND	-
	9/16/08	< 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

ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board, November 2 SVOCs = semivolatile organic compounds 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 the 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.

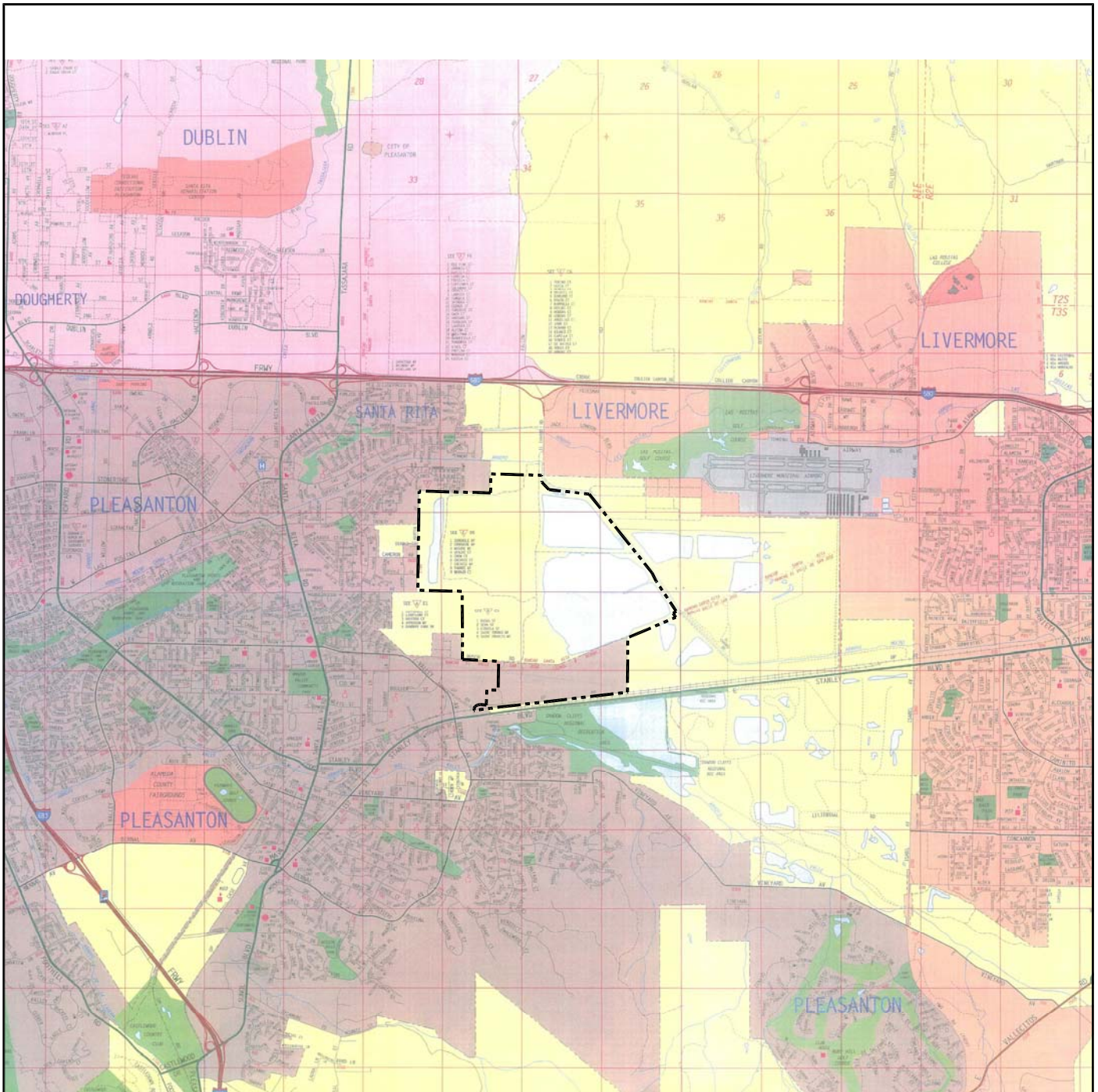
<sup>3</sup> Bis(2-ethylhexyl)phthalate detected at 9.8 ug/l in MW-2 and not in MW-2 Duplicate (ESL is 4.0 ug/l).

<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.





Source: Thomas Guide

**EXPLANATION**

----- Approximate Site Boundary



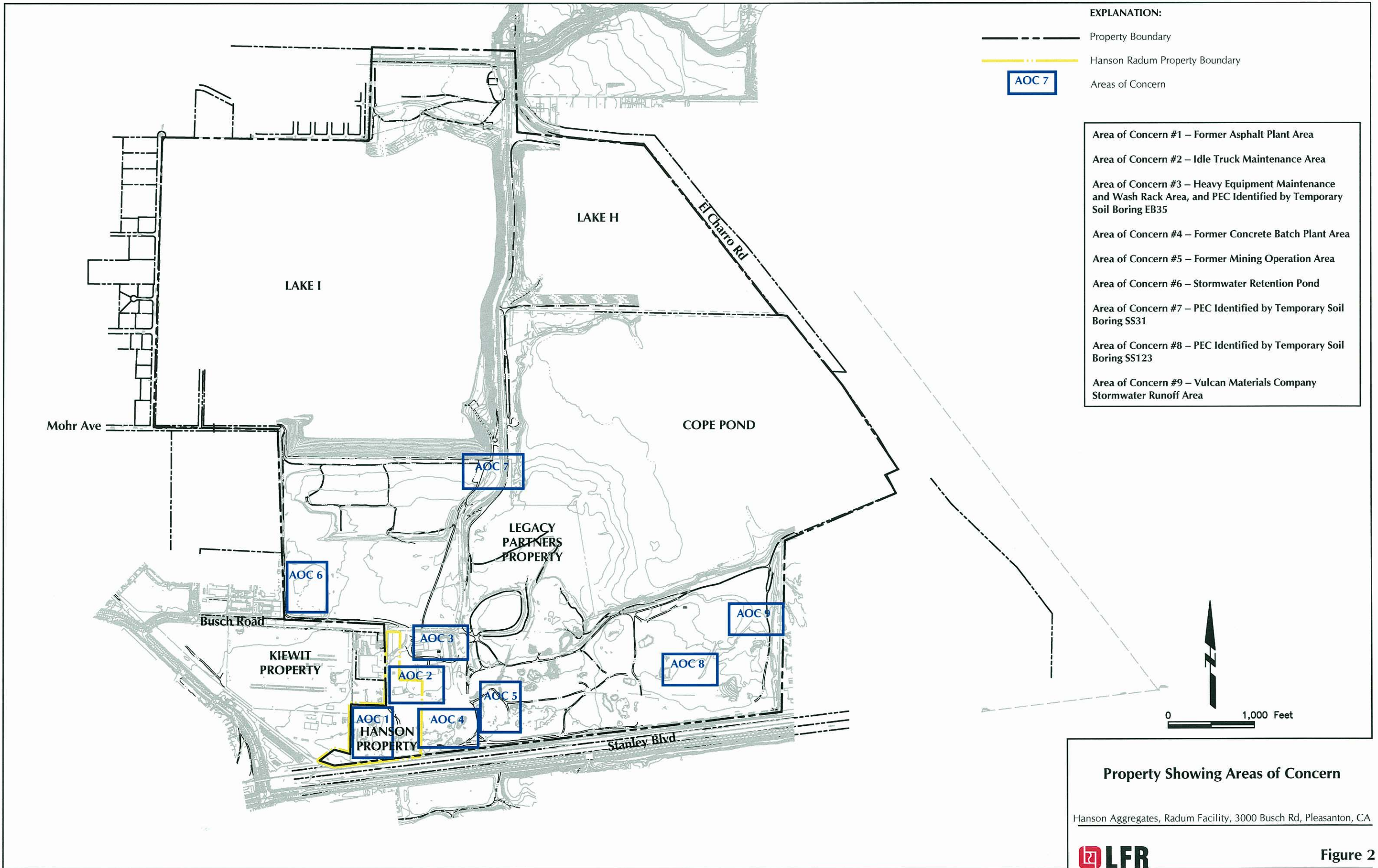
0 5000 FEET  
APPROXIMATE SCALE

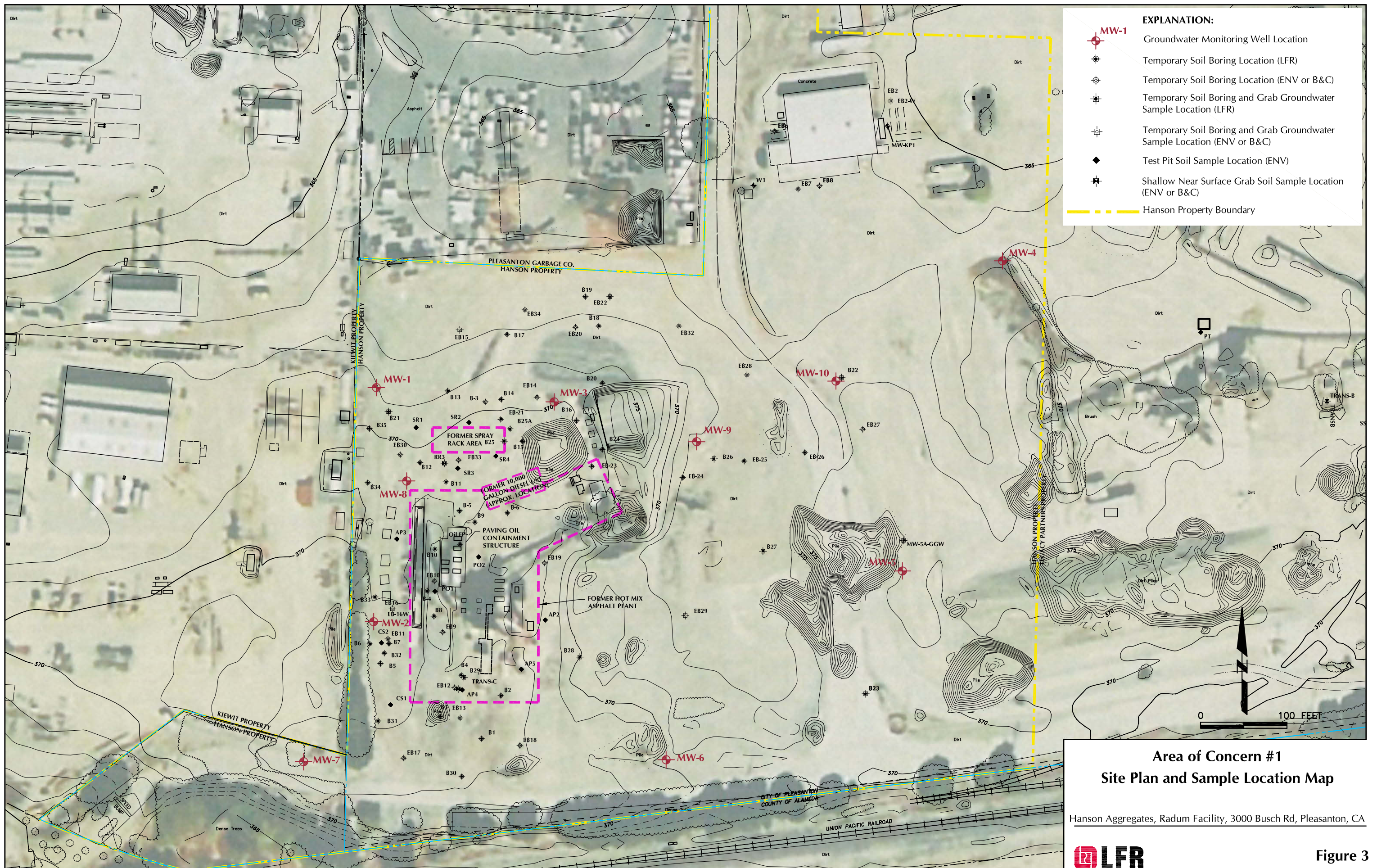
**Site Location Map**

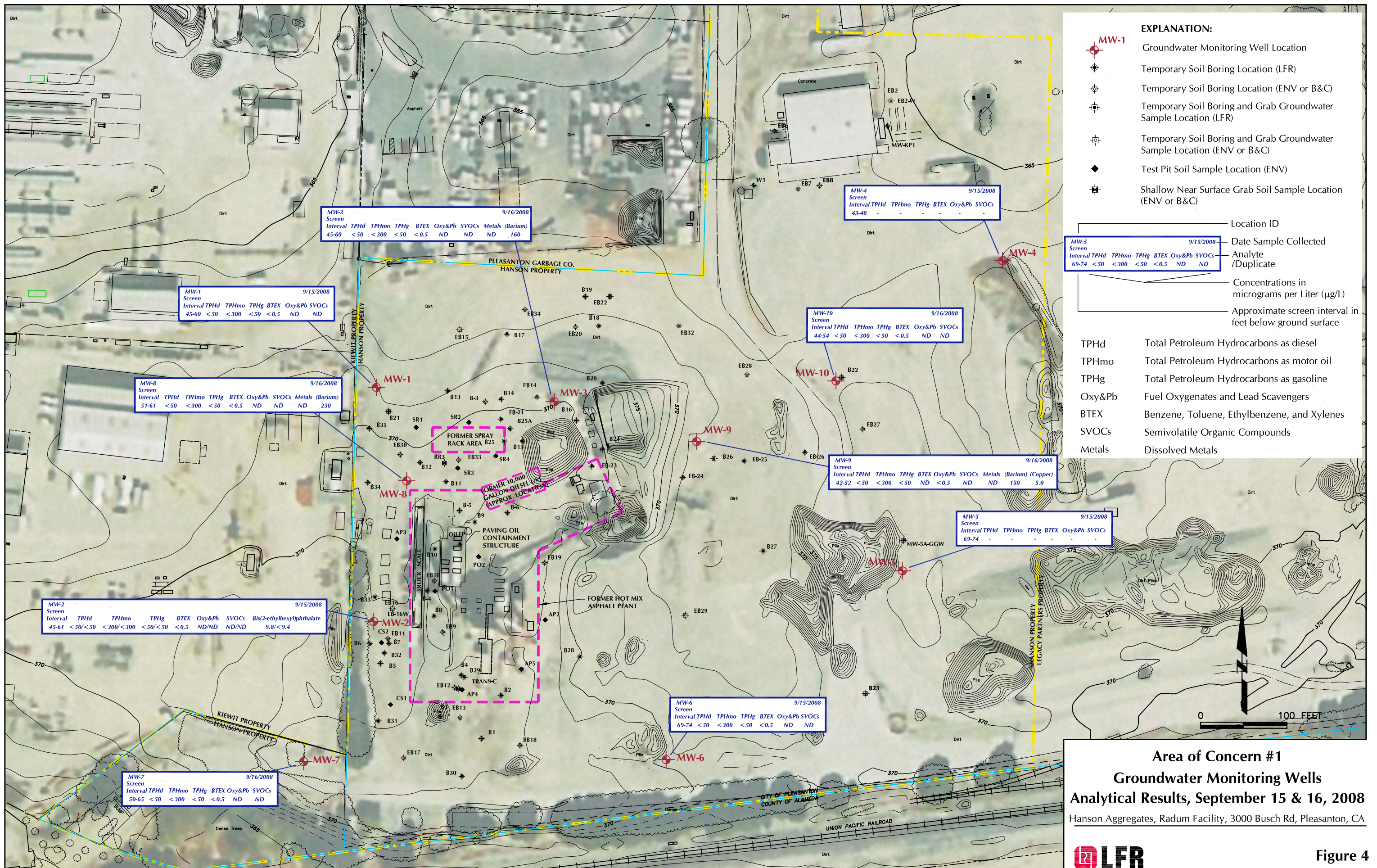
Hanson Aggregates, Radum Facility, 3000 Busch Rd, Pleasanton, CA

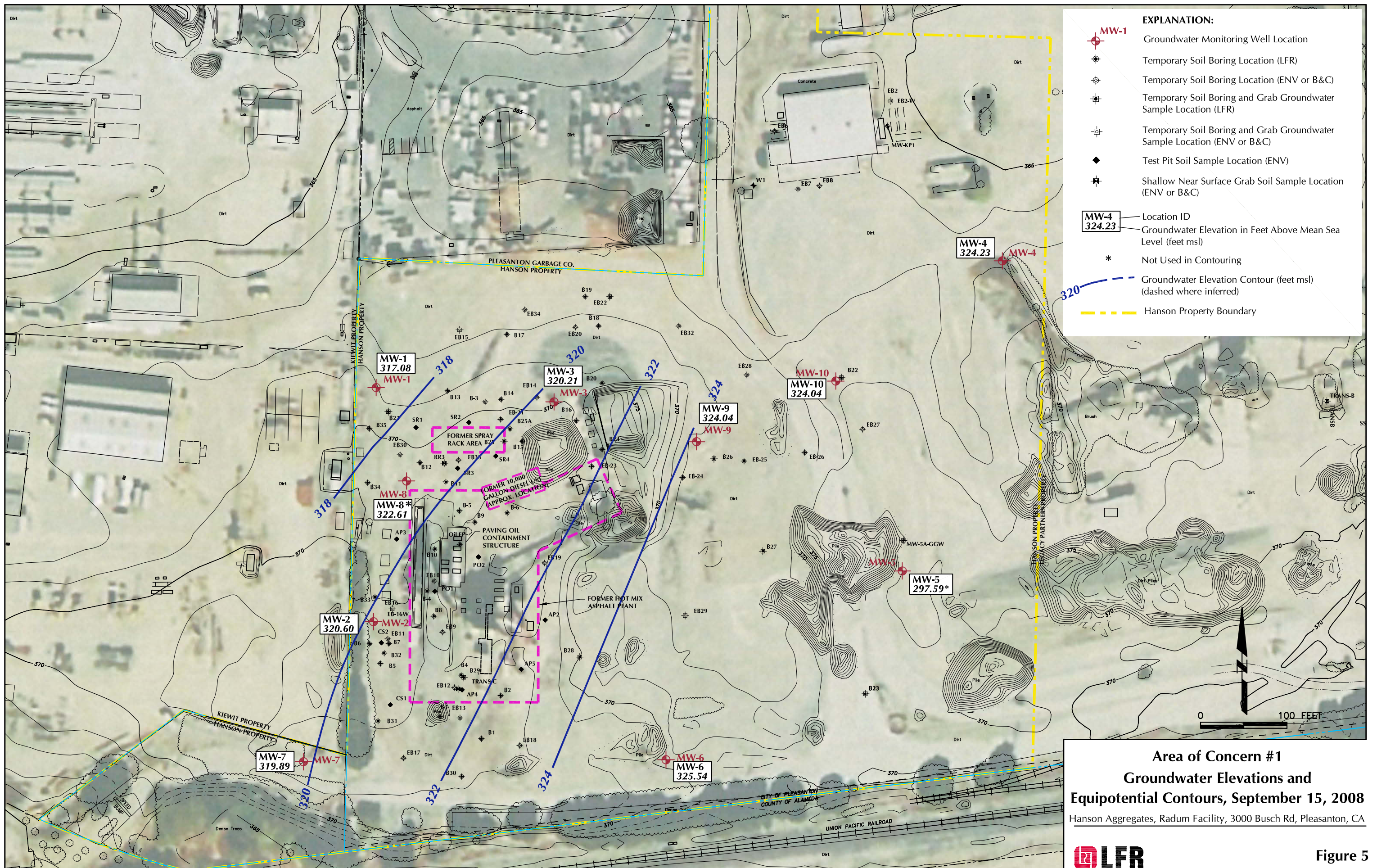


**Figure 1**









## **APPENDIX A**

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

Project No. 001-09567-07

Date 9/15/08 Page 1 of 1

Project Name Hanson Radon

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-10		51.58	51.58				10:33
MW-4		48.71	48.71				10:39 mud @ bottom
MW-5		76.76	76.76				10:52
MW-9		51.71	51.71				10:58
MW-6		49.49	49.49				11:13
MW-3		54.74	54.74				11:16
MW-1		57.59	57.59				11:21
MW-8		55.99	55.99				11:24
MW-2		55.73	55.73				11:27
MW-7		57.79	57.79				11:33

Project No. 001-09567-07 Date 9-15-08 Page      of       
 Project Name Hanson Radam Day:  Sun  Mon  Tues  Weds  Thurs  Fri  Sat  
 Personnel Inspector Tom Collins Weather/Site Conditions SUNNY  
 Task No. and Description Water Sampling

**WORK FORCE**

COMPANY NAME	SUPERVISORS/WORKERS	ON SITE		COMMENTS
		FROM	TO	
<u>LFR</u>	<u>Tom Collins</u>			

**EQUIPMENT**

ITEM	OWNER	USED		COMMENTS
		FROM	TO	
<u>Bailers, Sander, TRUCK</u>				

TIME	ACTIVITIES
<u>10:20</u>	<u>on Site / Check in</u>
<u>10:30</u>	<u>Start Water Levels</u>
<u>11:40</u>	<u>Finish Water Levels</u>
<u>13:18</u>	<u>Sample MW-1</u>
<u>14:30</u>	<u>Sample MW-2</u>
<u>14:40</u>	<u>Sample MW-2 - Dup</u>
<u>16:00</u>	<u>Sample MW-6</u>
<u>16:30</u>	<u>off Site</u>
<u>17:30</u>	<u>Back at office</u>

continue on reverse as needed

Route Copies To: \_\_\_\_\_ SIGNED Tom Collins



Project No. 001-09567-07 Date 9-16-08 Page      of       
 Project Name Hanson Radium Day:  Sun  Mon  Tues  Weds  Thurs  Fri  Sat  
 Personnel Inspector Tom Collins Weather/Site Conditions Sunny  
 Task No. and Description Water Sampling

**WORK FORCE**

COMPANY NAME	SUPERVISORS/WORKERS	ON SITE		COMMENTS
		FROM	TO	
<u>LFR</u>	<u>Tom Collins</u>	<u>7:15</u>	<u>13:30</u>	

**EQUIPMENT**

ITEM	OWNER	USED		COMMENTS
		FROM	TO	
<u>TRUCK</u>	<u>LFR</u>	<u>6:30</u>	<u>13:15</u>	
<u>Bailers</u>	<u>LFR</u>	<u>6:30</u>	<u>13:15</u>	
<u>Sawdust</u>	<u>LFR</u>	<u>6:30</u>	<u>13:15</u>	
<u>YSI</u>	<u>AS hted</u>	<u>6:30</u>	<u>14:30</u>	

TIME	ACTIVITIES
<u>6:30</u>	<u>Leave LFR</u>
<u>7:15</u>	<u>Arrive @ Hanson</u>
<u>7:25</u>	<u>Start @ MW-10</u>
<u>8:00</u>	<u>Sample MW-10</u>
<u>9:15</u>	<u>Sample MW-7 → 9:45 try to Sample MW-5</u>
<u>10:40</u>	<u>Sample MW-9 well is dry</u>
<u>11:45</u>	<u>Sample MW-3</u>
<u>12:00</u>	<u>Fill Field blank</u>
<u>12:15</u>	<u>Back to MW-5 still dry</u>
<u>13:15</u>	<u>Sample MW-8</u>
<u>13:30</u>	<u>leave site</u>
<u>14:30</u>	<u>arrive @ ashted</u>
<u>15:55</u>	<u>drop off samples @ C&amp;T</u>
<u>16:20</u>	<u>at shed 16:45 back @ office</u>

continue on reverse as needed

Route Copies To: \_\_\_\_\_

SIGNED Tom Collins

Project No. 001-09567-07 Date: 9-15-08 Page 1 of     

Project Name: Hahson Radon Sampling Location: MW-1

Sampler's Name: Tom Collins Sample No.:       FB

Sampling Plan By: JT Dated:      C.O.C. No.:       DUP

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

Purge Water Storage Container Type: 55 Gal Drum Storage Location: Near Well

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested	No. and Type of Bottles Used

Lab Name:     

Delivery By  Courier  Hand

Well No. MW-1 Depth of Water 57.54

Well Diameter: 2" Well Depth 62.90

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 5.31

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 849

$5.31 \times .8 = 4.248$   
 $62.90$   
 $- 4.248$   


---

 $58.652$   
  
80% DTW 58.652

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
12:25			1.0	1.12	20.03	6.85	1338	-6.3	Blowhish / Turbid
12:33			2.0	1.27	19.66	6.80	1329	7.6	Blowhish / Turbid
12:42			3.0	1.91	19.91	6.82	1348	2.5	"
12:49			4.0	1.97	19.67	6.83	1337	21.2	"
12:55			5.0	1.85	19.54	6.82	1347	26.0	
13:02			6.0	2.21	19.99	6.84	1346	30.6	
13:11			7.0	2.52	19.48	6.87	1342	34.2	
13:15			8.0	2.12	19.46	6.85	1346	29.8	
13:18		58.18							SAMPLE
<div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: auto;"> <span style="font-size: 2em; font-weight: bold;">TRC</span> </div>									

Continue remarks on reverse, if needed.

Project No. 001-09567-07 Date: 9-15-08 Page 1 of     

Project Name: Hanson Radon Sampling Location: MW-2

Sampler's Name: Tom Collins Sample No.: MW-2 + Dup  FB

Sampling Plan By: JT Dated: 9/15/08 C.O.C. No.:       DUP

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

Purge Water Storage Container Type: 55 Gal Drum Storage Location:     

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested

No. and Type of Bottles Used

Lab Name:     

Delivery By  Courier  Hand

Well No. MW-2 Depth of Water 55.73

Well Diameter: 2" Well Depth 62.60

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 6.87

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 1.09

62.60  
- 5.496 =  
  
  
  
80% DTW 57.11

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
13:45		Start		BAIL					
13:50			1 Gal	2.08	19.75	6.48	744	-8.8	
13:55			2	2.36	18.96	6.79	741	-18.3	
14:00			3	2.44	18.73	6.82	738	-33.1	
14:05			4	2.67	18.67	6.87	738	-33.4	
14:09			5	2.67	18.64	6.88	738	-44.3	
14:13			6	2.71	18.77	6.90	737	-45.7	
14:20			7	<del>    </del>	<del>    </del>	<del>    </del>	<del>    </del>	<del>    </del>	
				2.74	18.50	6.98	738	-52.5	
14:30		SAMPLE							56.93 Depth
14:40		DUP							
<del>TRC</del>									

Continue remarks on reverse, if needed.

389

**LFR** LEVINE FRICKE **WATER-QUALITY SAMPLING LOG**

Project No. 001-09567-07 Date: 9/16/08 Page 1 of       
 Project Name: Hanson Radon Sampling Location: MW-3  
 Sampler's Name: Tom Collins Sample No.: MW-3  FB  
 Sampling Plan By: JT Dated:      C.O.C. No.:       DUP  
 Purge Method:  Centrifugal Pump  Disposable Bailor  Hand Bail  Submersible Pump  Teflon Bailor  Other Low-Flow  
 Purge Water Storage Container Type: 55 Gal Drum Storage Location: Near Well  
 Date Purge Water Disposed:      Where Disposed:     

Analyses Requested      No. and Type of Bottles Used       
      
 Lab Name: C+T  
 Delivery By  Courier  Hand

Well No. MW-3 Depth of Water 54.74  
 Well Diameter: 2" Well Depth 62.50  
 2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 7.76  
 4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 1.2416

7.76 x .16  
 1.2416  
 7.76 x .2  
 1.55 + 54.74  
 80% DTW 56.292

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
11:05									Start
11:16			1.25	1.80	19.25	6.89	775	43.6	
11:23			2.5	2.17	18.46	6.77	771	42.5	
11:30			3.75	2.40	18.20	6.74	773	45.6	
11:35			5.0	3.34	18.38	6.74	773	47.3	
11:40			6.25	2.51	18.37	6.77	771	47.2	
11:45		55.20							Sample

Continue remarks on reverse, if needed.



# WATER-QUALITY SAMPLING LOG

Project No. 001-09567-07 Date: 9-16-08 Page 1 of       

Project Name: Hanson Radium Sampling Location: MW-5

Sampler's Name: Tom Collins Sample No.: MW-5  FB

Sampling Plan By: JT Dated:        C.O.C. No.:         DUP       

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

Purge Water Storage Container Type: 55 Gal Drum Storage Location: near well

Date Purge Water Disposed:        Where Disposed:       

Analyses Requested	No. and Type of Bottles Used

Lab Name: CLT

Delivery By  Courier  Hand

Well No. MW-5 Depth of Water 76.76

Well Diameter: 2" Well Depth 77.35

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height .76

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume .09

80% DTW       

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
9:45									Start bail Well is dry
<del>TRC</del>									

Continue remarks on reverse, if needed.

Project No. 001-09567-07 Date: 9-15-08 Page 1 of     

Project Name: Hansoh Radum Sampling Location: MW-6

Sampler's Name: Tom Collins Sample No.:       FB

Sampling Plan By: JT Dated: 1 C.O.C. No.:       DUP

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

Purge Water Storage Container Type: 55 gal drum Storage Location: Near Well

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested	No. and Type of Bottles Used

Lab Name:     

Delivery By  Courier  Hand

Well No. MW-6 Depth of Water 49.49

Well Diameter: 2" Well Depth 57.98

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 8.49

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 1.35

1.698 + 49.49

80% DTW 51.18

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
15:05			Start						Purge
15:15			1.25	2.00	19.04	7.08	811	-107.9	
15:22			2.5	2.97	18.71	6.99	787	-85.5	
15:27			3.75	2.79	18.22	6.91	790	-75.0	
15:33			5.0	3.10	18.37	6.89	772	-40.9	
15:39			6.25	3.52	18.41	6.90	770	-33.0	
15:45			7.5	3.62	18.70	6.87	767	-21.3	
15:51			8.75	3.43	18.76	6.84	774	-14.2	
15:56			10.00	4.10	18.80	6.85	780	-6.5	
16:00		49.60	SAMPLE						
				5.0W/Kit					
				TRC					

Continue remarks on reverse, if needed.

Project No. 001-09567-07 Date: 9-16-08 Page 1 of     

Project Name: Hanson Radam Sampling Location: MW-7

Sampler's Name: Tom Collins Sample No.: MW-7  FB

Sampling Plan By: JT Dated:      C.O.C. No.:       DUP

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

Purge Water Storage Container Type: Drum Storage Location: Near Well

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested	No. and Type of Bottles Used

Lab Name: C&T

Delivery By  Courier  Hand

Well No. MW-7 Depth of Water 57.79

Well Diameter: 2" Well Depth 67.50

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 9.71

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 1.55

1.94 + 57.74

80% DTW 59.73

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
8:40									Start Bailing
8:52			1.5	2.09	17.99	6.66	772	39.3	Turbid
8:57			3.0	2.56	18.11	6.54	757	55.0	Turbid
9:02			4.5	3.07	18.00	6.55	758	66.5	
9:08			6.0	3.07	18.01	6.51	759	64.3	
9:15		58.48							SAMPLE
<div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: auto;"> <span style="font-size: 2em; font-weight: bold;">TRC</span> </div>									

Continue remarks on reverse, if needed.

Project No. 001-09567-07 Date: 9-16-08 Page 1 of     

Project Name: Hanson Radum Sampling Location:     

Sampler's Name: Tom Collins Sample No.: MW-8  FB

Sampling Plan By: JT Dated:      C.O.C. No.:       DUP

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

Purge Water Storage Container Type:      Storage Location: near well

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested	No. and Type of Bottles Used

Lab Name: CJT

Delivery By  Courier  Hand

Well No. MW-8 Depth of Water 55.99

Well Diameter: 2" Well Depth 64.45

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 8.46

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume 1.35

1.692 + 55.99

80% DTW 57.682

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
12:40									Start
12:47			1.5	1.54	19.10	6.93	940	31.4	
12:54			3.0	1.64	18.90	6.83	944	37.7	
13:00			4.5	2.12	18.45	6.87	955	41.8	
13:08			6.0	1.81	18.94	6.83	955	42.4	
13:15		57.48							Sample
<del>TRC</del>									

Continue remarks on reverse, if needed.





# WATER-QUALITY SAMPLING LOG

Project No. 001-09567-07 Date: 9-16-08 Page 1 of 1

Project Name: Hanson Radum Sampling Location: MW-9

Sampler's Name: Tom Collins Sample No.: \_\_\_\_\_ ~~NO~~ NO

Sampling Plan By: JT Dated: \_\_\_\_\_ C.O.C. No.: \_\_\_\_\_  DUP FB

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

Purge Water Storage Container Type: Drum Storage Location: near well

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

Analyses Requested	No. and Type of Bottles Used

Lab Name: C+T

Delivery By  Courier  Hand

Well No. MW-9 Depth of Water 51.71

Well Diameter: 2" Well Depth 55.10

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height 3.34

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume .54

.678 + 51.7

80% DTW 52.37

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
10:20				2.26	18.91	7.06	888	15.2	Start
10:25			.5	2.26	18.91	7.06	888	15.2	
10:28			1.0	2.04	18.62	6.89	882	23.5	
10:31			1.5	1.98	18.94	6.84	880	32.5	
10:33			2.0	2.13	18.97	6.87	877	36.3	
10:36			2.5	2.08	18.97	6.82	877	38.6	
10:40		51.75							Sample
<div style="border: 2px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="font-size: 2em; font-weight: bold;">TRC</span> </div>									

Continue remarks on reverse, if needed.

Project No. 001-09567-07 Date: 9-16-08 Page 1 of     

Project Name: Hanson Radon Sampling Location: MW-10

Sampler's Name: Tom Collins Sample No.:       FB

Sampling Plan By: JT Dated:      C.O.C. No.:       DUP

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

Purge Water Storage Container Type: Drum Storage Location: Near Well

Date Purge Water Disposed:      Where Disposed:     

Analyses Requested	No. and Type of Bottles Used

Lab Name: C+T

Delivery By  Courier  Hand

Well No. MW-10 Depth of Water: 51.58

Well Diameter: 2" Well Depth: 57.20

2" (0.16 gal/feet)  5" (1.02 gal/feet) Water Column Height: 5.62

4" (0.65 gal/feet)  6" (1.47 gal/feet) Well Volume: 0.899

5.26 x .2  
1.124 + 51.58  
80% DTW 52.704

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
7:25	Start		Purge						
7:32			1	1.50	18.15	7.05	1276	-97.0	Turbid
7:41			2	1.74	18.28	6.95	1252	-72.3	Brown
7:45			3	2.01	18.16	6.91	1241	-45.5	
7:52			4	2.34	18.01	6.91	1234	-15.5	
7:58			5	2.51	18.08	6.88	1233	-1.2	
8:00			SAMPLE						51.75 Depth
<del>TRC</del>									

Continue remarks on reverse, if needed.

## **APPENDIX B**

### **Laboratory Certified Analytical Reports**



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

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

Laboratory Job Number 206088  
ANALYTICAL REPORT

LFR Levine Fricke  
1900 Powell Street  
Emeryville, CA 94608

Project : 001-09567-07  
Location : Hanson Radium  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-1	206088-001
MW-2	206088-002
MW-2-DUP	206088-003
MW-6	206088-004
MW-10	206088-005
MW-9	206088-006
MW-3	206088-007
MW-8	206088-008
MW-7	206088-009
FB	206088-010
TRIP	206088-011

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

Signature:   
Project Manager

Date: 09/26/2008

Signature:   
Senior Program Manager

Date: 09/30/2008

### CASE NARRATIVE

Laboratory number: 206088  
Client: LFR Levine Fricke  
Project: 001-09567-07  
Location: Hanson Radum  
Request Date: 09/16/08  
Samples Received: 09/16/08

This hardcopy data package contains sample and QC results for eleven water samples, requested for the above referenced project on 09/16/08. The samples were received cold and intact. All data were e-mailed to Jason Triolo on 09/26/08.

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

High surrogate recoveries were observed for hexacosane in MW-3 (lab # 206088-007), MW-8 (lab # 206088-008), and MW-7 (lab # 206088-009); no target analytes were detected in these samples. No other analytical problems were encountered.

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

High surrogate recoveries were observed for bromofluorobenzene in many samples; no target analytes were detected in these samples. No other analytical problems were encountered.

#### Semivolatile Organics by GC/MS (EPA 8270C):

Sample MW-2 (CT# 206088-002) had a small hit (9.8ug/L) of bis(2-ethylhexyl)phthalate and its method blank also had a small hit below the reporting limit. This compound was not detected in the sample duplicate MW-2-DUP (CT# 206088-003.) Bis(2-ethylhexyl)phthalate it is a common laboratory contaminant. No other analytical problems were encountered.

#### Metals (EPA 6010B and EPA 7470A):

No analytical problems were encountered.



### Total Extractable Hydrocarbons

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8015B
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08
Batch#:	142715		

Field ID:	MW-10	Sampled:	09/16/08
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	206088-005		

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	122	58-127

Field ID:	MW-9	Sampled:	09/16/08
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	206088-006		

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	127	58-127

Field ID:	MW-3	Sampled:	09/16/08
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	206088-007		

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	130 *	58-127

Field ID:	MW-8	Sampled:	09/16/08
Type:	SAMPLE	Cleanup Method:	EPA 3630C
Lab ID:	206088-008		

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	128 *	58-127

\*= Value outside of QC limits; see narrative  
 ND= Not Detected  
 RL= Reporting Limit





## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	206088	Location:	Hanson Radium
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	142715
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC461189

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,294	92	52-120

Surrogate	%REC	Limits
Hexacosane	119	58-127

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC461190

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,170	87	52-120	6	30

Surrogate	%REC	Limits
Hexacosane	115	58-127

RPD= Relative Percent Difference

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	142644
Lab ID:	206088-001	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-125
1,2-Dichloroethane-d4	109	80-137
Toluene-d8	103	80-120
Bromofluorobenzene	128 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	142644
Lab ID:	206088-002	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-125
1,2-Dichloroethane-d4	107	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	123 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-2-DUP	Batch#:	142644
Lab ID:	206088-003	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-125
1,2-Dichloroethane-d4	108	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	124 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-6	Batch#:	142644
Lab ID:	206088-004	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-125
1,2-Dichloroethane-d4	110	80-137
Toluene-d8	104	80-120
Bromofluorobenzene	129 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-10	Batch#:	142644
Lab ID:	206088-005	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-125
1,2-Dichloroethane-d4	107	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	126 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-9	Batch#:	142644
Lab ID:	206088-006	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-125
1,2-Dichloroethane-d4	108	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	128 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	142644
Lab ID:	206088-007	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-125
1,2-Dichloroethane-d4	105	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	125 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit



Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-8	Batch#:	142644
Lab ID:	206088-008	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-125
1,2-Dichloroethane-d4	106	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	122	80-122

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	MW-7	Batch#:	142644
Lab ID:	206088-009	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-125
1,2-Dichloroethane-d4	105	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	125 *	80-122

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	FB	Batch#:	142644
Lab ID:	206088-010	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-125
1,2-Dichloroethane-d4	102	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	121	80-122

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Field ID:	TRIP	Batch#:	142644
Lab ID:	206088-011	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-125
1,2-Dichloroethane-d4	103	80-137
Toluene-d8	100	80-120
Bromofluorobenzene	120	80-122

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Gasoline by GC/MS</b>			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC460875	Batch#:	142644
Matrix:	Water	Analyzed:	09/18/08
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	102	80-125
1,2-Dichloroethane-d4	99	80-137
Toluene-d8	97	80-120
Bromofluorobenzene	121	80-122

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	142644
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Type: BS Lab ID: QC460877

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	99.50	99	59-152
Isopropyl Ether (DIPE)	20.00	24.11	121	67-126
Ethyl tert-Butyl Ether (ETBE)	20.00	22.77	114	69-127
Methyl tert-Amyl Ether (TAME)	20.00	21.80	109	80-122
MTBE	20.00	21.96	110	70-125
1,2-Dichloroethane	20.00	19.39	97	78-132
Benzene	20.00	21.08	105	80-120
Toluene	20.00	20.18	101	80-120
1,2-Dibromoethane	20.00	18.76	94	80-120
Ethylbenzene	20.00	20.34	102	80-122
m,p-Xylenes	40.00	41.19	103	80-126
o-Xylene	20.00	20.18	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-125
1,2-Dichloroethane-d4	104	80-137
Toluene-d8	102	80-120
Bromofluorobenzene	108	80-122

Type: BSD Lab ID: QC460878

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	100.2	100	59-152	1	20
Isopropyl Ether (DIPE)	20.00	23.50	117	67-126	3	20
Ethyl tert-Butyl Ether (ETBE)	20.00	22.72	114	69-127	0	20
Methyl tert-Amyl Ether (TAME)	20.00	21.98	110	80-122	1	20
MTBE	20.00	21.54	108	70-125	2	20
1,2-Dichloroethane	20.00	19.67	98	78-132	1	20
Benzene	20.00	21.60	108	80-120	2	20
Toluene	20.00	20.38	102	80-120	1	20
1,2-Dibromoethane	20.00	19.19	96	80-120	2	20
Ethylbenzene	20.00	20.77	104	80-122	2	20
m,p-Xylenes	40.00	42.40	106	80-126	3	20
o-Xylene	20.00	20.06	100	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-125
1,2-Dichloroethane-d4	103	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-122

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	206088	Location:	Hanson Radium
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09567-07	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	142644
Units:	ug/L	Analyzed:	09/18/08
Diln Fac:	1.000		

Type: BS Lab ID: QC460879

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	900.0	807.1	90	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-125
1,2-Dichloroethane-d4	102	80-137
Toluene-d8	101	80-120
Bromofluorobenzene	107	80-122

Type: BSD Lab ID: QC460880

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	900.0	832.6	93	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-125
1,2-Dichloroethane-d4	98	80-137
Toluene-d8	99	80-120
Bromofluorobenzene	108	80-122

RPD= Relative Percent Difference

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-1	Batch#:	142719
Lab ID:	206088-001	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.5
Phenol	ND	9.5
bis(2-Chloroethyl)ether	ND	9.5
2-Chlorophenol	ND	9.5
1,3-Dichlorobenzene	ND	9.5
1,4-Dichlorobenzene	ND	9.5
Benzyl alcohol	ND	9.5
1,2-Dichlorobenzene	ND	9.5
2-Methylphenol	ND	9.5
bis(2-Chloroisopropyl) ether	ND	9.5
4-Methylphenol	ND	9.5
N-Nitroso-di-n-propylamine	ND	9.5
Hexachloroethane	ND	9.5
Nitrobenzene	ND	9.5
Isophorone	ND	9.5
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.5
Benzoic acid	ND	48
bis(2-Chloroethoxy)methane	ND	9.5
2,4-Dichlorophenol	ND	9.5
1,2,4-Trichlorobenzene	ND	9.5
Naphthalene	ND	9.5
4-Chloroaniline	ND	9.5
Hexachlorobutadiene	ND	9.5
4-Chloro-3-methylphenol	ND	9.5
2-Methylnaphthalene	ND	9.5
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.5
2,4,5-Trichlorophenol	ND	9.5
2-Chloronaphthalene	ND	9.5
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.5
Acenaphthylene	ND	9.5
2,6-Dinitrotoluene	ND	9.5
3-Nitroaniline	ND	19
Acenaphthene	ND	9.5
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.5
2,4-Dinitrotoluene	ND	9.5
Diethylphthalate	ND	9.5
Fluorene	ND	9.5
4-Chlorophenyl-phenylether	ND	9.5
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.5
Azobenzene	ND	9.5
4-Bromophenyl-phenylether	ND	9.5
Hexachlorobenzene	ND	9.5
Pentachlorophenol	ND	19
Phenanthrene	ND	9.5
Anthracene	ND	9.5
Di-n-butylphthalate	ND	9.5
Fluoranthene	ND	9.5

ND= Not Detected  
 RL= Reporting Limit



### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-1	Batch#:	142719
Lab ID:	206088-001	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.5
Butylbenzylphthalate	ND	9.5
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.5
Chrysene	ND	9.5
bis(2-Ethylhexyl)phthalate	ND	9.5
Di-n-octylphthalate	ND	9.5
Benzo(b)fluoranthene	ND	9.5
Benzo(k)fluoranthene	ND	9.5
Benzo(a)pyrene	ND	9.5
Indeno(1,2,3-cd)pyrene	ND	9.5
Dibenz(a,h)anthracene	ND	9.5
Benzo(g,h,i)perylene	ND	9.5

Surrogate	%REC	Limits
2-Fluorophenol	71	40-120
Phenol-d5	76	43-120
2,4,6-Tribromophenol	72	40-122
Nitrobenzene-d5	74	56-120
2-Fluorobiphenyl	77	55-120
Terphenyl-d14	53	34-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-2	Batch#:	142719
Lab ID:	206088-002	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-2	Batch#:	142719
Lab ID:	206088-002	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	9.8	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	53	40-120
Phenol-d5	55	43-120
2,4,6-Tribromophenol	64	40-122
Nitrobenzene-d5	71	56-120
2-Fluorobiphenyl	79	55-120
Terphenyl-d14	60	34-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-2-DUP	Batch#:	142719
Lab ID:	206088-003	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-2-DUP	Batch#:	142719
Lab ID:	206088-003	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	52	40-120
Phenol-d5	53	43-120
2,4,6-Tribromophenol	58	40-122
Nitrobenzene-d5	71	56-120
2-Fluorobiphenyl	76	55-120
Terphenyl-d14	65	34-120

ND= Not Detected  
 RL= Reporting Limit

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-6	Batch#:	142719
Lab ID:	206088-004	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-6	Batch#:	142719
Lab ID:	206088-004	Sampled:	09/15/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	57	40-120
Phenol-d5	59	43-120
2,4,6-Tribromophenol	59	40-122
Nitrobenzene-d5	73	56-120
2-Fluorobiphenyl	78	55-120
Terphenyl-d14	47	34-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-10	Batch#:	142719
Lab ID:	206088-005	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit



### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-10	Batch#:	142719
Lab ID:	206088-005	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	58	40-120
Phenol-d5	66	43-120
2,4,6-Tribromophenol	58	40-122
Nitrobenzene-d5	68	56-120
2-Fluorobiphenyl	72	55-120
Terphenyl-d14	47	34-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-9	Batch#:	142719
Lab ID:	206088-006	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-9	Batch#:	142719
Lab ID:	206088-006	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	55	40-120
Phenol-d5	65	43-120
2,4,6-Tribromophenol	59	40-122
Nitrobenzene-d5	66	56-120
2-Fluorobiphenyl	72	55-120
Terphenyl-d14	49	34-120

ND= Not Detected  
 RL= Reporting Limit

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-3	Batch#:	142719
Lab ID:	206088-007	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-3	Batch#:	142719
Lab ID:	206088-007	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	50	40-120
Phenol-d5	54	43-120
2,4,6-Tribromophenol	56	40-122
Nitrobenzene-d5	67	56-120
2-Fluorobiphenyl	73	55-120
Terphenyl-d14	54	34-120

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-8	Batch#:	142837
Lab ID:	206088-008	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/23/08
Diln Fac:	1.000	Analyzed:	09/24/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	20
Phenol	ND	20
bis(2-Chloroethyl)ether	ND	20
2-Chlorophenol	ND	20
1,3-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20
Benzyl alcohol	ND	20
1,2-Dichlorobenzene	ND	20
2-Methylphenol	ND	20
bis(2-Chloroisopropyl) ether	ND	20
4-Methylphenol	ND	20
N-Nitroso-di-n-propylamine	ND	20
Hexachloroethane	ND	20
Nitrobenzene	ND	20
Isophorone	ND	20
2-Nitrophenol	ND	40
2,4-Dimethylphenol	ND	20
Benzoic acid	ND	100
bis(2-Chloroethoxy)methane	ND	20
2,4-Dichlorophenol	ND	20
1,2,4-Trichlorobenzene	ND	20
Naphthalene	ND	20
4-Chloroaniline	ND	20
Hexachlorobutadiene	ND	20
4-Chloro-3-methylphenol	ND	20
2-Methylnaphthalene	ND	20
Hexachlorocyclopentadiene	ND	40
2,4,6-Trichlorophenol	ND	20
2,4,5-Trichlorophenol	ND	20
2-Chloronaphthalene	ND	20
2-Nitroaniline	ND	40
Dimethylphthalate	ND	20
Acenaphthylene	ND	20
2,6-Dinitrotoluene	ND	20
3-Nitroaniline	ND	40
Acenaphthene	ND	20
2,4-Dinitrophenol	ND	40
4-Nitrophenol	ND	40
Dibenzofuran	ND	20
2,4-Dinitrotoluene	ND	20
Diethylphthalate	ND	20
Fluorene	ND	20
4-Chlorophenyl-phenylether	ND	20
4-Nitroaniline	ND	40
4,6-Dinitro-2-methylphenol	ND	40
N-Nitrosodiphenylamine	ND	20
Azobenzene	ND	20
4-Bromophenyl-phenylether	ND	20
Hexachlorobenzene	ND	20
Pentachlorophenol	ND	40
Phenanthrene	ND	20
Anthracene	ND	20
Di-n-butylphthalate	ND	20
Fluoranthene	ND	20

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-8	Batch#:	142837
Lab ID:	206088-008	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/23/08
Diln Fac:	1.000	Analyzed:	09/24/08

Analyte	Result	RL
Pyrene	ND	20
Butylbenzylphthalate	ND	20
3,3'-Dichlorobenzidine	ND	40
Benzo(a)anthracene	ND	20
Chrysene	ND	20
bis(2-Ethylhexyl)phthalate	ND	20
Di-n-octylphthalate	ND	20
Benzo(b)fluoranthene	ND	20
Benzo(k)fluoranthene	ND	20
Benzo(a)pyrene	ND	20
Indeno(1,2,3-cd)pyrene	ND	20
Dibenz(a,h)anthracene	ND	20
Benzo(g,h,i)perylene	ND	20

Surrogate	%REC	Limits
2-Fluorophenol	46	40-120
Phenol-d5	53	43-120
2,4,6-Tribromophenol	52	40-122
Nitrobenzene-d5	70	56-120
2-Fluorobiphenyl	76	55-120
Terphenyl-d14	63	34-120

ND= Not Detected  
 RL= Reporting Limit

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-7	Batch#:	142719
Lab ID:	206088-009	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.4
Phenol	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
2-Chlorophenol	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
Benzyl alcohol	ND	9.4
1,2-Dichlorobenzene	ND	9.4
2-Methylphenol	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
4-Methylphenol	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
bis(2-Chloroethoxy)methane	ND	9.4
2,4-Dichlorophenol	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	19
Acenaphthene	ND	9.4
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
Fluorene	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Pentachlorophenol	ND	19
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4

ND= Not Detected  
 RL= Reporting Limit



### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	MW-7	Batch#:	142719
Lab ID:	206088-009	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%REC	Limits
2-Fluorophenol	70	40-120
Phenol-d5	75	43-120
2,4,6-Tribromophenol	72	40-122
Nitrobenzene-d5	77	56-120
2-Fluorobiphenyl	82	55-120
Terphenyl-d14	65	34-120

ND= Not Detected  
 RL= Reporting Limit

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	FB	Batch#:	142719
Lab ID:	206088-010	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	9.5
Phenol	ND	9.5
bis(2-Chloroethyl)ether	ND	9.5
2-Chlorophenol	ND	9.5
1,3-Dichlorobenzene	ND	9.5
1,4-Dichlorobenzene	ND	9.5
Benzyl alcohol	ND	9.5
1,2-Dichlorobenzene	ND	9.5
2-Methylphenol	ND	9.5
bis(2-Chloroisopropyl) ether	ND	9.5
4-Methylphenol	ND	9.5
N-Nitroso-di-n-propylamine	ND	9.5
Hexachloroethane	ND	9.5
Nitrobenzene	ND	9.5
Isophorone	ND	9.5
2-Nitrophenol	ND	19
2,4-Dimethylphenol	ND	9.5
Benzoic acid	ND	48
bis(2-Chloroethoxy)methane	ND	9.5
2,4-Dichlorophenol	ND	9.5
1,2,4-Trichlorobenzene	ND	9.5
Naphthalene	ND	9.5
4-Chloroaniline	ND	9.5
Hexachlorobutadiene	ND	9.5
4-Chloro-3-methylphenol	ND	9.5
2-Methylnaphthalene	ND	9.5
Hexachlorocyclopentadiene	ND	19
2,4,6-Trichlorophenol	ND	9.5
2,4,5-Trichlorophenol	ND	9.5
2-Chloronaphthalene	ND	9.5
2-Nitroaniline	ND	19
Dimethylphthalate	ND	9.5
Acenaphthylene	ND	9.5
2,6-Dinitrotoluene	ND	9.5
3-Nitroaniline	ND	19
Acenaphthene	ND	9.5
2,4-Dinitrophenol	ND	19
4-Nitrophenol	ND	19
Dibenzofuran	ND	9.5
2,4-Dinitrotoluene	ND	9.5
Diethylphthalate	ND	9.5
Fluorene	ND	9.5
4-Chlorophenyl-phenylether	ND	9.5
4-Nitroaniline	ND	19
4,6-Dinitro-2-methylphenol	ND	19
N-Nitrosodiphenylamine	ND	9.5
Azobenzene	ND	9.5
4-Bromophenyl-phenylether	ND	9.5
Hexachlorobenzene	ND	9.5
Pentachlorophenol	ND	19
Phenanthrene	ND	9.5
Anthracene	ND	9.5
Di-n-butylphthalate	ND	9.5
Fluoranthene	ND	9.5

ND= Not Detected  
 RL= Reporting Limit

### Semivolatile Organics by GC/MS

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Field ID:	FB	Batch#:	142719
Lab ID:	206088-010	Sampled:	09/16/08
Matrix:	Water	Received:	09/16/08
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	9.5
Butylbenzylphthalate	ND	9.5
3,3'-Dichlorobenzidine	ND	19
Benzo(a)anthracene	ND	9.5
Chrysene	ND	9.5
bis(2-Ethylhexyl)phthalate	ND	9.5
Di-n-octylphthalate	ND	9.5
Benzo(b)fluoranthene	ND	9.5
Benzo(k)fluoranthene	ND	9.5
Benzo(a)pyrene	ND	9.5
Indeno(1,2,3-cd)pyrene	ND	9.5
Dibenz(a,h)anthracene	ND	9.5
Benzo(g,h,i)perylene	ND	9.5

Surrogate	%REC	Limits
2-Fluorophenol	50	40-120
Phenol-d5	59	43-120
2,4,6-Tribromophenol	57	40-122
Nitrobenzene-d5	57	56-120
2-Fluorobiphenyl	65	55-120
Terphenyl-d14	61	34-120

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC461200	Batch#:	142719
Matrix:	Water	Prepared:	09/19/08
Units:	ug/L	Analyzed:	09/22/08

Analyte	Result	RL
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	20
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	20
4-Nitrophenol	ND	20
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	20
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC461200	Batch#:	142719
Matrix:	Water	Prepared:	09/19/08
Units:	ug/L	Analyzed:	09/22/08

Analyte	Result	RL
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
2-Fluorophenol	58	40-120
Phenol-d5	66	43-120
2,4,6-Tribromophenol	51	40-122
Nitrobenzene-d5	67	56-120
2-Fluorobiphenyl	70	55-120
Terphenyl-d14	65	34-120

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	142719
Units:	ug/L	Prepared:	09/19/08
Diln Fac:	1.000	Analyzed:	09/22/08

Type: BS Lab ID: QC461201

Analyte	Spiked	Result	%REC	Limits
Phenol	80.00	56.80	71	45-120
2-Chlorophenol	80.00	59.47	74	52-120
1,4-Dichlorobenzene	80.00	50.38	63	47-120
N-Nitroso-di-n-propylamine	80.00	52.32	65	38-120
1,2,4-Trichlorobenzene	80.00	46.17	58	46-120
4-Chloro-3-methylphenol	80.00	59.46	74	55-120
Acenaphthene	30.00	23.03	77	54-120
4-Nitrophenol	80.00	57.75	72	46-120
2,4-Dinitrotoluene	80.00	71.78	90	56-120
Pentachlorophenol	80.00	45.01	56	50-121
Pyrene	30.00	25.69	86	54-120

Surrogate	%REC	Limits
2-Fluorophenol	60	40-120
Phenol-d5	70	43-120
2,4,6-Tribromophenol	88	40-122
Nitrobenzene-d5	70	56-120
2-Fluorobiphenyl	79	55-120
Terphenyl-d14	73	34-120

Type: BSD Lab ID: QC461202

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	80.00	56.43	71	45-120	1	24
2-Chlorophenol	80.00	58.80	73	52-120	1	23
1,4-Dichlorobenzene	80.00	51.09	64	47-120	1	29
N-Nitroso-di-n-propylamine	80.00	52.54	66	38-120	0	25
1,2,4-Trichlorobenzene	80.00	46.66	58	46-120	1	28
4-Chloro-3-methylphenol	80.00	59.30	74	55-120	0	20
Acenaphthene	30.00	22.88	76	54-120	1	20
4-Nitrophenol	80.00	57.65	72	46-120	0	23
2,4-Dinitrotoluene	80.00	71.71	90	56-120	0	20
Pentachlorophenol	80.00	47.65	60	50-121	6	23
Pyrene	30.00	26.25	87	54-120	2	22

Surrogate	%REC	Limits
2-Fluorophenol	63	40-120
Phenol-d5	70	43-120
2,4,6-Tribromophenol	89	40-122
Nitrobenzene-d5	70	56-120
2-Fluorobiphenyl	78	55-120
Terphenyl-d14	75	34-120

RPD= Relative Percent Difference

**Batch QC Report**

<b>Semivolatile Organics by GC/MS</b>			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC461692	Batch#:	142837
Matrix:	Water	Prepared:	09/23/08
Units:	ug/L	Analyzed:	09/24/08

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	20
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	20
4-Nitrophenol	ND	20
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	20
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC461692	Batch#:	142837
Matrix:	Water	Prepared:	09/23/08
Units:	ug/L	Analyzed:	09/24/08

Analyte	Result	RL
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
2-Fluorophenol	69	40-120
Phenol-d5	75	43-120
2,4,6-Tribromophenol	62	40-122
Nitrobenzene-d5	72	56-120
2-Fluorobiphenyl	79	55-120
Terphenyl-d14	70	34-120

ND= Not Detected  
 RL= Reporting Limit



**Batch QC Report**

Semivolatile Organics by GC/MS			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09567-07	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	142837
Units:	ug/L	Prepared:	09/23/08
Diln Fac:	1.000	Analyzed:	09/25/08

Type: BS Lab ID: QC461693

Analyte	Spiked	Result	%REC	Limits
Phenol	80.00	51.71	65	45-120
2-Chlorophenol	80.00	62.64	78	52-120
1,4-Dichlorobenzene	80.00	57.38	72	47-120
N-Nitroso-di-n-propylamine	80.00	48.61	61	38-120
1,2,4-Trichlorobenzene	80.00	58.28	73	46-120
4-Chloro-3-methylphenol	80.00	53.72	67	55-120
Acenaphthene	30.00	23.54	78	54-120
4-Nitrophenol	80.00	52.71	66	46-120
2,4-Dinitrotoluene	80.00	68.13	85	56-120
Pentachlorophenol	80.00	72.01	90	50-121
Pyrene	30.00	27.74	92	54-120

Surrogate	%REC	Limits
2-Fluorophenol	67	40-120
Phenol-d5	67	43-120
2,4,6-Tribromophenol	92	40-122
Nitrobenzene-d5	63	56-120
2-Fluorobiphenyl	82	55-120
Terphenyl-d14	83	34-120

Type: BSD Lab ID: QC461694

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	80.00	48.18	60	45-120	7	24
2-Chlorophenol	80.00	58.62	73	52-120	7	23
1,4-Dichlorobenzene	80.00	49.70	62	47-120	14	29
N-Nitroso-di-n-propylamine	80.00	45.60	57	38-120	6	25
1,2,4-Trichlorobenzene	80.00	53.11	66	46-120	9	28
4-Chloro-3-methylphenol	80.00	50.86	64	55-120	5	20
Acenaphthene	30.00	22.23	74	54-120	6	20
4-Nitrophenol	80.00	51.52	64	46-120	2	23
2,4-Dinitrotoluene	80.00	66.10	83	56-120	3	20
Pentachlorophenol	80.00	69.43	87	50-121	4	23
Pyrene	30.00	26.43	88	54-120	5	22

Surrogate	%REC	Limits
2-Fluorophenol	63	40-120
Phenol-d5	63	43-120
2,4,6-Tribromophenol	89	40-122
Nitrobenzene-d5	59	56-120
2-Fluorobiphenyl	78	55-120
Terphenyl-d14	79	34-120

RPD= Relative Percent Difference

**Dissolved California Title 22 Metals**

Lab #:	206088	Project#:	001-09567-07
Client:	LFR Levine Fricke	Location:	Hanson Radium
Field ID:	MW-9	Diln Fac:	1.000
Lab ID:	206088-006	Sampled:	09/16/08
Matrix:	Filtrate	Received:	09/16/08
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Arsenic	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Barium	150	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Chromium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Copper	5.0	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Lead	ND	3.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Mercury	ND	0.20	142588	09/17/08	09/17/08	METHOD	EPA 7470A
Molybdenum	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Nickel	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Selenium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Silver	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Thallium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Zinc	ND	20	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B

ND= Not Detected  
 RL= Reporting Limit

**Dissolved California Title 22 Metals**

Lab #:	206088	Project#:	001-09567-07
Client:	LFR Levine Fricke	Location:	Hanson Radium
Field ID:	MW-3	Diln Fac:	1.000
Lab ID:	206088-007	Sampled:	09/16/08
Matrix:	Filtrate	Received:	09/16/08
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Arsenic	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Barium	160	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Chromium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Copper	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Lead	ND	3.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Mercury	ND	0.20	142588	09/17/08	09/17/08	METHOD	EPA 7470A
Molybdenum	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Nickel	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Selenium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Silver	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Thallium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Zinc	ND	20	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B

ND= Not Detected  
 RL= Reporting Limit

**Dissolved California Title 22 Metals**

Lab #:	206088	Project#:	001-09567-07
Client:	LFR Levine Fricke	Location:	Hanson Radium
Field ID:	MW-8	Diln Fac:	1.000
Lab ID:	206088-008	Sampled:	09/16/08
Matrix:	Filtrate	Received:	09/16/08
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Arsenic	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Barium	230	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Chromium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Copper	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Lead	ND	3.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Mercury	ND	0.20	142588	09/17/08	09/17/08	METHOD	EPA 7470A
Molybdenum	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Nickel	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Selenium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Silver	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Thallium	ND	10	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B
Zinc	ND	20	142655	09/18/08	09/18/08	EPA 3010A	EPA 6010B

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	METHOD
Project#:	001-09567-07	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	142588
Lab ID:	QC460664	Prepared:	09/17/08
Matrix:	Water	Analyzed:	09/17/08
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	METHOD
Project#:	001-09567-07	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	142588
Matrix:	Water	Prepared:	09/17/08
Units:	ug/L	Analyzed:	09/17/08
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC460665	5.000	4.250	85	80-120		
BSD	QC460666	5.000	4.360	87	80-120	3	20

RPD= Relative Percent Difference

## Batch QC Report

Dissolved California Title 22 Metals			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	METHOD
Project#:	001-09567-07	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	142588
Field ID:	ZZZZZZZZZZ	Sampled:	09/11/08
MSS Lab ID:	205992-001	Received:	09/12/08
Matrix:	Water	Prepared:	09/17/08
Units:	ug/L	Analyzed:	09/17/08
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC460668	<0.05879	5.000	4.950	99	71-124		
MSD	QC460669		5.000	4.740	95	71-124	4	20

RPD= Relative Percent Difference

## Batch QC Report

**Dissolved California Title 22 Metals**

Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3010A
Project#:	001-09567-07	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC460918	Batch#:	142655
Matrix:	Filtrate	Prepared:	09/18/08
Units:	ug/L	Analyzed:	09/18/08

Analyte	Result	RL
Antimony	ND	10
Arsenic	ND	5.0
Barium	ND	5.0
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	5.0
Cobalt	ND	5.0
Copper	ND	5.0
Lead	ND	3.0
Molybdenum	ND	5.0
Nickel	ND	5.0
Selenium	ND	10
Silver	ND	5.0
Thallium	ND	10
Vanadium	ND	5.0
Zinc	ND	20

ND= Not Detected

RL= Reporting Limit



**Batch QC Report**

<b>Dissolved California Title 22 Metals</b>			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3010A
Project#:	001-09567-07	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	142655
Units:	ug/L	Prepared:	09/18/08
Diln Fac:	1.000	Analyzed:	09/18/08

Type: BS Lab ID: QC460919

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	511.5	102	80-120
Arsenic	100.0	103.9	104	80-120
Barium	2,000	2,020	101	80-120
Beryllium	50.00	56.62	113	80-120
Cadmium	50.00	51.21	102	80-120
Chromium	200.0	199.4	100	80-120
Cobalt	500.0	487.1	97	80-120
Copper	250.0	248.9	100	80-120
Lead	100.0	97.71	98	80-120
Molybdenum	400.0	411.2	103	80-120
Nickel	500.0	493.7	99	80-120
Selenium	100.0	103.1	103	80-120
Silver	50.00	50.62	101	80-120
Thallium	100.0	104.3	104	80-120
Vanadium	500.0	501.7	100	80-120
Zinc	500.0	502.1	100	80-120

Type: BSD Lab ID: QC460920

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	496.4	99	80-120	3	20
Arsenic	100.0	100.1	100	80-120	4	20
Barium	2,000	1,962	98	80-120	3	20
Beryllium	50.00	54.41	109	80-120	4	20
Cadmium	50.00	49.62	99	80-120	3	20
Chromium	200.0	192.5	96	80-120	4	20
Cobalt	500.0	474.9	95	80-120	3	20
Copper	250.0	240.9	96	80-120	3	20
Lead	100.0	94.94	95	80-120	3	20
Molybdenum	400.0	399.1	100	80-120	3	20
Nickel	500.0	476.2	95	80-120	4	20
Selenium	100.0	96.78	97	80-120	6	20
Silver	50.00	48.38	97	80-120	5	20
Thallium	100.0	101.7	102	80-120	3	20
Vanadium	500.0	487.2	97	80-120	3	20
Zinc	500.0	489.5	98	80-120	3	20

RPD= Relative Percent Difference

**Batch QC Report**

Dissolved California Title 22 Metals			
Lab #:	206088	Location:	Hanson Radum
Client:	LFR Levine Fricke	Prep:	EPA 3010A
Project#:	001-09567-07	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	142655
MSS Lab ID:	206086-001	Sampled:	09/15/08
Matrix:	Filtrate	Received:	09/16/08
Units:	ug/L	Prepared:	09/18/08
Diln Fac:	1.000	Analyzed:	09/18/08

Type: MS Lab ID: QC460921

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	7.359	500.0	520.1	103	75-120
Arsenic	1.905	100.0	106.4	104	79-125
Barium	193.8	2,000	2,209	101	80-120
Beryllium	<0.1372	50.00	55.78	112	80-120
Cadmium	<0.3309	50.00	49.70	99	80-120
Chromium	37.90	200.0	235.2	99	78-120
Cobalt	5.684	500.0	475.0	94	76-120
Copper	5.019	250.0	249.0	98	75-120
Lead	<0.8532	100.0	92.22	92	71-120
Molybdenum	7.530	400.0	414.3	102	80-120
Nickel	1.922	500.0	470.2	94	74-120
Selenium	<2.787	100.0	98.64	99	73-125
Silver	<1.054	50.00	50.39	101	69-120
Thallium	5.338	100.0	105.0	100	72-120
Vanadium	7.416	500.0	503.6	99	79-120
Zinc	5.773	500.0	504.5	100	74-122


Type: MSD Lab ID: QC460922

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	524.6	103	75-120	1	20
Arsenic	100.0	106.3	104	79-125	0	20
Barium	2,000	2,205	101	80-120	0	20
Beryllium	50.00	55.46	111	80-120	1	20
Cadmium	50.00	50.24	100	80-120	1	20
Chromium	200.0	233.8	98	78-120	1	20
Cobalt	500.0	474.2	94	76-120	0	20
Copper	250.0	250.6	98	75-120	1	20
Lead	100.0	93.87	94	71-120	2	20
Molybdenum	400.0	420.5	103	80-120	1	20
Nickel	500.0	466.3	93	74-120	1	20
Selenium	100.0	98.15	98	73-125	0	20
Silver	50.00	50.60	101	69-120	0	20
Thallium	100.0	106.7	101	72-120	2	20
Vanadium	500.0	502.4	99	79-120	0	20
Zinc	500.0	500.9	99	74-122	1	20

RPD= Relative Percent Difference

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

206098

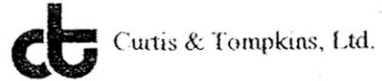
SAMPLE COLLECTOR:  1900 Powell Street, 12th Floor Emeryville, California 94608-1827 (510) 652-4500 Fax: (510) 652-2246	PROJECT NO.: 001-09567-07	SECTION NO.:	DATE: 9-16-08	SAMPLER'S INITIALS: TRC	SERIAL NO.:
	PROJECT NAME: Hanson Radium	SAMPLER (Signature): <i>Tom Collins</i>		Nº 101382	

Sample ID.	Date	Time	Lab Sample No.	No. of Containers	Soil	Water	TYPE										TAT	REMARKS
							TPHd (EPA 8015M)	TPHg (EPA 8015M)	BTEX (EPA 8015M)	VOCs (EPA 8260)	Metals (EPA 8260/1624)	SVOCS 8260	Lead Scavenger	Dissolved Metals 15 606	Total Oxygen 15 606	Standard		
1 MW-1	9-15-08	13:18	5	X	X	X	X	X	X	X	X	X	X	X	X	X	* Preform Silicon	
2 MW-2	9-15-08	14:30	5	X	X	X	X	X	X	X	X	X	X	X	X	X	Get Cleanup for TPHd + TPHmo	
3 MW-2-DUP	9-15-08	14:40	5	X	X	X	X	X	X	X	X	X	X	X	X	X		
4 MW-6	9-15-08	16:00	5	X	X	X	X	X	X	X	X	X	X	X	X	X		
5 MW-10	9-16-08	10:00	5	X	X	X	X	X	X	X	X	X	X	X	X	X	* Dissolved Metals	
<del>4-5</del>	<del>9-16-08</del>	<del>10:40</del>	<del>5</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	Cam 17 list	
6 MW-9	9-16-08	10:40	6	X	X	X	X	X	X	X	X	X	X	X	X	X	(Filtered by lab)	
7 MW-3	9-16-08	11:45	6	X	X	X	X	X	X	X	X	X	X	X	X	X		
8 MW-8	9-16-08	13:15	6	X	X	X	X	X	X	X	X	X	X	X	X	X		
9 MW-7	9-16-08	9:15	5	X	X	X	X	X	X	X	X	X	X	X	X	X		
10 FB	9-16-08	12:00	5	X	X	X	X	X	X	X	X	X	X	X	X	X		
11 TRIP	9-16-08	-	5	X	X	X	X	X	X	X	X	X	X	X	X	X		

TRC

SAMPLE RECEIPT: <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Cold <input checked="" type="checkbox"/> On Ice <input type="checkbox"/> Ambient Preservative Correct? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Cooler Temp:	METHOD OF SHIPMENT: Hand	RELINQUISHED BY: <i>Tom Collins</i> 9-16-08	1 RELINQUISHED BY:	2 RELINQUISHED BY:	3		
	Cooler No:	LAB REPORT NO.:	(SIGNATURE) Tom Collins	(DATE) 9-16-08	(SIGNATURE)	(DATE)	(SIGNATURE)	(DATE)
		FAX COC CONFIRMATION TO:	(PRINTED NAME) LFR	(TIME) 15:55	(PRINTED NAME)	(TIME)	(PRINTED NAME)	(TIME)
			(COMPANY)	(COMPANY)	(COMPANY)	(COMPANY)	(COMPANY)	(COMPANY)
ANALYTICAL LABORATORY: C + T	FAX RESULTS TO:	RECEIVED BY: <i>M. Smith</i> 9/16/08	1 RECEIVED BY:	2 RECEIVED BY (LABORATORY):	3			
	SEND HARDCOPY TO: Jason Triolo	(SIGNATURE) M. Smith	(DATE) 9/16/08	(SIGNATURE)	(DATE)	(SIGNATURE)	(DATE)	
	SEND EDD TO: EMV.LABEDDS.COM	(PRINTED NAME) M. Smith	(TIME) 15:55	(PRINTED NAME)	(TIME)	(PRINTED NAME)	(TIME)	
			(COMPANY)	(COMPANY)	(LABORATORY)			

COOLER RECEIPT CHECKLIST



Login # 206088 Date Received 9/16/08 Number of coolers 2
Client LFR Project Hanson Radium

Date Opened 9/16 By (print) K Wellbrock (sign) [Signature]
Date Logged in [check] By (print) M. Villanueva (sign) [Signature]

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

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

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

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

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

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

6. Indicate the packing in cooler: (if other, describe)

- Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels

7. Temperature documentation:

Type of ice used: Wet Blue/Gel None Temp(C)

Samples Received on ice & cold without a temperature blank

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

8. Were Method 5035 sampling containers present? YES NO

If YES, what time were they transferred to freezer?

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

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

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

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

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

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

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO

If YES, Who was called? By Date:

COMMENTS

Blank lines for handwritten comments.