



August 25, 2017

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REPORT ON DATA GAP INVESTIGATION

Property Identification:

27501 Loyola Avenue
Hayward, California

AEI Project No. 335476
Site Cleanup Program Case No. RO0003150

Prepared for:

Harvest Investments
3942 Valley Avenue
Pleasanton, California 94566

Prepared by:

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August 25, 2017

Ms. Karel Detterman, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: **Transmittal – Report on Data Gap Investigation,**
27501 Loyola Avenue, Hayward, California
Site Cleanup Program Case No. RO0003150

Dear Ms. Detterman:

Please find enclosed the Report on Data Gap Investigation for the property located at 27501 Loyola Avenue in Hayward, California (RO0003150). The activities presented in the report were performed to meet the requirements presented in your June 23, 2017. I understand that no significant residual contamination was identified at the property that poses an unacceptable risk to human health, and trust that with this report, no further activities will be required to allow construction of the new residential structures at the property.

"I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website."

If you have any questions or need additional information, please do not hesitate to call me at (925) 918-0637, or Mr. Trent Weise with AEI Consultants at (408) 559-7600.

Sincerely,



Mr. Daniel Bo

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

TABLE OF CONTENTS

SIGNATURES	III
1. INTRODUCTION	1
2. SITE DESCRIPTION AND REDEVELOPMENT.....	1
2. SITE BACKGROUND	1
2.2 Historical Remediation Efforts	2
2.3 Site Geology and Hydrogeology	2
3. FIELD ACTIVITIES.....	3
3.1 Health and Safety Plan.....	3
3.2 Utility Clearance and Geophysical Survey	3
3.3 Investigation Efforts.....	3
3.4 Laboratory Analyses.....	4
3.5 Soil Boring Destruction.....	5
3.6 Equipment Decontamination and Investigation-Derived Waste.....	5
4. INVESTIGATION RESULTS.....	5
4.1 Lithology	5
4.2 Soil Sample Results.....	5
4.3 Soil Gas Sample Results	6
4.4 Discussion of Results	6
5. CITY OF HAYWARD FIRE DEPARTMENT FILE REVIEW	7
6. GROUNDWATER MONITORING WELL STATUS AND DATA.....	7
6.1 Current Groundwater Monitoring and Extraction Well Status.....	7
6.2 Historical Groundwater Monitoring Data	7
7. CONCLUSIONS.....	8
8. REFERENCES	8

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Map
- Figure 3 Groundwater Elevation Contours - February 24, 1999
- Figure 4 Benzene Isoconcentration Map – October 31, 1990
- Figure 5 Benzene Isoconcentration Map – February 24, 1999
- Figures 6a-6z Groundwater Elevation and Dissolved-Phase TPH and Benzene

TABLES

- Table 1 Soil Sample Data Summary (TPH and VOCs)
- Table 2 Soil Sample Data Summary (Other Compounds)
- Table 3 Soil Gas Sample Data Summary
- Table 4 File Review Summary
- Table 5 Well Construction Details
- Table 6 Historical Analytical Results and Groundwater Elevation Summary

APPENDICES

- Appendix A Soil Boring Logs
- Appendix B Laboratory Analytical Reports

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

SIGNATURES

This document was prepared by, or under the direction of, the undersigned.


Trent A. Weise, P.E.
Vice President



Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

1. INTRODUCTION

On behalf of Harvest Investments, AEI Consultants (AEI) has prepared this report describing the activities and results of the data gap investigation performed to address historical environmental concerns at 27501 Loyola Avenue in Hayward, California ("the Site"). The activities described were performed in general accordance with the April 26, 2017 *Data Gap Work Plan Second Addendum*, conditionally approved by Alameda County Department of Environmental Health (DEH) in a letter dated June 23, 2017. This report also includes responses to comments presented in the March 17, 2017 from the DEH.

As presented below, the continued closure of the former petroleum hydrocarbon release case by the Hayward Fire Department remains appropriate and that soil and soil gas samples collected did not yield petroleum hydrocarbons at concentrations that suggest that significant residual contamination is present or that would be of concern for the planned residential development. No further action is warranted at this time.

2. SITE DESCRIPTION AND REDEVELOPMENT

The Site is approximately 16,500 square feet and is located on the south side of Bolero Avenue, between Hesperian Boulevard and Loyola Avenue, in a mixed commercial and residential area of Hayward, California. Figure 1 presents the Site location and vicinity. The property is currently vacant and unpaved.

The Site is proposed for redevelopment with the construction of two, two-story single-family residences with associated driveways, paved walkways, and landscaped areas. No basements are planned, and the expected foundation type is slab-on-grade. Only minor excavations to a maximum depth of up to five feet below grade surface (bgs) for footings, foundation elements, and utilities are anticipated. Proposed development plans were included in the *Data Gap Assessment Work Plan Addendum* dated September 14, 2016. Figure 2 presents the location of the proposed new residential structures and recent and historical sample locations.

2. SITE BACKGROUND

This section presents a brief summary of the historical environmental investigation and remediation activities at the Site.

Based on historical records, a Shell-branded gasoline station operated at the Site from at least 1956 to 1978 when the station closed. Between 1983 and 2001, extensive remediation and groundwater monitoring was conducted at the Site to address a release of petroleum hydrocarbons from the service station (Cambria, 2000 and 2001; Hayward, 2001).

In a letter dated July 16, 2001, the Leaking Underground Storage Tank (LUST) case at the Site was granted closure by the California Regional Water Quality Control Board, San Francisco Bay Region ("the Regional Water Board"). The letter stated that:

"No separate phase hydrocarbon (SPH) has been detected in monitoring wells since 1/91. Concentrations of hydrocarbons in groundwater monitoring wells at the site continue to show decreasing trends suggesting natural attenuation process are working."

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

"Based on [Regional Water Board] criteria, the subject site can be classified as a low-risk site. Groundwater is shallow, no water supply wells are screened with in the shallow groundwater zone, and no surface water features or sensitive habitats have been affected by the release at this site. Historical groundwater data indicate that source removal has been effective and that the plume is shrinking. Residual hydrocarbons in groundwater are expected to continue to undergo natural attenuation processes."

The letter also provided the following Site Management Requirements:

"Residual impacted soil or groundwater disturbed or removed during future redevelopment activities must be properly managed and disposed of. Should property use intensify, a separate site assessment shall be conducted and clearance obtained from the [Regional Water Board] for proposed more intensive use."

Based upon the above and the proposed development of the Site with two residential structures, AEI reached out and discussed the project with Ms. Karel Detterman with the DEH on January 25, 2015. Since this time, AEI has been working with the DEH on the appropriate scope of work to assess potential residual human health risks related to residual petroleum hydrocarbons with respect to the proposed residential use of the Site.

2.2 Historical Remediation Efforts

Remediation at the Site began in January 1985 with the installation of two extraction systems (Extraction System A and B). Monitoring wells were equipped with pneumatic pumps to recover floating LPH and the LPH was pumped into a 1,000-gallon UST. Extraction System A consisted of wells S-9, S-19, S-20, S-27, S-28, and S29. Extraction System B consisted of S-5, S-6, S-12, S-13, S-23, S-25, and S-26 (Enviros 1996). In August 1989, the system was modified to enhance remediation efforts. The modified remediation system included one main pumping well (S-29), which was used to for hydrodynamic control and seven secondary pumping wells (S-4, S-5, S-6, S-8, S-13, S-20, and S-22) (GSI 1991).

In 1994, a five-day soil vapor extraction test was conducted using wells S-4 and S-7. During the test, 36.8 pounds of total petroleum hydrocarbons as gasoline (TPHg) and 0.21 pounds of benzene were recovered. Based on the low levels of hydrocarbons recovered from soil vapor, the groundwater system was shut down in first quarter 1994. A total of 15,623,280 gallons of groundwater and 487.75 pounds of LPH were removed during the system operation (Enviros 1996).

2.3 Site Geology and Hydrogeology

The Site is relatively flat and is at an elevation of approximately 27 feet above mean sea level. Based on prior investigative work (Cambria 2001), soils beneath the property consist predominantly of silt with interbedded sand from near surface to depths of up to 7 to 10 feet below ground surface (bgs), sands to depths of 12 to 15 feet bgs, and interbedded sand and clay with occasional gravel to a total depth explored of approximately 31 feet bgs. Groundwater beneath the property has historically ranged in depth from 8.5 to 15.5 feet bgs. The groundwater flow direction generally trends toward the west, ranging from northwest to southwest, at a hydraulic gradient ranging from approximately 0.001 to 0.005 feet/feet. Groundwater isoconcentration contours for one of the most recent monitoring events conducted in 1999 are depicted on Figure 3 (only two wells were sampled in 2001, which is insufficient for calculating groundwater flow and gradient).

3. FIELD ACTIVITIES

To assess current conditions in shallow soils and soil gas relative to the proposed new residential use, AEI developed the following scope of work:

- Collecting soil gas samples to characterize the potential for vapor intrusion to the proposed future residential buildings.
- Collecting shallow soil samples to characterize residual petroleum hydrocarbons in shallow soil and the potential for direct exposure to future residents and construction workers.

In addition to the soil and soil gas sampling proposed, AEI also performed a geophysical survey to locate the former groundwater monitoring wells that may have not been destroyed.

3.1 Health and Safety Plan

A site-specific health and safety plan was prepared, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork.

3.2 Utility Clearance and Geophysical Survey

Prior to implementing field activities, the Site was marked for Underground Service Alert (USA) notification and USA was contacted for public underground utility locating to identify public utilities in the work area. In addition, a private utility locating survey was conducted by 1st Call Utility Locating of Richmond, California identify underground utilities in the vicinity of the drilling locations.

1st Call Utility Locating also conducted a geophysical survey to attempt to locate buried groundwater monitoring wells or well-boxes. A combination of ground penetrating radar and metal detector were used. The metal detector was used to scan the Site for any source of metal that would indicate a metal well-box. The ground penetrating radar was used to attempt to identify any subsurface anomaly indicating a former groundwater well-box or well casing. No subsurface anomalies or metal well-boxes were identified indicating a buried well were noted during the survey.

3.3 Investigation Efforts

On July 18, 2017, eight soil borings (SB-1 through SB-4 and SG-1 through SG-4) were advanced at the Site at the locations shown on Figure 2. AEI contracted Penecore Drilling of Woodland, California, to advance each soil boring using a truck-mounted direct push drill rig. The borings were advanced to depths between five and eight-feet below ground surface (bgs).

The borings were advanced using 2.25-inch diameter outer diameter rods and samples were collected by advancing the rods in approximately 2-foot interval intervals. After each interval, the core was retrieved, core barrel disassembled, and the sample liner was removed and transferred to the onsite geologist.

Soil samples were collected from each boring in a 4-ounce glass mason jar, as well as placed into methanol-preserved, 40-milliliter (ml) glass vials using disposable Terra Core™ samplers. Upon collection, each sample was labeled with the project name, project number, boring number, sample depth, and sampling date/time of sampling. After labeling, the sample(s) was placed into an insulated, chilled ice chest containing ice for transport to the analytical laboratory. Chain-of-custody

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

documentation was completed and accompanied the soil samples to State of California-certified laboratory.

After completing soil sampling, borings SG-1 through SG-4 were converted into semi-permanent soil gas probes. Each soil gas probe was constructed with a vapor screen attached to ¼-inch diameter Teflon™ placed at approximately 5.5 feet bgs and covered with approximately one-foot of sand. The soil gas probe was sealed by backfilling the remaining section of borehole with one-foot of bentonite, approximately three-feet of neat cement, and capped at the surface with a concrete in a metal well-box. Soil gas probe construction is presented on the boring logs in Appendix A.

On July 21, 2017, after allowing more than 48-hours to equilibrate with the subsurface, soil gas samples were collected from each of the newly installed soil gas probes. The sampling was conducted in general accordance with the *Advisory – Active Soil Gas Investigations*, dated July 2015 and issued by the California Department of Toxic Substances Control (DTSC) and Los Angeles and San Francisco Regional Water Quality Control Boards.

A shut-in test, a leak test, and purging of the sample tubing and screen was conducted. Soil gas samples were collected from each of the newly constructed soil gas probes using laboratory-supplied, batch-certified clean, one-liter evacuated canisters and flow regulators set at approximately 150 milliliters per minute (mL/min). After approximately five minutes (depending on the down-hole vacuum), or -5 in Hg vacuum in the canister, each canister was closed and removed from the sampling line and the final canister vacuum will be recorded. The canister sample was sealed with a gas tight cap, appropriately labeled, and entered onto a chain-of-custody documentation for delivery to the laboratory. In addition, additional soil gas volume from each soil gas probe was collected in a TO-17 VI sorbent tube. The sorbent tubes were properly stored appropriately labeled, and entered onto a chain-of-custody documentation for delivery to the laboratory.

3.4 Laboratory Analyses

The soil and soil gas samples were transferred under appropriate chain-of-custody documentation to a State of California-certified analytical laboratory, ESC Lab Sciences, of Mount Juliette, Tennessee. Select soil samples were analyzed for the following:

- TPHg (carbon range C-5-C-12) using United States Environmental Protection Agency (US EPA) Testing Method 8015.
- Total petroleum hydrocarbons as diesel (TPHd) (carbon range C-12-C-22) and Total petroleum hydrocarbons as motor oil (TPHmo) (carbon ranges C-22-C-32 and C-32-C40) using US EPA Testing Method 8015.
- VOCs using US EPA Testing Method 8260B.
- Lead using US EPA Testing Method 6010B.
- Poly-aromatic hydrocarbons using US EPA Testing Method 8270 SIM.

Soil gas samples were analyzed for the following:

- VOCs using US EPA Method TO-15.

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

- Helium using American Section of the International Association for Testing Materials (ASTM) Method 1946.
- Oxygen, methane, and the leak check compound helium using ASTM Method D1945.

Soil gas samples were additionally analyzed for naphthalene using USEPA Testing Method TO-17 by Eurofins Air Toxics of Folsom, California.

Laboratory analytical documentation is provided in Appendix B.

3.5 Soil Boring Destruction

Upon completion of sample collection, soil borings SB-1 through SB-4 were backfilled with neat cement.

3.6 Equipment Decontamination and Investigation-Derived Waste

Drilling and sampling equipment was cleaned prior to and/or after drilling each boring. The equipment was cleaned using a triple-rinse method, which consisted of an initial rinse containing an Alconox and water solution, followed by potable water rinses (second and third, final rinses).

Investigation-derived waste was labeled and left onsite in 16-gallon metal bucket.

4. INVESTIGATION RESULTS

This section presents the results of the soil and soil gas sampling performed.

4.1 Lithology

Observations of the soil core collected from soil borings SB-1 through SB-4 and SG-1 through SG-4 indicate that the shallow soils at the Site consist of gravelly silt, silty gravel, and clay from the surface to approximately 2 feet bgs, then silty clay to the maximum depth explored. Groundwater was not encountered during drilling activities.

4.2 Soil Sample Results

Table 1 presents a summary of the current and historical soil sample results for petroleum hydrocarbons and VOCs. Table 2 present a summary of the current and historical soil sample results for metals, select organochlorine pesticides, polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), and semi-volatile organic compounds (VOCs). The recent soil sample results can be summarized as follows:

- Benzene, toluene, ethylbenzene, and total xylenes were not detected at or above their respective laboratory method reporting limits in the soil samples analyzed. However, estimated (J-flagged) results are provided for select analytes where the analyte was detected between the reporting limit and the detection limit.
- Other VOCs and PAHs were not detected above the laboratory method reporting limits (RLs) in the soil samples analyzed.
- Lead was detected in each of the soil samples collected and analyzed, observed at concentrations ranging from 5.29 to 83.0 milligrams per kilogram (mg/kg)

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

4.3 Soil Gas Sample Results

Table 3 presents a summary of the soil gas sample results. The results can be summarized as follows:

- Each of the four soil gas samples collected and analyzed yielded low concentrations of benzene, toluene, ethylbenzene, and xylenes (collectively "BTEX compounds"). Benzene was detected above the laboratory RLs in the two gas samples at concentrations, observed at a maximum concentration of 3.76 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Toluene and ethylbenzene were detected in each of the four gas samples, observed at maximum concentrations of 20.4 and 43.3 $\mu\text{g}/\text{m}^3$, respectively. Total xylenes were detected in the three gas samples, observed at a maximum concentration of 142.7 $\mu\text{g}/\text{m}^3$.
- Naphthalene was detected above the laboratory RLs in SG-1 at a concentration of 31 $\mu\text{g}/\text{m}^3$.
- Tetrachloroethane (PCE) was detected in the two gas samples, observed at concentrations of 3.36 and 4.34 $\mu\text{g}/\text{m}^3$.
- Methane was not detected above the laboratory method reporting limits in the soil gas samples collected and analyzed.
- Oxygen concentrations ranged from 5.23 (SG-2) percent to 14.7 percent (SG-3), indicating an anaerobic environment in the subsurface.
- Carbon dioxide was detected at concentrations between 0.871 percent (SG-4) to 1.03 percent (SG-3).
- Helium, the leak check compound used, was not detected in the soil gas samples collected and analyzed. Therefore, there was not a significant leak that could have affected the sample results.

4.4 Discussion of Results

The purpose of the soil and soil gas samples collected was to assess whether there was a potential risk to future residential users and/or construction workers at the Site. To characterize human health risk, AEI performed a screening level human health risk assessment by comparing the analyte concentrations to the Environmental Screening Levels (ESLs) developed by the Regional Water Board for residential land use. The summary tables provide each analytes respective ESL. The results of this screening evaluation can be summarized as follows:

- BTEX compounds detected in soil samples collected and analyzed were not detected at concentrations above their respective residential ESLs.
- Petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), nor motor oil (TPHmo) were detected at concentrations near their respective residential ESLs.
- One of the eight soil samples collected and analyzed for lead, yielded lead at a concentration of 83.0 mg/kg (sample SB-1 collected at a depth of 0.5-feet bgs), which is slightly higher than the residential ESL for lead of 80 mg/kg. The deeper sample collected from SB-1, at a depth of 2.5-feet bgs yielded lead at a concentration of 6.80 mg/kg. Therefore, the slightly elevated concentration of lead in soil does not extend to 2.5-feet bgs and is likely limited in extent.
- BTEX compounds, naphthalene, nor PCE detected in soil gas samples collected and analyzed were not detected at concentrations above their respective residential ESL.

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

Therefore, with the exception of the detection of lead slightly above the residential ESL, residual contamination from the former gasoline service station does not pose a risk to future residential or construction workers at the Site.

5. CITY OF HAYWARD FIRE DEPARTMENT FILE REVIEW

The DEH letter dated March 17, 2017 requested additional information from the City of Hayward for the historical environmental case on the Site, including report name, boring/monitoring well designation, and if laboratory analytical reports were included. Historical reports from 1984 to 2001 on the previous environmental case were located in the City of Hayward Fire Department files. A comprehensive list of the reports located at the City of Hayward Fire Department are presented in Table 4.

6. GROUNDWATER MONITORING WELL STATUS AND DATA

The DEH letter dated March 17, 2017 requested information pertaining to the current status of the former groundwater monitoring and extraction wells that were installed as part of investigation and remediation of the former Shell-branded service station. In addition, the DEH requested hydrographs for each of the groundwater monitoring wells with available data and figures for the historical and final extent of liquid-phase hydrocarbons (LPH) in the subsurface. Details of the DEH request are presented below.

6.1 Current Groundwater Monitoring and Extraction Well Status

Table 5 presents the well construction details for the wells installed for the former Shell-branded service station environmental case. Based on available records, wells E-3, S-15, S-16, S-17, S-34, and S-35 were reported as abandoned. E3 was destroyed in 1983/1984; however, no dates were provided for the other wells and no decommissioning documentation was available. Based on the available records, including records at the City of Hayward Fire Department, no documentation of abandonment for the remaining 29 wells (S-4 through S-14, S-18 through S-33, and S-36 through S-38) was identified.

As part of the data gap assessment on July 18, 2017, AEI attempted to locate the remaining 29 wells. AEI conducted a visual scan of the Site to identify any surface vault locations that could be associated with the 29 wells. In addition, AEI subcontracted 1st Call Utility Locate of Richmond, California to conduct a geophysical survey to locate the former wells using a metal detector and ground penetrating radar. No well-boxes were identified by the visual scan or during the geophysical survey. Therefore, it appears that the remaining 29 wells for which documentation is not available, appear to have been destroyed.

6.2 Historical Groundwater Monitoring Data

Table 6 presents the historical groundwater elevation and groundwater sample results from the former Shell-branded service station environmental case. Figure 4 presents the lateral extent of benzene in groundwater in October 1991. The 100 µg/L isoconcentration contour includes the lateral extent of LPH at the Site during the Fourth Quarter 1990, when the groundwater monitoring and sampling program was initiated at the Site. Figure 5 presents the lateral extent of benzene at the time of the case closure was requested in 1999/2001. The lateral extent of LPH is not depicted on Figure 5 as no LPH was detected during the 1999 or 2001 monitoring events.

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

Hydrographs for wells S-7, S-9, S-10, S-11, S-12, S-14, S-18, S-21, S-22, and S-24 through S-38 including groundwater elevation and dissolved-phase total purgeable petroleum hydrocarbons (TTPH) as gasoline and benzene are presented as Figure 6a through 6z. Hydrographs were not prepared for wells S-4, S-5, S-6, S-8, S-13, S-19, and S-20 due to limited data available. These wells were connected to the remediation system and were not included in the routine groundwater sampling program.

7. CONCLUSIONS

AEI has completed activities requested by the DEH to assess the Site for development as two new residential structures and obtained the historical data available. Based on the soil and soil gas sample results, there is not significant risk to human health at the Site, and further assessment or characterization is not warranted. The historical review of the data indicates that at the time of closure petroleum hydrocarbon concentrations in groundwater were low, and declining. Petroleum hydrocarbon concentrations in groundwater have likely continued to decline in the seventeen years since closure as granted and the soil gas sample results do not suggest that there are significant residual petroleum hydrocarbons in groundwater or soil at the Site. Based upon the activities performed, no further action is warranted at this time.

8. REFERENCES

- AEI Consultants (AEI). 2014. *Phase I Environmental Site Assessment, 27501 Loyola Avenue, Hayward, Alameda County, California*. October 21.
- AEI Consultants (AEI). 2016. *Data Gap Work Plan Addendum, 27501 Loyola Avenue, Hayward, Alameda County, California*. September 14.
- Cambria. 2000. *Site Closure Report, Former Shell-Branded Service Station, 27501 Loyola Avenue, Hayward, California*. July 31.
- Cambria. 2001. *Human Health Risk Assessment (Residential Use), Former Shell Service Station, 27501 Loyola Avenue, Hayward, California*. May 10.
- California Department of Toxic Substances Control (DTSC) and Los Angeles and San Francisco Regional Water Quality Control Boards. 2015. *Advisory – Active Soil Gas Investigations*. July.

Report on Data Gap Investigation
27501 Loyola Avenue, Hayward, California

Enviros. 1996. *Case Closure Summary for the Site of Former Shell Service Station, 27501 Loyola Avenue, Hayward, California.* June 19.

City of Hayward. 2001. *Case Closure Request for the Site of Former Shell Service Station, 27501 Loyola Avenue, Hayward, California.* June 29.

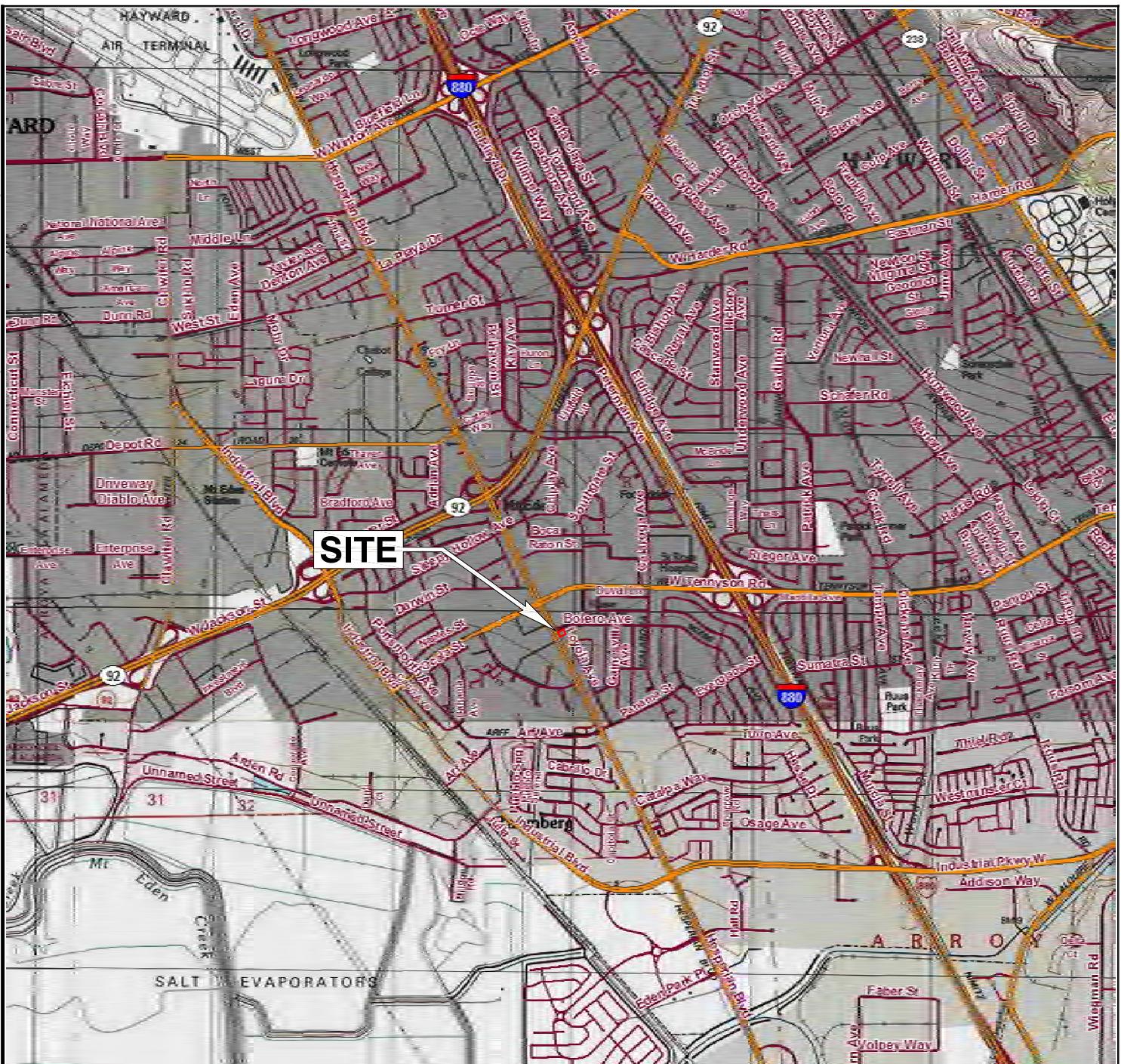
GeoStrategies, Inc. (GSI). 1991. *Remedial System Performance Report, Former Shell Service Station, 27501 Loyola Avenue, Hayward, California.* January 23.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). 2016. *Environmental Screening Levels, Tables.* February.



AEI Consultants

FIGURES



LEGEND

0 0.5 1.0 APPROXIMATE SCALE IN MILES

Site Location

REFERENCE LOCATION

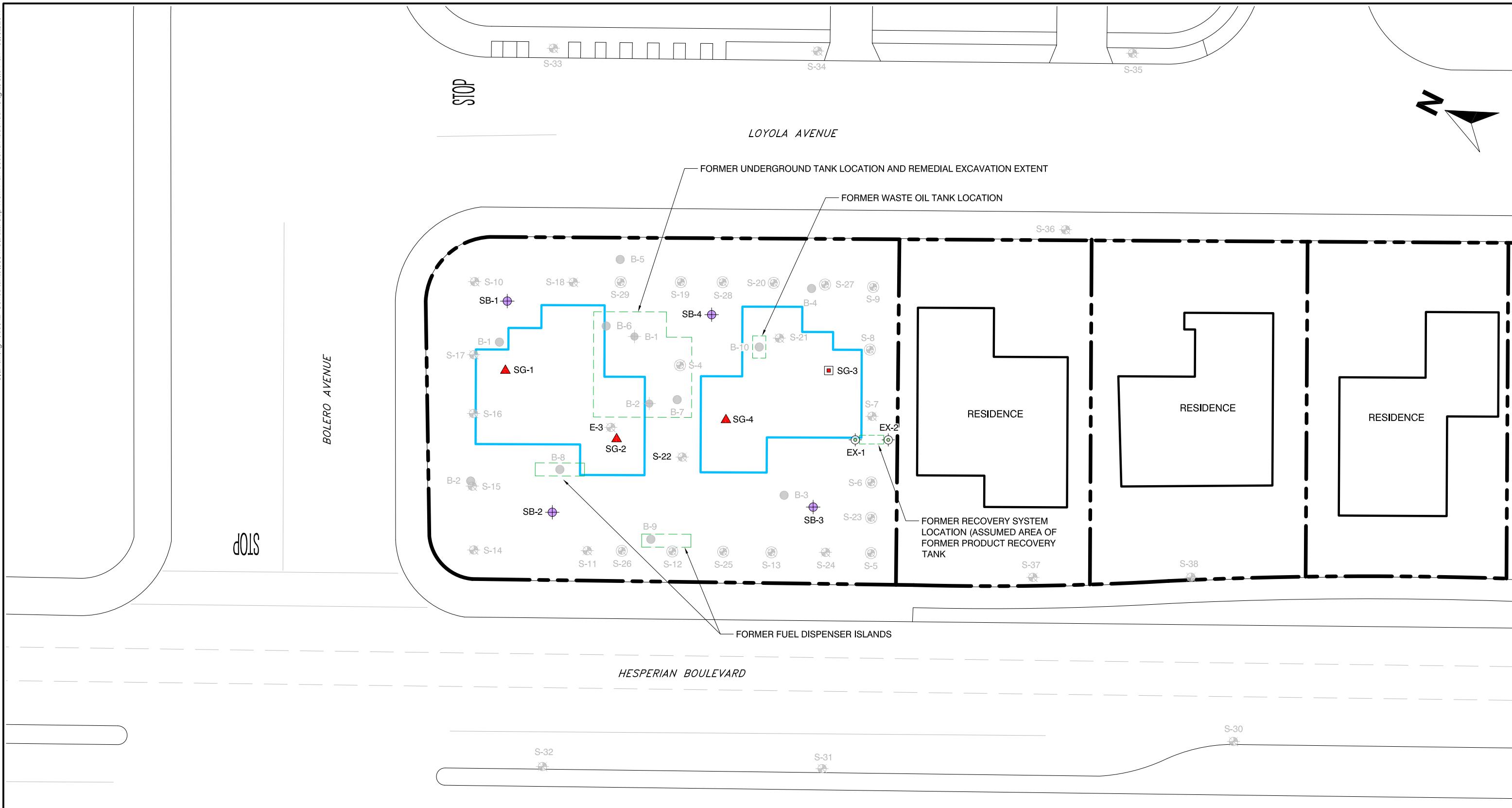


AEI Consultants
3880 South Bascom Avenue, San Jose, California

SITE LOCATION MAP

27501 Loyola Avenue
Hayward, California

FIGURE 1
Project No. 335476

**LEGEND**

SB-1 ● Soil Boring Location

B-1 ● Former Soil Boring (Soil Subsequently Excavated)

SG-1 ▲ Soil Gas Probe

EX-2 ○ Confirmation Soil Sample (Locations Estimated: locations described as on ends of product recovery UST excavation)

S-29 ● Destroyed Extraction Well

Footprint of Proposed Development
 Approximate Property Boundary

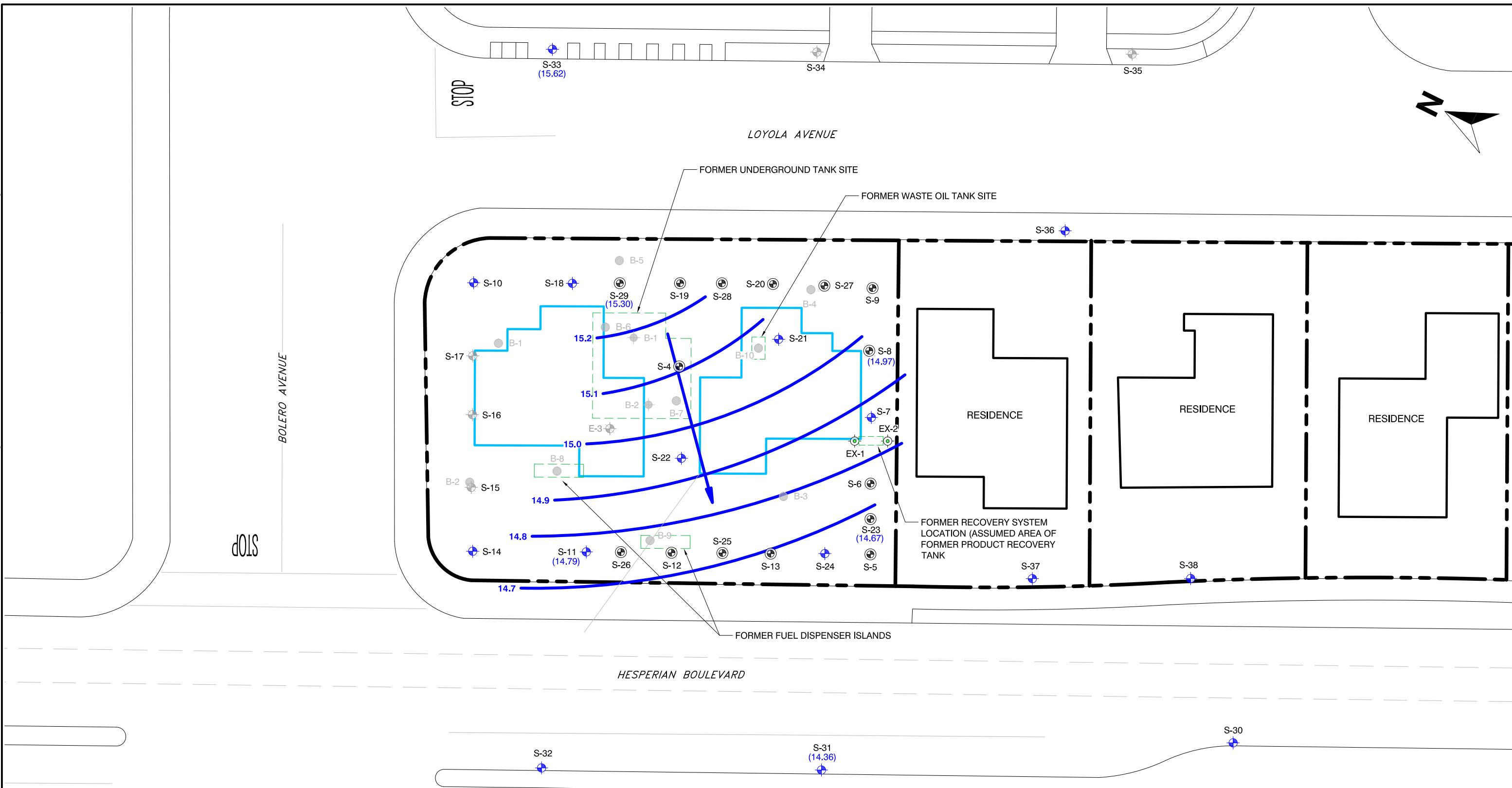
S-35 ● Destroyed Groundwater Monitoring Well
B-10 ● Former Soil Boring (Cambria 2001)

0 30 60 APPROXIMATE SCALE
IN FEET

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SITE PLAN27501 Loyola Avenue
Hayward, CaliforniaFIGURE 2
Project No. 335476

NOTE:
Base Map Sources:
Google Earth, Image Date 10/30/2015
Shell Plot Plan, 12/1979
Woodward-Clyde Consultants Map, 04/1989
EMCON Associates Report, 10/20/1984

**LEGEND**

S-38 • Groundwater Monitoring Well

B-1 ● Former Soil Boring (Soil Subsequently Excavated)

S-29 ○ Extraction Well

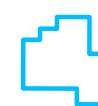
EX-2 ● Confirmation Soil Sample (Locations Estimated; locations described as on ends of product recovery UST excavation)

S-35 ● Abandoned Groundwater Monitoring Well

B-10 ● Former Soil Boring (Cambria 2001)

14.7 — Groundwater Elevation Contour (feet NAVD 88)

← — Approximate Direction of Groundwater Flow



Footprint of Proposed Development

— Approximate Property Boundary

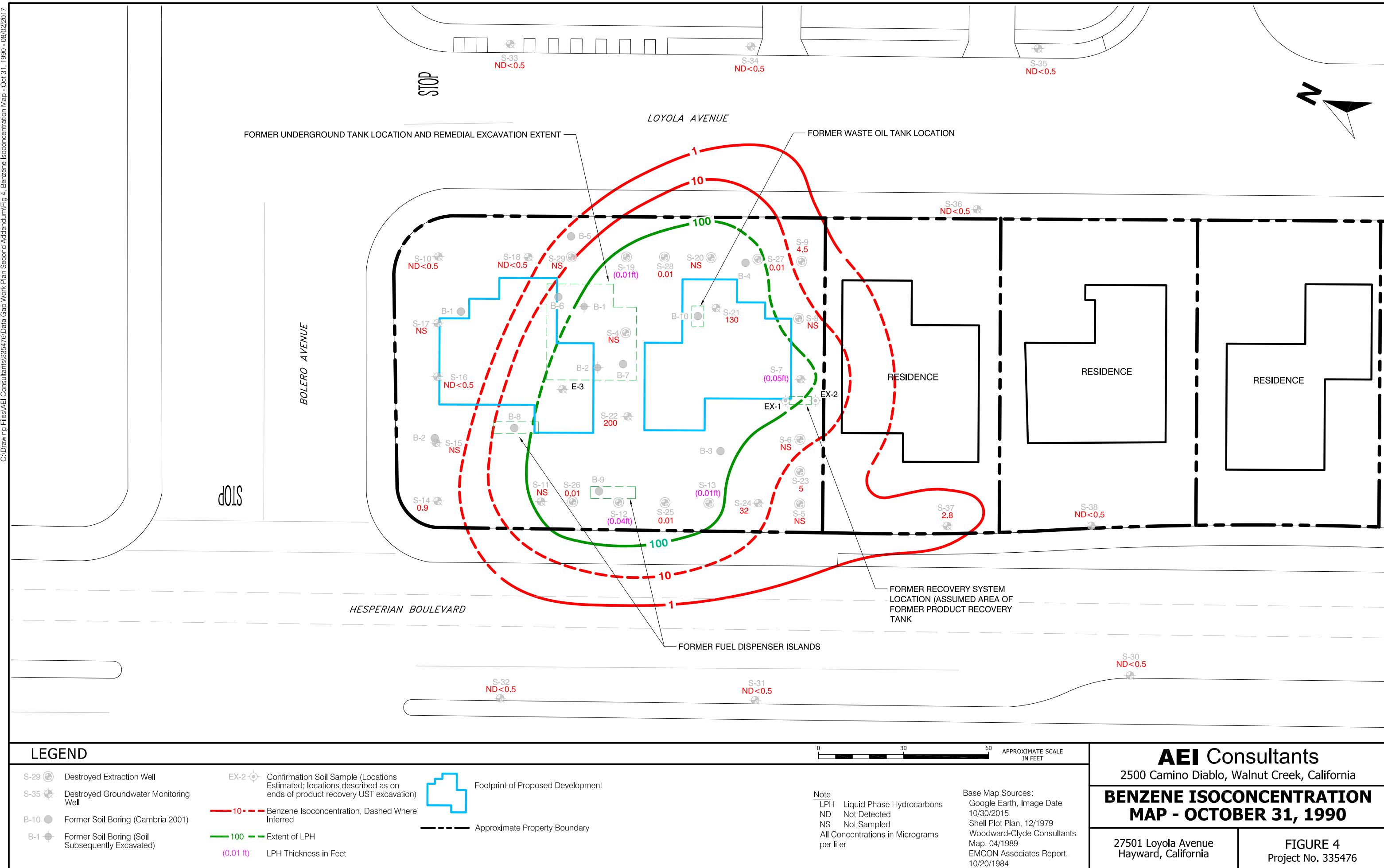
NOTE:

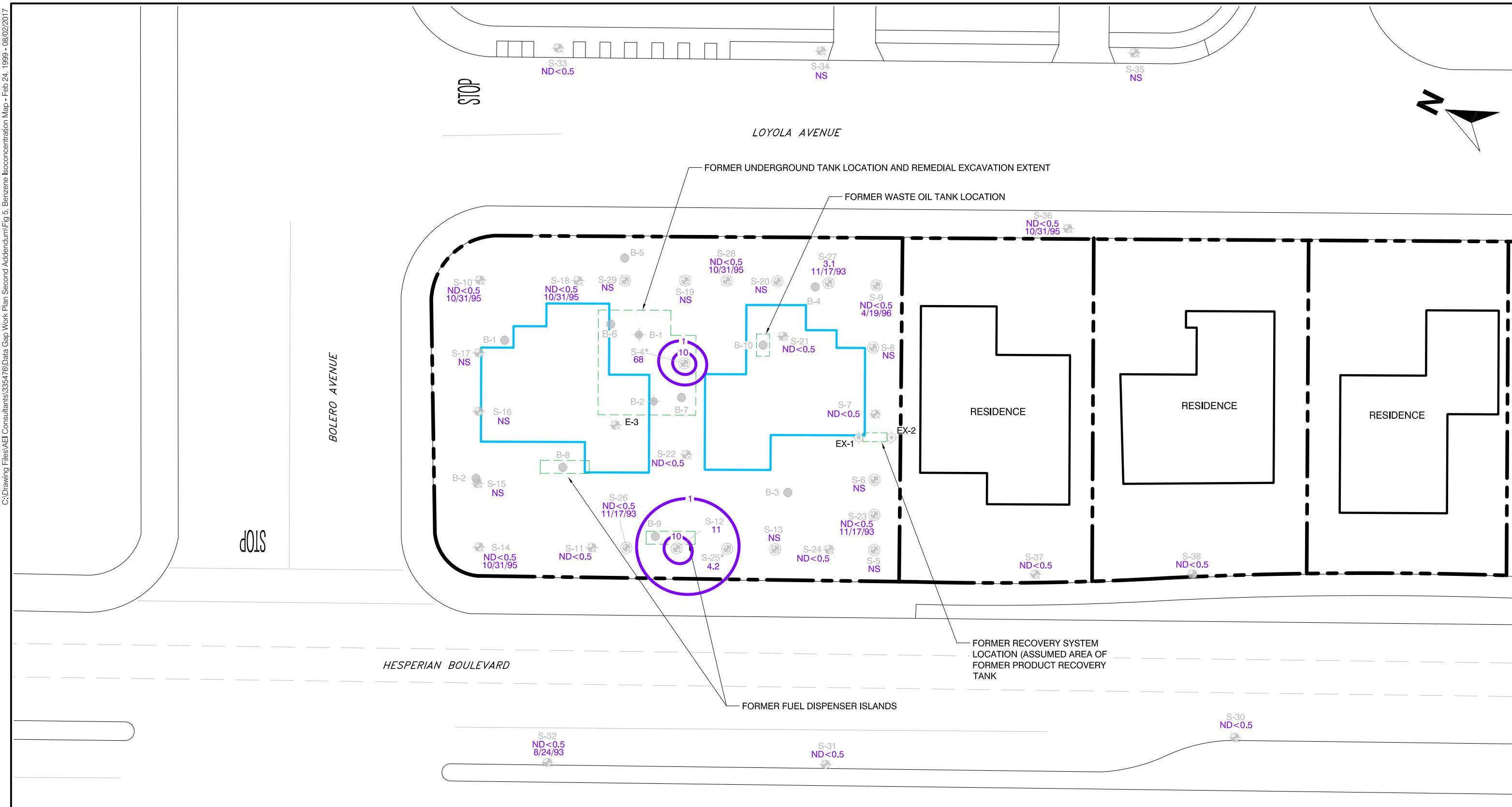
Base Map Sources:
 Google Earth, Image Date 10/30/2015
 Shell Plot Plan, 12/1979
 Woodward-Clyde Consultants Map, 04/1989
 EMCON Associates Report, 10/20/1984

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**GROUNDWATER ELEVATION
CONTOURS - FEBRUARY 24, 1999**27501 Loyola Avenue
Hayward, CaliforniaFIGURE 3
Project No. 335476



**LEGEND**

S-29 Destroyed Extraction Well

S-35 Destroyed Groundwater Monitoring Well

B-10 Former Soil Boring (Cambria 2001)

B-1 Former Soil Boring (Soil Subsequently Excavated)

EX-2 Confirmation Soil Sample (Locations Estimated: locations described as on ends of product recovery UST excavation)

— 10 — Benzene Isoconcentration, Dashed Where Inferred

 Footprint of Proposed Development
 — Approximate Property Boundary

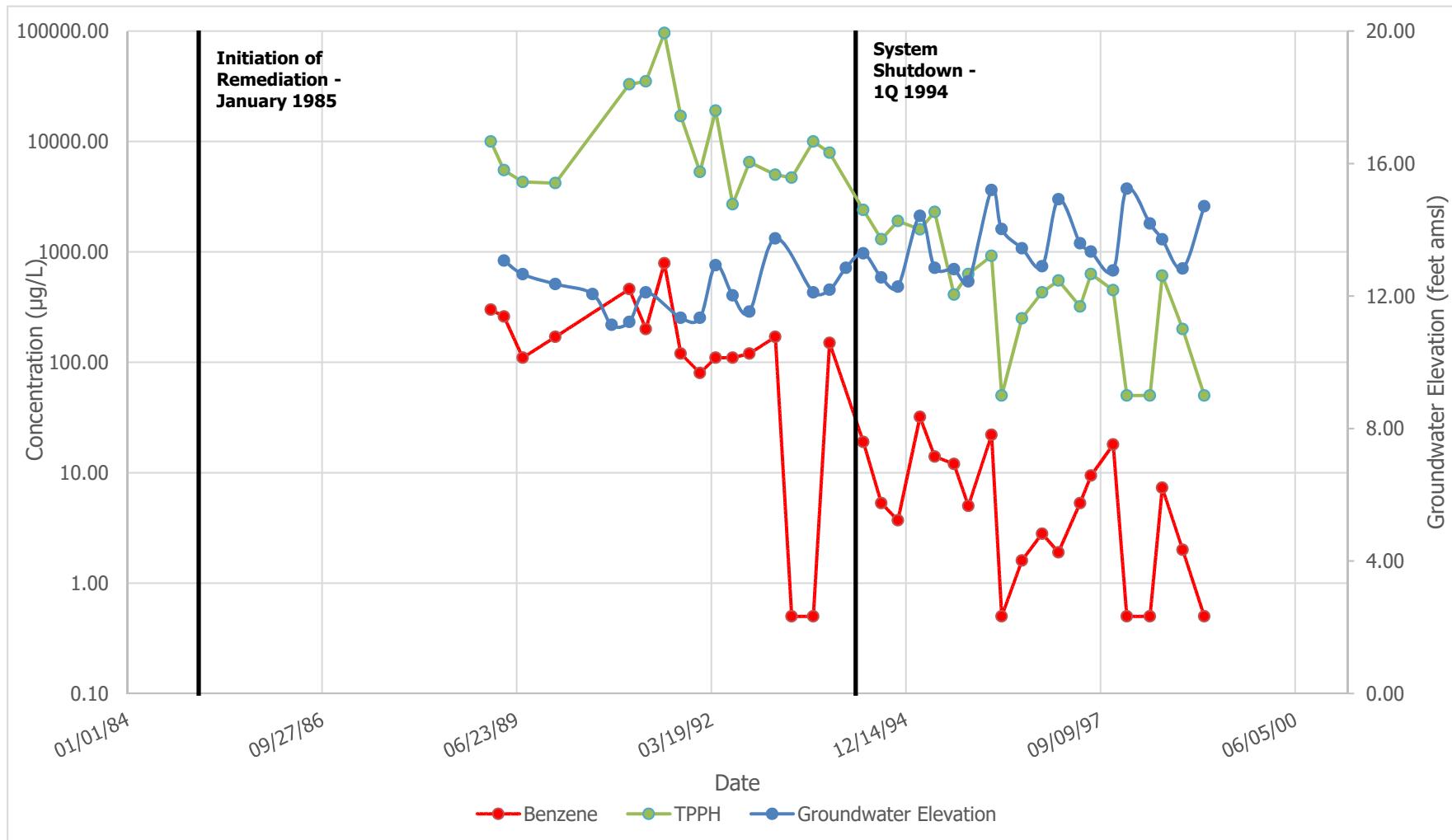
Note
 LPH - Liquid Phase Hydrocarbons
 ND - Not Detected
 NS - Not Sampled
 All Concentrations in Micrograms per liter
 * Well Sampled 20 February 2001
 (ND<0.5, 31 October 1995) - last benzene concentration and sample date

Base Map Sources:
 Google Earth, Image Date 10/30/2015
 Shell Plot Plan, 12/1979
 Woodward-Clyde Consultants Map, 04/1989
 EMCN Associates Report, 10/20/1984

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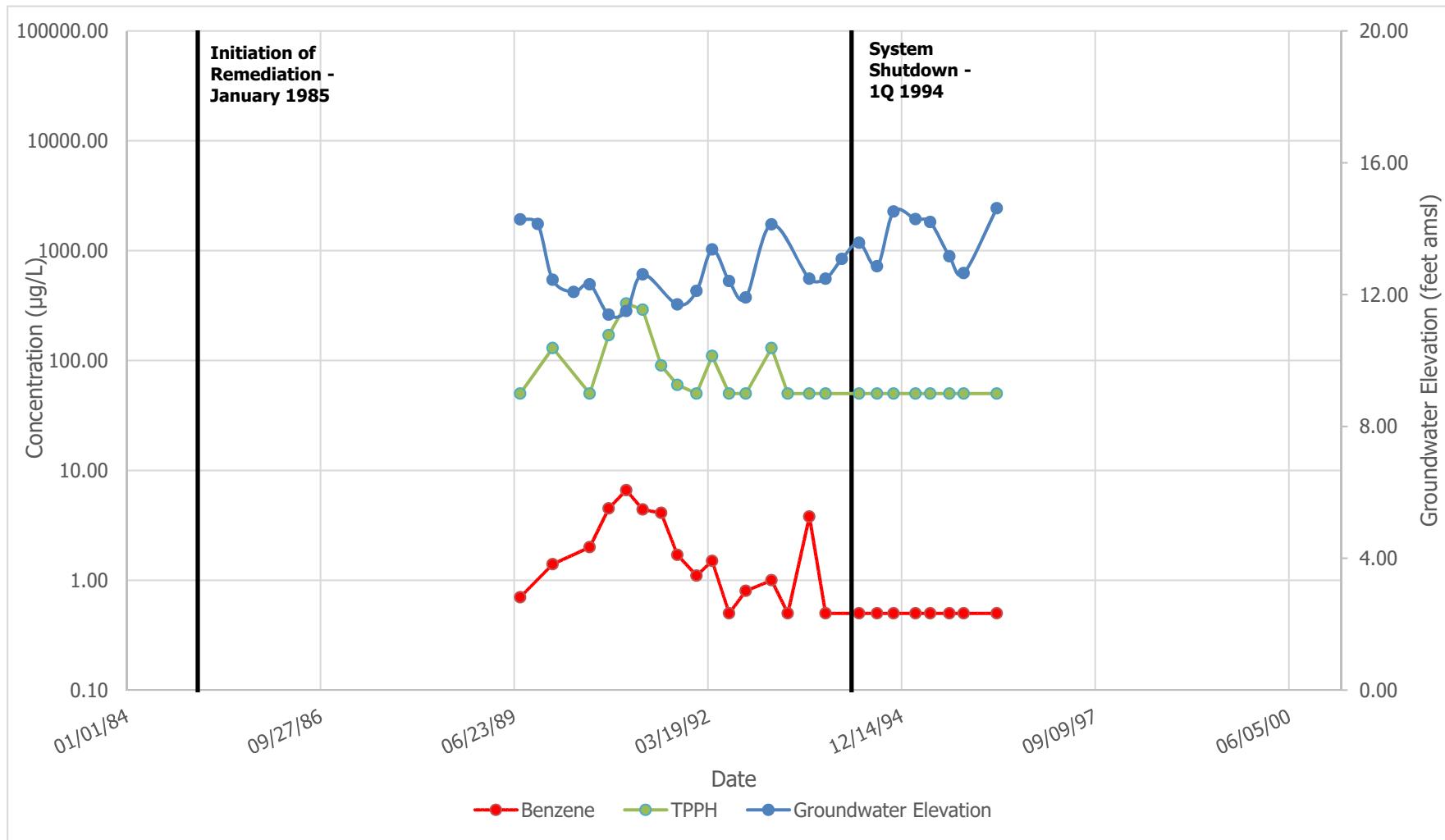
2500 Camino Diablo, Walnut Creek, California

BENZENE ISOCONCENTRATION MAP - FEBRUARY 24, 199927501 Loyola Avenue
Hayward, CaliforniaFIGURE 5
Project No. 335476



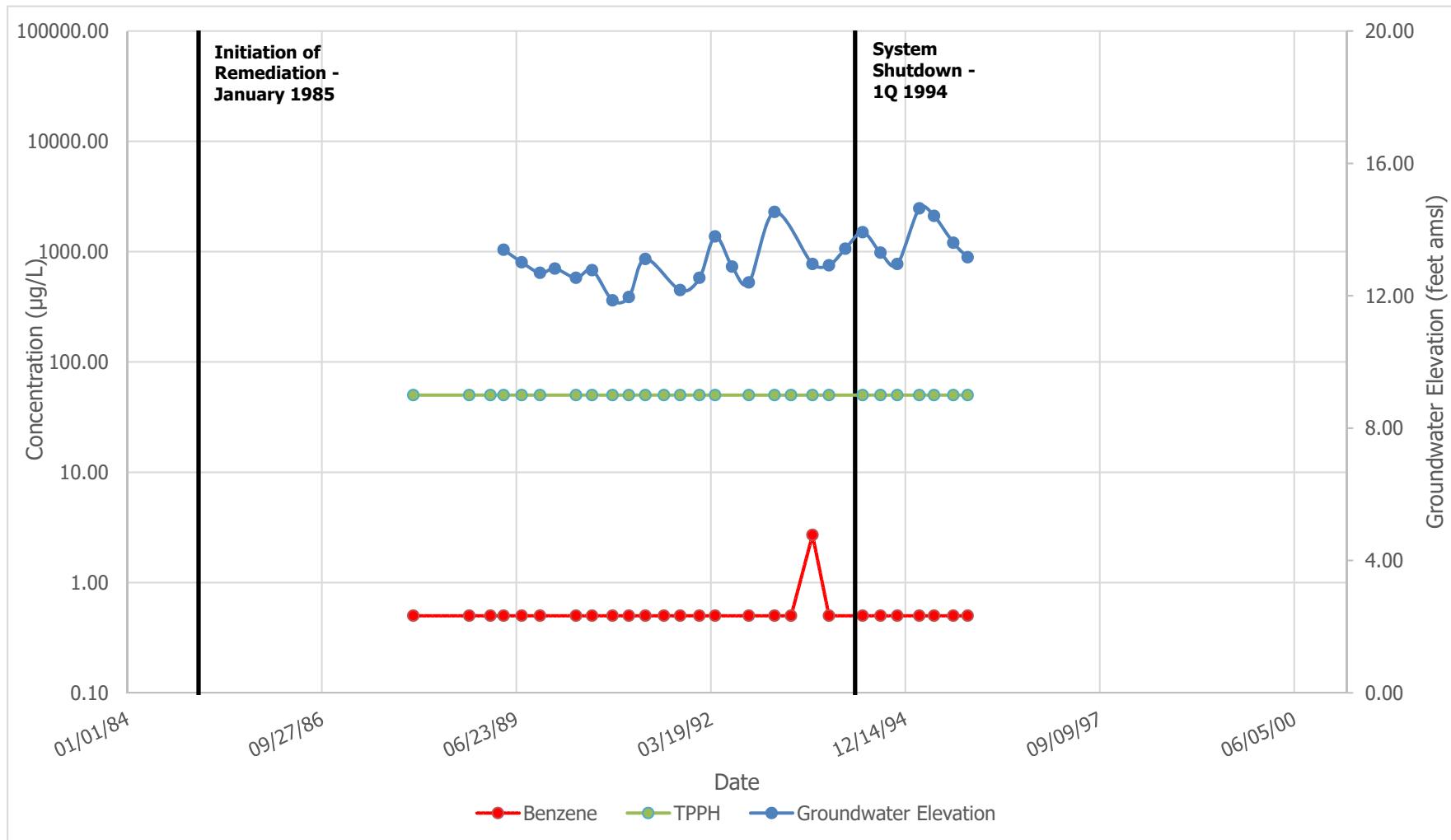
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6a GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-7 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



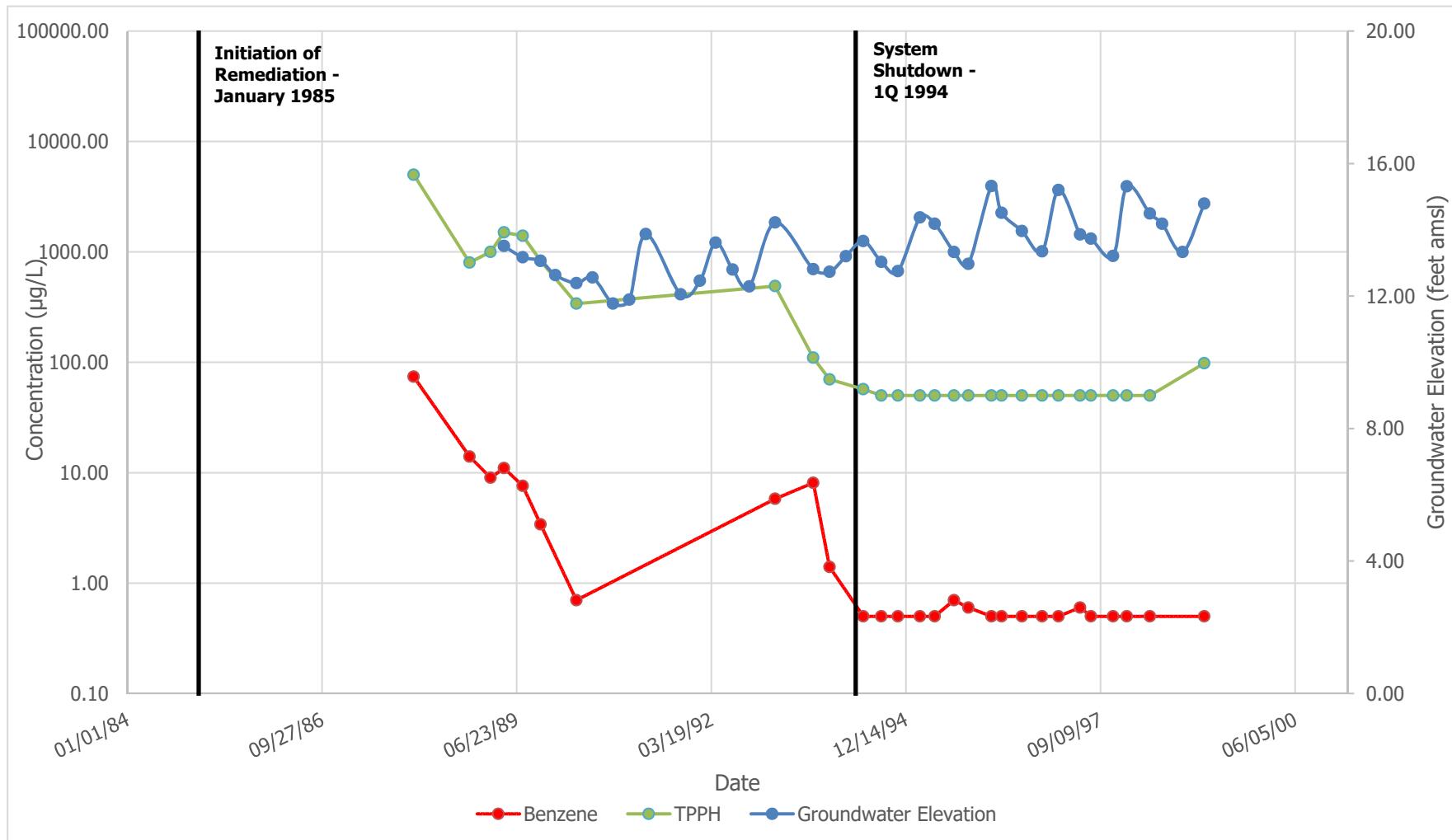
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
µg/L micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 µg/L for TPPH and 0.5 µg/L for benzene).

FIGURE 6b GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-9 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



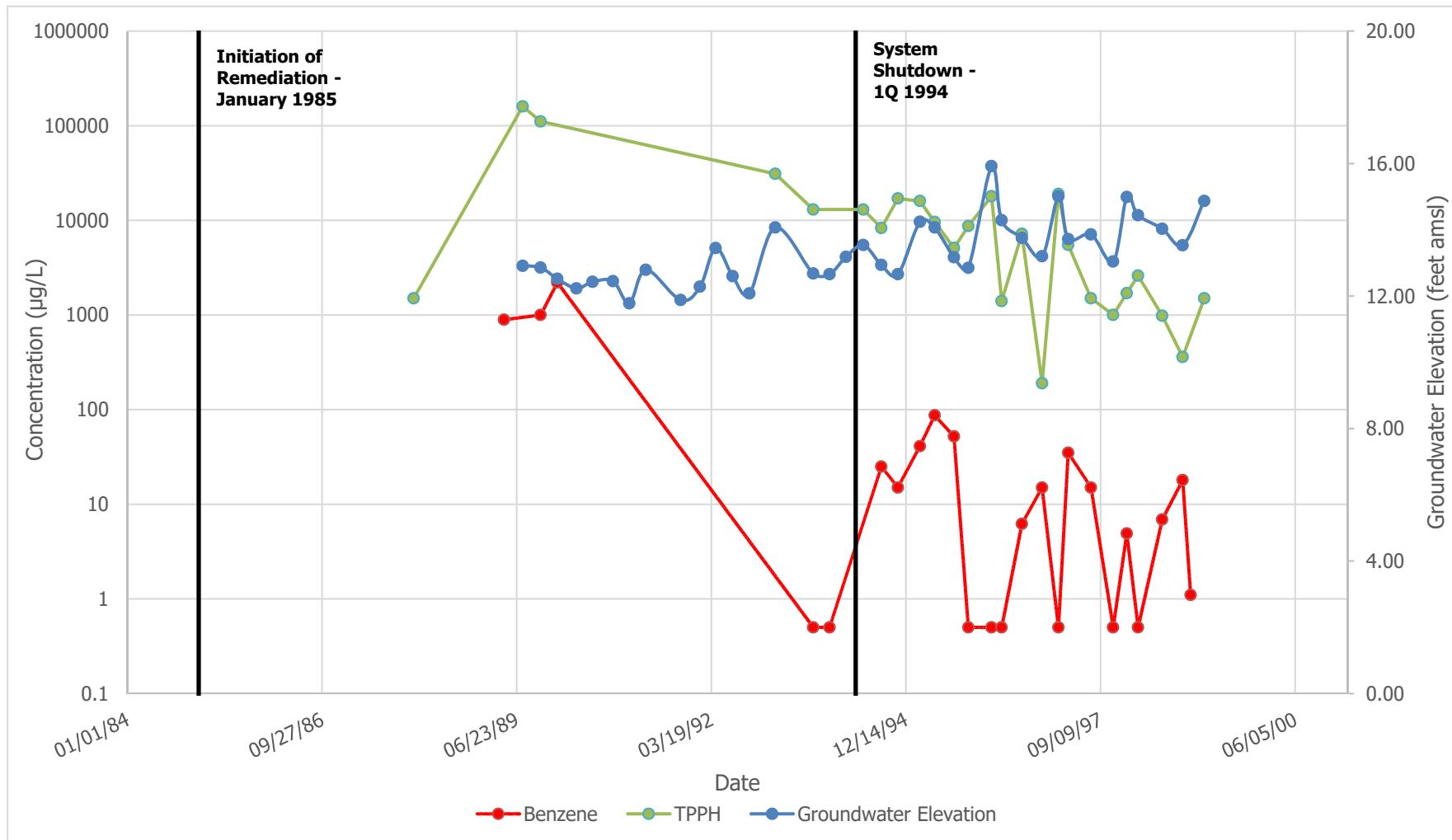
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6c GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-10 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



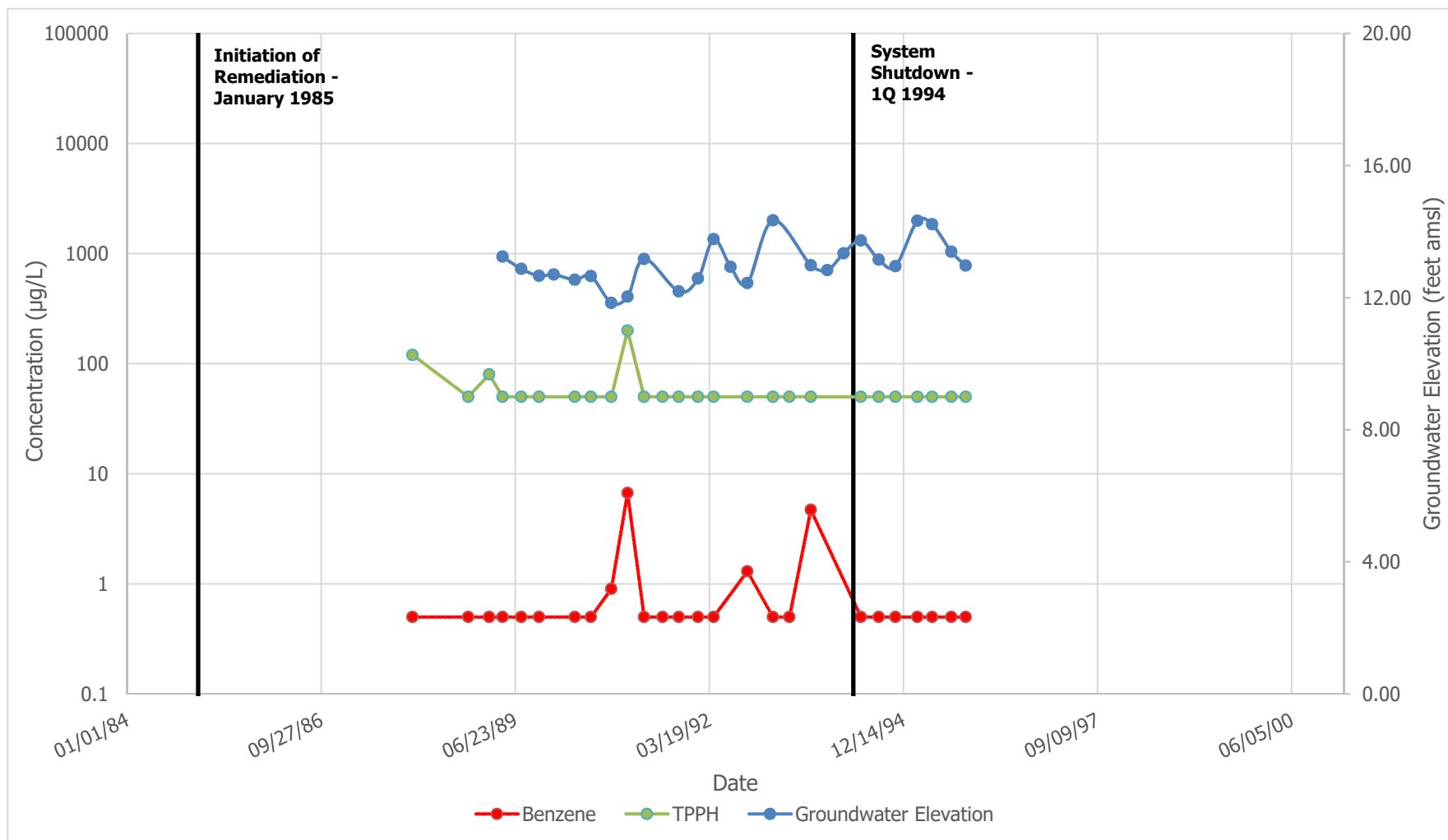
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6d GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-11 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



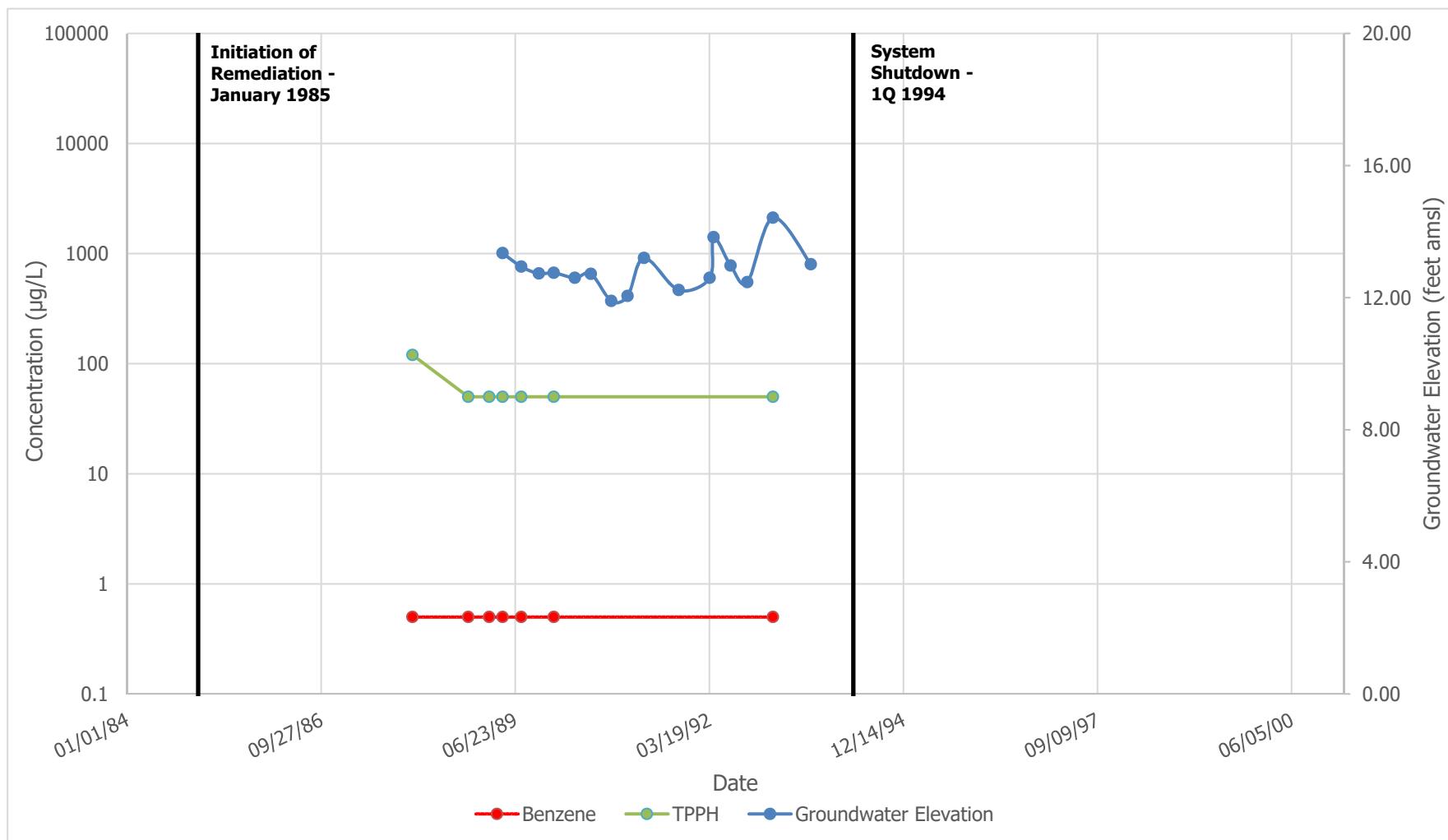
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6e GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-12 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



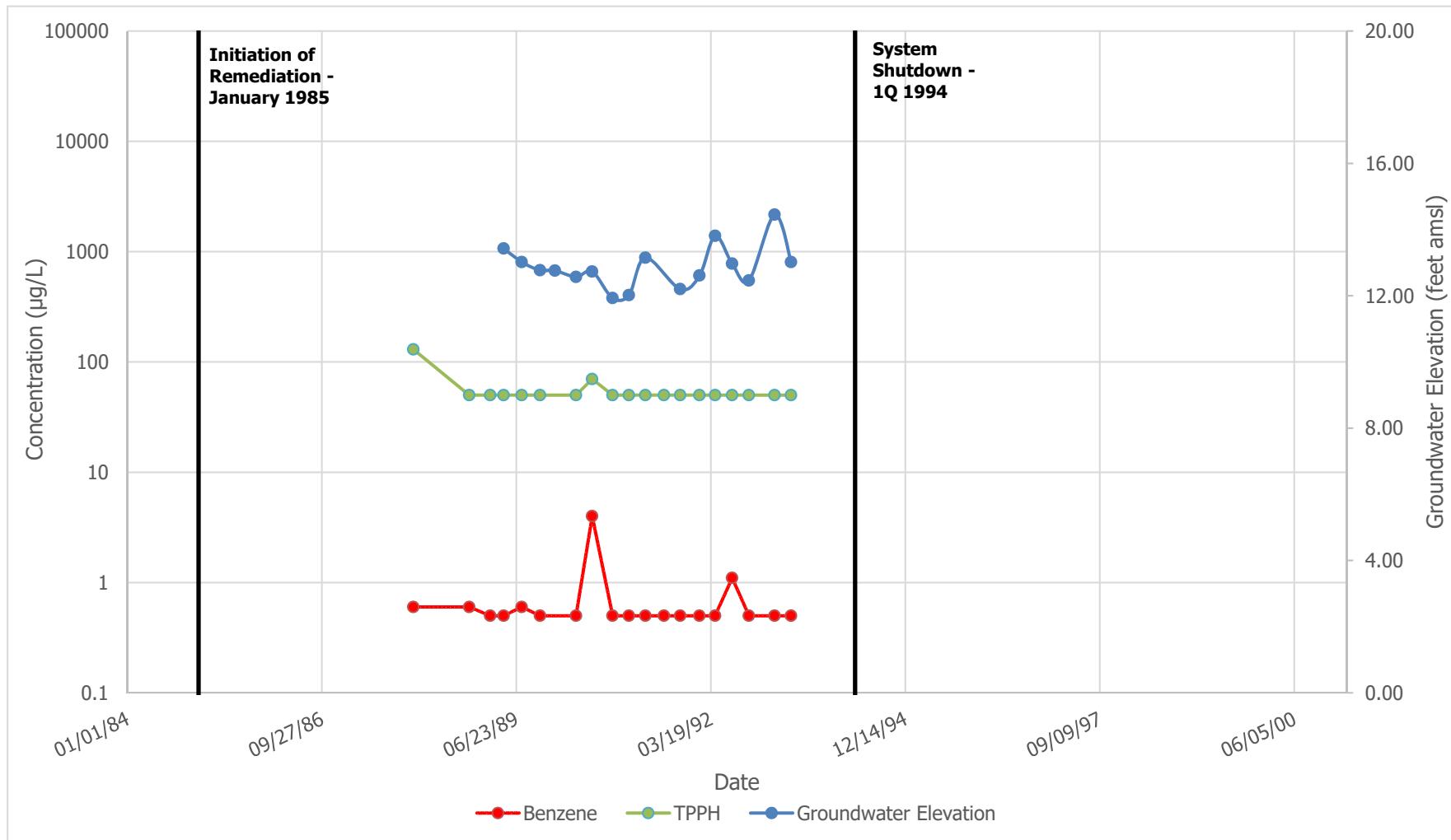
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6f GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-14 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



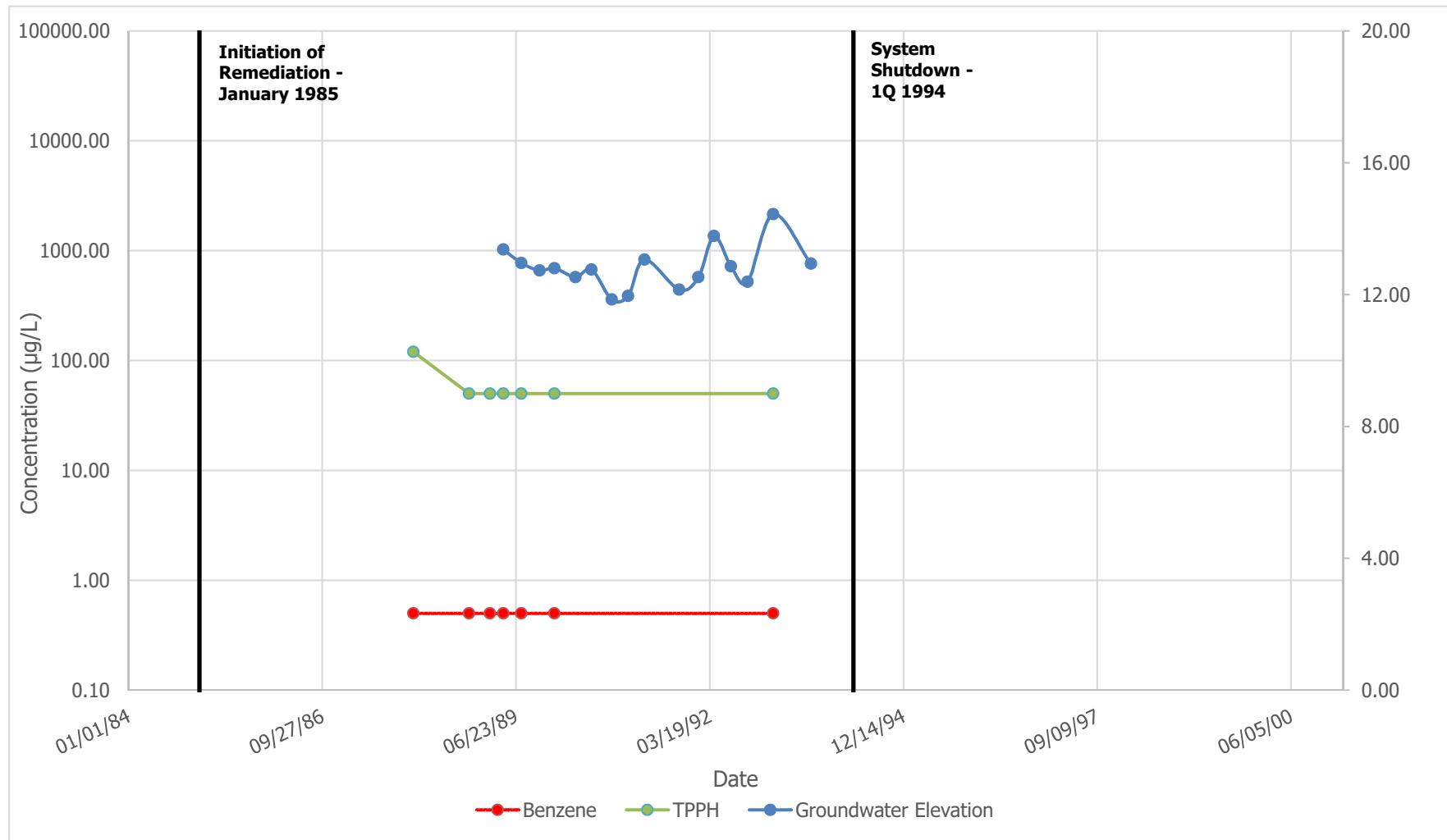
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 µg/L micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 µg/L for TPPH and 0.5 µg/L for benzene).

FIGURE 6f GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-15 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



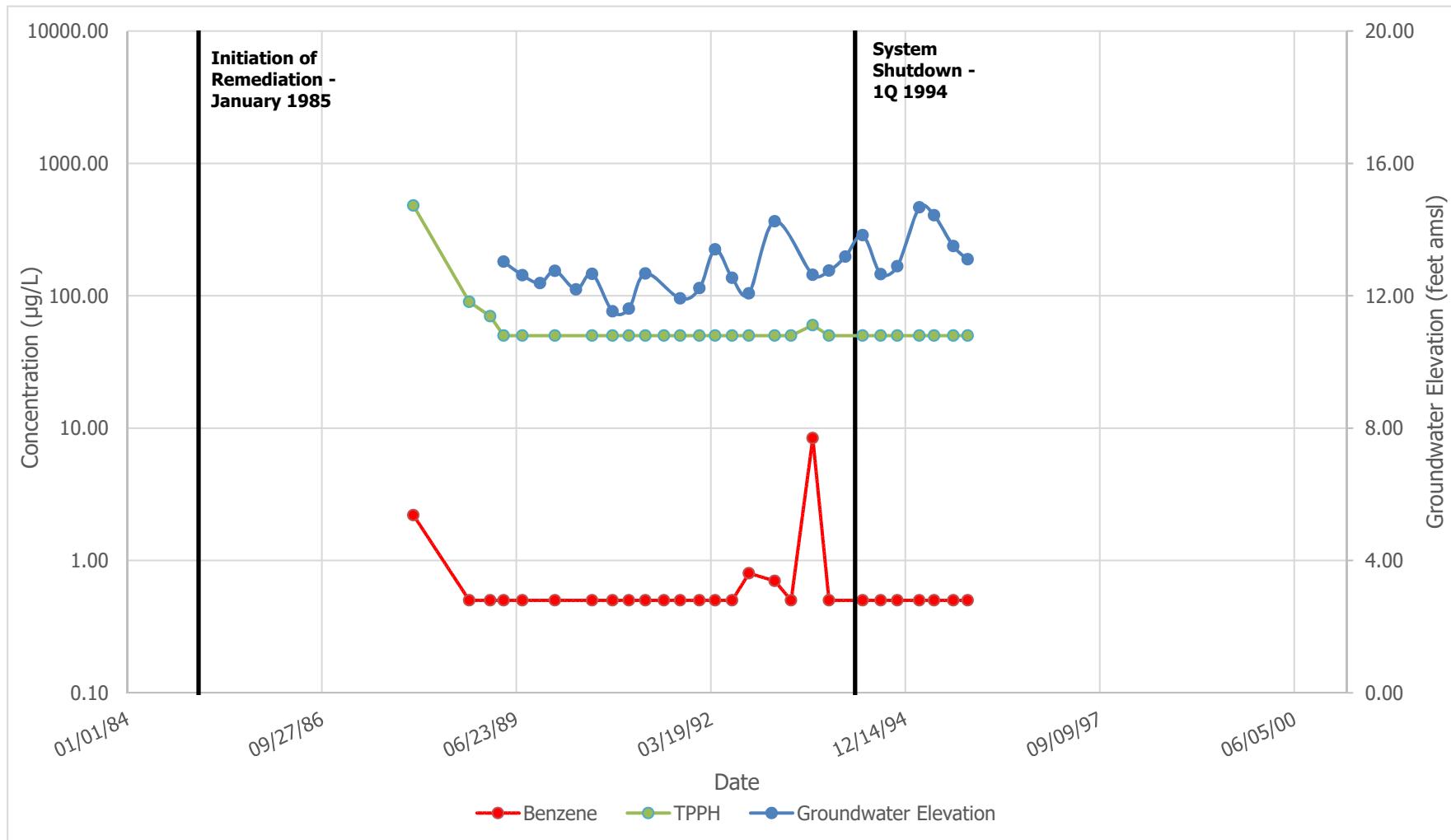
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6g GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-16 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



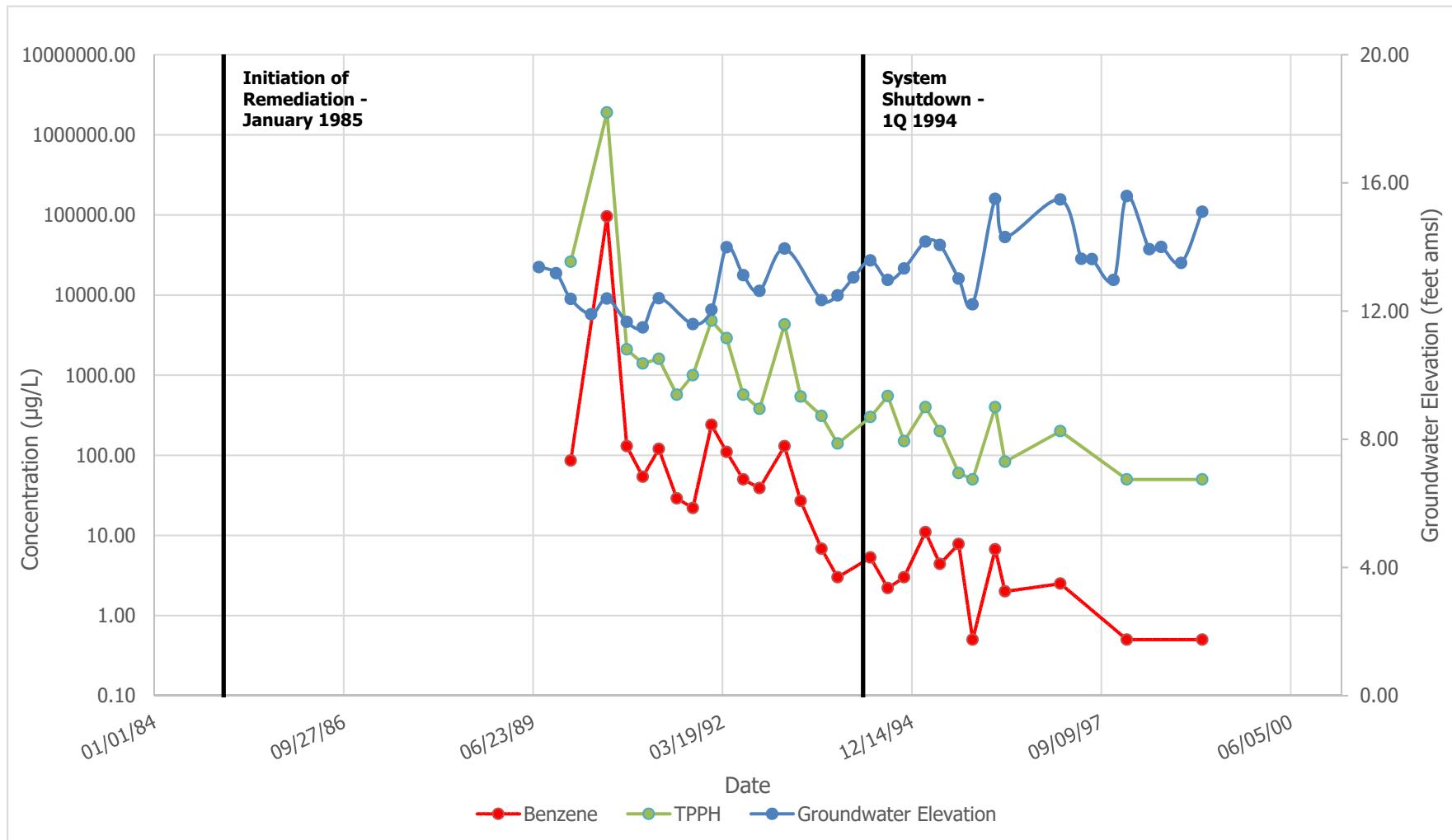
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6h GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-17 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



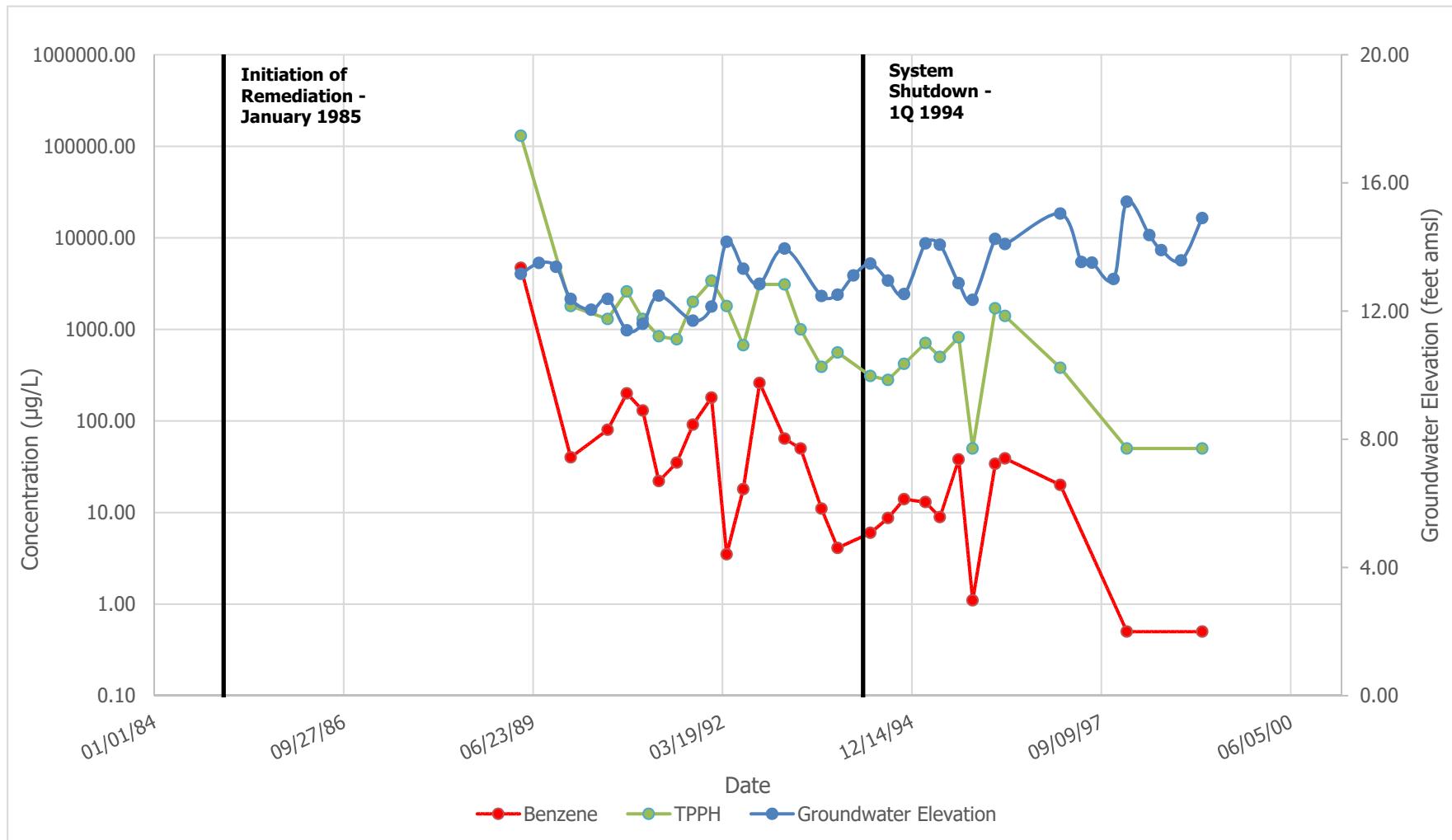
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6i GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-18 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



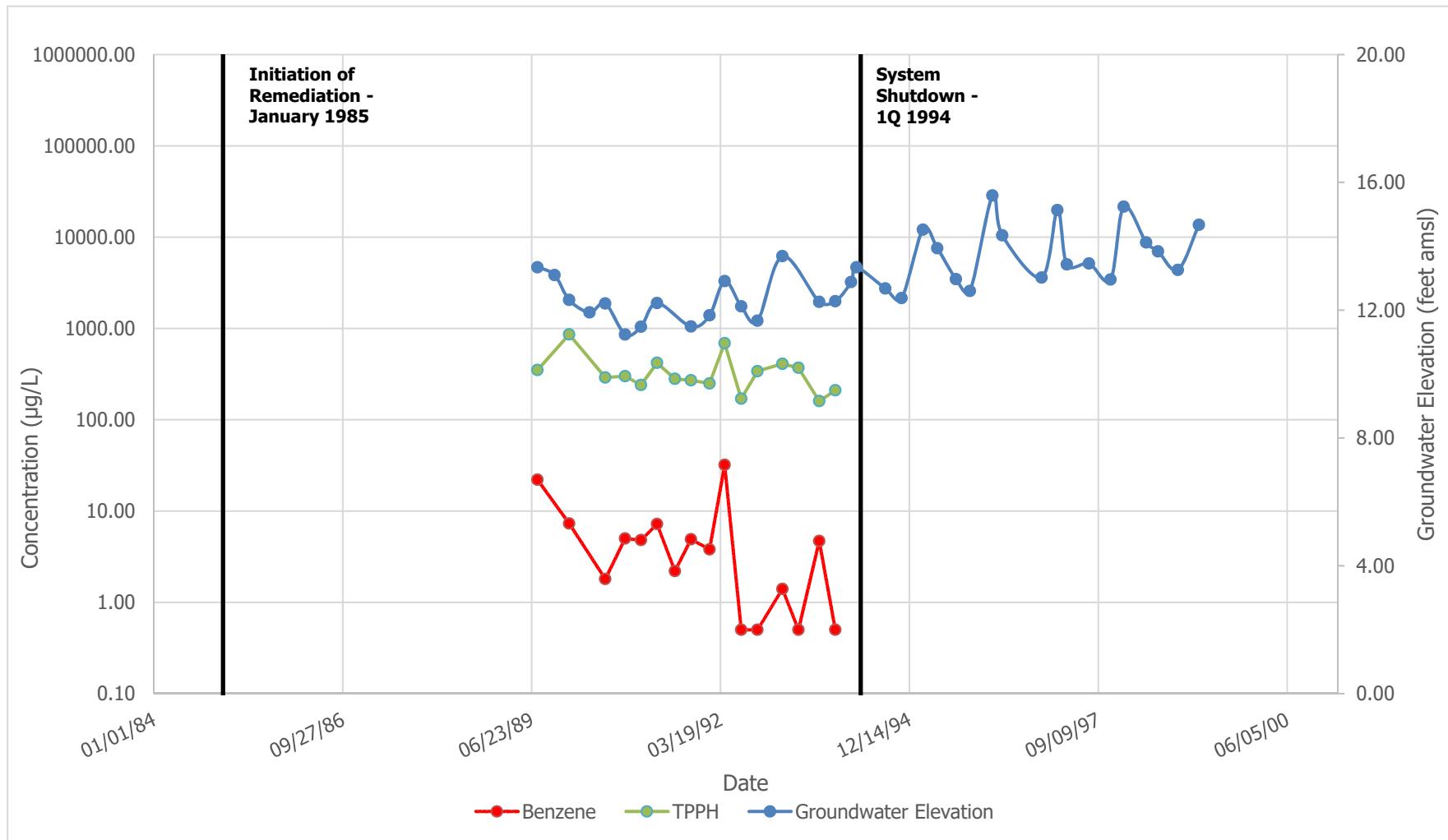
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6i GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-21 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



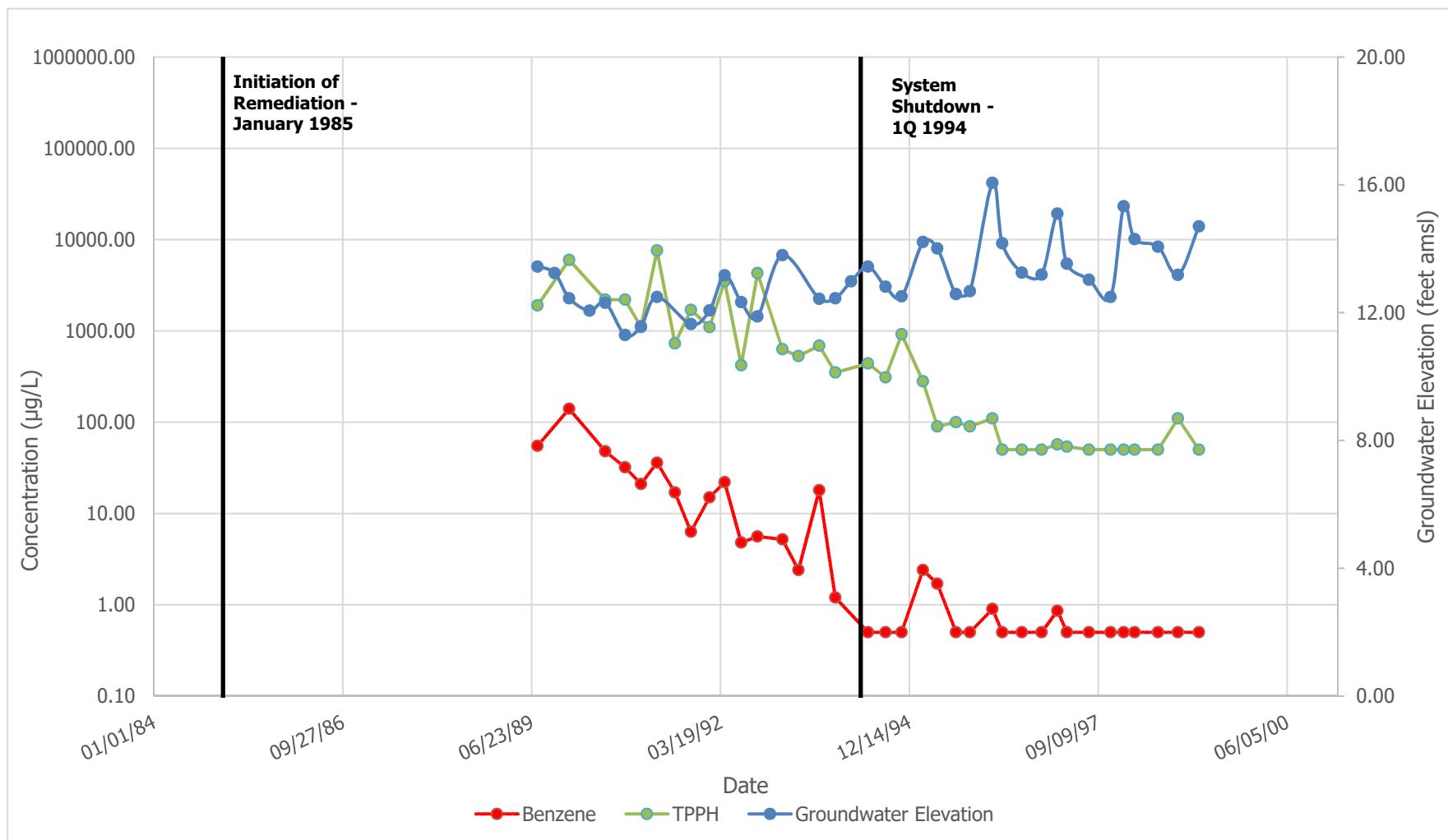
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6j GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-22 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



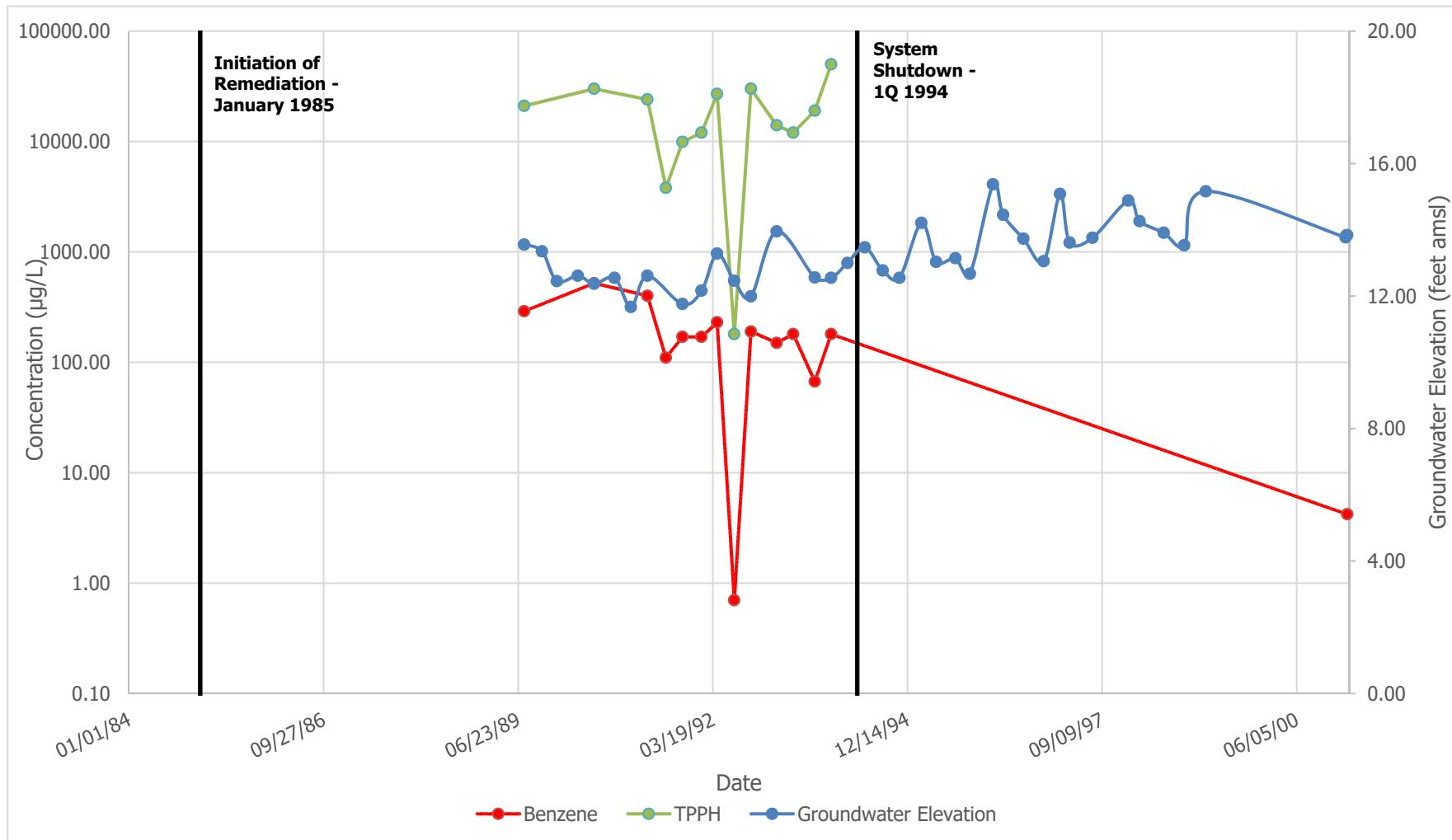
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6k GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-23 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



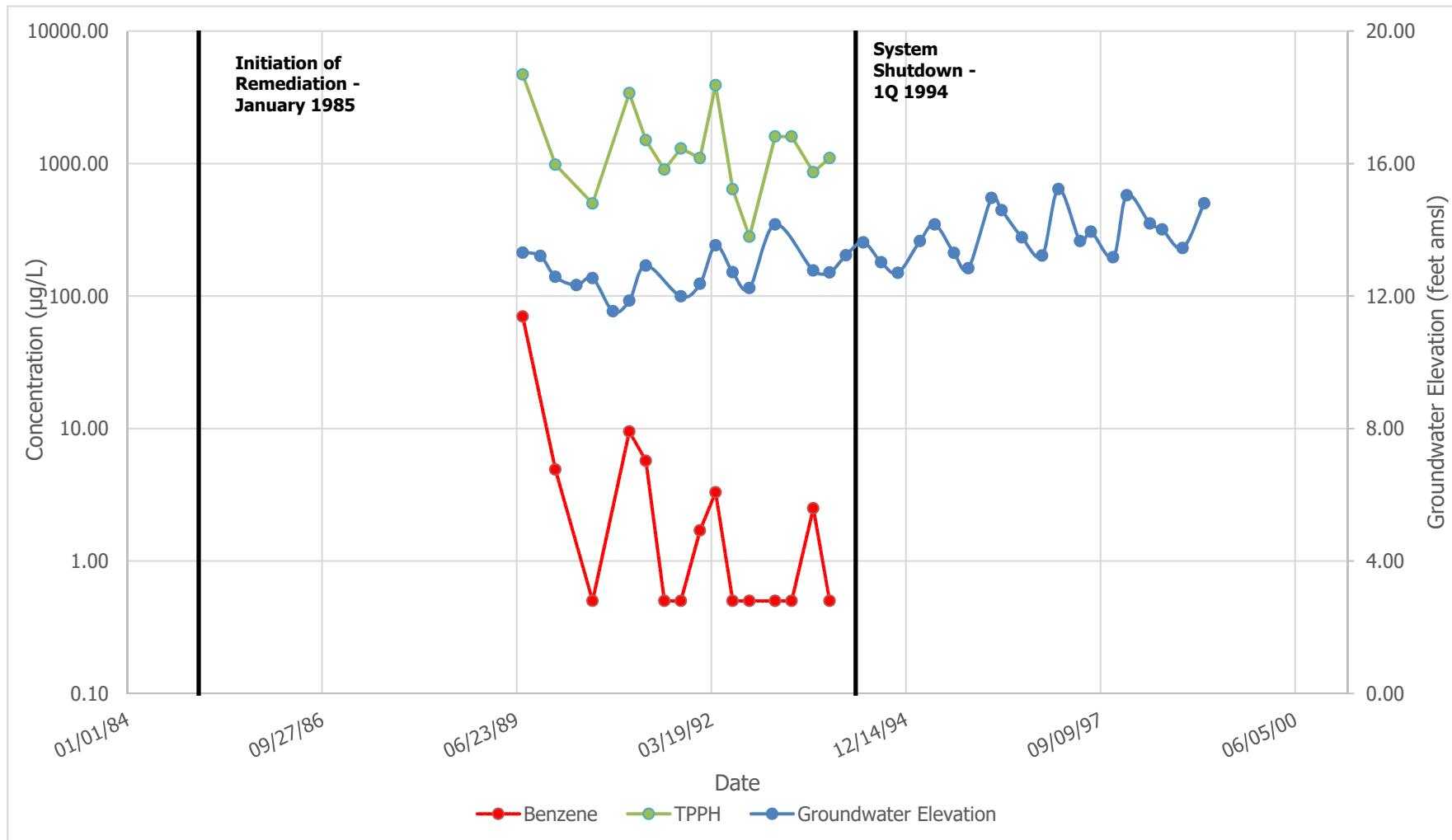
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6I GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-24 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



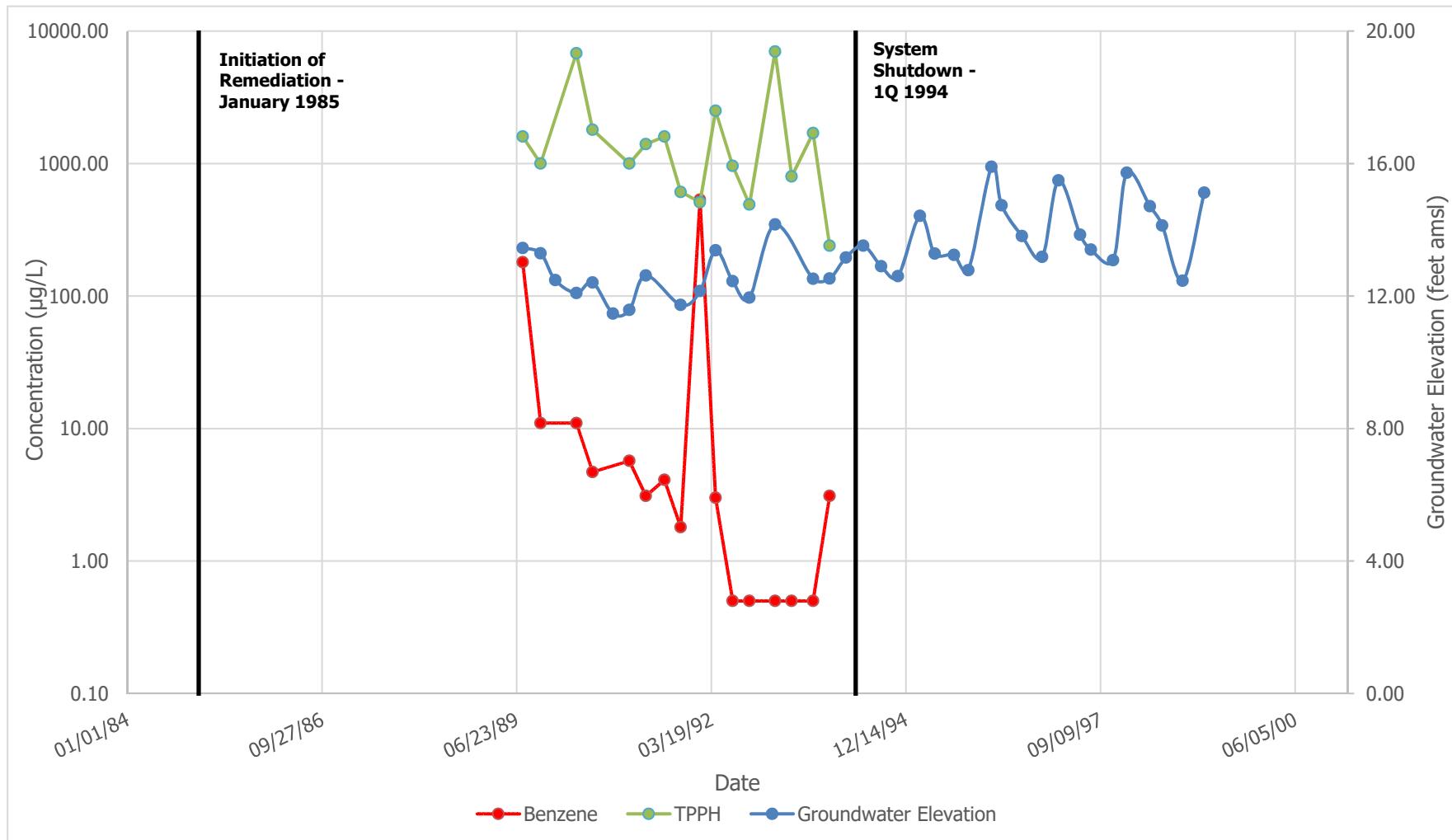
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6m GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-25 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



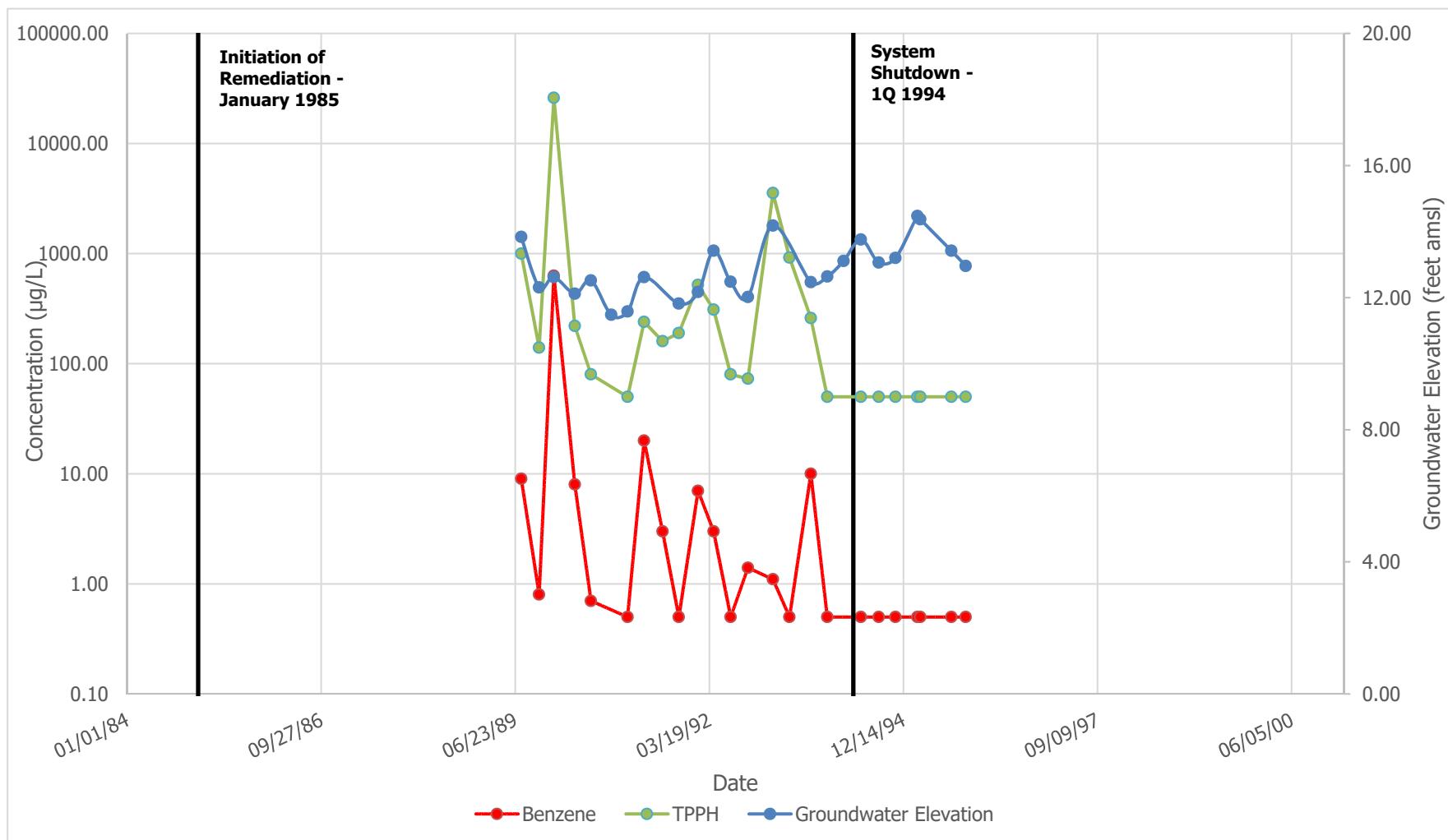
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
µg/L micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 µg/L for TPPH and 0.5 µg/L for benzene).

FIGURE 6n GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-26 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



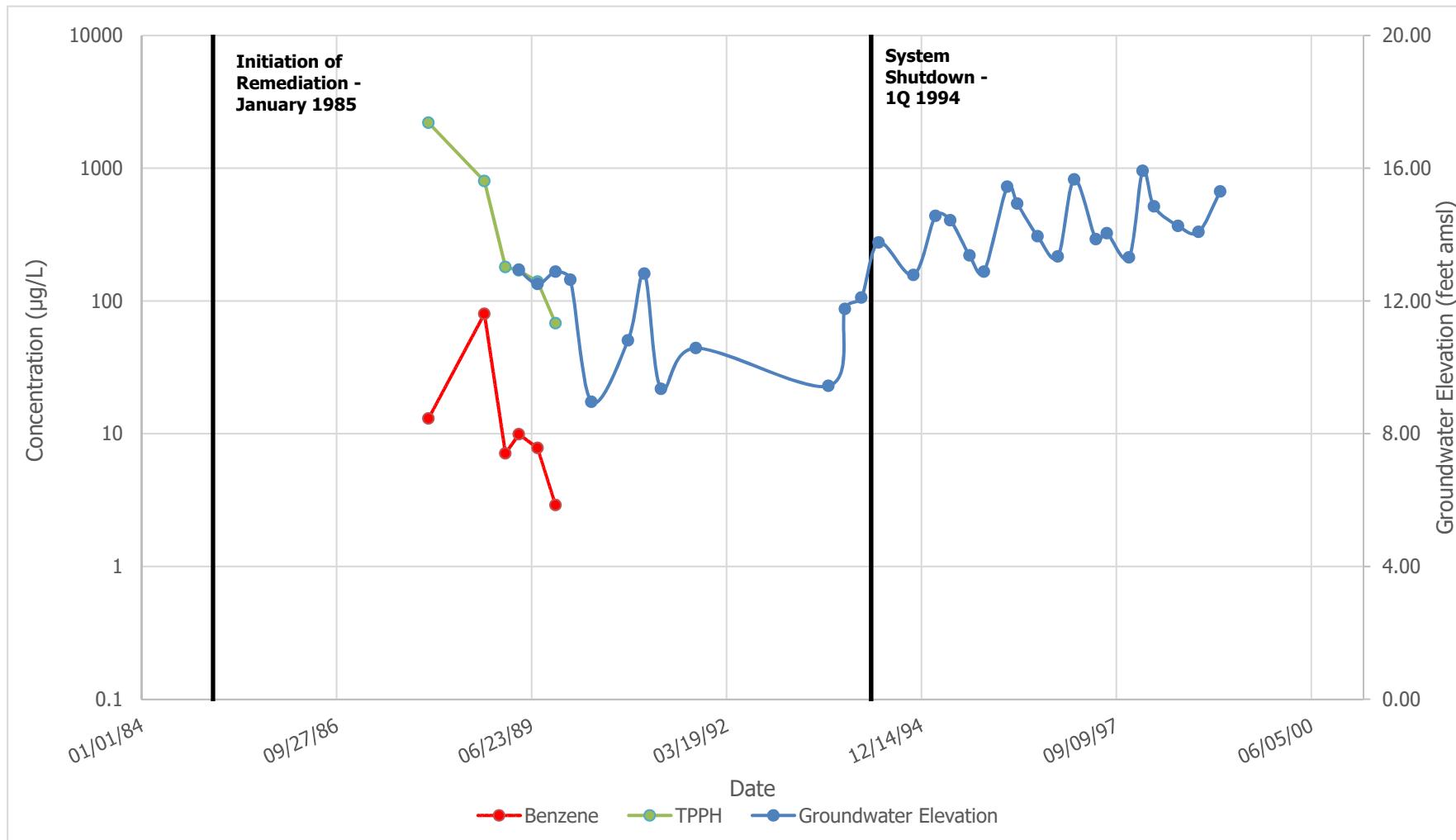
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6o GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-27 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



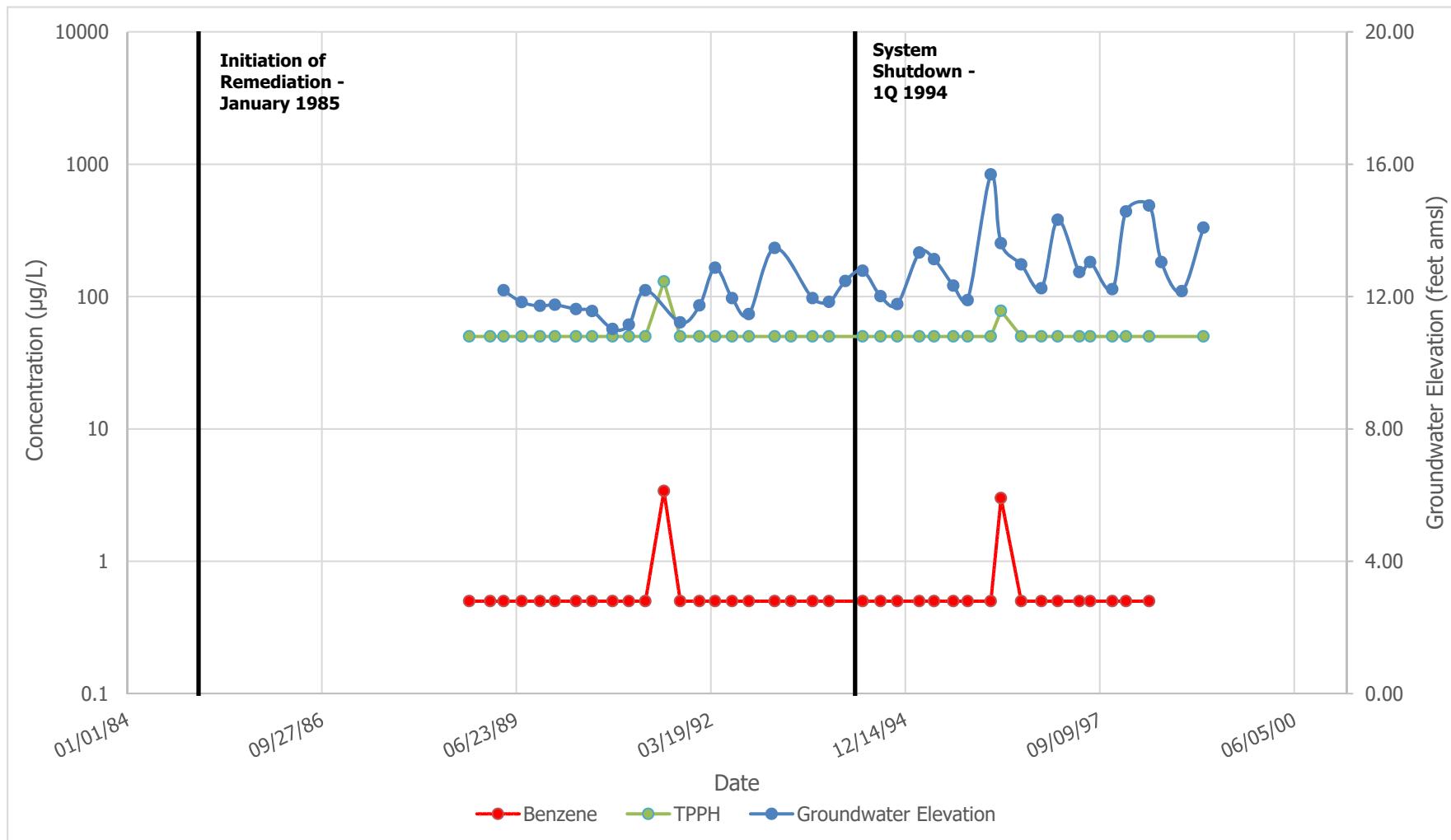
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6p GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-28 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



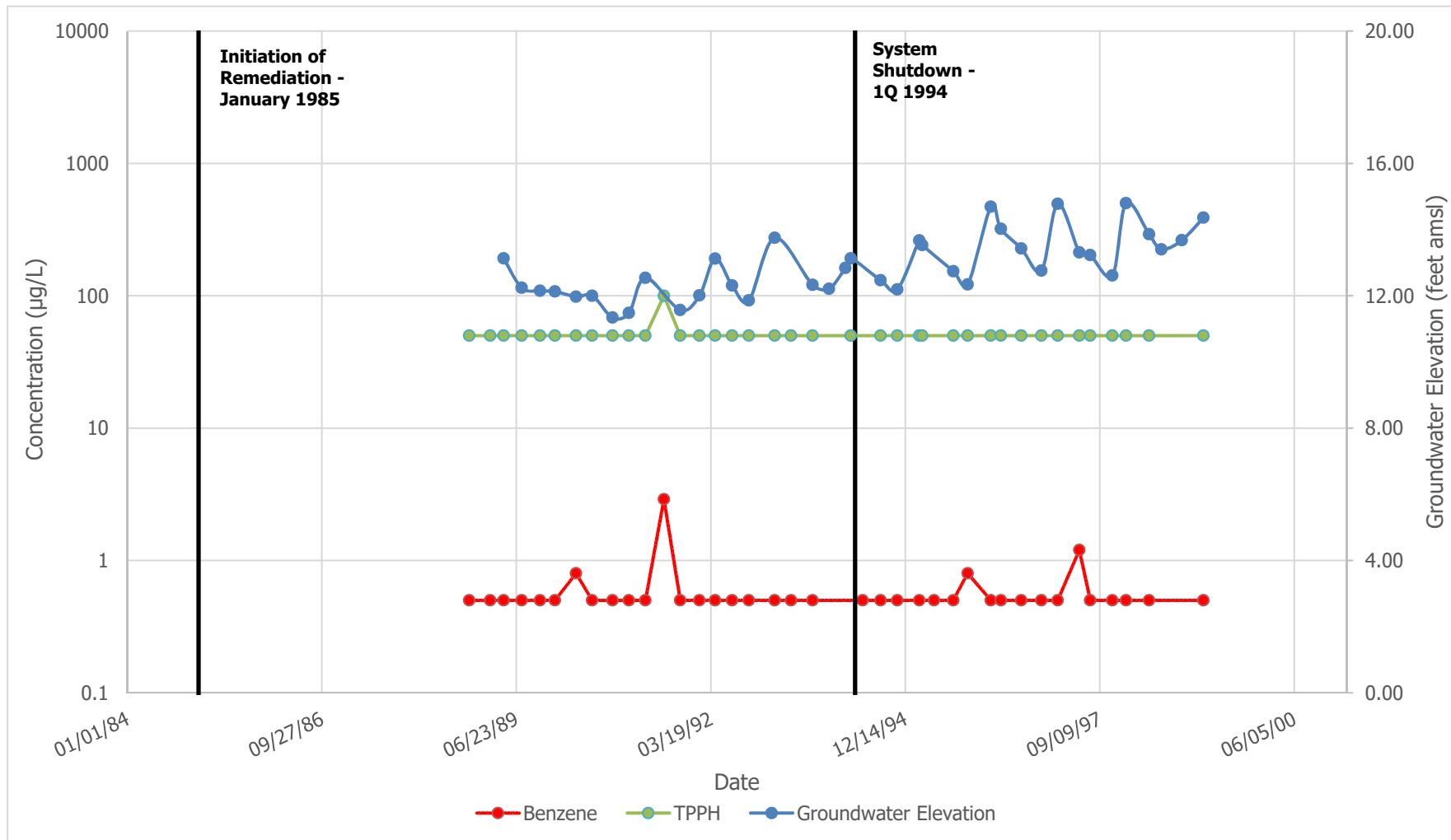
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
µg/L micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 µg/L for TPPH and 0.5 µg/L for benzene).

FIGURE 6q GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-29 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



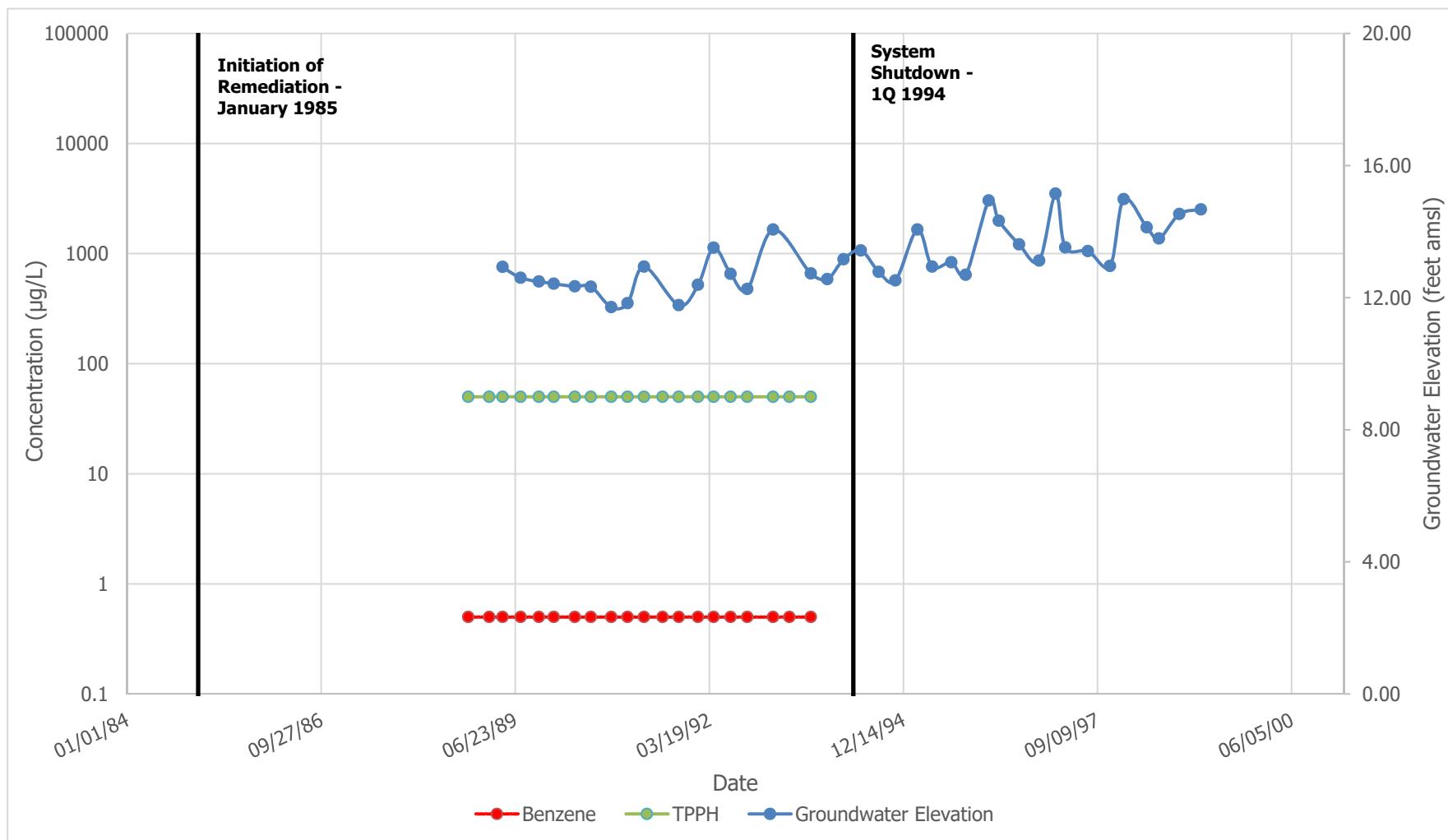
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6r GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-30 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



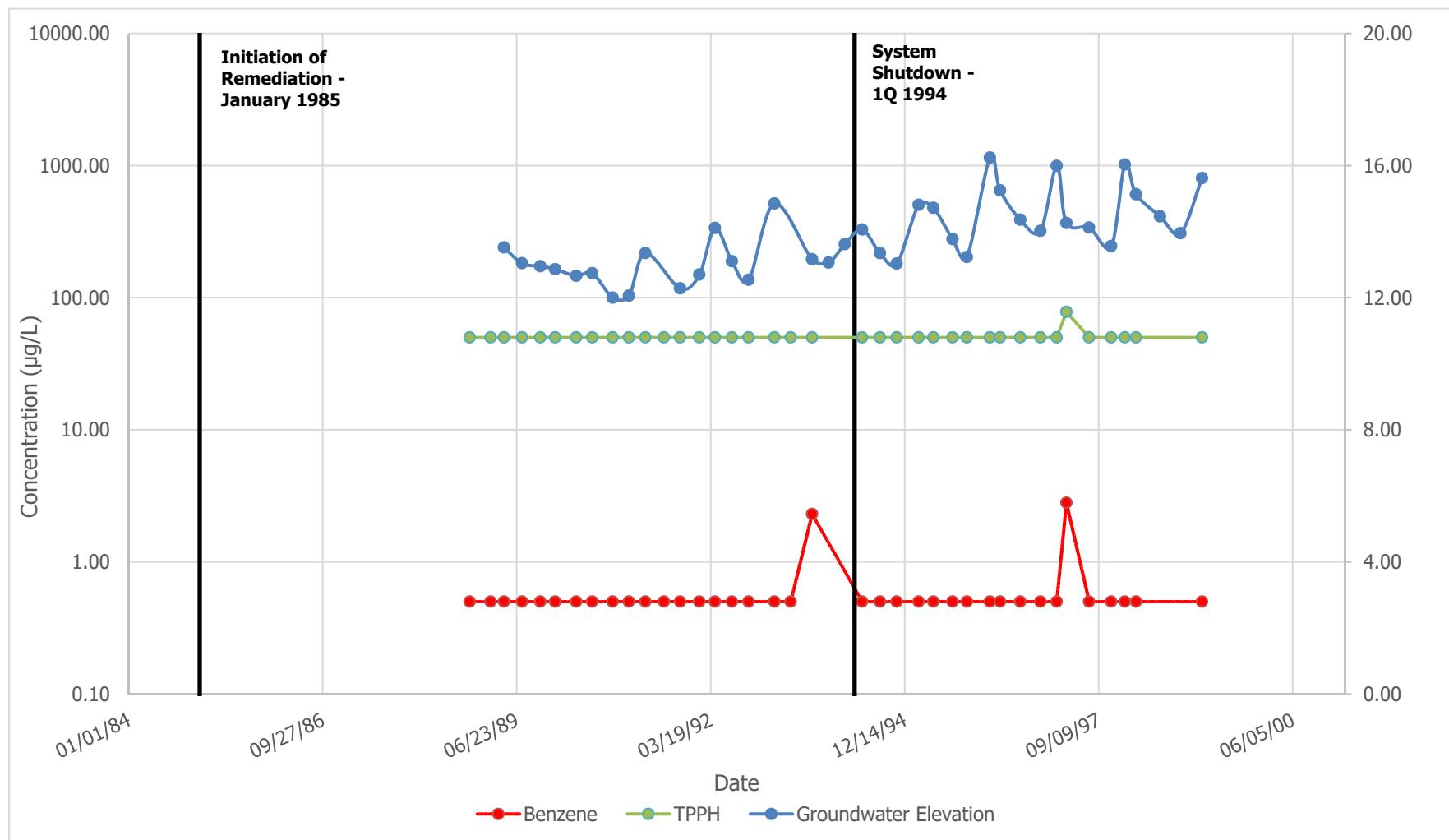
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6s GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-31 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



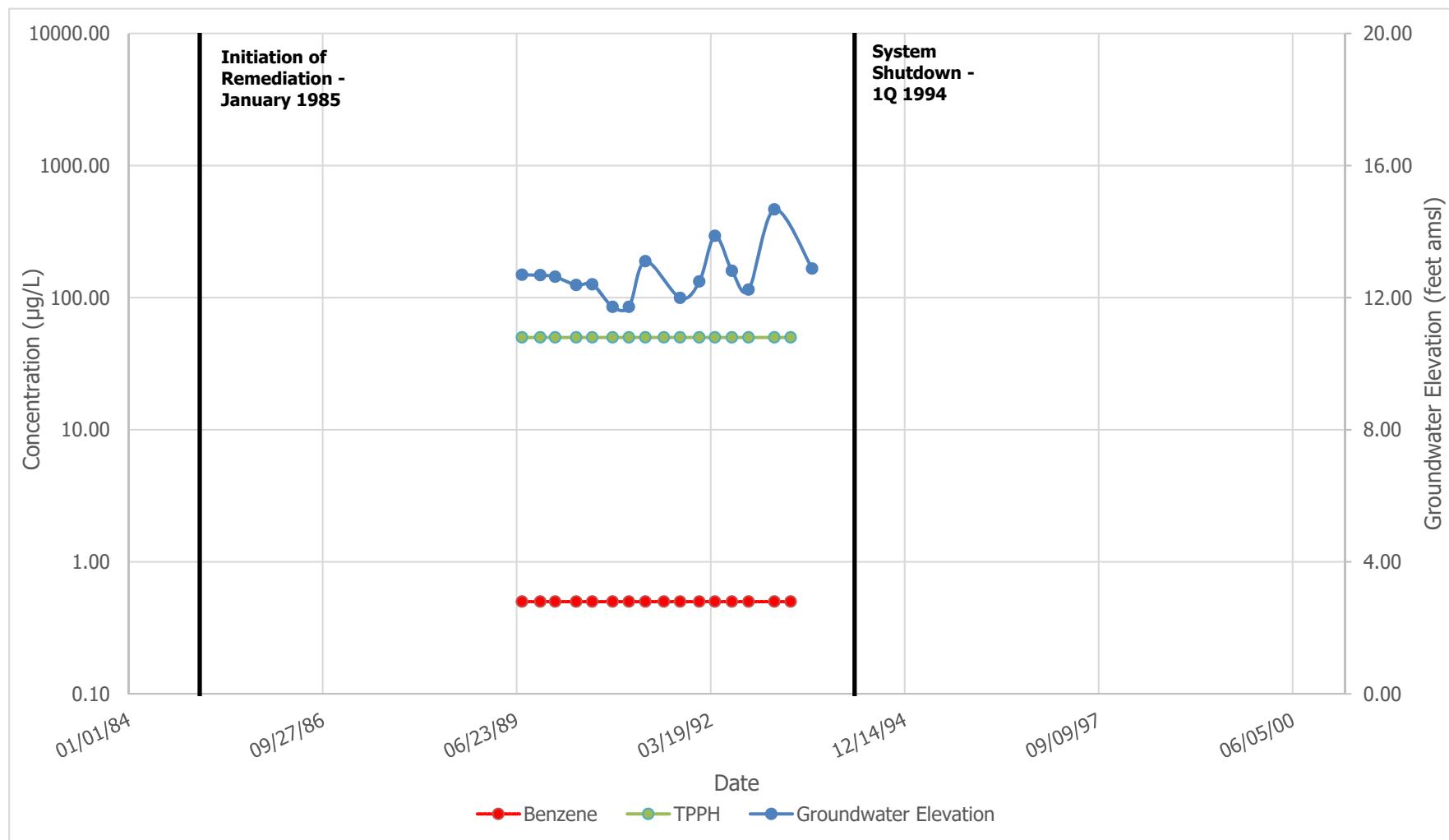
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6t GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-32 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



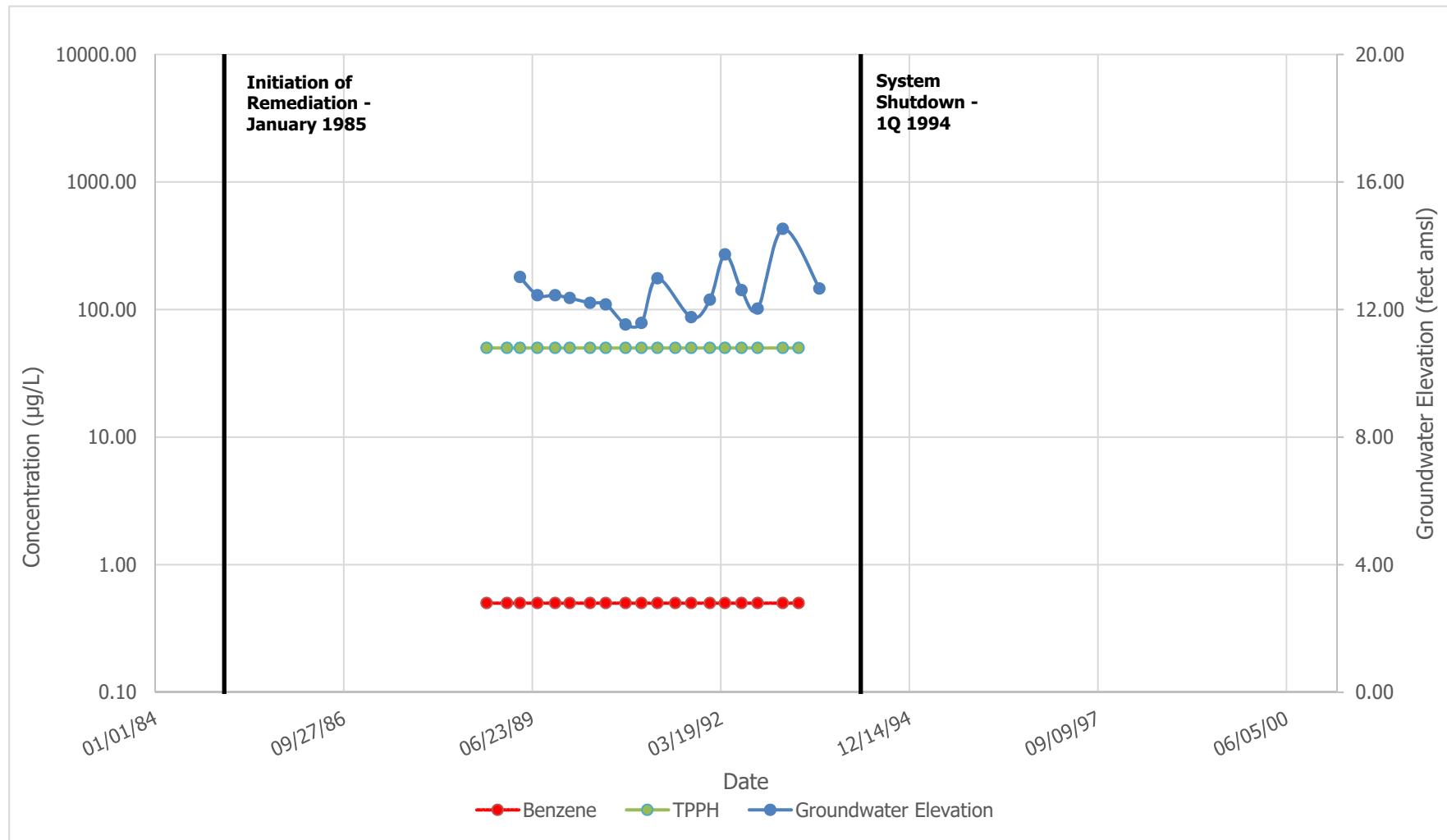
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6u GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-33 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



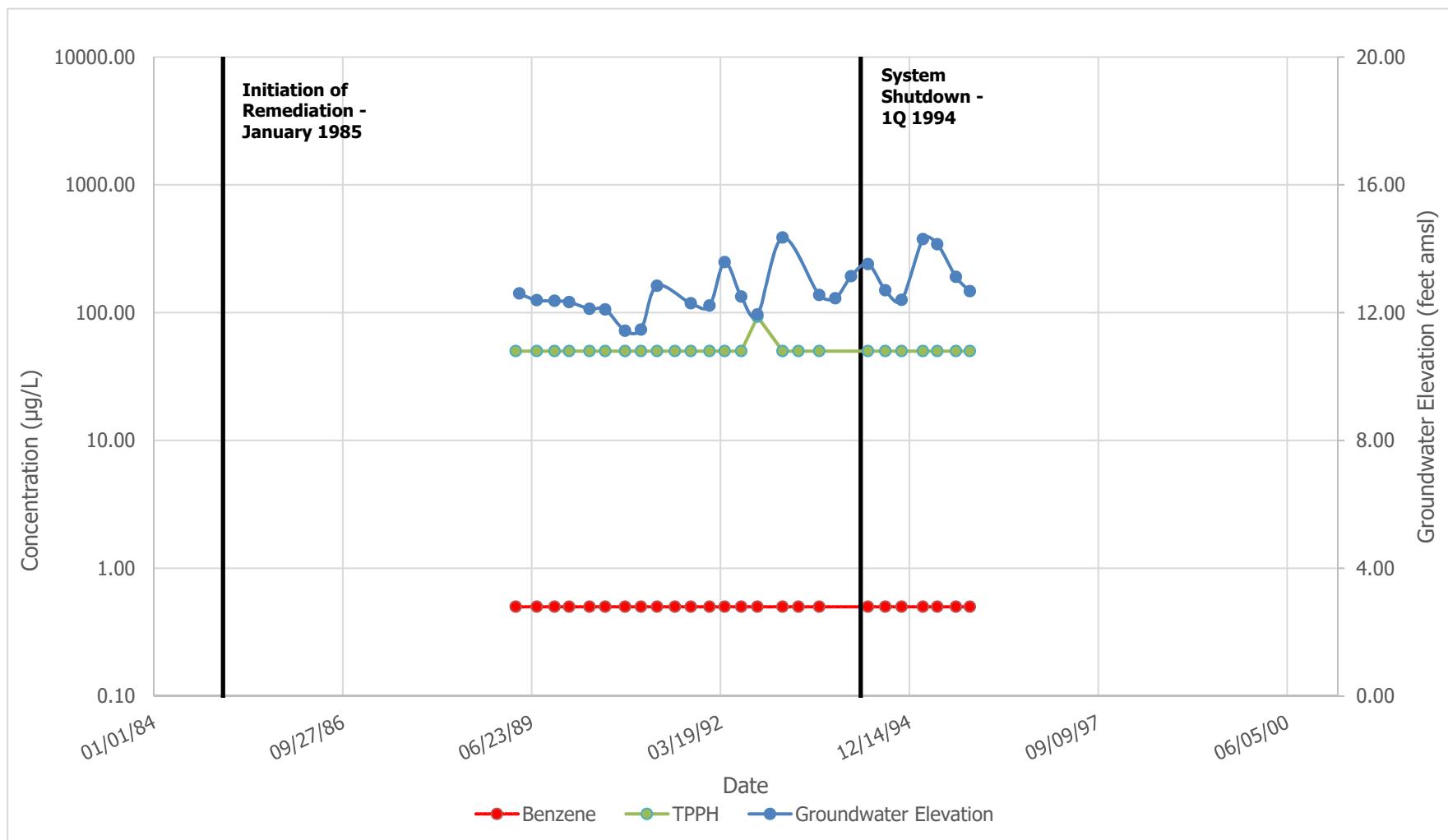
amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6v GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-34 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



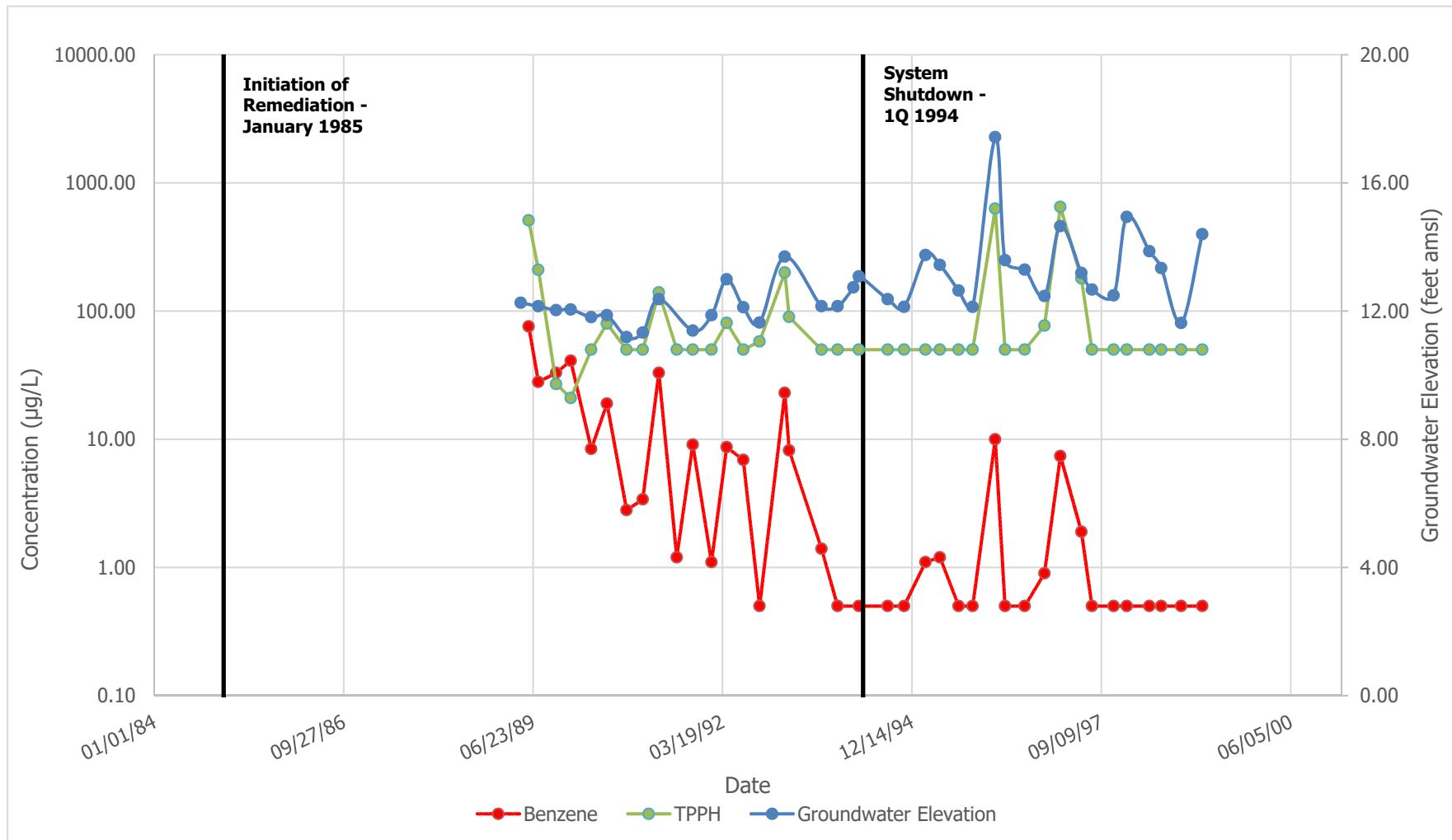
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 µg/L micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 µg/L for TPPH and 0.5 µg/L for benzene).

FIGURE 6w GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-35 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



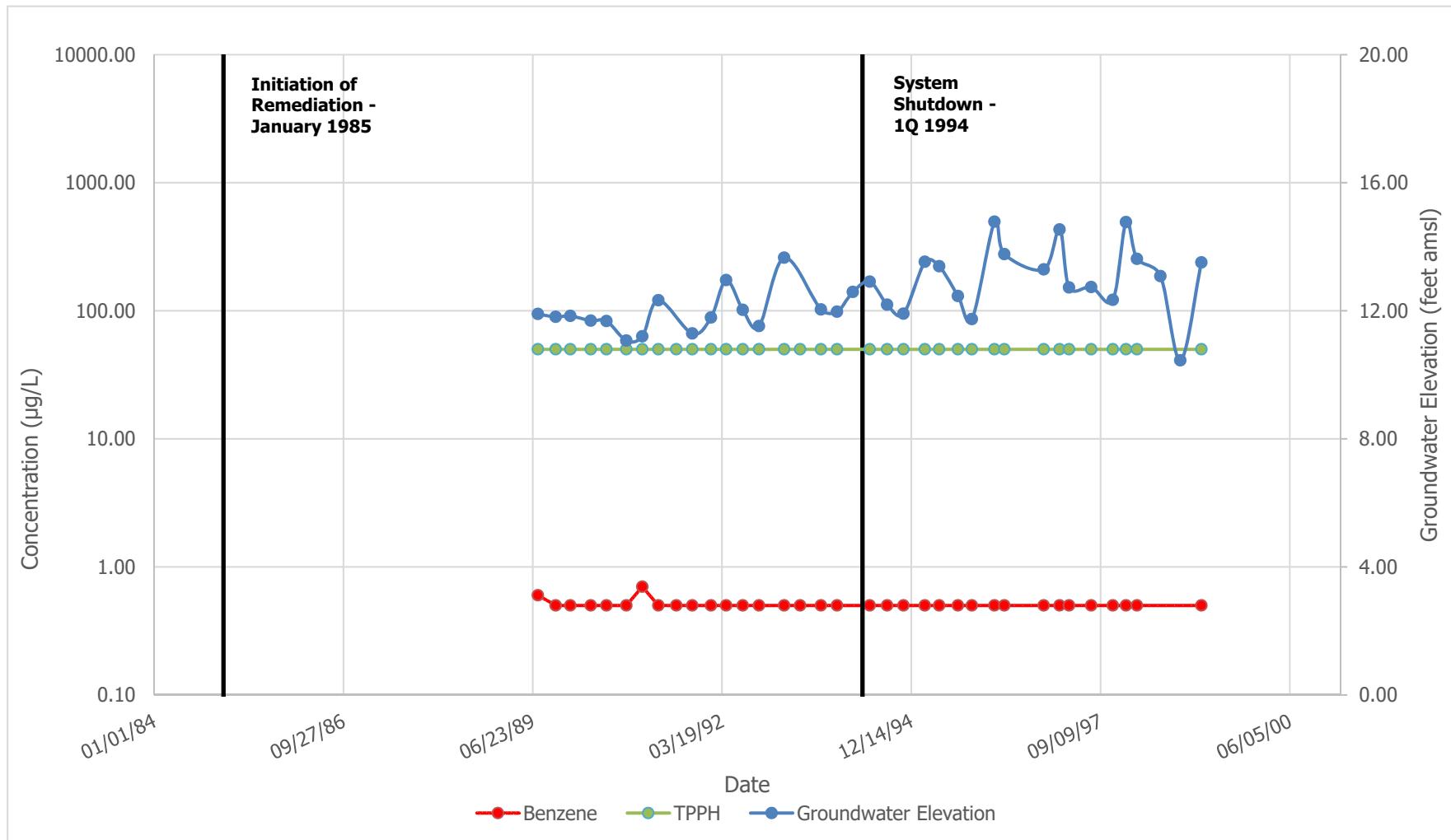
amsl above mean sea level
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
 Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6x GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-36 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g}/\text{L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g}/\text{L}$ for TPPH and 0.5 $\mu\text{g}/\text{L}$ for benzene).

FIGURE 6y GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-37 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



amsl above mean sea level
TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 $\mu\text{g/L}$ micrograms per liter
Note: Concentrations detected below the laboratory limit were plotted at the laboratory reporting limit (50 $\mu\text{g/L}$ for TPPH and 0.5 $\mu\text{g/L}$ for benzene).

FIGURE 6z GROUNDWATER ELEVATION AND DISSOLVED-PHASE TPPH AND BENZENE, S-38 FORMER SHELL SERVICE STATION 27501 LOYOLA AVENUE HAYWARD, CALIFORNIA



AEI Consultants

TABLES

TABLE 1
Soil Sample Data Summary (TPH and VOCs)
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Sample ID	Date Sampled	Sample Depth (feet bgs)	TPH (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	p-Isopropyltoluene (mg/kg)	Acetone (mg/kg)	2-Butanone (mg/kg)	Other VOCs (mg/kg)
ESL (Residential, Shallow)			--	740	230	11,000	--	0.023	970	5.1	560	--	--	--	--
<i>Recent Soil Sample Results</i>															
SB-1-0.5	07/18/17	0.5	--	0.111 J, J3	<44.8	319 ^a	--	0.000368 J	<0.00114	<0.00114	<0.00343	<0.00114	0.0423 J	0.00872 J	ND
SB-1-2.5	07/18/17	2.5	--	0.0560 J	<4.78	2.11 ^a J	--	0.000358 J	<0.00120	<0.00120	<0.00259	<0.00120	<0.0598	<0.0120	ND
SB-2-0.5	07/18/17	0.5	--	0.0827 J	<46.3	268 ^a	--	0.000545 J	<0.00116	0.000348 J	0.00135 J	<0.00116	0.0175 J	<0.0116	ND
SB-2-2.5	07/18/17	2.5	--	<0.109	<4.34	3.52 ^a J, J6	--	0.000298 J	<0.00109	<0.00109	<0.00326	<0.00109	<0.0543	<0.0109	ND
SB-3-0.5	07/18/17	0.5	--	<0.117	<4.68	<9.36 ^a	--	0.000363 J	<0.00130	<0.00130	<0.00390	<0.00130	0.0202 J	<0.0130	ND
SB-3-2.5	07/18/17	2.5	--	<0.555	<4.44	<8.88 ^a	--	<0.00111	<0.00111	<0.00111	<0.00333	<0.00111	<0.0555	<0.0111	ND
SB-4-0.5	07/18/17	0.5	--	0.0458 J	<4.62	<9.24 ^a	--	<0.00116	<0.00116	<0.00116	<0.00347	<0.00116	<0.0578	<0.0116	ND
<i>Historical Soil Sample Results</i>															
E-1-4	7/24/1984	4.5-5	--	1,500	--	--	--	--	--	--	--	--	--	--	--
E-1-9	7/24/1984	9-10.5	--	8,700	--	--	--	--	--	--	--	--	--	--	--
0.5-1'	7/24/1984	4.5-5	--	14	--	--	--	--	--	--	--	--	--	--	--
E-2-9	7/24/1984	9-10.5	--	1,800	--	--	--	--	--	--	--	--	--	--	--
E-3-4	7/24/1984	4.5-5	--	<1	--	--	--	--	--	--	--	--	--	--	--
E-3-9	7/24/1984	9-10.5	--	1	--	--	--	--	--	--	--	--	--	--	--
S-30-11	06/25/89	9.5-11	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-30-31	06/25/89	29.5-31	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-31-9	06/25/89	9-10.5	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-31-31	06/25/89	29.5-31	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-32-9	06/25/89	9-10.5	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-32-31	06/25/89	29.5-31	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-33-9	06/25/89	9-10.5	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-33-24	06/25/89	24-25.5	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-34-9	06/25/89	9-10.5	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-34-24	06/25/89	22.5-24	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-35-11	06/25/89	9.5-11	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-35-23	06/25/89	21.5-23	--	<5	--	--	--	<0.05	<0.1	<0.1	<0.3	--	--	--	--
S-36-10'	06/25/89	10	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
S-36-25'	06/25/89	25	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
S-37-11'	06/25/89	11	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
S-37-21'	06/25/89	21	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
S-37-31'	06/25/89	31	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
S-38-10'	07/12/89	10	ND	--	--	--	--	ND	ND	ND	ND	--	--	--	--
EX-1	12/15/93	5	<1	--	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--
EX-2	12/15/93	5	<1	--	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--
B-7-1	04/03/01	0.5-1.0	--	<1	<5	14.50	<0.005	--	--	--	--	--	--	--	--
B-7-3	04/03/01	3.0-3.5	--	<1	<5	<10	<0.005	--	--	--	--	--	--	--	--
B-7-6	04/03/01	6.0-6.5	--	<1	<5	<10	<0.005	--	--	--	--	--	--	--	--
B-8-1	04/03/01	0.5-1.0	--	<1	<5	17.2	<0.005	--	--	--	--	--	--	--	--
B-8-3	04/03/01	3.0-3.5	--	<1	<5	11.2	<0.005	--	--	--	--	--	--	--	--
B-8-6	04/03/01	6.0-6.5	--	<1	<5	<10	<0.005	--	--	--	--	--	--	--	--
B-9-1	04/03/01	0.5-1.0	--	<1	--	--	<0.005	--	--	--	--	--	--	--	--
B-9-3	04/03/01	3.0-3.5	--	<1	--	--	<0.005	--	--	--	--	--	--	--	--
B-9-6	04/03/01	6.0-6.5	--	<1	--	--	<0.005	--	--	--	--	--	--	--	--

TABLE 1
Soil Sample Data Summary (TPH and VOCs)
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Sample ID	Date Sampled	Sample Depth (feet bgs)	TPH (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	BTEX (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	p-Isopropyltoluene (mg/kg)	Acetone (mg/kg)	2-Butanone (mg/kg)	Other VOCs (mg/kg)
ESL (Residential, Shallow)			--	740	230	11,000	--	0.023	970	5.1	560	--	--	--	--
B-10-1	04/03/01	0.5-1.0	--	<1	<5	15.2	<0.005	--	--	--	--	ND	ND	ND	ND
B-10-3	04/03/01	3.0-3.5	--	<1	<5	<10	<0.005	--	--	--	--	0.0059	ND	ND	ND
B-10-6	04/03/01	6.0-6.5	--	<1	<5	12.8	<0.005	--	--	--	--	ND	ND	ND	ND

Notes:

TPH = total petroleum hydrocarbons

TPHg = total petroleum hydrocarbons in the gasoline range

TPHd = total petroleum hydrocarbons in the diesel range

TPHmo = total petroleum hydrocarbons in the motor oil range

BTEX = benzene, toluene, ethylbenzene, and xylenes

VOC = volatile organic compound

bgs = below ground surface

ESL = Environmental Screening Level, Summary of Soil ESLs, Table S-1, Direct Exposure and Table S-2, Leaching to Groundwater Levels-Drinking Water (February 2016)

Historical analytical information based on review of:

Letter by Gettler-Ryan Inc. dated November 19, 1987.

Case Closure Summary by City of Hayward Fire Department, dated June 19, 1996.

Human Health Risk Assessment by Cambria, dated May 10, 2001.

mg/kg = milligrams per kilogram

ND = Not detected above laboratory reporting limits; reporting limit not available from reports researched

J = The identification of the analyte is acceptable; the reported value is an estimate.

J3 = The associated batch QC was outside the established quality control range for precision.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Strikeout text = Soil subsequently excavated

-- = Not analyzed or not applicable

a = TPH-mo result is C22-C32 and C32-C40 combined.

TABLE 2
Soil Sample Data Summary (Other Compounds)
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Sample ID	Date Sampled	Sample Depth (feet bgs)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Total Chromium III (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	4,4'-DDD (mg/kg)	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Other Pesticides (mg/kg)	PCBs (mg/kg)	PAHs (mg/kg)	SVOCs (mg/kg)
ESL (Residential, Shallow)		31	0.067	15,000	150	39	120,000	--	23	3,100	80	13	390	820	390	390	0.78	390	23,000	2.7	1.9	1.9	--	0.25	--	--
<i>Recent Soil Sample Results</i>																										
SB-1-0.5	07/18/17	0.5	--	--	--	--	--	--	--	--	83.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-1-2.5	07/18/17	2.5	--	--	--	--	--	--	--	--	6.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-2-0.5	07/18/17	0.5	--	--	--	--	--	--	--	--	26.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-2-2.5	07/18/17	2.5	--	--	--	--	--	--	--	--	10.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-3-0.5	07/18/17	0.5	--	--	--	--	--	--	--	--	5.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-3-2.5	07/18/17	2.5	--	--	--	--	--	--	--	--	6.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SB-4-0.5	07/18/17	0.5	--	--	--	--	--	--	--	--	7.78	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--	
SG-3-2.5	07/18/17	2.5	--	--	--	--	--	--	--	--	7.78	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--	
SG-4-0.5	07/18/17	0.5	--	--	--	--	--	--	--	--	7.78	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--	
<i>Historical Soil Sample Results</i>																										
EX-1	12/15/93	5	--	--	--	--	--	--	--	--	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EX-2	12/15/93	5	--	--	--	--	--	--	--	--	9.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-1-1	04/03/01	0.5-1.0	--	2.18	--	--	<0.943	--	36.6	--	15.5	--	48.3	--	--	--	--	77.8	ND	ND	ND	ND	--	ND	--	--
B-2-1	04/03/01	0.5-1.0	--	<1.92	--	--	--	--	--	--	<7.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-3-1	04/03/01	0.5-1.0	--	5.10	--	--	<0.962	--	34.1	--	8.1	--	44.6	--	--	--	--	351	0.0300	0.260	0.175	ND	--	ND	--	--
B-4-1	04/03/01	0.5-1.0	--	2.42	--	--	--	--	--	--	<7.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-5-1	04/03/01	0.5-1.0	--	3.72	--	--	--	--	--	--	<7.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-7-1	04/03/01	0.5-1.0	--	2.59	--	--	--	--	--	--	<6.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-7-3	04/03/01	3.0-3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-7-6	04/03/01	6.0-6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-8-1	04/03/01	0.5-1.0	--	4.32	--	--	<0.962	--	28.5	--	7.11	--	38.6	--	--	--	--	53.6	0.0104	0.054	0.0612	ND	--	ND	--	
B-8-3	04/03/01	3.0-3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-8-6	04/03/01	6.0-6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-9-1	04/03/01	0.5-1.0	--	3.09	--	--	--	--	--	--	<6.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-9-3	04/03/01	3.0-3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-9-6	04/03/01	6.0-6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-10-1	04/03/01	0.5-1.0	--	4.81	--	--	<0.862	--	37.1	--	8.69	--	41.2	--	--	--	--	85.5	0.0229	0.327	0.019	ND	ND	ND	ND	--
B-10-3	04/03/01	3.0-3.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	
B-10-6	04/03/01	6.0-6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	

Notes:

4,4'-DDD = 4,4'-dichlorodiphenyldichloroethane

4,4'-DDE = 4,4'-dichlorodiphenyldichloroethylene

4,4'-DDT = 4,4'-dichlorodiphenyltrichloroethane

PCB = polychlorinated biphenyl

PAH = polycyclic aromatic hydrocarbons

SVOC = semi volatile organic compound

bgs = below ground surface

mg/kg = milligrams per kilogram

ND = Not detected above laboratory reporting limits; reporting limit not available from reports researched

< RL =Detected values were below the laboratory reporting limits for the analytes detected.

-- = Not analyzed

ESL = Environmental Screening Level, Summary of Soil ESLs, Table S-1, Direct Exposure and Table S-2, Leaching to Groundwater Levels-Drinking Water (February 2016)

Historical analytical information based on review of:

Letter by Gettier-Ryan Inc. dated November 19, 1987.

Case Closure Summary by City of Hayward Fire Department, dated June 19, 1996.

Human Health Risk Assessment by Cambria, dated May 10, 2001.

TABLE 3
SOIL GAS SAMPLE DATA SUMMARY
27501 Loyola Avenue, Hayward, California

Location ID	Date	Depth (feet bgs)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethylbenzen ($\mu\text{g}/\text{m}^3$)	Total Xylenes ($\mu\text{g}/\text{m}^3$)	Naphthalene ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	Helium (%)
SG-1	7/21/2017	5	3.76	20.4	43.3	142.7	31	3.36	<0.400	14.2	0.886	<0.01
SG-2	7/21/2017	5	1.43	8.22	8.24	9.65	<17	<2.72	<0.400	5.23	<0.500	<0.01
SG-3	7/21/2017	5	<1.28	6.56	2.35	<5.20	<17	4.34	<0.400	14.7	1.03	<0.01
SG-4	7/21/2017	5	<1.28	2.35	5.27	9.31	<17	<2.72	<0.400	9.49	0.871	<0.01
Comparison Values:												
ESL _{VI} (res)			48	160,000	560	52,000	41	240	NE	NE	NE	NE
% Methane			N/A	N/A	N/A	N/A	N/A	N/A	5	N/A	N/A	N/A

Notes:

(J4)	The associated batch QC was outside the established quality control range for accuracy
<RL	Less than the reporting limit
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
bgs	Below ground surface
Bold	Result exceeds a comparison value
cis-1,2-DCE	cis-1,2-Dichloroethene
MEK	2-Butanone or methyl ethyl ketone
N/A	Not applicable
NE	Not established
PCE	Tetrachloroethene
TCE	Trichloroethene
TPH-g	Total petroleum hydrocarbons as gasoline
trans-1,2-DCE	trans-1,2-Dichloroethene

Comparison Values:

ESL_{VI}(res): SFB RWQCB Environmental screening level derived from the subslab/soil gas vapor intrusion human health risk levels under a residential use scenario

% Methane: Detected percentages of methane were noted not to exceed the regulatory limit of 5% (established for nearby monitoring wells associated with the former landfill at the Site)

TABLE 3
SOIL GAS SAMPLE DATA SUMMARY
27501 Loyola Avenue, Hayward, California

Location ID	Date	Acetone ($\mu\text{g}/\text{m}^3$)	Bromo-dichloromethane ($\mu\text{g}/\text{m}^3$)	Carbon Disulfide ($\mu\text{g}/\text{m}^3$)	Chloroform ($\mu\text{g}/\text{m}^3$)	Chloromethane ($\mu\text{g}/\text{m}^3$)	Cyclohexane ($\mu\text{g}/\text{m}^3$)	1,4-Dioxane ($\mu\text{g}/\text{m}^3$)	Ethanol ($\mu\text{g}/\text{m}^3$)	4-Ethyl toluene ($\mu\text{g}/\text{m}^3$)
SG-1	7/21/2017	48.1	3.41	2.24	6.25	0.833	13.0	3.75	12.8	2.74
SG-2	7/21/2017	6.65	<2.68	1.73	<1.95	<0.826	9.83	<1.44	9.39	<1.96
SG-3	7/21/2017	36.3	<2.68	1.35	<1.95	1.68	3.07	<1.44	29.2	<1.96
SG-4	7/21/2017	9.70	<2.68	1.30	<1.95	<0.826	4.40	<1.44	9.63	<1.96
<u>Comparison Values:</u>										
ESL _{VI} (res) % Methane		16,000,000 N/A	38 N/A	NE N/A	61 N/A	47,000 N/A	NE N/A	180 N/A	NE N/A	NE N/A

Notes:

(J4) (J4) The associated batch QC was outside the established quality control range for accuracy
 <RL <RL Less than the reporting limit
 $\mu\text{g}/\text{m}^3$ $\mu\text{g}/\text{m}^3$ Micrograms per cubic meter
 bgs bgs Below ground surface
Bold **Bold** Result exceeds a comparison value
 cis-1,2-DCE cis-1,2-DCE cis-1,2-Dichloroethene
 MEK MEK 2-Butanone or methyl ethyl ketone
 N/A N/A Not applicable
 NE NE Not established
 PCE PCE Tetrachloroethene
 TCE TCE Trichloroethene
 TPH-g TPH-g Total petroleum hydrocarbons as gasoline
 trans-1,2-DCE trans-1,2-DCE trans-1,2-Dichloroethene

Comparison Values: Comparison Values:

ESL_{VI}(res): ESL_{VI}(res): SFB RWQCB Environmental screening level derived from the subslab/soil gas vapor intrusion human health risk levels under a residential use scenario

% Methane: Detected percentages of methane were noted not to exceed the regulatory limit of 5% (established for nearby monitoring wells as former landfill at the Site)

TABLE 3
SOIL GAS SAMPLE DATA SUMMARY
27501 Loyola Avenue, Hayward, California

Location ID	Date	n-Hexane ($\mu\text{g}/\text{m}^3$)	2-Propanol ($\mu\text{g}/\text{m}^3$)	Propene ($\mu\text{g}/\text{m}^3$)	1,2,4-Trimethyl benzene ($\mu\text{g}/\text{m}^3$)	Tetrahydrofuran ($\mu\text{g}/\text{m}^3$)	1,1-Difluoro ethane ($\mu\text{g}/\text{m}^3$)	Other VOCs ($\mu\text{g}/\text{m}^3$)
SG-1	7/21/2017	<1.41	7.49	<1.38	2.65	1.49	2.00	<RL
SG-2	7/21/2017	<1.41	<6.15	2.10	<1.96	<1.18	<1.08	<RL
SG-3	7/21/2017	<1.41	<6.15	<1.38	<1.96	<1.18	3.09	<RL
SG-4	7/21/2017	1.56	<6.15	<1.38	<1.96	<1.18	<1.08	<RL
Comparison Values:								
ESL _{VI} (res)	NE	NE	NE	NE	NE	NE	NE	N/A
% Methane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

(J4) (J4) The associated batch QC was outside the established quality control range for accuracy
 <RL <RL Less than the reporting limit
 $\mu\text{g}/\text{m}^3$ $\mu\text{g}/\text{m}^3$ Micrograms per cubic meter
 bgs bgs Below ground surface
Bold **Bold** Result exceeds a comparison value
 cis-1,2-DCE cis-1,2-DCE cis-1,2-Dichloroethene
 MEK MEK 2-Butanone or methyl ethyl ketone
 N/A N/A Not applicable
 NE NE Not established
 PCE PCE Tetrachloroethene
 TCE TCE Trichloroethene
 TPH-g TPH-g Total petroleum hydrocarbons as gasoline
 trans-1,2-DCE trans-1,2-DCE trans-1,2-Dichloroethene

Comparison Values:

Comparison Values:

ESL_{VI}(res): ESL_{VI}(res); SFB RWQCB Environmental screening level derived from the subslab/soil gas vapor intrusion human health risk levels under a residential use scenario
 % Methane: sociated with the

TABLE 4 - FILE REVIEW SUMMARY
Former Shell Service Station
27501 Loyola Avenue, Hayward, California

Report Title	Report Date	Prepared By	Boring/Monitoring Well designation	Laboratory Analytical Included (Yes/No)	Laboratory Analysis	Comments
Site Investigation and Containment Assessment	1984	EMCON Associates	Installed wells E-1 through E-27.	Yes	Total Lead, Oil & Grease, phenolic compounds, D.D.E, PCBs, dichloromethane, 1,2-DCE, benzene, toluene, total xylenes	Stoner Laboratories Results Verbal 11/30/1984; no sample identification specified
Soil Analyses of Tank Removals	8/16/1984	Shell Oil	Soil samples results from E-1 through E-3.	Yes	TPHg	Stoner Laboratories Report
Investigation Report on Subsurface Gasoline Recovery System	3/26/1986	EMCON Associates	Not applicable	No	None	--
Aquifer Test Report	10/25/1989	GeoStrategies Inc.	Not applicable	No	None	--
Remedial System Performance Report	1/23/1991	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-4, S-5, S-6, S-8, S-13, S-20, S-29, S-9, and S-21 through S-24 (October through December 1990).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Groundwater Sampling Report	2/12/1991	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-24, S-26, S-27, S-28, and S-30 through S-38 (February 1991).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Remedial System Performance Report	4/24/1991	GeoStrategies Inc./Gettler-Ryan, Inc.	Wells S-4, S-5, S-6, S-8, S-13, S-20, S-29, S-9, S-20, S-22, S-29, S-37, S-38, S-10, S-16, S-18, S-14, S-30, S-36 were monitored and sampled.	YES	TPH-g detected in S-7, S-9, S-14, S-16, S-21, S-24, S-27	Gettler - Ryan Staff performed sampling
Remedial System Performance Report	5/6/1991	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-21, S-22, S-33, S-34, S-35, and S-36 (May 1991).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Effluent Sampling Report	8/12/1991	Gettler-Ryan, Inc.	Effluent sampling from system	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Remedial System Performance Report	10/31/1991	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-24, S-26, S-27, S-28, and S-30 through S-38 (July 1991).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Remedial System Performance Report	1/30/1992	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-24, S-26, S-27, S-28, and S-30 through S-38 (November 1991).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Recovery System Evaluation Report	4/30/1992	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-28, and S-30 through S-38 (January 1992).	Yes	TPHg using 8015 (modified) and BTEX using 8020	IT Analytical Service Laboratory Report
Recovery System Evaluation Report	7/30/1992	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-28, and S-30 through S-38 (April 1992).	Yes	TPHg using 8015 (modified) and BTEX using 8020	Sequoia Analytical Laboratory Report
Recovery System Evaluation Report	10/30/1992	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-28, and S-30 through S-38 (July 1992).	Yes	TPHg using 8015 (modified) and BTEX using 8020	Net Pacific, Inc. Laboratory Report
Recovery System Evaluation Report	2/11/1993	GeoStrategies Inc./Gettler-Ryan, Inc.	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-28, and S-30 through S-38 (October 1992).	Yes	TPHg using 8015 (modified) and BTEX using 8020	Anametrix Inc. Laboratory Report
Recovery System Evaluation Report	4/30/1993	GeoStrategies Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-9 through S-12, S-14 through S-18, S-21 through S-28, and S-30 through S-38 (February 1993).	Yes	TPHg using 8015 (modified) and BTEX using 8020	Anametrix Inc. Laboratory Report
Request for Reduction in Well Sampling Program Memo	7/15/1993	GeoStrategies Inc.	Not applicable	No	None	Well sampling reduction plan.

TABLE 4 - FILE REVIEW SUMMARY
Former Shell Service Station
27501 Loyola Avenue, Hayward, California

Report Title	Report Date	Prepared By	Boring/Monitoring Well designation	Laboratory Analytical Included (Yes/No)	Laboratory Analysis	Comments
Recovery System Evaluation Report	8/24/1993	GeoStrategies Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-9, S-10, S-14, S-16, S-18, S-21 through S-28, and S-30 through S-38 (May 1993).	YES	TPHg using 8015 (modified) and BTEX using 8020	Anametrix Inc. Laboratory Report
Well Abandonment and Sampling Reduction Memo	9/16/1993	GeoStrategies Inc.	Not applicable	No	None	Correspondence between GeoStrategies and City of Hayward Fire Prevention discussion abandonment of wells S-15, S-16, S-17, S-34 and S-35.
Recovery System Evaluation Report	10/25/1993	GeoStrategies Inc. / Blaine Tech Services	Groundwater samples were collected from S-7, S-9, S-10, S-14, S-18, S-21 through S-23, S-27, S-28, S-30 through S-33, S-36, and S-38 (August 1993).	Yes	TPHg using 8015 (modified) and BTEX using 8020	Anametrix Inc. Laboratory Report
Underground Storage Tank Removal/ Closure Checklist and Field Report	12/15/1993	City of Hayward Fire Prevention Dept.	Not applicable	NO	None	Permit to remove one 550-gallon free product recovery tank
Workplan for Well Decommissioning	12/30/1993	EMCON Associates	Not applicable	No	None	Proposed activities to decommission monitoring wells S-15, S-16, S-17, S-34 and S-35
Quarterly Report - First Quarter 1995	4/19/1995	Pacific Environmental Group, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-9, S-10, S-11, S-12, S-14, S-18, S-21, S-22, S-24, S-28, S-30, S-31, S-33, S-36, S-37, and S-38 (February 1995).	Yes	TPHg using 8015 (modified) and BTEX using 8020	National Environmental Testing, Inc. Laboratory Report
Quarterly Monitoring Report - Third Quarter 1995	10/13/1995	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-9, S-10, S-11, S-12, S-14, S-18, S-21, S-22, S-24, S-28, S-30, S-31, S-33, S-36, S-37, and S-38 (September 1995).	Yes	TPHg using 8015 (modified) and BTEX using 8020	National Environmental Testing, Inc. Laboratory Report
Quarterly Monitoring Report - Fourth Quarter 1995	1/15/1996	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-10, S-14, S-18, S-24, S-28, S-30, S-31, S-33, S-36, and S-38 (October 1995).	Yes	TPHg using 8015 (modified) and BTEX using 8020	National Environmental Testing, Inc. Laboratory Report
Quarterly Monitoring Report - First Quarter 1996	4/8/1996	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-21, S-22 S-24, S-30, S-31, S-33, S-36, S-37, and S-38 (February 1996).	Yes	TPHg using 8015 (modified) and BTEX using 8020	National Environmental Testing, Inc. Laboratory Report
Former Shell Service Station - Case Closure Summary	6/19/1996	Enviros, Inc.	References all activities to date of report	Yes	EPA Methods 5030, 8015, 8020, CAM 17 Metals	Sequoia Analytical Laboratory Report for Excavation Samples, December 1993
Quarterly Monitoring Report - Second Quarter 1996	7/15/1996	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-9, S-11, S-12, S-21, S-22, S-24, S-30, S-31, S-33, S-37, and S-38 (April 1996).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Third Quarter 1996	10/15/1996	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-24, S-30, S-31, S-33, and S-37 (August 1996).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Fourth Quarter 1996	1/15/1997	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-24, S-30, S-31, S-33, and S-37 (November 1996).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - First Quarter 1997	4/15/1997	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-21, S-22 S-24, S-30, S-31, S-33, S-36, S-37, and S-38 (February 1997).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Second Quarter 1997	7/15/1997	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-24, S-30, S-31, S-33, S-37, and S-38 (May 1997).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Third Quarter 1997	10/15/1997	Enviros, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-24, S-30, S-31, S-33, S-37, and S-38 (July 1997).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Fourth Quarter 1997	1/15/1998	Cambria Environmental Technology, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-24, S-30, S-31, S-33, S-37, and S-38 (November 1997).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - First Quarter 1998	4/15/1998	Cambria Environmental Technology, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-21, S-22, S-24, S-30, S-31, S-33, S-37, and S-38 (January 1998).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report

TABLE 4 - FILE REVIEW SUMMARY
Former Shell Service Station
27501 Loyola Avenue, Hayward, California

Report Title	Report Date	Prepared By	Boring/Monitoring Well designation	Laboratory Analytical Included (Yes/No)	Laboratory Analysis	Comments
Quarterly Monitoring Report - Third Quarter 1998	10/15/1998	Cambria Environmental Technology, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-12, S-24, and S-37 (July 1998).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Fourth Quarter 1998	1/15/1999	Cambria Environmental Technology, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-12, S-24, and S-37 (November 1998).	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Quarterly Monitoring Report - Fourth Quarter 1999	4/15/1999	Cambria Environmental Technology, Inc. / Blaine Tech Services	Groundwater samples collected from S-7, S-11, S-12, S-21, S-22, S-24, S-30, S-31, S-33, S-37, and S-38 (February 1999). References waste oil tank removal (date unknown), advancement of borings E-1 and E-2 as well as installation of monitoring well E-3 (1983), UST removal (1983-84), installation of wells S-4 through S-29 (1984), groundwater extraction systems (A and B) installation (1985), well installation S-30 through S-38 (1989), product tank removal (1993), well abandonment of S-15, S-16, S-17, S-34 and S-35 (references to a permit on file with City of Hayward Fire), installation of SVE system (1994) and ORC System Installation (1995)	Yes	TPPH using 8015 (modified) and BTEX/MTBE using 8020	Sequoia Analytical Laboratory Report
Site Closure Request	7/31/2000	Cambria Environmental Technology, Inc.	Groundwater samples collected from S-4 and S-25.	Yes	EPA Methods 5030, 8015, 8020, CAM 17 Metals	Sequoia Analytical Report for Excavation Samples, December 1993
Quarterly Monitoring Report - First Quarter 2001 And Request for Case Closure	3/23/2001	Cambria Environmental Technology, Inc.	Groundwater samples collected from S-4 and S-25.	Yes	BTEX by 8260B, Oxygenates using 8260B, 1,2-DCA and EDB using 8260B Soil analysis for TPHg, TPPh, TPHmo, VOCs, SVOCs, PCBs, Pesticides, PAHs and Metals. Groundwater analysis for VOCs using 8260B and SVOCs using 8270.	Kiff Analytical, LLC laboratory report
Human Health Risk Assessment	5/10/2001	Cambria Environmental Technology, Inc.	Soil samples collected from B-1 through B-10. Groundwater sampling from well S-21.	Yes		Sequoia Analytical Report for S-21
Geophysical Investigation	6/11/2001	NorCal Geophysical Consultants, Inc (under subcontract to Cambria)	N/A	NO	N/A	Geophysical report for subsurface anomalies
Case Closure Request for the Site of Former Shell Service Station	6/29/2001	City of Hayward	Not applicable	No	None	Case closure summary prepared by the City of Hayward

Notes:

TPPH = Total Purgeable Petroleum Hydrocarbons Quantified as gasoline
 TPH = total petroleum hydrocarbons
 TPHg = total petroleum hydrocarbons in the gasoline range
 TPPh = total petroleum hydrocarbons in the diesel range
 TPHmo = total petroleum hydrocarbons in the motor oil range
 BTEX = benzene, toluene, ethylbenzene, and xylenes
 PCB = polychlorinated biphenyl
 PAH = polycyclic aromatic hydrocarbons
 SVOC = semi-volatile organic compound
 VOC = volatile organic compound
 bgs = below ground surface
 ORC = oxygen releasing compound

TABLE 5
WELL CONSTRUCTION DETAILS
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date Installed	Top of Casing	Casing Material	Total Boring Depth	Total Well Depth	Borehole Diameter	Casing Diameter	Screened Interval	Slot Size	Sand Pack Interval	Bentonite/Concrete Seal Interval
	(mm/dd/yy)	(ft aNAVD)		(ft bgs)	(ft bgs)	(inches)	(inches)	(ft bgs)	(inches)	(ft bgs)	(ft bgs)
E-3	07/23/84	Unkown	PVC	20.5	20.5	Unknown	3	9 - 20.5	0.020	8 - 20.5	0 - 8
S-4	08/28/84	24.40	PVC	25	24.5	Unknown	3	4.5 - 24.5	0.020	4 - 24.5	0 - 4
S-5	09/28/84	24.50	SCH 40 PVC	23	18.5	12	6	6.5 - 18.5	0.020	6 - 18.5	0 - 6
S-6	09/28/84	24.65	SCH 40 PVC	22.5	20.5	12	6	8.5 - 20.5	0.020	6.5 - 20.5	0 - 6.5
S-7	09/28/84	24.72	SCH 40 PVC	23	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-8	09/29/84	24.38	SCH 40 PVC	21.5	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-9	09/29/84	24.60	SCH 40 PVC	21.5	20	12	6	7 - 20	0.020	6 - 20	0 - 6
S-10	09/29/84	24.56	SCH 40 PVC	22	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-11	09/29/84	25.09	SCH 40 PVC	21	19.5	12	6	7.5 - 19.5	0.020	6 - 19.5	0 - 6
S-12	09/29/84	24.72	SCH 40 PVC	21	19.5	12	6	7.5 - 19.5	0.020	6 - 19.5	0 - 6
S-13	10/01/84	24.85	SCH 40 PVC	21	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-14	10/01/84	25.27	SCH 40 PVC	21	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-15	10/01/84	25.01	SCH 40 PVC	21	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-16	10/01/84	25.04	SCH 40 PVC	21.5	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-17	10/01/84	24.96	SCH 40 PVC	21	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-18	10/01/84	24.25	SCH 40 PVC	21.5	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-19	10/01/84	24.23	SCH 40 PVC	21	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-20	10/02/84	24.05	SCH 40 PVC	20	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-21	10/02/84	24.31	SCH 40 PVC	20	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-22	10/02/84	24.67	SCH 40 PVC	20	19	12	6	7 - 19	0.020	6 - 19	0 - 6
S-23	11/14/84	24.54	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-24	11/14/84	24.61	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-25	11/13/84	24.81	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-26	11/14/84	24.86	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-27	11/14/84	24.18	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-28	11/14/84	24.14	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-29	11/14/84	24.16	SCH 40 PVC	24	23	12	6	8 - 23	0.020	7 - 23	0 - 7
S-30	10/18/88	26.29	PVC	31	30.5	8	3	5.5 - 30.5	0.020	3.5 - 30.5	0 - 3.5
S-31	10/18/88	25.41	PVC	31	30.5	8	3	5.5 - 30.5	0.020	3.5 - 30.5	0 - 3.5
S-32	10/18/88	25.74	PVC	31	29.5	8	3	4.5 - 29.5	0.020	3 - 29.5	0 - 3
S-33	10/18/88	23.97	PVC	25.5	23.5	8	3	3.5 - 23.5	0.020	2.5 - 23.5	0 - 2.5
S-34	10/19/88	24.07	PVC	24	22.5	8	3	3 - 22.5	0.020	2.5 - 22.5	0 - 2.5
S-35	10/19/88	23.63	PVC	23	21.5	8	3	2.5 - 21.5	0.020	2 - 21.5	0 - 2
S-36	05/24/89	23.52	SCH 40 PVC	20.5	22.5	8	3	8 - 22.5	0.020	6 - 22.5	0 - 6
S-37	05/24/89	25.99	SCH 40 PVC	31.5	28.5	8	3	8 - 28.5	0.020	6 - 28.5	0 - 6
S-38	07/12/89	25.29	SCH 40 PVC	25.5	23.5	8	3	8 - 23.5	0.020	6 - 23.5	0 - 6

Notes:

mm/dd/yy = month, day, year

ft aNAVD = feet above North American Vertical Datum 1988

(original reports are reported in mean sea level, assumed to be referenced against aNAVD)

ft bgs = feet below ground surface

PVC = poly vinyl chloride

Strikeout text = Well Abandonment confirmed by Report

Well Construction information based on review of:

Site Investigation and Contamination Assessment by Emcon Associates dated 1984.

Letter by Gettler-Ryan Inc. dated November 19, 1987.

Case Closure Summary by City of Hayward Fire Department, dated June 19, 1996.

Human Health Risk Assessment by Cambria, dated May 10, 2001.

TABLE 6
HISTORICAL ANALYTICAL RESULTS AND GROUNDWATER ELEVATION SUMMARY
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-4	04/20/89	41000	5300	11000	2000	12000	NA	24.40	11.20	13.20	0.00	NA
S-4	07/24/89	NA	NA	NA	NA	NA	24.40	11.23	13.17	0.02	NA	
S-4	10/24/89	NA	NA	NA	NA	NA	24.40	11.24	13.16	0.25	NA	
S-4	01/08/90	NA	NA	NA	NA	NA	24.40	11.75	12.65	0.14	NA	
S-4	10/30/90	NA	NA	NA	NA	NA	24.40	13.30	11.10	0.00	NA	
S-4	11/17/93	NA	NA	NA	NA	NA	24.40	11.78	12.62	0.00	NA	
S-4	02/09/94	NA	NA	NA	NA	NA	24.40	12.80	11.60	0.00	NA	
S-4	05/09/94	NA	NA	NA	NA	NA	24.40	10.82	13.58	0.00	NA	
S-4	08/09/94	NA	NA	NA	NA	NA	24.40	11.32	13.08	0.00	NA	
S-4	11/03/94	NA	NA	NA	NA	NA	24.40	11.50	12.90	0.00	NA	
S-4	02/24/95	NA	NA	NA	NA	NA	24.40	9.96	14.44	0.00	NA	
S-4	05/11/95	NA	NA	NA	NA	NA	24.40	10.30	14.10	0.00	NA	
S-4	08/18/95	NA	NA	NA	NA	NA	24.40	11.10	13.30	0.00	NA	
S-4	10/31/95	NA	NA	NA	NA	NA	24.40	11.48	12.92	0.00	NA	
S-4	02/27/96	NA	NA	NA	NA	NA	24.40	8.84	15.56	0.00	NA	
S-4	04/19/96	NA	NA	NA	NA	NA	24.40	9.63	14.77	0.00	NA	
S-4	08/01/96	NA	NA	NA	NA	NA	24.40	10.58	13.82	0.00	NA	
S-4	11/13/96	NA	NA	NA	NA	NA	24.40	11.02	13.38	0.00	NA	
S-4	02/05/97	NA	NA	NA	NA	NA	24.40	9.03	15.37	0.00	NA	
S-4	05/27/97	NA	NA	NA	NA	NA	24.40	9.95	14.45	0.00	NA	
S-4	07/22/97	NA	NA	NA	NA	NA	24.40	9.98	14.42	0.00	NA	
S-4	11/13/97	NA	NA	NA	NA	NA	24.40	11.10	13.30	0.00	NA	
S-4	01/22/98	NA	NA	NA	NA	NA	24.40	8.57	15.83	0.00	NA	
S-4	05/21/98	NA	NA	NA	NA	NA	24.40	10.49	13.91	0.00	NA	
S-4	07/23/98	NA	NA	NA	NA	NA	24.40	10.15	14.25	0.00	NA	
S-4	11/05/98	NA	NA	NA	NA	NA	24.40	11.07	13.33	0.00	NA	
S-4	02/24/99	NA	NA	NA	NA	NA	24.40	9.45	14.95	0.00	NA	
S-4	02/20/01	NA	68	15	49	130	<1.0	24.40	10.09	14.31	0.00	NA
S-5	04/19/89	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	NA
S-5	07/24/89	3700	150	290	110	630	NA	24.50	10.58	13.92	0.00	NA
S-5	10/24/89	NA	NA	NA	NA	NA	24.50	10.54	13.96	0.02	NA	
S-5	01/08/90	NA	NA	NA	NA	NA	24.50	12.09	12.41	0.13	NA	
S-5	04/26/90	NA	NA	NA	NA	NA	24.50	14.67	9.83	0.00	NA	
S-5	07/18/90	NA	NA	NA	NA	NA	24.50	12.28	12.22	0.00	NA	
S-5	10/31/90	NA	NA	NA	NA	NA	24.50	14.65	9.85	0.00	NA	
S-5	01/23/91	NA	NA	NA	NA	NA	24.50	13.94	10.56	0.00	NA	
S-5	04/18/91	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	10/14/91	NA	NA	NA	NA	NA	24.50	12.73	11.77	0.00	NA	
S-5	01/21/92	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	04/10/92	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	07/07/92	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	10/01/92	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	02/03/83	NA	NA	NA	NA	NA	24.50	NA	NA	NA	NA	
S-5	08/24/93	NA	NA	NA	NA	NA	24.50	12.34	12.16	0.00	NA	
S-5	11/17/93	NA	NA	NA	NA	NA	24.50	12.28	12.22	0.00	NA	
S-5	02/09/94	NA	NA	NA	NA	NA	24.50	11.72	12.78	0.00	NA	
S-5	05/09/94	NA	NA	NA	NA	NA	24.50	11.14	13.36	0.00	NA	
S-5	08/09/94	NA	NA	NA	NA	NA	24.50	11.82	12.68	0.00	NA	
S-5	11/03/94	NA	NA	NA	NA	NA	24.50	12.26	12.24	0.00	NA	
S-5	02/24/95	NA	NA	NA	NA	NA	24.50	10.50	14.00	0.00	NA	
S-5	05/11/95	NA	NA	NA	NA	NA	24.50	10.90	13.60	0.00	NA	
S-5	08/18/95	NA	NA	NA	NA	NA	24.50	11.62	12.88	0.00	NA	
S-5	10/31/95	NA	NA	NA	NA	NA	24.50	12.02	12.48	0.00	NA	
S-5	02/27/96	NA	NA	NA	NA	NA	24.50	9.02	15.48	0.00	NA	
S-5	04/19/96	NA	NA	NA	NA	NA	24.50	10.25	14.25	0.00	NA	
S-5	08/01/96	NA	NA	NA	NA	NA	24.50	11.07	13.43	0.00	NA	
S-5	11/13/96	NA	NA	NA	NA	NA	24.50	11.64	12.86	0.00	NA	
S-5	02/05/97	NA	NA	NA	NA	NA	24.50	9.50	15.00	0.00	NA	
S-5	05/27/97	NA	NA	NA	NA	NA	24.50	11.01	13.49	0.00	NA	
S-5	07/22/97	NA	NA	NA	NA	NA	24.50	11.13	13.37	0.00	NA	
S-5	11/13/97	NA	NA	NA	NA	NA	24.50	11.73	12.77	0.00	NA	
S-5	01/22/98	NA	NA	NA	NA	NA	24.50	9.41	15.09	0.00	NA	
S-5	05/21/98	NA	NA	NA	NA	NA	24.50	10.39	14.11	0.00	NA	
S-5	07/23/98	NA	NA	NA	NA	NA	24.50	10.75	13.75	0.00	NA	
S-5	11/05/98	NA	NA	NA	NA	NA	24.50	11.58	12.92	0.00	NA	
S-5	02/24/99	NA	NA	NA	NA	NA	24.50	9.76	14.74	0.00	NA	
S-6	04/19/89	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA	NA
S-6	07/24/89	NA	NA	NA	NA	NA	24.65	10.67	13.98	0.03	NA	
S-6	10/24/89	NA	NA	NA	NA	NA	24.65	10.68	13.97	0.03	NA	
S-6	01/08/90	NA	NA	NA	NA	NA	24.65	12.33	12.32	0.02	NA	
S-6	04/26/90	NA	NA	NA	NA	NA	24.65	13.05	11.06	0.00	NA	
S-6	07/18/90	NA	NA	NA	NA	NA	24.65	12.38	12.27	0.00	NA	
S-6	10/31/90	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA	

TABLE 6
HISTORICAL ANALYTICAL RESULTS AND GROUNDWATER ELEVATION SUMMARY
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-6	01/23/91	NA	NA	NA	NA	NA	NA	24.65	13.47	11.18	0.00	NA
S-6	04/18/91	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	10/14/91	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	01/21/92	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	04/10/92	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	07/07/92	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	10/01/92	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	02/03/93	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	08/24/93	NA	NA	NA	NA	NA	NA	24.65	NA	NA	NA	NA
S-6	11/17/93	NA	NA	NA	NA	NA	NA	24.65	12.69	11.96	0.00	NA
S-6	02/09/94	NA	NA	NA	NA	NA	NA	24.65	12.40	12.25	0.00	NA
S-6	05/09/94	NA	NA	NA	NA	NA	NA	24.65	11.71	12.94	0.00	NA
S-6	08/09/94	NA	NA	NA	NA	NA	NA	24.65	11.29	13.36	0.00	NA
S-6	11/03/94	NA	NA	NA	NA	NA	NA	24.65	11.94	12.71	0.00	NA
S-6	02/24/95	NA	NA	NA	NA	NA	NA	24.65	12.12	12.53	0.00	NA
S-6	05/11/95	NA	NA	NA	NA	NA	NA	24.65	10.60	14.05	0.00	NA
S-6	08/18/95	NA	NA	NA	NA	NA	NA	24.65	11.70	12.95	0.00	NA
S-6	10/31/95	NA	NA	NA	NA	NA	NA	24.65	11.56	13.09	0.00	NA
S-6	02/27/96	NA	NA	NA	NA	NA	NA	24.65	12.20	12.45	0.00	NA
S-6	04/19/96	NA	NA	NA	NA	NA	NA	24.65	9.25	15.40	0.00	NA
S-6	08/01/96	NA	NA	NA	NA	NA	NA	24.65	10.35	14.30	0.00	NA
S-6	11/13/96	NA	NA	NA	NA	NA	NA	24.65	10.93	13.72	0.00	NA
S-6	02/05/97	NA	NA	NA	NA	NA	NA	24.65	11.52	13.13	0.00	NA
S-6	05/27/97	NA	NA	NA	NA	NA	NA	24.65	9.58	15.07;	0.00	NA
S-6	07/22/97	NA	NA	NA	NA	NA	NA	24.65	11.12	13.53	0.00	NA
S-6	01/22/98	NA	NA	NA	NA	NA	NA	24.65	11.10	13.55	0.00	NA
S-6	05/21/98	NA	NA	NA	NA	NA	NA	24.65	11.72	12.93	0.00	NA
S-6	07/23/98	NA	NA	NA	NA	NA	NA	24.65	9.40	15.25	0.00	NA
S-6	11/05/98	NA	NA	NA	NA	NA	NA	24.65	9.86	14.79	0.00	NA
S-6	02/24/99	NA	NA	NA	NA	NA	NA	24.65	10.71	13.94	0.00	NA
S-7	02/10/89	10000	300	600	300	1600	NA	24.72	NA	NA	NA	NA
S-7	04/19/89	5500	260	500	200	900	NA	24.72	11.65	13.07	0.00	NA
S-7	07/24/89	4300	110	50	130	500	NA	24.72	12.06	12.66	0.00	NA
S-7	01/08/90	4200	170	17	110	450	NA	24.72	12.36	12.36	0.00	NA
S-7	07/18/90	NA	NA	NA	NA	NA	NA	24.72	12.66	12.06	0.01	NA
S-7	10/24/90	NA	NA	NA	NA	NA	NA	24.72	13.59	11.13	0.05	NA
S-7	01/23/91	33000	460	2700	1100	8100	NA	24.72	13.50	11.22	0.00	NA
S-7	04/18/91	35000	200	1000	270	5000	NA	24.72	12.61	12.11	0.00	NA
S-7	07/22/91	96000	790	2600	2200	13000	NA	24.72	NA	NA	NA	NA
S-7	10/14/91	17000	120	230	330	1900	NA	24.72	13.38	11.34	0.00	NA
S-7	01/21/92	5300	80	120	170	790	NA	24.72	13.38	11.34	0.00	NA
S-7	04/10/92	19000	110	67	230	1600	NA	24.72	11.79	12.93	0.00	NA
S-7	07/07/92	2700	110	6.1	100	240	NA	24.72	12.70	12.02	0.00	NA
S-7	10/01/92	6500	120	<0.5	130	460	NA	24.72	13.19	11.53	0.00	NA
S-7	02/11/93	5000	170	100	120	490	NA	24.72	10.98	13.74	0.00	NA
S-7	05/06/93	4700	<0.5	12.5	130	410	NA	24.72	NA	NA	NA	NA
S-7	08/25/93	10000	<0.5	36	57	100	NA	24.72	12.61	12.11	0.00	NA
S-7	11/17/93	7900	150	74	200	390	NA	24.72	12.53	12.19	0.00	NA
S-7	02/09/94	NA	NA	NA	NA	NA	NA	24.72	11.87	12.85	0.00	NA
S-7	05/09/94	2400	19	14	57	290	NA	24.72	11.43	13.29	0.00	NA
S-7	08/10/94	1300	5.3	5.2	17	39	NA	24.72	12.16	12.56	0.00	NA
S-7	11/03/94	1900	3.7	0.8	25	64	NA	24.72	12.44	12.28	0.00	NA
S-7	02/24/95	1600	32	5.8	43	160	NA	24.72	10.30	14.42	0.00	NA
S-7	05/11/95	2300	14	6.2	61	310	NA	24.72	11.87	12.85	0.00	NA
S-7	08/18/95	410	12	1.3	9.5	3.7	NA	24.72	11.91	12.81	0.00	NA
S-7	10/31/95	630	5	3	8	22	NA	24.72	12.28	12.44	0.00	NA
S-7	02/27/96	920	22	5.3	29	79	<2	24.72	9.52	15.20	0.00	NA
S-7	04/19/96	<50	<0.50	<0.50	<0.50	<0.50	NA	24.72	10.70	14.02	0.00	NA
S-7	08/01/96	250	1.6	<0.50	4.4	5.8	<2.5	24.72	11.28	13.44	0.00	5.1
S-7	11/13/96	430	2.8	2.1	1.3	1.9	3.8	24.72	11.82	12.90	0.00	5.63
S-7	02/05/97	550	1.9	2.2	18	22	<2.5	24.72	9.80	14.92	0.00	5.6
S-7	05/27/97	320	5.3	<0.50	3.8	11	<2.5	24.72	11.13	13.59	0.00	2.5
S-7	07/22/97	630	9.4	0.94	2.2	4.3	4.8	24.72	11.38	13.34	0.00	1.9
S-7	11/13/97	450	18	0.85	<0.50	2	7.5	24.72	11.95	12.77	0.00	1.7
S-7	01/22/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	24.72	9.48	15.24	0.00	4.7
S-7	05/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	24.72	10.53	14.19	0.00	2.97
S-7	07/23/98	610	7.3	<2.5	11	10	<12	24.72	11.01	13.71	0.00	1.4
S-7	11/05/98	200	2	<0.50	<0.50	0.56	<2.5	24.72	11.89	12.83	0.00	0.7
S-7	02/24/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	24.72	10.01	14.71	0.00	1.1
S-7 (dup)	11/13/97	410	15	<0.50	<0.50	1.6	6.1	NA	NA	NA	NA	NA
S-8	04/19/89	8600	90	400	200	1700	NA	24.38	11.60	12.78	0.00	NA
S-8	04/24/89	850	48	130	27	170	NA	24.38	12.05	12.33	0.00	NA
S-8	10/23/89	NA	NA	NA	NA	NA	NA	24.38	12.03	12.35	0.10	NA

TABLE 6
HISTORICAL ANALYTICAL RESULTS AND GROUNDWATER ELEVATION SUMMARY
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylen-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-8	01/08/90	NA	NA	NA	NA	NA	NA	24.38	12.00	12.38	0.00	NA
S-8	04/26/90	NA	NA	NA	NA	NA	NA	24.38	13.92	10.46	0.00	NA
S-8	07/18/90	NA	NA	NA	NA	NA	NA	24.38	12.07	12.31	0.00	NA
S-8	10/31/90	NA	NA	NA	NA	NA	NA	24.38	13.20	11.18	0.00	NA
S-8	01/23/91	NA	NA	NA	NA	NA	NA	24.38	13.85	10.53	0.00	NA
S-8	10/14/91	NA	NA	NA	NA	NA	NA	24.38	12.75	11.63	0.00	NA
S-8	08/23/93	NA	NA	NA	NA	NA	NA	24.38	12.02	12.36	0.00	NA
S-8	11/17/93	NA	NA	NA	NA	NA	NA	24.38	11.97	12.41	0.00	NA
S-8	02/09/94	NA	NA	NA	NA	NA	NA	24.38	11.40	12.98	0.00	NA
S-8	05/09/94	NA	NA	NA	NA	NA	NA	24.38	10.88	13.50	0.00	NA
S-8	08/09/94	NA	NA	NA	NA	NA	NA	24.38	11.62	12.76	0.00	NA
S-8	11/03/94	NA	NA	NA	NA	NA	NA	24.38	11.84	12.54	0.00	NA
S-8	02/24/95	NA	NA	NA	NA	NA	NA	24.38	10.20	14.18	0.00	NA
S-8	05/11/95	NA	NA	NA	NA	NA	NA	24.38	10.15	14.23	0.00	NA
S-8	08/18/95	NA	NA	NA	NA	NA	NA	24.38	11.30	13.08	0.00	NA
S-8	10/31/95	NA	NA	NA	NA	NA	NA	24.38	11.62	12.76	0.00	NA
S-8	02/27/96	NA	NA	NA	NA	NA	NA	24.38	8.88	15.50	0.10	NA
S-8	04/19/96	NA	NA	NA	NA	NA	NA	24.38	9.67	14.71	0.00	NA
S-8	08/01/96	NA	NA	NA	NA	NA	NA	24.38	10.82	13.56	0.00	NA
S-8	11/13/96	NA	NA	NA	NA	NA	NA	24.38	11.24	13.14	0.00	NA
S-8	02/05/97	NA	NA	NA	NA	NA	NA	24.38	9.08	15.30	0.00	NA
S-8	05/27/97	NA	NA	NA	NA	NA	NA	24.38	10.88	13.50	0.00	NA
S-8	07/22/97	NA	NA	NA	NA	NA	NA	24.38	11.09	13.29	0.00	NA
S-8	11/13/97	NA	NA	NA	NA	NA	NA	24.38	11.40	12.98	0.00	NA
S-8	01/22/98	NA	NA	NA	NA	NA	NA	24.38	8.87	15.51	0.00	NA
S-8	05/21/98	NA	NA	NA	NA	NA	NA	24.38	9.79	14.59	0.00	NA
S-8	07/23/98	NA	NA	NA	NA	NA	NA	24.38	10.51	13.87	0.00	NA
S-8	11/05/98	NA	NA	NA	NA	NA	NA	24.38	11.08	13.30	0.00	NA
S-8	02/24/99	NA	NA	NA	NA	NA	NA	24.38	9.41	14.97	0.00	NA
S-9	04/19/89	NA	NA	NA	NA	NA	NA	24.60	NA	NA	NA	NA
S-9	07/24/89	<50	0.7	<0.5	2	10	NA	24.60	10.32	14.28	0.00	NA
S-9	10/23/89	NA	NA	NA	NA	NA	NA	24.60	10.46	14.14	0.00	NA
S-9	01/08/90	130	1.4	17	6.4	37	NA	24.60	12.15	12.45	0.00	NA
S-9	04/26/90	NA	NA	NA	NA	NA	NA	24.60	12.52	12.08	0.00	NA
S-9	07/18/90	<50	2	0.6	2	2	NA	24.60	12.29	12.31	0.00	NA
S-9	10/24/90	170	4.5	5	9	34	NA	24.60	13.21	11.39	0.00	NA
S-9	01/23/91	330	6.6	6.8	24	71	NA	24.60	13.10	11.50	0.00	NA
S-9	04/18/91	290	4.4	0.7	13	22	NA	24.60	11.99	12.61	0.00	NA
S-9	07/22/91	90	4.1	<0.5	9	8.1	NA	24.60	NA	NA	NA	NA
S-9	10/14/91	60	1.7	<0.5	4.5	2.6	NA	24.60	12.90	11.70	0.00	NA
S-9	01/21/92	<50	1.1	<0.5	3.6	2.5	NA	24.60	12.49	12.11	0.00	NA
S-9	04/10/92	110	1.5	0.3	8	4.7	NA	24.60	11.23	13.37	0.00	NA
S-9	07/07/92	<50	0.5	<0.5	<0.5	<0.5	NA	24.60	12.19	12.41	0.00	NA
S-9	10/01/92	<50	0.8	<0.5	5.3	3.5	NA	24.60	12.69	11.91	0.00	NA
S-9	02/11/93	130	1	0.9	13	11	NA	24.60	10.47	14.13	0.00	NA
S-9	05/06/93	50	<0.5	<0.5	5.7	1.4	NA	24.60	NA	NA	NA	NA
S-9	08/25/93	<50	3.8	1.1	2.3	3.6	NA	24.60	12.12	12.48	0.00	NA
S-9	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	NA	24.60	12.12	12.48	0.00	NA
S-9	02/09/94	NA	NA	NA	NA	NA	NA	24.60	11.52	13.08	0.00	NA
S-9	05/09/94	<50	<0.5	<0.5	<0.5	<0.5	NA	24.60	11.03	13.57	0.00	NA
S-9	08/10/94	<50	<0.5	<0.5	<0.5	<0.5	NA	24.60	11.74	12.86	0.00	NA
S-9	11/03/94	<50	<0.5	<0.5	<0.5	<0.5	NA	24.60	10.08	14.52	0.00	NA
S-9	02/24/95	<50	<0.5	<0.5	6.4	0.5	NA	24.60	10.31	14.29	0.00	NA
S-9	05/11/95	<50	<0.5	<0.5	1.8	<0.5	NA	24.60	10.40	14.20	0.00	NA
S-9	08/18/95	<50	<0.5	<0.5	<0.5	<0.5	NA	24.60	11.44	13.16	0.00	NA
S-9	10/31/95	<50	<0.5	<0.5	0.7	<0.5	NA	24.60	11.95	12.65	0.00	NA
S-9	04/19/96	<50	<0.50	<0.50	0.77	<0.50	NA	24.60	9.98	14.62	0.00	NA
S-10	01/11/88	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	NA	NA	NA	NA
S-10	10/24/88	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	NA	NA	NA	NA
S-10	02/10/89	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	NA	NA	NA	NA
S-10	04/19/89	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	11.17	13.39	0.00	NA
S-10	07/21/89	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	11.55	13.01	0.00	NA
S-10	10/23/89	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	11.87	12.69	0.00	NA
S-10	01/08/90	<50	NA	NA	NA	NA	NA	24.56	11.74	12.82	0.00	NA
S-10	04/26/90	<50	<0.5	0.5	<0.5	<0.5	NA	24.56	12.02	12.54	0.00	NA
S-10	07/18/90	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	11.79	12.77	0.00	NA
S-10	10/31/90	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	12.70	11.86	0.00	NA
S-10	01/23/91	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	12.60	11.96	0.00	NA
S-10	04/18/91	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	11.45	13.11	0.00	NA
S-10	07/22/91	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	NA	NA	NA	NA
S-10	10/14/91	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	12.39	12.17	0.00	NA
S-10	01/21/92	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	12.02	12.54	0.00	NA
S-10	04/10/92	<50	<0.5	<0.5	<0.5	<0.5	NA	24.56	10.77	13.79	0.00	NA
S-10	07/07/92	NA	NA	NA	NA	NA	NA	24.56	11.68	12.88	0.00	NA

TABLE 6
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Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH ($\mu\text{g}/\text{L}$)	Benzene ($\mu\text{g}/\text{L}$)	Toluene ($\mu\text{g}/\text{L}$)	Ethyl-benzene ($\mu\text{g}/\text{L}$)	Total Xylenes ($\mu\text{g}/\text{L}$)	MTBE ($\mu\text{g}/\text{L}$)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-12	08/10/94	8300	15	17	270	1100	NA	24.72	11.78	12.94	0.00	NA
S-12	11/03/94	17000	41	19	330	1100	NA	24.72	12.06	12.66	0.00	NA
S-12	02/24/95	16000	87	29	380	2000	NA	24.72	10.48	14.24	0.00	NA
S-12	05/11/95	9600	52	<20	340	1200	NA	24.72	10.65	14.07	0.00	NA
S-12	08/18/95	5100	<5	<5	98	380	NA	24.72	11.55	13.17	0.00	NA
S-12	10/31/95	8700	<5	11	150	380	NA	24.72	11.87	12.85	0.00	NA
S-12	02/27/96	18000	<0.5	19	600	3700	<40	24.72	8.80	15.92	0.00	NA
S-12	04/19/96	1400	6.2	<2.5	78	130	NA	24.72	10.43	14.29	0.00	NA
S-12	08/01/96	7200	15	<10	200	880	<50	24.72	10.97	13.75	0.00	3.1
S-12	11/13/96	190	<0.50	0.79	0.74	1	<2.5	24.72	11.52	13.20	0.00	4.6
S-12	02/05/97	19000	35	<20	570	2800	<100	24.72	9.71	15.01	0.00	1.9
S-12	03/27/97	5500	15	<5.0	150	440	<25	24.72	11.00	13.72	0.00	1.2
S-12	07/22/97	1500	<2.5	<2.5	35	110	<12	24.72	10.86	13.86	0.00	2.1
S-12	11/13/97	1000	4.9	<2.5	27	73	<12	24.72	11.68	13.04	0.00	1.4
S-12	01/22/98	1700	<10	<10	<10	210	<50	24.72	9.73	14.99	0.00	0.6
S-12	03/21/98	2600	6.9	13	210	20	7.3	24.72	10.28	14.44	0.00	2.36
S-12	07/23/98	980	18	<5.0	99	14	<25	24.72	10.69	14.03	0.00	1.0
S-12	11/05/98	360	1.1	<0.50	1.8	1.7	<2.5	24.72	11.19	13.53	0.00	NA
S-12	12/16/98	NA	NA	NA	NA	NA	NA	24.72	NA	NA	NA	0.7
S-12	02/24/99	1500	11	<1	56	62	52	24.72	9.91	14.87	0.00	0.7
S-12 (Dup)	08/01/96	7400	<10	<10	220	980	<50	NA	NA	NA	NA	NA
S-12 (Dup)	11/13/96	220	<0.50	<0.50	0.74	1.3	2.7	NA	NA	NA	NA	NA
S-12 (Dup)	02/05/97	13000	28	<20	410	2000	<100	NA	NA	NA	NA	NA
S-12 (Dup)	03/27/97	3700	11	<5.0	95	260	<25	NA	NA	NA	NA	NA
S-12 (Dup)	07/22/97	1600	<10	<10	34	100	<50	NA	NA	NA	NA	NA
S-12 (Dup)	05/21/98	2900	6.9	22	220	26	10	NA	NA	NA	NA	NA
S-13	04/19/89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-13	07/24/89	NA	NA	NA	NA	NA	NA	24.85	11.35	13.50	0.02	NA
S-13	10/24/89	NA	NA	NA	NA	NA	NA	24.85	11.35	13.50	0.12	NA
S-13	01/08/90	NA	NA	NA	NA	NA	NA	24.85	12.52	12.33	0.06	NA
S-13	04/26/90	NA	NA	NA	NA	NA	NA	24.85	14.51	10.34	0.01	NA
S-13	07/18/90	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	10/31/90	NA	NA	NA	NA	NA	NA	24.85	14.59	10.26	0.01	NA
S-13	01/23/91	NA	NA	NA	NA	NA	NA	24.85	12.56	12.29	0.00	NA
S-13	04/18/91	NA	NA	NA	NA	NA	NA	24.85	13.56	11.29	0.00	NA
S-13	10/14/91	NA	NA	NA	NA	NA	NA	24.85	14.28	10.57	0.00	NA
S-13	01/21/92	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	04/10/92	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	07/07/92	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	10/01/92	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	02/03/93	NA	NA	NA	NA	NA	NA	24.85	NA	NA	NA	NA
S-13	08/24/93	NA	NA	NA	NA	NA	NA	24.85	12.50	12.35	0.00	NA
S-13	11/17/93	NA	NA	NA	NA	NA	NA	24.85	12.43	12.42	0.00	NA
S-13	02/09/94	NA	NA	NA	NA	NA	NA	24.85	11.89	12.96	0.00	NA
S-13	05/09/94	NA	NA	NA	NA	NA	NA	24.85	11.44	13.41	0.00	NA
S-13	08/09/94	NA	NA	NA	NA	NA	NA	24.85	12.60	12.25	0.00	NA
S-13	11/03/94	NA	NA	NA	NA	NA	NA	24.85	12.46	12.39	0.00	NA
S-13	02/24/95	NA	NA	NA	NA	NA	NA	24.85	10.50	14.35	0.00	NA
S-13	05/11/95	NA	NA	NA	NA	NA	NA	24.85	11.00	13.85	0.00	NA
S-13	08/18/95	NA	NA	NA	NA	NA	NA	24.85	11.84	13.01	0.00	NA
S-13	10/31/95	NA	NA	NA	NA	NA	NA	24.85	12.22	12.63	0.00	NA
S-13	02/27/96	NA	NA	NA	NA	NA	NA	24.85	9.35	15.50	0.00	NA
S-13	04/19/86	NA	NA	NA	NA	NA	NA	24.85	10.55	14.30	0.00	NA
S-13	08/01/96	NA	NA	NA	NA	NA	NA	24.85	11.19	13.66	0.00	NA
S-13	11/13/96	NA	NA	NA	NA	NA	NA	24.85	11.46	13.39	0.00	NA
S-13	02/05/97	NA	NA	NA	NA	NA	NA	24.85	9.76	15.09	0.00	NA
S-13	03/27/97	NA	NA	NA	NA	NA	NA	24.85	11.30	13.55	0.00	NA
S-13	07/22/97	NA	NA	NA	NA	NA	NA	24.85	11.03	13.82	0.00	NA
S-13	11/13/97	NA	NA	NA	NA	NA	NA	24.85	11.83	13.02	0.00	NA
S-13	01/22/98	NA	NA	NA	NA	NA	NA	24.85	9.66	15.19	0.00	NA
S-13	03/21/98	NA	NA	NA	NA	NA	NA	24.85	10.56	14.29	0.00	NA
S-13	07/23/98	NA	NA	NA	NA	NA	NA	24.85	10.97	13.88	0.00	NA
S-13	11/05/98	NA	NA	NA	NA	NA	NA	24.85	12.31	12.54	0.00	NA
S-13	02/24/99	NA	NA	NA	NA	NA	NA	24.85	10.14	14.71	0.00	NA
S-14	01/11/88	120	<0.5	<0.5	<0.5	<0.5	NA	25.27	NA	NA	NA	NA
S-14	10/24/88	50	<0.5	1	<0.5	<0.5	NA	25.27	NA	NA	NA	NA
S-14	02/09/89	80	<0.50	7	3	18	NA	25.27	NA	NA	NA	NA
S-14	04/19/89	<50	<0.5	<0.5	<0.5	<0.5	NA	25.27	12.03	13.24	0.00	NA
S-14	07/24/89	<50	<0.5	<0.5	<0.5	<0.5	NA	25.27	12.40	12.87	0.00	NA
S-14	10/24/89	<50	<0.5	0.8	NA	<0.5	NA	25.27	12.61	12.66	0.00	NA
S-14	01/08/90	NA	NA	NA	NA	NA	NA	25.27	12.57	12.70	0.00	NA
S-14	04/26/90	<50	<0.5	0.5	<0.5	1	NA	25.27	12.73	12.54	0.00	NA
S-14	07/18/90	<50	<0.5	1	0.6	3	NA	25.27	12.62	12.65	0.00	NA

TABLE 6
HISTORICAL ANALYTICAL RESULTS AND GROUNDWATER ELEVATION SUMMARY
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-19	11/13/97	NA	NA	NA	NA	NA	NA	24.23	11.14	13.09	0.00	NA
S-19	01/22/98	NA	NA	NA	NA	NA	NA	24.23	8.47	15.76	0.00	NA
S-19	03/21/98	NA	NA	NA	NA	NA	NA	24.23	9.48	14.75	0.00	NA
S-19	07/23/98	NA	NA	NA	NA	NA	NA	24.23	10.00	14.23	0.00	NA
S-19	11/05/98	NA	NA	NA	NA	NA	NA	24.23	11.42	12.81	0.00	NA
S-19	02/24/99	NA	NA	NA	NA	NA	NA	23.23	8.99	15.24	0.00	NA
S-20	01/11/88	37000	1600	3500	1300	7600	NA	NA	NA	NA	NA	NA
S-20	04/20/89	110000	1200	4900	3300	16000	NA	24.05	10.97	13.08	0.00	NA
S-20	07/24/89	26000	530	900	1000	6200	NA	24.05	10.54	13.51	0.00	NA
S-20	10/24/89	NA	NA	NA	NA	NA	NA	24.05	10.59	13.46	0.04	NA
S-20	01/15/04	NA	NA	NA	NA	NA	NA	24.05	11.66	12.39	0.00	NA
S-20	04/26/90	NA	NA	NA	NA	NA	NA	24.05	14.21	9.84	0.00	NA
S-20	10/31/90	NA	NA	NA	NA	NA	NA	24.05	12.80	11.25	0.00	NA
S-20	01/23/91	NA	NA	NA	NA	NA	NA	24.05	11.70	12.35	0.00	NA
S-20	04/18/91	NA	NA	NA	NA	NA	NA	24.05	12.79	11.26	0.00	NA
S-20	10/14/91	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	01/21/92	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	04/10/92	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	07/07/92	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	10/01/92	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	02/03/93	NA	NA	NA	NA	NA	NA	24.05	NA	NA	NA	NA
S-20	08/24/93	NA	NA	NA	NA	NA	NA	24.05	11.69	12.36	0.00	NA
S-20	11/17/93	NA	NA	NA	NA	NA	NA	24.05	11.55	12.50	0.00	NA
S-20	02/09/94	NA	NA	NA	NA	NA	NA	24.05	11.10	12.95	0.00	NA
S-20	05/09/94	NA	NA	NA	NA	NA	NA	24.05	10.47	13.58	0.00	NA
S-20	08/09/94	NA	NA	NA	NA	NA	NA	24.05	11.22	12.83	0.00	NA
S-20	11/03/94	NA	NA	NA	NA	NA	NA	24.05	11.58	12.47	0.00	NA
S-20	02/24/95	NA	NA	NA	NA	NA	NA	24.05	9.76	14.29	0.00	NA
S-20	05/11/95	NA	NA	NA	NA	NA	NA	24.05	10.93	13.12	0.00	NA
S-20	08/18/95	NA	NA	NA	NA	NA	NA	24.05	10.90	13.15	0.00	NA
S-20	10/31/95	NA	NA	NA	NA	NA	NA	24.05	11.32	12.73	0.00	NA
S-20	02/27/96	NA	NA	NA	NA	NA	NA	24.05	9.60	14.45	0.00	NA
S-20	04/19/96	NA	NA	NA	NA	NA	NA	24.05	9.41	14.64	0.00	NA
S-20	08/01/96	NA	NA	NA	NA	NA	NA	24.05	10.32	13.73	0.00	NA
S-20	11/13/96	NA	NA	NA	NA	NA	NA	24.05	10.96	13.09	0.00	NA
S-20	02/05/97	NA	NA	NA	NA	NA	NA	24.05	8.58	15.47	0.00	NA
S-20	03/27/97	NA	NA	NA	NA	NA	NA	24.05	10.32	13.73	0.00	NA
S-20	07/22/97	NA	NA	NA	NA	NA	NA	24.05	10.76	13.29	0.00	NA
S-20	11/13/97	NA	NA	NA	NA	NA	NA	24.05	10.94	13.11	0.00	NA
S-20	01/22/98	NA	NA	NA	NA	NA	NA	24.05	8.46	15.59	0.00	NA
S-20	03/21/98	NA	NA	NA	NA	NA	NA	24.05	9.37	14.68	0.00	NA
S-20	07/23/98	NA	NA	NA	NA	NA	NA	24.05	10.02	14.03	0.00	NA
S-20	11/05/98	NA	NA	NA	NA	NA	NA	24.05	10.97	13.08	0.00	NA
S-20	02/24/99	NA	NA	NA	NA	NA	NA	24.05	9.00	15.05	0.00	NA
S-21	04/19/89	NA	NA	NA	NA	NA	NA	NA	24.31	NA	NA	NA
S-21	07/24/89	NA	NA	NA	NA	NA	NA	24.31	10.94	13.37	0.01	NA
S-21	10/23/89	NA	NA	NA	NA	NA	NA	24.31	11.13	13.18	0.00	NA
S-21	01/08/90	26000	86	40	74	590	NA	24.31	11.93	12.38	0.00	NA
S-21	04/26/90	NA	NA	NA	NA	NA	NA	24.31	12.41	11.90	0.00	NA
S-21	07/18/90	1900000	96000	21000	70000	200000	NA	24.31	11.92	12.39	0.00	NA
S-21	10/31/90	2100	130	210	60	250	NA	24.31	12.65	11.66	0.00	NA
S-21	01/23/91	1400	54	76	61	200	NA	24.31	12.82	11.49	0.00	NA
S-21	04/18/91	1600	120	120	54	170	NA	24.31	11.91	12.40	0.00	NA
S-21	07/22/91	570	29	16	18	62	NA	24.31	NA	NA	NA	NA
S-21	10/15/91	1000	22	6.1	16	58	NA	24.31	12.72	11.59	0.00	NA
S-21	01/21/92	4800	240	200	62	1100	NA	24.31	12.27	12.04	0.00	NA
S-21	04/10/92	2900	110	54	340	340	NA	24.31	10.32	13.99	0.00	NA
S-21	07/07/92	570	50	33	23	58	NA	24.31	11.19	13.12	0.00	NA
S-21	10/01/92	380	39	11	23	27	NA	24.31	11.68	12.63	0.00	NA
S-21	02/10/93	4300	130	83	400	520	NA	24.31	10.36	13.95	0.00	NA
S-21	05/06/93	540	27	52	34	120	NA	24.31	NA	NA	NA	NA
S-21	08/24/93	310	6.8	16	9.7	31	NA	24.31	11.97	12.34	0.00	NA
S-21	11/17/93	140	3	6.6	5.6	14	NA	24.31	11.82	12.49	0.00	NA
S-21	02/09/94	NA	NA	NA	NA	NA	NA	24.31	11.26	13.05	0.00	NA
S-21	05/09/94	300	5.3	19	10	37	NA	24.31	10.73	13.58	0.00	NA
S-21	08/09/94	550	2.2	1	0.9	6.1	NA	24.31	11.34	12.97	0.00	NA
S-21	11/03/94	150	3	0.9	1.8	2.5	NA	24.31	10.98	13.33	0.00	NA
S-21	02/24/95	400	11	21	20	64	NA	24.31	10.14	14.17	0.00	NA
S-21	05/11/95	200	4.4	11	7.8	36	NA	24.31	10.25	14.06	0.00	NA
S-21	08/18/95	60	7.8	2.9	1.8	1.4	NA	24.31	11.30	13.01	0.00	0.4
S-21	10/31/95	<50	<0.5	<0.5	<0.5	<0.5	NA	24.31	12.10	12.21	0.00	NA
S-21	02/27/96	400	6.7	5.4	16	44	<2	24.31	8.81	15.50	0.00	NA
S-21	04/19/96	83	2	<0.50	1.1	2	NA	24.31	10.00	14.31	0.00	NA
S-21	02/05/97	200	2.5	1.4	10	28	<2.5	24.31	8.83	15.48	0.00	3.4

TABLE 6
HISTORICAL ANALYTICAL RESULTS AND GROUNDWATER ELEVATION SUMMARY
Former Shell Service Station
27501 Loyola Avenue
Hayward, California

Well ID	Date	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TOB (amsl)	Depth to Water (feet)	Groundwater Elevation (amsl)	LPH Thickness (feet)	DO Readings (ppm)
S-37	11/13/96	77	0.9	<0.50	<0.50	1.1	NA	25.99	13.52	12.47	0.00	5.8
S-37	02/05/97	650	7.4	2.8	25	97	<2.5	25.99	11.34	14.65	0.00	5.4
S-37	05/27/97	180	1.9	<0.50	3	9.3	<2.5	25.99	12.80	13.19	0.00	1.5
S-37	07/22/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	13.32	12.67	0.00	2.2
S-37	11/13/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	13.50	12.49	0.00	2.4
S-37	01/22/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	11.05	14.94	0.00	1.2
S-37	05/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	12.12	13.87	0.00	2.38
S-37	07/23/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	12.65	13.34	0.00	1.9
S-37	11/05/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	14.36	11.63	0.00	NA
S-37	12/16/98	NA	NA	NA	NA	NA	NA	25.99	NA	NA	NA	1.5
S-37	02/24/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.99	11.59	14.40	0.00	1.3
S-38	04/19/89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-38	07/21/89	50	0.6	<0.5	<0.5	<0.5	NA	25.29	13.39	11.90	0.00	NA
S-38	10/23/89	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.48	11.81	0.00	NA
S-38	01/08/90	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.45	11.84	0.00	NA
S-38	04/26/90	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.60	11.69	0.00	NA
S-38	07/18/90	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.61	11.68	0.00	NA
S-38	10/31/90	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	14.22	11.07	0.00	NA
S-38	01/23/91	<50	0.7	0.9	<0.5	3.5	NA	25.29	14.09	11.20	0.00	NA
S-38	04/18/91	<50	0.5	0.5	<0.5	1.6	NA	25.29	12.96	12.33	0.00	NA
S-38	07/22/91	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	NA	NA	NA	NA
S-38	10/14/91	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	14.00	11.29	0.00	NA
S-38	01/21/92	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.50	11.79	0.00	NA
S-38	04/10/92	<50	<0.5	<0.5	0.4	0.4	NA	25.29	12.33	12.96	0.00	NA
S-38	07/07/92	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.26	12.03	0.00	NA
S-38	10/01/92	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.77	11.52	0.00	NA
S-38	02/11/93	<50	<0.5	<0.5	<0.5	2.1	NA	25.29	11.63	13.66	0.00	NA
S-38	05/06/93	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	NA	NA	NA	NA
S-38	08/24/93	<50	<0.5	<0.5	<0.5	0.7	NA	25.29	13.25	12.04	0.00	NA
S-38	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.32	11.97	0.00	NA
S-38	02/09/94	NA	NA	NA	NA	NA	NA	25.29	12.70	12.59	0.00	NA
S-38	05/09/94	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	12.38	12.91	0.00	NA
S-38	08/09/94	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.10	12.19	0.00	NA
S-38	11/03/94	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.38	11.91	0.00	NA
S-38	02/24/95	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	11.76	13.53	0.00	NA
S-38	05/11/95	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	11.90	13.39	0.00	NA
S-38	08/18/95	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	12.83	12.46	0.00	NA
S-38	10/31/95	<50	<0.5	<0.5	<0.5	<0.5	NA	25.29	13.55	11.74	0.00	NA
S-38	02/27/96	<50	<0.5	1.1	<0.5	1.1	<2	25.29	10.51	14.78	0.00	NA
S-38	04/19/96	<50	<0.50	<0.50	<0.50	<0.50	NA	25.29	11.52	13.77	0.00	NA
S-38	08/01/96	NA	NA	NA	NA	NA	NA	25.29	NA	NA	NA	NA
S-38	11/13/96	<50	<0.50	<0.50	<0.50	<0.50	NA	25.29	12.00	13.29	0.00	3.9
S-38	02/05/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	10.75	14.54	0.00	NA
S-38	03/27/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	12.56	12.73	0.00	NA
S-38	07/22/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	12.55	12.74	0.00	NA
S-38	11/13/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	12.95	12.34	0.00	NA
S-38	01/22/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	10.52	14.77	0.00	NA
S-38	03/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	11.67	13.62	0.00	NA
S-38	07/23/98	NA	NA	NA	NA	NA	NA	25.29	12.21	13.08	0.00	NA
S-38	11/05/98	NA	NA	NA	NA	NA	NA	25.29	14.84	10.45	0.00	NA
S-38	02/24/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	25.29	11.78	13.51	0.00	NA
S-38 (dup)	10/31/95	<50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA

DO Dissolved oxygen
 LPH Liquid-phase hydrocarbons
 amsl mean sea level
 MTBE Methyl-tertiary butyl ether
 ppm parts per million
 TOB Top of wellbox elevation
 TPPH Total Purgeable Petroleum Hydrocarbons as gasoline
 µg/L micrograms per liter



AEI Consultants

APPENDIX A
Soil Boring Logs



AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SB-1

PAGE 1 OF 1

CLIENT Harvest Investments

PROJECT NUMBER 335476

DATE STARTED 7/18/17 COMPLETED 7/18/17

DRILLING CONTRACTOR Penecore

DRILLING METHOD Direct Push

LOGGED BY Nathan Bricker CHECKED BY J. Day

NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

GROUND ELEVATION HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0.0	SB-1-0.5		0.0	0.1	TOPSOIL GRAVELLY SILT (ML) with clay, dark yellowish brown (3/4 10YR), loose, dry, about 30% fine gravel, non-plastic	
2.5	SB-1-2.5		0.0	1.5	SILTY CLAY (CL), grayish brown (5/2 10YR), stiff, dry, low plasticity	
			3.0		Bottom of borehole at 3.0 feet.	



AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SB-2

PAGE 1 OF 1

CLIENT Harvest Investments

PROJECT NUMBER 335476

DATE STARTED 7/18/17 COMPLETED 7/18/17

DRILLING CONTRACTOR Penecore

DRILLING METHOD Direct Push

LOGGED BY Nathan Bricker CHECKED BY J. Day

NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

GROUND ELEVATION HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0.0	SB-2-0.5		0.0	0.1	TOPSOIL GRAVELLY SILT (ML) with clay, dark yellowish brown (3/4 10YR), loose, dry, about 30% fine gravel, non-plastic	
2.5	SB-2-2.5		0.0	1.5	SILTY CLAY (CL), grayish brown (5/2 10YR), stiff, dry, low plasticity	
			3.0		Bottom of borehole at 3.0 feet.	



AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SB-3

PAGE 1 OF 1

CLIENT Harvest Investments

PROJECT NUMBER 335476

DATE STARTED 7/18/17 COMPLETED 7/18/17

DRILLING CONTRACTOR Penecore

DRILLING METHOD Direct Push

LOGGED BY Nathan Bricker CHECKED BY J. Day

NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

GROUND ELEVATION HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0.0	SB-3-0.5		0.0	0.1	TOPSOIL GRAVELLY SILT (ML) with clay, dark yellowish brown (3/4 10YR), loose, dry, about 30% fine gravel, non-plastic	
2.5	SB-3-2.5		0.0	1.0	SILTY CLAY (CL), grayish brown (5/2 10YR), stiff, dry, low plasticity	
				3.0	Bottom of borehole at 3.0 feet.	



AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
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BORING NUMBER SB-4

PAGE 1 OF 1

CLIENT Harvest Investments
PROJECT NUMBER 335476
DATE STARTED 7/18/17 COMPLETED 7/18/17
DRILLING CONTRACTOR Penecore
DRILLING METHOD Direct Push
LOGGED BY Nathan Bricker CHECKED BY J. Day
NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

GROUND ELEVATION HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

FIELD NOTES BORING LOGS.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0.0	SB-4-0.5		0.0	0.1	TOPSOIL SILTY CLAY (CL), grayish brown (5/2 10YR), stiff, dry, low plasticity, hard drilling, about 50% recovery	
2.5	SB-4-2.5		0.0	3.0		

Bottom of borehole at 3.0 feet.

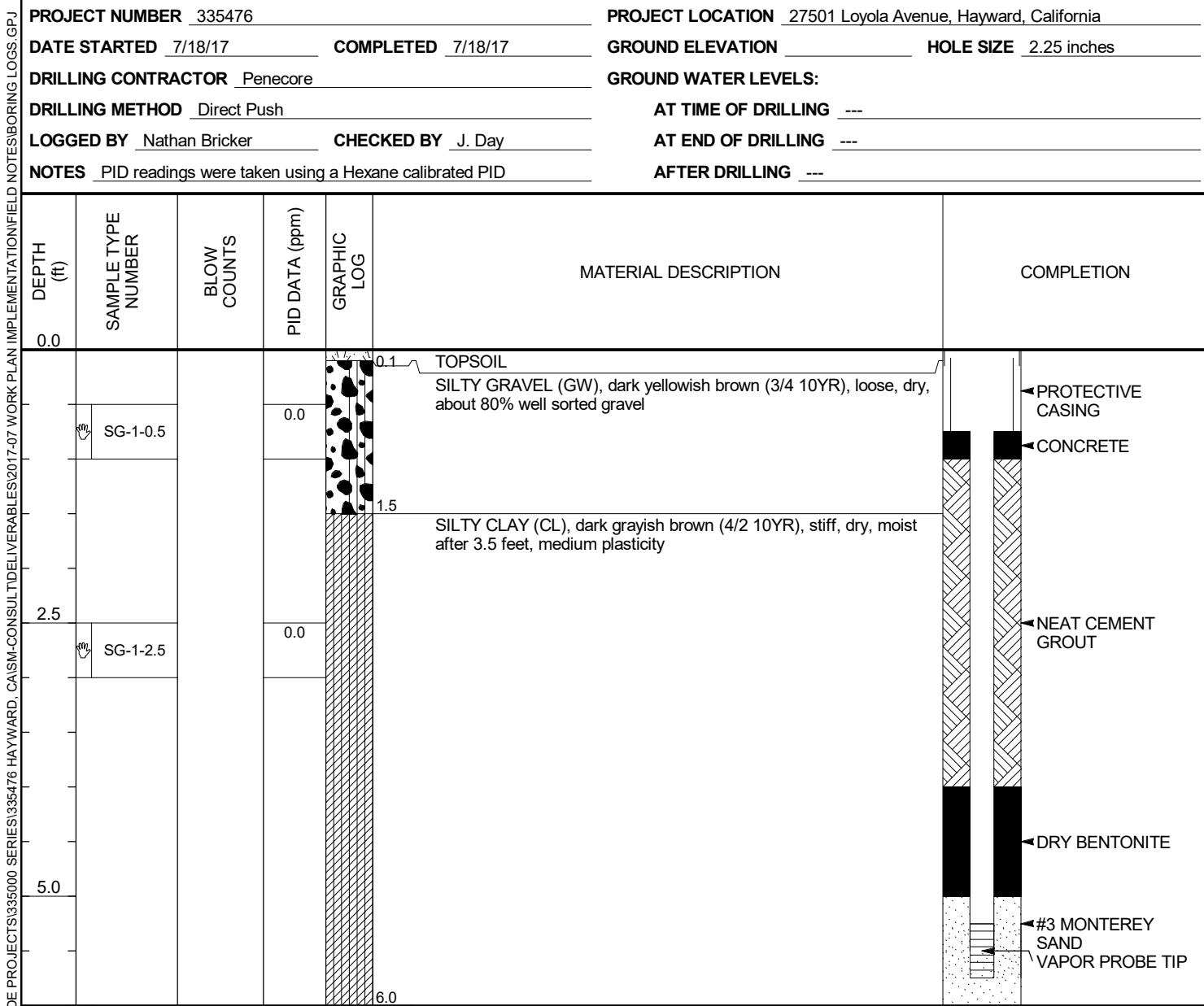


AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SG-1

PAGE 1 OF 1

CLIENT	Harvest Investments			PROJECT NAME	Former Service Station
PROJECT NUMBER	335476			PROJECT LOCATION	27501 Loyola Avenue, Hayward, California
DATE STARTED	7/18/17	COMPLETED	7/18/17	GROUND ELEVATION	HOLE SIZE 2.25 inches
DRILLING CONTRACTOR	Penecore			GROUND WATER LEVELS:	
DRILLING METHOD	Direct Push			AT TIME OF DRILLING	---
LOGGED BY	Nathan Bricker	CHECKED BY	J. Day	AT END OF DRILLING	---
NOTES	PID readings were taken using a Hexane calibrated PID			AFTER DRILLING	---





AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SG-2

PAGE 1 OF 1

CLIENT Harvest Investments
PROJECT NUMBER 335476
DATE STARTED 7/18/17 COMPLETED 7/18/17
DRILLING CONTRACTOR Penecore
DRILLING METHOD Direct Push
LOGGED BY Nathan Bricker CHECKED BY J. Day
NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

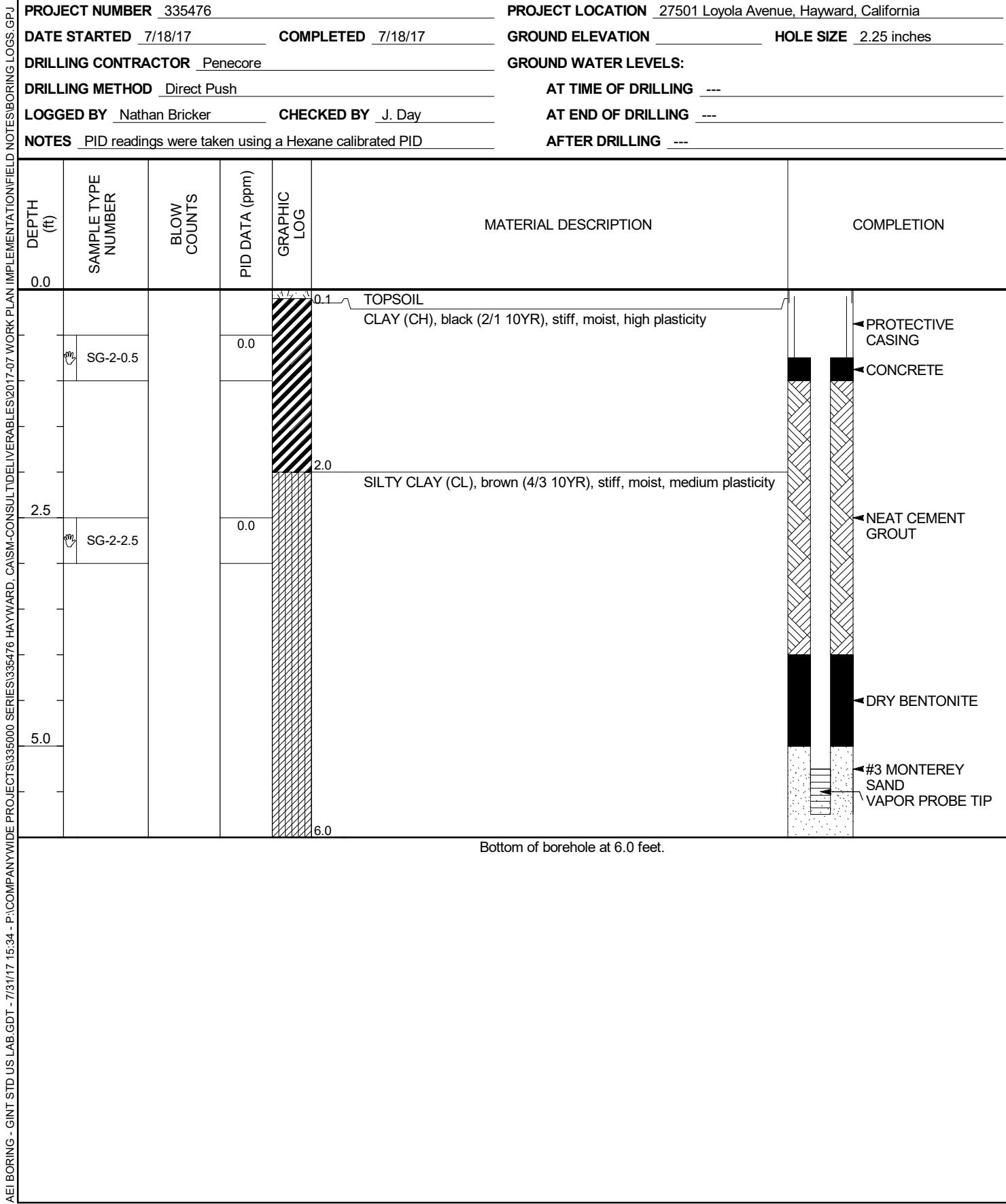
GROUND ELEVATION _____ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---





AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SG-3

PAGE 1 OF 1

CLIENT Harvest Investments

PROJECT NUMBER 335476

DATE STARTED 7/18/17 COMPLETED 7/18/17

DRILLING CONTRACTOR Penecore

DRILLING METHOD Direct Push

LOGGED BY Nathan Bricker CHECKED BY J. Day

NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station

PROJECT LOCATION 27501 Loyola Avenue, Hayward, California

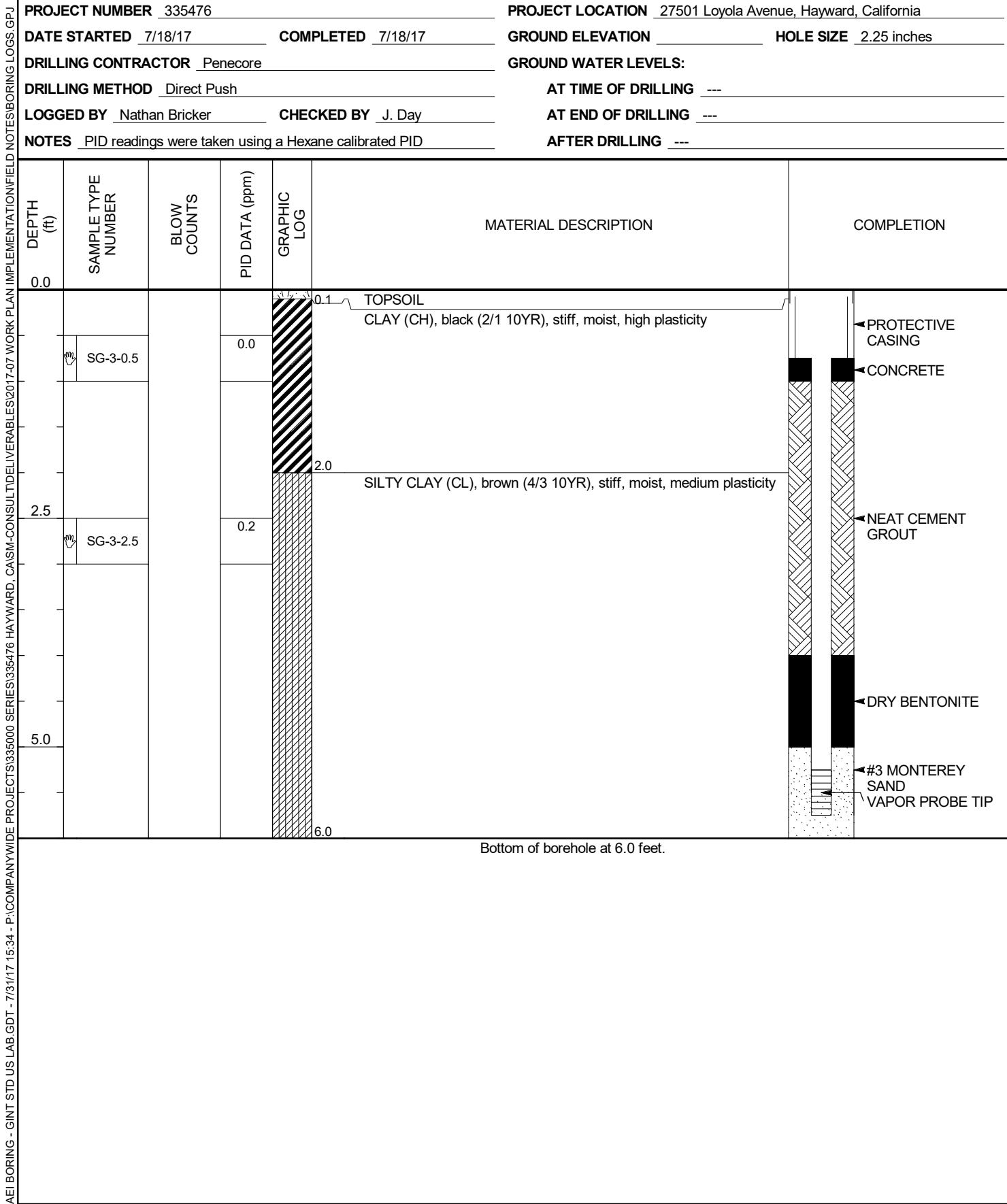
GROUND ELEVATION _____ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---





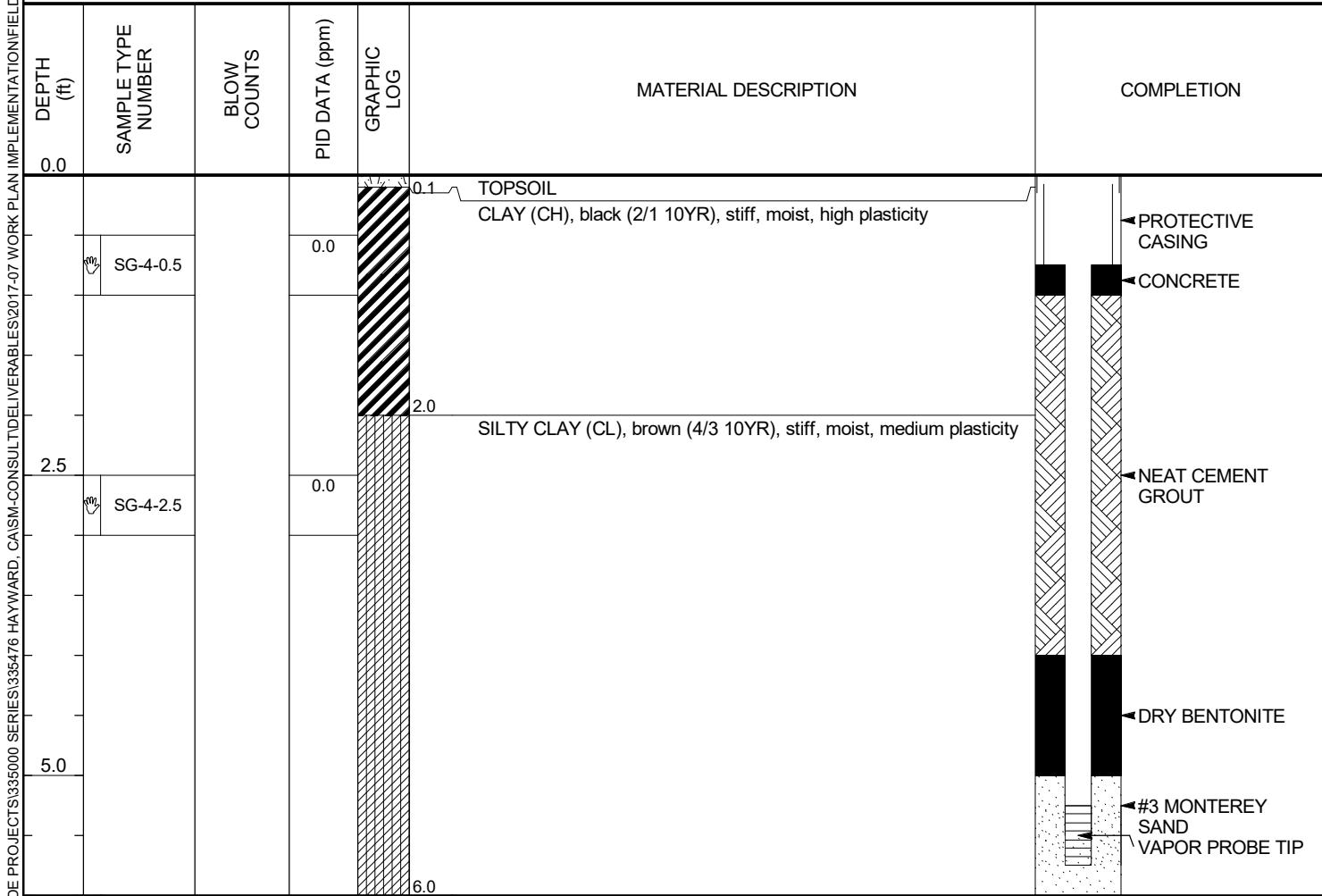
AEI CONSULTANTS
2500 Camino Diablo
Walnut Creek, CA 94597
Telephone: 9257466000
Fax: 9257466099

BORING NUMBER SG-4

PAGE 1 OF 1

CLIENT Harvest Investments
PROJECT NUMBER 335476
DATE STARTED 7/18/17 COMPLETED 7/18/17
DRILLING CONTRACTOR Penecore
DRILLING METHOD Direct Push
LOGGED BY Nathan Bricker CHECKED BY J. Day
NOTES PID readings were taken using a Hexane calibrated PID

PROJECT NAME Former Service Station
PROJECT LOCATION 27501 Loyola Avenue, Hayward, California
GROUND ELEVATION _____ HOLE SIZE 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING ---
AFTER DRILLING ---





AEI Consultants

APPENDIX B
Laboratory Analytical Reports

7/25/2017
Mr. Jonathan Sanders
AEI Consultants, Inc.
2500 Camino Diablo
Suite 200
Walnut Creek CA 94597

Project Name: 27501 Loyola Ave
Project #: 335476
Workorder #: 1707330

Dear Mr. Jonathan Sanders

The following report includes the data for the above referenced project for sample(s) received on 7/24/2017 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis
Project Manager

A Eurofins Lancaster Laboratories Company

WORK ORDER #: 1707330

Work Order Summary

CLIENT:	Mr. Jonathan Sanders AEI Consultants, Inc. 2500 Camino Diablo Suite 200 Walnut Creek, CA 94597	BILL TO:	Accounts Payable- Walnut Creek AEI Consultants, Inc. 2500 Camino Diablo Suite 200 Walnut Creek, CA 94597
PHONE:	925-283-6000	P.O. #	136024
FAX:	925-283-6121	PROJECT #	335476 27501 Loyola Ave
DATE RECEIVED:	07/24/2017	CONTACT:	Rachel Selenis
DATE COMPLETED:	07/25/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	SG-1	Modified TO-17 VI
02A	SG-2	Modified TO-17 VI
03A	SG-3	Modified TO-17 VI
04A	SG-4	Modified TO-17 VI
05A	Lab Blank	Modified TO-17 VI
05B	Lab Blank	Modified TO-17 VI
06A	CCV	Modified TO-17 VI
06B	CCV	Modified TO-17 VI
07A	LCS	Modified TO-17 VI
07AA	LCSD	Modified TO-17 VI
07B	LCS	Modified TO-17 VI
07BB	LCSD	Modified TO-17 VI

CERTIFIED BY:

DATE: 07/25/17

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
AEI Consultants, Inc.
Workorder# 1707330**

Four TO-17 VI Tube samples were received on July 24, 2017. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	TO-17	ATL Modifications
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 0.06 L was used to convert ng to ug/m³ for the associated Lab Blanks.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in blank (subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
EPA METHOD TO-17**

Client Sample ID: SG-1

Lab ID#: 1707330-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	17	1.8	31

Client Sample ID: SG-2

Lab ID#: 1707330-02A

No Detections Were Found.

Client Sample ID: SG-3

Lab ID#: 1707330-03A

No Detections Were Found.

Client Sample ID: SG-4

Lab ID#: 1707330-04A

No Detections Were Found.



Air Toxics

Client Sample ID: SG-1**Lab ID#: 1707330-01A****EPA METHOD TO-17**

File Name:	18072420	Date of Extraction:	NADate of Collection:	7/21/17 11:05:00 AM
Dil. Factor:	1.00			Date of Analysis: 7/24/17 10:16 PM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	17	1.8	31

Air Sample Volume(L): 0.0600**Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	97	50-150



Air Toxics

Client Sample ID: SG-2**Lab ID#: 1707330-02A****EPA METHOD TO-17**

File Name:	18072422	Date of Extraction:	NADate of Collection:	7/21/17 11:28:00 AM
Dil. Factor:	1.00			Date of Analysis: 7/24/17 11:43 PM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	17	Not Detected	Not Detected

Air Sample Volume(L): 0.0600**Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	96	50-150



Air Toxics

Client Sample ID: SG-3**Lab ID#: 1707330-03A****EPA METHOD TO-17**

File Name:	6072421	Date of Extraction:	NADate of Collection:	7/21/17 12:11:00 PM
Dil. Factor:	1.00			Date of Analysis: 7/25/17 11:06 AM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	17	Not Detected	Not Detected

Air Sample Volume(L): 0.0600**Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	102	50-150



Air Toxics

Client Sample ID: SG-4**Lab ID#: 1707330-04A****EPA METHOD TO-17**

File Name:	18072426	Date of Extraction:	NADate of Collection:	7/21/17 11:51:00 AM
Dil. Factor:	1.00			Date of Analysis: 7/25/17 02:36 AM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	17	Not Detected	Not Detected

Air Sample Volume(L): 0.0600**Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	93	50-150



Air Toxics

Client Sample ID: Lab Blank**Lab ID#: 1707330-05A****EPA METHOD TO-17**

File Name:	18072407	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 12:20 PM
Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)	
Naphthalene	1.0	17	Not Detected	Not Detected	

Air Sample Volume(L): 0.0600**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	83	50-150



Air Toxics

Client Sample ID: Lab Blank**Lab ID#: 1707330-05B****EPA METHOD TO-17**

File Name:	6072418	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/25/17 12:15 AM
Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)	
Naphthalene	1.0	17	Not Detected	Not Detected	

Air Sample Volume(L): 0.0600**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	101	50-150



Air Toxics

Client Sample ID: CCV**Lab ID#: 1707330-06A****EPA METHOD TO-17**

File Name:	18072406	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 11:37 AM

Compound	%Recovery
Naphthalene	88

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	81	50-150



Air Toxics

Client Sample ID: CCV**Lab ID#: 1707330-06B****EPA METHOD TO-17**

File Name:	6072409a	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00				Date of Analysis: 7/24/17 06:14 PM

Compound	%Recovery
Naphthalene	96

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	100	50-150



Air Toxics

Client Sample ID: LCS**Lab ID#: 1707330-07A****EPA METHOD TO-17**

File Name:	18072404	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 10:09 AM

Compound	%Recovery	Method Limits
Naphthalene	94	70-130

Air Sample Volume(L): 1.00**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150



Air Toxics

Client Sample ID: LCSD**Lab ID#: 1707330-07AA****EPA METHOD TO-17**

File Name:	18072405	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 10:53 AM

Compound	%Recovery	Method Limits
Naphthalene	90	70-130

Air Sample Volume(L): 1.00**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	90	50-150



Air Toxics

Client Sample ID: LCS**Lab ID#: 1707330-07B****EPA METHOD TO-17**

File Name:	6072416	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 10:55 PM

Compound	%Recovery	Method Limits
Naphthalene	106	70-130

Air Sample Volume(L): 1.00**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	106	50-150



Air Toxics

Client Sample ID: LCSD**Lab ID#: 1707330-07BB****EPA METHOD TO-17**

File Name:	6072417	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	7/24/17 11:35 PM

Compound	%Recovery	Method Limits
Naphthalene	103	70-130

Air Sample Volume(L): 1.00**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	103	50-150

July 27, 2017

AEI Consultants - CA

Sample Delivery Group: L924280
Samples Received: 07/22/2017
Project Number: 335476
Description: 27501 Loyola Ave
Site: 27501 LOYOLA AVE HAYWARD CA
Report To: Jonathan Sanders
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

ONE LAB. NATIONWIDE.



Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	² Tc
Ss: Sample Summary	3	³ Ss
Cn: Case Narrative	4	⁴ Cn
Sr: Sample Results	5	⁵ Sr
SG-1 L924280-01	5	
SG-2 L924280-02	7	
SG-3 L924280-03	9	
SG-4 L924280-04	11	
Qc: Quality Control Summary	13	⁶ Qc
Volatile Organic Compounds (GC) by Method ASTM 1946	13	
Volatile Organic Compounds (MS) by Method TO-15	14	
Organic Compounds (GC) by Method D1946	18	
Gl: Glossary of Terms	19	⁷ Gl
Al: Accreditations & Locations	20	⁸ Al
Sc: Chain of Custody	21	⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Nathan Bricker	Collected date/time 07/21/17 11:05	Received date/time 07/22/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG1001827	1	07/24/17 10:59	07/24/17 10:59	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1002354	2	07/25/17 15:15	07/25/17 15:15	MBF
Organic Compounds (GC) by Method D1946	WG1001824	1	07/23/17 10:10	07/23/17 10:10	AMC
SG-2 L924280-02 Air			Collected by Nathan Bricker	Collected date/time 07/21/17 11:28	Received date/time 07/22/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG1001827	1	07/24/17 11:19	07/24/17 11:19	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1002354	2	07/25/17 16:05	07/25/17 16:05	MBF
Organic Compounds (GC) by Method D1946	WG1001824	1	07/23/17 10:22	07/23/17 10:22	AMC
SG-3 L924280-03 Air			Collected by Nathan Bricker	Collected date/time 07/21/17 12:11	Received date/time 07/22/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG1001827	1	07/24/17 11:45	07/24/17 11:45	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1002354	2	07/25/17 16:54	07/25/17 16:54	MBF
Organic Compounds (GC) by Method D1946	WG1001824	1	07/23/17 10:41	07/23/17 10:41	AMC
SG-4 L924280-04 Air			Collected by Nathan Bricker	Collected date/time 07/21/17 11:51	Received date/time 07/22/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method ASTM 1946	WG1001827	1	07/24/17 12:10	07/24/17 12:10	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1002354	2	07/25/17 17:43	07/25/17 17:43	MBF
Organic Compounds (GC) by Method D1946	WG1001824	1	07/23/17 10:54	07/23/17 10:54	AMC

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
Helium	7440-59-7		ppb	100000	ND	1	WG1001827

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	2.50	5.94	20.2	48.1		2	WG1002354
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1002354
Benzene	71-43-2	78.10	0.400	1.28	1.18	3.76		2	WG1002354
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1002354
Bromodichloromethane	75-27-4	164	0.400	2.68	0.508	3.41		2	WG1002354
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1002354
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1002354
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1002354
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.721	2.24		2	WG1002354
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1002354
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1002354
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1002354
Chloroform	67-66-3	119	0.400	1.95	1.28	6.25		2	WG1002354
Chloromethane	74-87-3	50.50	0.400	0.826	0.403	0.833		2	WG1002354
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1002354
Cyclohexane	110-82-7	84.20	0.400	1.38	3.77	13.0		2	WG1002354
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1002354
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1002354
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1002354
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1002354
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1002354
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1002354
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1002354
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1002354
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1002354
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1002354
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1002354
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1002354
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1002354
1,4-Dioxane	123-91-1	88.10	0.400	1.44	1.04	3.75		2	WG1002354
Ethanol	64-17-5	46.10	1.26	2.38	6.81	12.8		2	WG1002354
Ethylbenzene	100-41-4	106	0.400	1.73	9.99	43.3		2	WG1002354
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.559	2.74		2	WG1002354
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1002354
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1002354
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1002354
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1002354
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1002354
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1002354
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1002354
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1002354
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1002354
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1002354
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1002354
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1002354
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1002354
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1002354
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1002354
2-Propanol	67-63-0	60.10	2.50	6.15	3.05	7.49		2	WG1002354
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1002354



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1002354
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1002354
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.496	3.36		2	WG1002354
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.505	1.49		2	WG1002354
Toluene	108-88-3	92.10	0.400	1.51	5.41	20.4		2	WG1002354
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1002354
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1002354
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1002354
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1002354
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.540	2.65		2	WG1002354
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1002354
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1002354
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1002354
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1002354
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1002354
m&p-Xylene	1330-20-7	106	0.800	3.47	25.8	112		2	WG1002354
o-Xylene	95-47-6	106	0.400	1.73	7.07	30.7		2	WG1002354
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	0.739	2.00		2	WG1002354
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.2				WG1002354

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	<u>Qualifier</u>	Dilution	<u>Batch</u>
Oxygen	7782-44-7	32	2.00	14.2		1	WG1001824
Carbon Dioxide	124-38-9	44.01	0.500	0.886		1	WG1001824
Methane	74-82-8	16	0.400	ND		1	WG1001824



Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL ppb	Result ppb	Qualifier	Dilution	Batch
Helium	7440-59-7		100000	ND		1	WG1001827

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	2.80	6.65		2	WG1002354
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1002354
Benzene	71-43-2	78.10	0.400	1.28	0.448	1.43		2	WG1002354
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1002354
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1002354
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1002354
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1002354
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1002354
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.557	1.73		2	WG1002354
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1002354
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1002354
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1002354
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1002354
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1002354
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1002354
Cyclohexane	110-82-7	84.20	0.400	1.38	2.85	9.83		2	WG1002354
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1002354
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1002354
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1002354
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1002354
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1002354
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1002354
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1002354
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1002354
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1002354
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1002354
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1002354
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1002354
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1002354
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1002354
Ethanol	64-17-5	46.10	1.26	2.38	4.98	9.39		2	WG1002354
Ethylbenzene	100-41-4	106	0.400	1.73	1.90	8.24		2	WG1002354
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1002354
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1002354
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1002354
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1002354
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1002354
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1002354
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1002354
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1002354
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1002354
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1002354
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1002354
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1002354
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1002354
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1002354
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1002354
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1002354
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1002354
Propene	115-07-1	42.10	0.800	1.38	1.22	2.10		2	WG1002354



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>	1 Cp
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1002354	2 Tc
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1002354	3 Ss
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1002354	4 Cn
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1002354	5 Sr
Toluene	108-88-3	92.10	0.400	1.51	2.18	8.22		2	WG1002354	6 Qc
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1002354	7 GI
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1002354	8 Al
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1002354	9 Sc
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1002354	
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1002354	
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1002354	
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1002354	
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1002354	
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1002354	
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1002354	
m&p-Xylene	1330-20-7	106	0.800	3.47	1.61	6.99		2	WG1002354	
o-Xylene	95-47-6	106	0.400	1.73	0.612	2.66		2	WG1002354	
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	ND	ND		2	WG1002354	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.0				WG1002354	

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	<u>Qualifier</u>	Dilution	<u>Batch</u>
Oxygen	7782-44-7	32	2.00	5.23		1	WG1001824
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1001824
Methane	74-82-8	16	0.400	ND		1	WG1001824



Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL ppb	Result ppb	Qualifier	Dilution	Batch
Helium	7440-59-7		100000	ND		1	WG1001827

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	15.3	36.3		2	WG1002354
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1002354
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1002354
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1002354
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1002354
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1002354
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1002354
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1002354
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.434	1.35		2	WG1002354
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1002354
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1002354
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1002354
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1002354
Chloromethane	74-87-3	50.50	0.400	0.826	0.814	1.68		2	WG1002354
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1002354
Cyclohexane	110-82-7	84.20	0.400	1.38	0.890	3.07		2	WG1002354
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1002354
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1002354
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1002354
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1002354
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1002354
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1002354
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1002354
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1002354
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1002354
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1002354
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1002354
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1002354
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1002354
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1002354
Ethanol	64-17-5	46.10	1.26	2.38	15.5	29.2		2	WG1002354
Ethylbenzene	100-41-4	106	0.400	1.73	0.541	2.35		2	WG1002354
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1002354
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1002354
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1002354
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1002354
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1002354
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1002354
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1002354
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1002354
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1002354
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1002354
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1002354
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1002354
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1002354
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1002354
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1002354
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1002354
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1002354
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1002354



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1002354
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1002354
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.639	4.34		2	WG1002354
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1002354
Toluene	108-88-3	92.10	0.400	1.51	1.74	6.56		2	WG1002354
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1002354
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1002354
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1002354
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1002354
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1002354
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1002354
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1002354
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1002354
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1002354
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1002354
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG1002354
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1002354
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	1.15	3.09		2	WG1002354
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.8				WG1002354

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	<u>Qualifier</u>	Dilution	<u>Batch</u>
Oxygen	7782-44-7	32	2.00	14.7		1	WG1001824
Carbon Dioxide	124-38-9	44.01	0.500	1.03		1	WG1001824
Methane	74-82-8	16	0.400	ND		1	WG1001824



Volatile Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL ppb	Result ppb	Qualifier	Dilution	Batch
Helium	7440-59-7		100000	ND		1	WG1001827

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	4.08	9.70		2	WG1002354
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1002354
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1002354
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1002354
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1002354
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1002354
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1002354
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1002354
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.418	1.30		2	WG1002354
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1002354
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1002354
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1002354
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1002354
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1002354
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1002354
Cyclohexane	110-82-7	84.20	0.400	1.38	1.28	4.40		2	WG1002354
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1002354
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1002354
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1002354
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1002354
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1002354
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1002354
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1002354
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1002354
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1002354
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1002354
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1002354
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1002354
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1002354
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1002354
Ethanol	64-17-5	46.10	1.26	2.38	5.11	9.63		2	WG1002354
Ethylbenzene	100-41-4	106	0.400	1.73	1.22	5.27		2	WG1002354
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1002354
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1002354
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1002354
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1002354
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1002354
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1002354
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1002354
n-Hexane	110-54-3	86.20	0.400	1.41	0.442	1.56		2	WG1002354
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1002354
Methylene Chloride	75-09-2	84.90	0.400	1.39	1.13	3.92		2	WG1002354
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1002354
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1002354
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1002354
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1002354
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1002354
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1002354
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1002354
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1002354



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	<u>Qualifier</u>	Dilution	<u>Batch</u>
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1002354
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1002354
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1002354
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1002354
Toluene	108-88-3	92.10	0.400	1.51	0.623	2.35		2	WG1002354
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1002354
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1002354
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1002354
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1002354
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1002354
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1002354
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1002354
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1002354
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1002354
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1002354
m&p-Xylene	1330-20-7	106	0.800	3.47	1.58	6.83		2	WG1002354
o-Xylene	95-47-6	106	0.400	1.73	0.572	2.48		2	WG1002354
1,1-Difluoroethane	75-37-6	66.05	0.400	1.08	ND	ND		2	WG1002354
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		92.4				WG1002354

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	<u>Qualifier</u>	Dilution	<u>Batch</u>
Oxygen	7782-44-7	32	2.00	9.49		1	WG1001824
Carbon Dioxide	124-38-9	44.01	0.500	0.871		1	WG1001824
Methane	74-82-8	16	0.400	ND		1	WG1001824



Method Blank (MB)

(MB) R3235634-3 07/24/17 08:49

Analyte	MB Result ppb	<u>MB Qualifier</u>	MB MDL ppb	MB RDL ppb
Helium	U		30000	100000

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235634-1 07/24/17 08:06 • (LCSD) R3235634-2 07/24/17 08:30

Analyte	Spike Amount ppb	LCS Result ppb	LCSD Result ppb	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Helium	500000	487000	529000	97.4	106	70.0-130			8.13	25



L924280-01,02,03,04

Method Blank (MB)

(MB) R3235960-3 07/25/17 10:00

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.0569	1.25	¹ Cp
Allyl Chloride	U		0.0546	0.200	² Tc
Benzene	U		0.0460	0.200	³ Ss
Benzyl Chloride	0.0691	J	0.0598	0.200	⁴ Cn
Bromodichloromethane	U		0.0436	0.200	⁵ Sr
Bromoform	U		0.0786	0.600	⁶ Qc
Bromomethane	U		0.0609	0.200	⁷ Gl
1,3-Butadiene	U		0.0563	2.00	⁸ Al
Carbon disulfide	U		0.0544	0.200	⁹ Sc
Carbon tetrachloride	U		0.0585	0.200	
Chlorobenzene	U		0.0601	0.200	
Chloroethane	U		0.0489	0.200	
Chloroform	U		0.0574	0.200	
Chloromethane	U		0.0544	0.200	
2-Chlorotoluene	U		0.0605	0.200	
Cyclohexane	U		0.0534	0.200	
Dibromochloromethane	U		0.0494	0.200	
1,2-Dibromoethane	U		0.0185	0.200	
1,2-Dichlorobenzene	U		0.0603	0.200	
1,3-Dichlorobenzene	U		0.0597	0.200	
1,4-Dichlorobenzene	0.0610	J	0.0557	0.200	
1,2-Dichloroethane	U		0.0616	0.200	
1,1-Dichloroethane	U		0.0514	0.200	
1,1-Dichloroethene	U		0.0490	0.200	
cis-1,2-Dichloroethene	U		0.0389	0.200	
trans-1,2-Dichloroethene	U		0.0464	0.200	
1,2-Dichloropropane	U		0.0599	0.200	
cis-1,3-Dichloropropene	U		0.0588	0.200	
trans-1,3-Dichloropropene	U		0.0435	0.200	
1,4-Dioxane	U		0.0554	0.200	
Ethylbenzene	U		0.0506	0.200	
4-Ethyltoluene	U		0.0666	0.200	
Trichlorofluoromethane	U		0.0673	0.200	
Dichlorodifluoromethane	U		0.0601	0.200	
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200	
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200	
Heptane	U		0.0626	0.200	
Hexachloro-1,3-butadiene	U		0.0656	0.630	
n-Hexane	U		0.0457	0.200	
Isopropylbenzene	U		0.0563	0.200	



L924280-01,02,03,04

Method Blank (MB)

(MB) R3235960-3 07/25/17 10:00

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv									
Methylene Chloride	U		0.0465	0.200									
Methyl Butyl Ketone	U		0.0682	1.25									
2-Butanone (MEK)	U		0.0493	1.25									
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25									
Methyl Methacrylate	U		0.0773	0.200									
MTBE	U		0.0505	0.200									
Naphthalene	0.244	J	0.154	0.630									
2-Propanol	U		0.0882	1.25									
Propene	U		0.0932	0.400									
Styrene	U		0.0465	0.200									
1,1,2,2-Tetrachloroethane	U		0.0576	0.200									
Tetrachloroethylene	U		0.0497	0.200									
Tetrahydrofuran	U		0.0508	0.200									
Toluene	U		0.0499	0.200									
1,2,4-Trichlorobenzene	0.178	J	0.148	0.630									
1,1,1-Trichloroethane	U		0.0665	0.200									
1,1,2-Trichloroethane	U		0.0287	0.200									
Trichloroethylene	U		0.0545	0.200									
1,2,4-Trimethylbenzene	U		0.0483	0.200									
1,3,5-Trimethylbenzene	U		0.0631	0.200									
2,2,4-Trimethylpentane	U		0.0456	0.200									
Vinyl chloride	U		0.0457	0.200									
Vinyl Bromide	U		0.0727	0.200									
Vinyl acetate	U		0.0639	0.200									
m&p-Xylene	U		0.0946	0.400									
o-Xylene	U		0.0633	0.200									
Ethanol	0.130	J	0.0832	0.630									
1,1-Difluoroethane	U		0.0256	0.200									
(S) 1,4-Bromofluorobenzene	88.9			60.0-140									

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235960-1 07/25/17 08:23 • (LCSD) R3235960-2 07/25/17 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethanol	3.75	4.09	4.04	109	108	52.0-158			1.20	25
Propene	3.75	3.71	3.70	99.0	98.7	54.0-155			0.360	25
Dichlorodifluoromethane	3.75	3.79	3.49	101	93.2	69.0-143			8.24	25
1,2-Dichlorotetrafluoroethane	3.75	4.08	3.99	109	106	70.0-130			2.21	25



L924280-01,02,03,04

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235960-1 07/25/17 08:23 • (LCSD) R3235960-2 07/25/17 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chloromethane	3.75	3.72	3.67	99.1	97.9	70.0-130			1.20	25
Vinyl chloride	3.75	3.76	3.70	100	98.8	70.0-130			1.47	25
1,3-Butadiene	3.75	3.68	3.71	98.2	99.1	70.0-130			0.830	25
Bromomethane	3.75	3.80	3.73	101	99.5	70.0-130			1.87	25
Chloroethane	3.75	3.75	3.65	99.9	97.4	70.0-130			2.50	25
Trichlorofluoromethane	3.75	3.75	3.69	99.9	98.4	70.0-130			1.55	25
1,1,2-Trichlorotrifluoroethane	3.75	3.73	3.66	99.5	97.5	70.0-130			1.99	25
1,1-Dichloroethene	3.75	3.68	3.66	98.3	97.5	70.0-130			0.740	25
1,1-Dichloroethane	3.75	3.77	3.73	101	99.4	70.0-130			1.30	25
Acetone	3.75	3.85	3.81	103	102	70.0-130			0.890	25
2-Propanol	3.75	3.92	3.85	104	103	66.0-150			1.72	25
Carbon disulfide	3.75	3.79	3.73	101	99.6	70.0-130			1.52	25
Methylene Chloride	3.75	3.84	3.75	102	100	70.0-130			2.32	25
MTBE	3.75	3.78	3.75	101	100	70.0-130			0.720	25
trans-1,2-Dichloroethene	3.75	3.81	3.69	101	98.5	70.0-130			2.96	25
n-Hexane	3.75	3.78	3.77	101	100	70.0-130			0.300	25
Vinyl acetate	3.75	4.05	4.00	108	107	70.0-130			1.30	25
Methyl Ethyl Ketone	3.75	4.00	3.90	107	104	70.0-130			2.40	25
cis-1,2-Dichloroethene	3.75	3.95	3.91	105	104	70.0-130			0.940	25
Chloroform	3.75	3.72	3.69	99.3	98.3	70.0-130			0.990	25
Cyclohexane	3.75	3.77	3.66	101	97.7	70.0-130			2.89	25
1,1,1-Trichloroethane	3.75	3.75	3.70	99.9	98.6	70.0-130			1.34	25
Carbon tetrachloride	3.75	3.74	3.68	99.8	98.0	70.0-130			1.78	25
Benzene	3.75	3.72	3.69	99.1	98.4	70.0-130			0.740	25
1,2-Dichloroethane	3.75	3.66	3.67	97.7	98.0	70.0-130			0.300	25
Heptane	3.75	3.71	3.72	99.0	99.2	70.0-130			0.210	25
Trichloroethylene	3.75	3.68	3.67	98.2	97.9	70.0-130			0.300	25
1,2-Dichloropropane	3.75	3.69	3.68	98.5	98.3	70.0-130			0.230	25
1,4-Dioxane	3.75	3.84	3.83	102	102	70.0-152			0.290	25
Bromodichloromethane	3.75	3.71	3.69	98.9	98.3	70.0-130			0.630	25
cis-1,3-Dichloropropene	3.75	3.85	3.81	103	102	70.0-130			0.930	25
4-Methyl-2-pentanone (MIBK)	3.75	3.83	3.84	102	102	70.0-142			0.220	25
Toluene	3.75	3.69	3.68	98.5	98.1	70.0-130			0.400	25
trans-1,3-Dichloropropene	3.75	3.82	3.82	102	102	70.0-130			0.0100	25
1,1,2-Trichloroethane	3.75	3.70	3.70	98.8	98.6	70.0-130			0.120	25
Tetrachloroethylene	3.75	3.62	3.59	96.5	95.9	70.0-130			0.690	25
Methyl Butyl Ketone	3.75	4.06	4.09	108	109	70.0-150			0.750	25
Dibromochloromethane	3.75	3.69	3.66	98.5	97.7	70.0-130			0.750	25
1,2-Dibromoethane	3.75	3.79	3.74	101	99.8	70.0-130			1.24	25
Chlorobenzene	3.75	3.65	3.64	97.4	97.0	70.0-130			0.420	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L924280-01,02,03,04

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235960-1 07/25/17 08:23 • (LCSD) R3235960-2 07/25/17 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	3.75	3.64	3.63	97.1	96.7	70.0-130			0.320	25
m&p-Xylene	7.50	7.26	7.17	96.7	95.6	70.0-130			1.18	25
o-Xylene	3.75	3.58	3.53	95.4	94.1	70.0-130			1.34	25
Styrene	3.75	3.75	3.71	100	98.9	70.0-130			1.03	25
Bromoform	3.75	3.74	3.67	99.7	97.8	70.0-130			1.95	25
1,1,2,2-Tetrachloroethane	3.75	3.51	3.43	93.7	91.5	70.0-130			2.32	25
4-Ethyltoluene	3.75	3.60	3.58	96.1	95.4	70.0-130			0.750	25
1,3,5-Trimethylbenzene	3.75	3.45	3.43	91.9	91.6	70.0-130			0.340	25
1,2,4-Trimethylbenzene	3.75	3.42	3.41	91.1	90.9	70.0-130			0.300	25
1,3-Dichlorobenzene	3.75	3.70	3.63	98.8	96.8	70.0-130			2.06	25
1,4-Dichlorobenzene	3.75	3.70	3.68	98.6	98.0	70.0-130			0.560	25
Benzyl Chloride	3.75	3.66	3.59	97.7	95.6	70.0-144			2.15	25
1,2-Dichlorobenzene	3.75	3.43	3.42	91.3	91.3	70.0-130			0.0600	25
1,2,4-Trichlorobenzene	3.75	4.04	3.97	108	106	70.0-155			1.93	25
Hexachloro-1,3-butadiene	3.75	3.86	3.75	103	100	70.0-145			2.71	25
Naphthalene	3.75	4.00	4.08	107	109	70.0-155			2.11	25
Allyl Chloride	3.75	3.77	3.74	101	99.8	70.0-130			0.750	25
2-Chlorotoluene	3.75	3.50	3.48	93.3	92.7	70.0-130			0.600	25
Methyl Methacrylate	3.75	3.84	3.79	102	101	70.0-130			1.11	25
Tetrahydrofuran	3.75	3.79	3.79	101	101	70.0-140			0.240	25
2,2,4-Trimethylpentane	3.75	3.89	3.86	104	103	70.0-130			0.740	25
Vinyl Bromide	3.75	3.75	3.75	100	100	70.0-130			0.0300	25
Isopropylbenzene	3.75	3.54	3.48	94.3	92.8	70.0-130			1.59	25
1,1-Difluoroethane	3.75	3.77	3.74	100	99.6	70.0-130			0.780	25
(S) 1,4-Bromofluorobenzene				98.4	98.2	60.0-140				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L924280-01,02,03,04

Method Blank (MB)

(MB) R3235477-3 07/23/17 08:03

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Oxygen	U		0.225	2.00
Carbon Dioxide	U		0.121	0.500
Methane	U		0.0584	0.400

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235477-1 07/23/17 07:04 • (LCSD) R3235477-2 07/23/17 07:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Oxygen	3.50	3.76	3.41	107	97.6	70.0-130			9.57	20
Carbon Dioxide	3.50	2.93	3.17	83.7	90.5	70.0-130			7.78	20
Methane	2.80	2.41	2.53	85.9	90.4	70.0-130			5.04	20



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

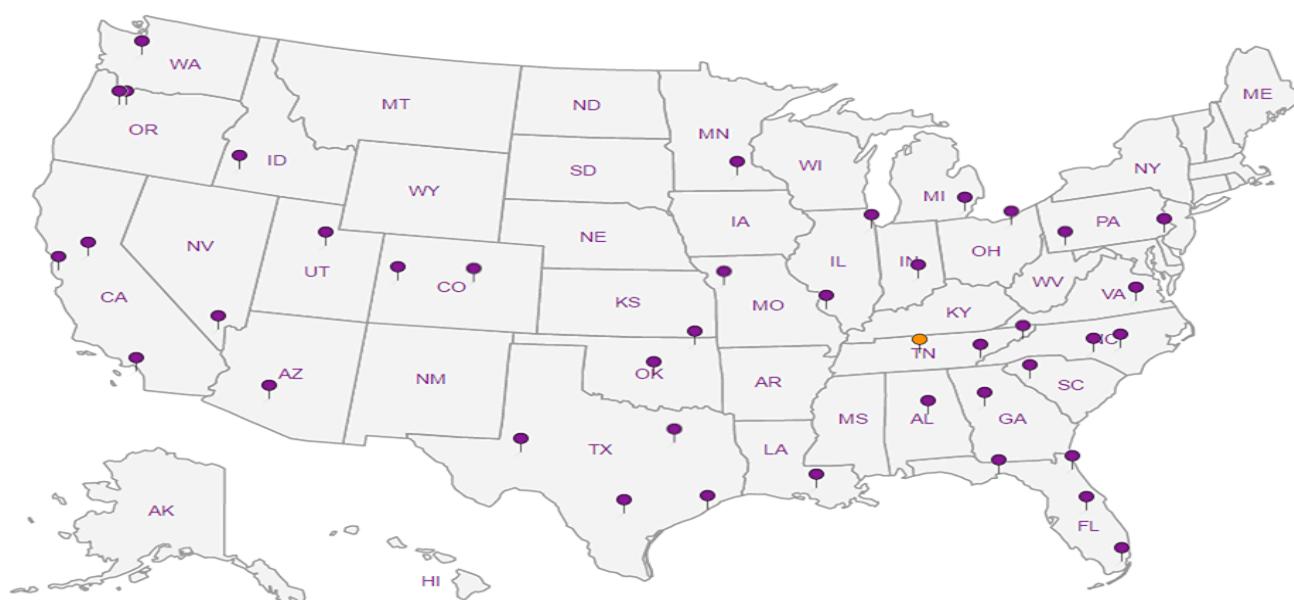
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ Sc



L# **924276**

M175

Acctnum: AEICONWCCA
 Template: T125621
 Prelogin: P609650
 TSR: 110 - Brian Ford
 PB:
 Shipped Via:

Remarks Sample # (lab only)

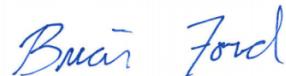
AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597		Billing Information: Accounts Payable- Jeremy Smith 2500 Camino Diablo Walnut Creek, CA 94597		Pres Chk	Analysis / Container / Preservative										
Report to: Nathan Bricker / Jonathan Sanders		Email To: nbricker@aeiconsultants.com JSanders@aeiconsultants.com													
Project Description: 27501 Loyola Ave		City/State Laywerd Collected: California													
Phone: 925-746-6028	Client Project #	Lab Project # AEICONWCCA-BRICKER													
Fax:	335476	P.O. # 136001													
Collected by (print): Nathan Bricker	Site/Facility ID #	Quote #													
Collected by (signature): Nathan Bricker	Rush? (Lab MUST Be Notified) Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day <input type="checkbox"/>	Date Results Needed Stanleval TAT		No. of Cntrs											
Immediately Packed on Ice N <input checked="" type="checkbox"/> Y <input type="checkbox"/>															
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Helium Summa	O2,CO2,CH4 D1946 Summa	TO-15 Summa							
SG-1	Grab	Air	•5	7/21/17	1105	1	X	X							
SG-2	↓	Air	↓		1128	1	↓	↓							
SG-3	↓	Air	↓		1211	1	↓	↓							
SG-4	↓	Air	↓		1151	1	↓	↓							
		Air													
		Air													
		Air													
		Air													
		Air													
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks: (9)1Liter summas, (9)AEI custom manifolds, (9)tubing and fittings, (2)6Liter summas						pH _____	Temp _____	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/>						
Samples returned via: UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Tracking # 728383282160						Flow _____	Other _____							
Relinquished by : (Signature) Nathan Bricker	Date: 7/21/17	Time: 0105	Received by: (Signature)			Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCl / MeOH TBR			If preservation required by Login: Date/Time						
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)			Temp: 4 °C	Bottles Received: 4								
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Jonathan			Date: 7/22/12	Time: 0845	Hold:	Condition: NCF / OK						

July 28, 2017

AEI Consultants - CA

Sample Delivery Group: L924195
Samples Received: 07/19/2017
Project Number: 335476
Description: Harvest Investments
Site: 27501 LOYOLA AVE HAYWARD CA
Report To: Jonathan Sanders
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



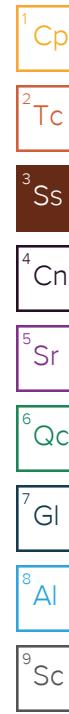
Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	5	4 Cn
Sr: Sample Results	6	5 Sr
SB-1-0.5 L924195-01	6	6 Qc
SB-1-2.5 L924195-02	8	7 GI
SB-2-0.5 L924195-03	10	8 AL
SB-2-2.5 L924195-04	12	9 SC
SB-3-0.5 L924195-05	14	
SB-3-2.5 L924195-06	16	
SB-4-0.5 L924195-07	18	
SG-3-2.5 L924195-08	21	
SG-4-0.5 L924195-09	22	
Qc: Quality Control Summary	23	
Total Solids by Method 2540 G-2011	23	
Metals (ICPMS) by Method 6020	24	
Volatile Organic Compounds (GC) by Method 8015	25	
Volatile Organic Compounds (GC/MS) by Method 8260B	26	
Semi-Volatile Organic Compounds (GC) by Method 8015	32	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	33	
Gl: Glossary of Terms	35	
Al: Accreditations & Locations	36	
Sc: Chain of Custody	37	

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



		Collected by Nathan Bricker	Collected date/time 07/18/17 08:25	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 10:56	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 08:25	07/27/17 15:35	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1.02	07/18/17 08:25	07/26/17 03:54	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	10	07/28/17 02:58	07/28/17 15:55	DMG
		Collected by Nathan Bricker	Collected date/time 07/18/17 08:30	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 11:18	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 08:30	07/27/17 15:57	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1	07/18/17 08:30	07/26/17 04:12	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	1	07/28/17 02:58	07/28/17 13:22	DMG
		Collected by Nathan Bricker	Collected date/time 07/18/17 08:47	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 11:21	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 08:47	07/27/17 16:19	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1	07/18/17 08:47	07/26/17 04:29	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	10	07/28/17 02:58	07/28/17 16:08	DMG
		Collected by Nathan Bricker	Collected date/time 07/18/17 08:52	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 11:48	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 08:52	07/27/17 16:42	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1	07/18/17 08:52	07/26/17 04:47	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	1	07/28/17 02:58	07/28/17 13:35	DMG
		Collected by Nathan Bricker	Collected date/time 07/18/17 08:42	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 11:52	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 08:42	07/27/17 17:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1.11	07/18/17 08:42	07/26/17 05:04	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	1	07/28/17 02:58	07/28/17 14:17	DMG

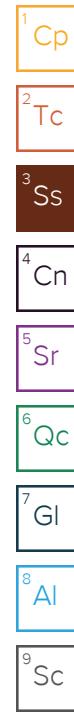


SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



		Collected by Nathan Bricker	Collected date/time 07/18/17 09:47	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 12:05	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 09:47	07/27/17 17:26	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1	07/18/17 09:47	07/26/17 05:29	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	1	07/28/17 02:58	07/28/17 14:44	DMG
		Collected by Nathan Bricker	Collected date/time 07/18/17 07:57	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Metals (ICPMS) by Method 6020	WG1002072	5	07/26/17 16:01	07/28/17 12:09	LAT
Volatile Organic Compounds (GC) by Method 8015	WG1003108	1	07/18/17 07:57	07/27/17 17:48	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1002586	1	07/18/17 07:57	07/26/17 05:46	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1002923	1	07/28/17 02:58	07/28/17 14:58	DMG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1003374	1	07/27/17 19:13	07/28/17 09:18	KMP
		Collected by Nathan Bricker	Collected date/time 07/18/17 11:02	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1003374	1	07/27/17 19:13	07/28/17 09:39	KMP
		Collected by Nathan Bricker	Collected date/time 07/18/17 10:35	Received date/time 07/19/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1001852	1	07/24/17 10:09	07/24/17 10:18	MLW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1003374	1	07/27/17 19:13	07/28/17 10:00	KMP





All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	89.3		1	07/24/2017 10:18	WG1001852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	83.0	O1	0.134	0.560	5	07/28/2017 10:56	WG1002072

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	0.111	J J3	0.0372	0.112	1	07/27/2017 15:35	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.0			77.0-120		07/27/2017 15:35	WG1003108

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	0.0423	J	0.0114	0.0571	1.02	07/26/2017 03:54	WG1002586
Acrylonitrile	U		0.00204	0.0114	1.02	07/26/2017 03:54	WG1002586
Benzene	0.000368	J	0.000308	0.00114	1.02	07/26/2017 03:54	WG1002586
Bromobenzene	U		0.000325	0.00114	1.02	07/26/2017 03:54	WG1002586
Bromodichloromethane	U		0.000290	0.00114	1.02	07/26/2017 03:54	WG1002586
Bromoform	U		0.000484	0.00114	1.02	07/26/2017 03:54	WG1002586
Bromomethane	U		0.00153	0.00571	1.02	07/26/2017 03:54	WG1002586
n-Butylbenzene	U		0.000294	0.00114	1.02	07/26/2017 03:54	WG1002586
sec-Butylbenzene	U		0.000230	0.00114	1.02	07/26/2017 03:54	WG1002586
tert-Butylbenzene	U		0.000235	0.00114	1.02	07/26/2017 03:54	WG1002586
Carbon tetrachloride	U		0.000374	0.00114	1.02	07/26/2017 03:54	WG1002586
Chlorobenzene	U		0.000242	0.00114	1.02	07/26/2017 03:54	WG1002586
Chlorodibromomethane	U		0.000425	0.00114	1.02	07/26/2017 03:54	WG1002586
Chloroethane	U		0.00108	0.00571	1.02	07/26/2017 03:54	WG1002586
Chloroform	U		0.000262	0.00571	1.02	07/26/2017 03:54	WG1002586
Chloromethane	U		0.000428	0.00285	1.02	07/26/2017 03:54	WG1002586
2-Chlorotoluene	U		0.000344	0.00114	1.02	07/26/2017 03:54	WG1002586
4-Chlorotoluene	U		0.000274	0.00114	1.02	07/26/2017 03:54	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00120	0.00571	1.02	07/26/2017 03:54	WG1002586
1,2-Dibromoethane	U		0.000392	0.00114	1.02	07/26/2017 03:54	WG1002586
Dibromomethane	U		0.000437	0.00114	1.02	07/26/2017 03:54	WG1002586
1,2-Dichlorobenzene	U		0.000348	0.00114	1.02	07/26/2017 03:54	WG1002586
1,3-Dichlorobenzene	U		0.000273	0.00114	1.02	07/26/2017 03:54	WG1002586
1,4-Dichlorobenzene	U		0.000258	0.00114	1.02	07/26/2017 03:54	WG1002586
Dichlorodifluoromethane	U	J3	0.000814	0.00571	1.02	07/26/2017 03:54	WG1002586
1,1-Dichloroethane	U		0.000227	0.00114	1.02	07/26/2017 03:54	WG1002586
1,2-Dichloroethane	U		0.000302	0.00114	1.02	07/26/2017 03:54	WG1002586
1,1-Dichloroethene	U		0.000346	0.00114	1.02	07/26/2017 03:54	WG1002586
cis-1,2-Dichloroethene	U		0.000269	0.00114	1.02	07/26/2017 03:54	WG1002586
trans-1,2-Dichloroethene	U		0.000301	0.00114	1.02	07/26/2017 03:54	WG1002586
1,2-Dichloropropane	U		0.000409	0.00114	1.02	07/26/2017 03:54	WG1002586
1,1-Dichloropropene	U		0.000362	0.00114	1.02	07/26/2017 03:54	WG1002586
1,3-Dichloropropane	U		0.000236	0.00114	1.02	07/26/2017 03:54	WG1002586
cis-1,3-Dichloropropene	U		0.000299	0.00114	1.02	07/26/2017 03:54	WG1002586
trans-1,3-Dichloropropene	U		0.000305	0.00114	1.02	07/26/2017 03:54	WG1002586
2,2-Dichloropropane	U		0.000318	0.00114	1.02	07/26/2017 03:54	WG1002586
Di-isopropyl ether	U		0.000283	0.00114	1.02	07/26/2017 03:54	WG1002586
Ethylbenzene	U		0.000339	0.00114	1.02	07/26/2017 03:54	WG1002586



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>	Category
Hexachloro-1,3-butadiene	U	J3	0.000391	0.00114	1.02	07/26/2017 03:54	WG1002586	¹ Cp
Isopropylbenzene	U		0.000278	0.00114	1.02	07/26/2017 03:54	WG1002586	² Tc
p-Isopropyltoluene	U		0.000233	0.00114	1.02	07/26/2017 03:54	WG1002586	³ Ss
2-Butanone (MEK)	0.00872	J	0.00534	0.0114	1.02	07/26/2017 03:54	WG1002586	⁴ Cn
Methylene Chloride	U		0.00114	0.00571	1.02	07/26/2017 03:54	WG1002586	⁵ Sr
4-Methyl-2-pentanone (MIBK)	U		0.00215	0.0114	1.02	07/26/2017 03:54	WG1002586	⁶ Qc
Methyl tert-butyl ether	U		0.000242	0.00114	1.02	07/26/2017 03:54	WG1002586	⁷ Gl
Naphthalene	U		0.00114	0.00571	1.02	07/26/2017 03:54	WG1002586	⁸ Al
n-Propylbenzene	U		0.000235	0.00114	1.02	07/26/2017 03:54	WG1002586	⁹ Sc
Styrene	U		0.000268	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,1,1,2-Tetrachloroethane	U		0.000301	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,1,2,2-Tetrachloroethane	U		0.000416	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,1,2-Trichlorotrifluoroethane	U		0.000416	0.00114	1.02	07/26/2017 03:54	WG1002586	
Tetrachloroethene	U		0.000316	0.00114	1.02	07/26/2017 03:54	WG1002586	
Toluene	U		0.000496	0.00571	1.02	07/26/2017 03:54	WG1002586	
1,2,3-Trichlorobenzene	U		0.000349	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,2,4-Trichlorobenzene	U		0.000443	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,1,1-Trichloroethane	U		0.000327	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,1,2-Trichloroethane	U		0.000316	0.00114	1.02	07/26/2017 03:54	WG1002586	
Trichloroethene	U		0.000318	0.00114	1.02	07/26/2017 03:54	WG1002586	
Trichlorofluoromethane	U		0.000437	0.00571	1.02	07/26/2017 03:54	WG1002586	
1,2,3-Trichloropropane	U		0.000846	0.00285	1.02	07/26/2017 03:54	WG1002586	
1,2,4-Trimethylbenzene	U		0.000241	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,2,3-Trimethylbenzene	U		0.000328	0.00114	1.02	07/26/2017 03:54	WG1002586	
1,3,5-Trimethylbenzene	U		0.000303	0.00114	1.02	07/26/2017 03:54	WG1002586	
Vinyl chloride	U		0.000333	0.00114	1.02	07/26/2017 03:54	WG1002586	
Xylenes, Total	U		0.000797	0.00343	1.02	07/26/2017 03:54	WG1002586	
(S) Toluene-d8	101			80.0-120		07/26/2017 03:54	WG1002586	
(S) Dibromofluoromethane	98.2			74.0-131		07/26/2017 03:54	WG1002586	
(S) 4-Bromofluorobenzene	97.4			64.0-132		07/26/2017 03:54	WG1002586	

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
C12-C22 Hydrocarbons	U		8.21	44.8	10	07/28/2017 15:55	WG1002923
C22-C32 Hydrocarbons	154		14.9	44.8	10	07/28/2017 15:55	WG1002923
C32-C40 Hydrocarbons	165		14.9	44.8	10	07/28/2017 15:55	WG1002923
(S) o-Terphenyl	109			18.0-148		07/28/2017 15:55	WG1002923

Sample Narrative:

L924195-01 WG1002923: Dilution due to matrix impact during extract concentration procedure



Total Solids by Method 2540 G-2011

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	83.6	%	1	07/24/2017 10:18	WG1001852

1 Cp

Metals (ICPMS) by Method 6020

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Lead	6.80	mg/kg	0.144	0.598	5	07/28/2017 11:18	WG1002072

2 Tc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	0.0560	J	0.0397	0.120	1	07/27/2017 15:57	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.8			77.0-120		07/27/2017 15:57	WG1003108

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		0.0120	0.0598	1	07/26/2017 04:12	WG1002586
Acrylonitrile	U		0.00214	0.0120	1	07/26/2017 04:12	WG1002586
Benzene	0.000358	J	0.000323	0.00120	1	07/26/2017 04:12	WG1002586
Bromobenzene	U		0.000340	0.00120	1	07/26/2017 04:12	WG1002586
Bromodichloromethane	U		0.000304	0.00120	1	07/26/2017 04:12	WG1002586
Bromoform	U		0.000507	0.00120	1	07/26/2017 04:12	WG1002586
Bromomethane	U		0.00160	0.00598	1	07/26/2017 04:12	WG1002586
n-Butylbenzene	U		0.000309	0.00120	1	07/26/2017 04:12	WG1002586
sec-Butylbenzene	U		0.000240	0.00120	1	07/26/2017 04:12	WG1002586
tert-Butylbenzene	U		0.000246	0.00120	1	07/26/2017 04:12	WG1002586
Carbon tetrachloride	U		0.000392	0.00120	1	07/26/2017 04:12	WG1002586
Chlorobenzene	U		0.000254	0.00120	1	07/26/2017 04:12	WG1002586
Chlorodibromomethane	U		0.000446	0.00120	1	07/26/2017 04:12	WG1002586
Chloroethane	U		0.00113	0.00598	1	07/26/2017 04:12	WG1002586
Chloroform	U		0.000274	0.00598	1	07/26/2017 04:12	WG1002586
Chloromethane	U		0.000449	0.00299	1	07/26/2017 04:12	WG1002586
2-Chlorotoluene	U		0.000360	0.00120	1	07/26/2017 04:12	WG1002586
4-Chlorotoluene	U		0.000287	0.00120	1	07/26/2017 04:12	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00126	0.00598	1	07/26/2017 04:12	WG1002586
1,2-Dibromoethane	U		0.000410	0.00120	1	07/26/2017 04:12	WG1002586
Dibromomethane	U		0.000457	0.00120	1	07/26/2017 04:12	WG1002586
1,2-Dichlorobenzene	U		0.000365	0.00120	1	07/26/2017 04:12	WG1002586
1,3-Dichlorobenzene	U		0.000286	0.00120	1	07/26/2017 04:12	WG1002586
1,4-Dichlorobenzene	U		0.000270	0.00120	1	07/26/2017 04:12	WG1002586
Dichlorodifluoromethane	U	J3	0.000853	0.00598	1	07/26/2017 04:12	WG1002586
1,1-Dichloroethane	U		0.000238	0.00120	1	07/26/2017 04:12	WG1002586
1,2-Dichloroethane	U		0.000317	0.00120	1	07/26/2017 04:12	WG1002586
1,1-Dichloroethene	U		0.000362	0.00120	1	07/26/2017 04:12	WG1002586
cis-1,2-Dichloroethene	U		0.000281	0.00120	1	07/26/2017 04:12	WG1002586
trans-1,2-Dichloroethene	U		0.000316	0.00120	1	07/26/2017 04:12	WG1002586
1,2-Dichloropropane	U		0.000428	0.00120	1	07/26/2017 04:12	WG1002586
1,1-Dichloropropene	U		0.000379	0.00120	1	07/26/2017 04:12	WG1002586
1,3-Dichloropropane	U		0.000248	0.00120	1	07/26/2017 04:12	WG1002586
cis-1,3-Dichloropropene	U		0.000313	0.00120	1	07/26/2017 04:12	WG1002586
trans-1,3-Dichloropropene	U		0.000319	0.00120	1	07/26/2017 04:12	WG1002586
2,2-Dichloropropane	U		0.000334	0.00120	1	07/26/2017 04:12	WG1002586
Di-isopropyl ether	U		0.000297	0.00120	1	07/26/2017 04:12	WG1002586
Ethylbenzene	U		0.000355	0.00120	1	07/26/2017 04:12	WG1002586

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Hexachloro-1,3-butadiene	U	J3	0.000409	0.00120	1	07/26/2017 04:12	WG1002586	¹ Cp
Isopropylbenzene	U		0.000291	0.00120	1	07/26/2017 04:12	WG1002586	² Tc
p-Isopropyltoluene	U		0.000244	0.00120	1	07/26/2017 04:12	WG1002586	³ Ss
2-Butanone (MEK)	U		0.00560	0.0120	1	07/26/2017 04:12	WG1002586	⁴ Cn
Methylene Chloride	U		0.00120	0.00598	1	07/26/2017 04:12	WG1002586	⁵ Sr
4-Methyl-2-pentanone (MIBK)	U		0.00225	0.0120	1	07/26/2017 04:12	WG1002586	⁶ Qc
Methyl tert-butyl ether	U		0.000254	0.00120	1	07/26/2017 04:12	WG1002586	⁷ Gl
Naphthalene	U		0.00120	0.00598	1	07/26/2017 04:12	WG1002586	⁸ Al
n-Propylbenzene	U		0.000246	0.00120	1	07/26/2017 04:12	WG1002586	⁹ Sc
Styrene	U		0.000280	0.00120	1	07/26/2017 04:12	WG1002586	
1,1,1,2-Tetrachloroethane	U		0.000316	0.00120	1	07/26/2017 04:12	WG1002586	
1,1,2,2-Tetrachloroethane	U		0.000437	0.00120	1	07/26/2017 04:12	WG1002586	
1,1,2-Trichlorotrifluoroethane	U		0.000437	0.00120	1	07/26/2017 04:12	WG1002586	
Tetrachloroethene	U		0.000330	0.00120	1	07/26/2017 04:12	WG1002586	
Toluene	U		0.000519	0.00598	1	07/26/2017 04:12	WG1002586	
1,2,3-Trichlorobenzene	U		0.000366	0.00120	1	07/26/2017 04:12	WG1002586	
1,2,4-Trichlorobenzene	U		0.000464	0.00120	1	07/26/2017 04:12	WG1002586	
1,1,1-Trichloroethane	U		0.000342	0.00120	1	07/26/2017 04:12	WG1002586	
1,1,2-Trichloroethane	U		0.000331	0.00120	1	07/26/2017 04:12	WG1002586	
Trichloroethene	U		0.000334	0.00120	1	07/26/2017 04:12	WG1002586	
Trichlorofluoromethane	U		0.000457	0.00598	1	07/26/2017 04:12	WG1002586	
1,2,3-Trichloropropane	U		0.000886	0.00299	1	07/26/2017 04:12	WG1002586	
1,2,4-Trimethylbenzene	U		0.000252	0.00120	1	07/26/2017 04:12	WG1002586	
1,2,3-Trimethylbenzene	U		0.000343	0.00120	1	07/26/2017 04:12	WG1002586	
1,3,5-Trimethylbenzene	U		0.000318	0.00120	1	07/26/2017 04:12	WG1002586	
Vinyl chloride	U		0.000348	0.00120	1	07/26/2017 04:12	WG1002586	
Xylenes, Total	U		0.000835	0.00359	1	07/26/2017 04:12	WG1002586	
(S) Toluene-d8	100			80.0-120		07/26/2017 04:12	WG1002586	
(S) Dibromofluoromethane	99.7			74.0-131		07/26/2017 04:12	WG1002586	
(S) 4-Bromofluorobenzene	101			64.0-132		07/26/2017 04:12	WG1002586	

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.877	4.78	1	07/28/2017 13:22	WG1002923
C22-C32 Hydrocarbons	2.11	J	1.59	4.78	1	07/28/2017 13:22	WG1002923
C32-C40 Hydrocarbons	U		1.59	4.78	1	07/28/2017 13:22	WG1002923
(S) o-Terphenyl	41.9			18.0-148		07/28/2017 13:22	WG1002923



Total Solids by Method 2540 G-2011

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	86.3	%	1	07/24/2017 10:18	WG1001852

1 Cp

Metals (ICPMS) by Method 6020

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Lead	26.5	mg/kg	0.139	0.579	5	07/28/2017 11:21	WG1002072

2 Tc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	0.0827	J	0.0385	0.116	1	07/27/2017 16:19	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.3			77.0-120		07/27/2017 16:19	WG1003108

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Acetone	0.0175	J	0.0116	0.0579	1	07/26/2017 04:29	WG1002586
Acrylonitrile	U		0.00207	0.0116	1	07/26/2017 04:29	WG1002586
Benzene	0.000545	J	0.000313	0.00116	1	07/26/2017 04:29	WG1002586
Bromobenzene	U		0.000329	0.00116	1	07/26/2017 04:29	WG1002586
Bromodichloromethane	U		0.000294	0.00116	1	07/26/2017 04:29	WG1002586
Bromoform	U		0.000491	0.00116	1	07/26/2017 04:29	WG1002586
Bromomethane	U		0.00155	0.00579	1	07/26/2017 04:29	WG1002586
n-Butylbenzene	U		0.000299	0.00116	1	07/26/2017 04:29	WG1002586
sec-Butylbenzene	U		0.000233	0.00116	1	07/26/2017 04:29	WG1002586
tert-Butylbenzene	U		0.000239	0.00116	1	07/26/2017 04:29	WG1002586
Carbon tetrachloride	U		0.000380	0.00116	1	07/26/2017 04:29	WG1002586
Chlorobenzene	U		0.000246	0.00116	1	07/26/2017 04:29	WG1002586
Chlorodibromomethane	U		0.000432	0.00116	1	07/26/2017 04:29	WG1002586
Chloroethane	U		0.00110	0.00579	1	07/26/2017 04:29	WG1002586
Chloroform	U		0.000265	0.00579	1	07/26/2017 04:29	WG1002586
Chloromethane	U		0.000434	0.00290	1	07/26/2017 04:29	WG1002586
2-Chlorotoluene	U		0.000349	0.00116	1	07/26/2017 04:29	WG1002586
4-Chlorotoluene	U		0.000278	0.00116	1	07/26/2017 04:29	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00122	0.00579	1	07/26/2017 04:29	WG1002586
1,2-Dibromoethane	U		0.000397	0.00116	1	07/26/2017 04:29	WG1002586
Dibromomethane	U		0.000442	0.00116	1	07/26/2017 04:29	WG1002586
1,2-Dichlorobenzene	U		0.000353	0.00116	1	07/26/2017 04:29	WG1002586
1,3-Dichlorobenzene	U		0.000277	0.00116	1	07/26/2017 04:29	WG1002586
1,4-Dichlorobenzene	U		0.000262	0.00116	1	07/26/2017 04:29	WG1002586
Dichlorodifluoromethane	U	J3	0.000826	0.00579	1	07/26/2017 04:29	WG1002586
1,1-Dichloroethane	U		0.000230	0.00116	1	07/26/2017 04:29	WG1002586
1,2-Dichloroethane	U		0.000307	0.00116	1	07/26/2017 04:29	WG1002586
1,1-Dichloroethene	U		0.000351	0.00116	1	07/26/2017 04:29	WG1002586
cis-1,2-Dichloroethene	U		0.000272	0.00116	1	07/26/2017 04:29	WG1002586
trans-1,2-Dichloroethene	U		0.000306	0.00116	1	07/26/2017 04:29	WG1002586
1,2-Dichloropropane	U		0.000415	0.00116	1	07/26/2017 04:29	WG1002586
1,1-Dichloropropene	U		0.000367	0.00116	1	07/26/2017 04:29	WG1002586
1,3-Dichloropropane	U		0.000240	0.00116	1	07/26/2017 04:29	WG1002586
cis-1,3-Dichloropropene	U		0.000303	0.00116	1	07/26/2017 04:29	WG1002586
trans-1,3-Dichloropropene	U		0.000309	0.00116	1	07/26/2017 04:29	WG1002586
2,2-Dichloropropane	U		0.000323	0.00116	1	07/26/2017 04:29	WG1002586
Di-isopropyl ether	U		0.000287	0.00116	1	07/26/2017 04:29	WG1002586
Ethylbenzene	0.000348	J	0.000344	0.00116	1	07/26/2017 04:29	WG1002586

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U	J3	0.000396	0.00116	1	07/26/2017 04:29	WG1002586
Isopropylbenzene	U		0.000281	0.00116	1	07/26/2017 04:29	WG1002586
p-Isopropyltoluene	U		0.000236	0.00116	1	07/26/2017 04:29	WG1002586
2-Butanone (MEK)	U		0.00542	0.0116	1	07/26/2017 04:29	WG1002586
Methylene Chloride	U		0.00116	0.00579	1	07/26/2017 04:29	WG1002586
4-Methyl-2-pentanone (MIBK)	U		0.00218	0.0116	1	07/26/2017 04:29	WG1002586
Methyl tert-butyl ether	U		0.000246	0.00116	1	07/26/2017 04:29	WG1002586
Naphthalene	U		0.00116	0.00579	1	07/26/2017 04:29	WG1002586
n-Propylbenzene	U		0.000239	0.00116	1	07/26/2017 04:29	WG1002586
Styrene	U		0.000271	0.00116	1	07/26/2017 04:29	WG1002586
1,1,1,2-Tetrachloroethane	U		0.000306	0.00116	1	07/26/2017 04:29	WG1002586
1,1,2,2-Tetrachloroethane	U		0.000423	0.00116	1	07/26/2017 04:29	WG1002586
1,1,2-Trichlorotrifluoroethane	U		0.000423	0.00116	1	07/26/2017 04:29	WG1002586
Tetrachloroethene	U		0.000320	0.00116	1	07/26/2017 04:29	WG1002586
Toluene	U		0.000503	0.00579	1	07/26/2017 04:29	WG1002586
1,2,3-Trichlorobenzene	U		0.000354	0.00116	1	07/26/2017 04:29	WG1002586
1,2,4-Trichlorobenzene	U		0.000449	0.00116	1	07/26/2017 04:29	WG1002586
1,1,1-Trichloroethane	U		0.000331	0.00116	1	07/26/2017 04:29	WG1002586
1,1,2-Trichloroethane	U		0.000321	0.00116	1	07/26/2017 04:29	WG1002586
Trichloroethene	U		0.000323	0.00116	1	07/26/2017 04:29	WG1002586
Trichlorofluoromethane	U		0.000442	0.00579	1	07/26/2017 04:29	WG1002586
1,2,3-Trichloropropane	U		0.000858	0.00290	1	07/26/2017 04:29	WG1002586
1,2,4-Trimethylbenzene	U		0.000244	0.00116	1	07/26/2017 04:29	WG1002586
1,2,3-Trimethylbenzene	U		0.000332	0.00116	1	07/26/2017 04:29	WG1002586
1,3,5-Trimethylbenzene	U		0.000308	0.00116	1	07/26/2017 04:29	WG1002586
Vinyl chloride	U		0.000337	0.00116	1	07/26/2017 04:29	WG1002586
Xylenes, Total	0.00135	J	0.000808	0.00347	1	07/26/2017 04:29	WG1002586
(S) Toluene-d8	98.7			80.0-120		07/26/2017 04:29	WG1002586
(S) Dibromofluoromethane	101			74.0-131		07/26/2017 04:29	WG1002586
(S) 4-Bromofluorobenzene	102			64.0-132		07/26/2017 04:29	WG1002586

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		8.49	46.3	10	07/28/2017 16:08	WG1002923
C22-C32 Hydrocarbons	126		15.4	46.3	10	07/28/2017 16:08	WG1002923
C32-C40 Hydrocarbons	142		15.4	46.3	10	07/28/2017 16:08	WG1002923
(S) o-Terphenyl	116			18.0-148		07/28/2017 16:08	WG1002923

Sample Narrative:

L924195-03 WG1002923: Dilution due to matrix impact during extract concentration procedure

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	92.2	%	1	07/24/2017 10:18	WG1001852

1 Cp

Metals (ICPMS) by Method 6020

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Lead	10.5	mg/kg	0.130	0.543	5	07/28/2017 11:48	WG1002072

2 Tc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	U		0.0360	0.109	1	07/27/2017 16:42	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.5			77.0-120		07/27/2017 16:42	WG1003108

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		0.0109	0.0543	1	07/26/2017 04:47	WG1002586
Acrylonitrile	U		0.00194	0.0109	1	07/26/2017 04:47	WG1002586
Benzene	0.000298	J	0.000293	0.00109	1	07/26/2017 04:47	WG1002586
Bromobenzene	U		0.000308	0.00109	1	07/26/2017 04:47	WG1002586
Bromodichloromethane	U		0.000276	0.00109	1	07/26/2017 04:47	WG1002586
Bromoform	U		0.000460	0.00109	1	07/26/2017 04:47	WG1002586
Bromomethane	U		0.00145	0.00543	1	07/26/2017 04:47	WG1002586
n-Butylbenzene	U		0.000280	0.00109	1	07/26/2017 04:47	WG1002586
sec-Butylbenzene	U		0.000218	0.00109	1	07/26/2017 04:47	WG1002586
tert-Butylbenzene	U		0.000224	0.00109	1	07/26/2017 04:47	WG1002586
Carbon tetrachloride	U		0.000356	0.00109	1	07/26/2017 04:47	WG1002586
Chlorobenzene	U		0.000230	0.00109	1	07/26/2017 04:47	WG1002586
Chlorodibromomethane	U		0.000405	0.00109	1	07/26/2017 04:47	WG1002586
Chloroethane	U		0.00103	0.00543	1	07/26/2017 04:47	WG1002586
Chloroform	U		0.000248	0.00543	1	07/26/2017 04:47	WG1002586
Chloromethane	U		0.000407	0.00271	1	07/26/2017 04:47	WG1002586
2-Chlorotoluene	U		0.000327	0.00109	1	07/26/2017 04:47	WG1002586
4-Chlorotoluene	U		0.000260	0.00109	1	07/26/2017 04:47	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00114	0.00543	1	07/26/2017 04:47	WG1002586
1,2-Dibromoethane	U		0.000372	0.00109	1	07/26/2017 04:47	WG1002586
Dibromomethane	U		0.000414	0.00109	1	07/26/2017 04:47	WG1002586
1,2-Dichlorobenzene	U		0.000331	0.00109	1	07/26/2017 04:47	WG1002586
1,3-Dichlorobenzene	U		0.000259	0.00109	1	07/26/2017 04:47	WG1002586
1,4-Dichlorobenzene	U		0.000245	0.00109	1	07/26/2017 04:47	WG1002586
Dichlorodifluoromethane	U	J3	0.000774	0.00543	1	07/26/2017 04:47	WG1002586
1,1-Dichloroethane	U		0.000216	0.00109	1	07/26/2017 04:47	WG1002586
1,2-Dichloroethane	U		0.000288	0.00109	1	07/26/2017 04:47	WG1002586
1,1-Dichloroethene	U		0.000329	0.00109	1	07/26/2017 04:47	WG1002586
cis-1,2-Dichloroethene	U		0.000255	0.00109	1	07/26/2017 04:47	WG1002586
trans-1,2-Dichloroethene	U		0.000286	0.00109	1	07/26/2017 04:47	WG1002586
1,2-Dichloropropane	U		0.000388	0.00109	1	07/26/2017 04:47	WG1002586
1,1-Dichloropropene	U		0.000344	0.00109	1	07/26/2017 04:47	WG1002586
1,3-Dichloropropane	U		0.000225	0.00109	1	07/26/2017 04:47	WG1002586
cis-1,3-Dichloropropene	U		0.000284	0.00109	1	07/26/2017 04:47	WG1002586
trans-1,3-Dichloropropene	U		0.000290	0.00109	1	07/26/2017 04:47	WG1002586
2,2-Dichloropropane	U		0.000303	0.00109	1	07/26/2017 04:47	WG1002586
Di-isopropyl ether	U		0.000269	0.00109	1	07/26/2017 04:47	WG1002586
Ethylbenzene	U		0.000322	0.00109	1	07/26/2017 04:47	WG1002586

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U	J3	0.000371	0.00109	1	07/26/2017 04:47	WG1002586
Isopropylbenzene	U		0.000264	0.00109	1	07/26/2017 04:47	WG1002586
p-Isopropyltoluene	U		0.000221	0.00109	1	07/26/2017 04:47	WG1002586
2-Butanone (MEK)	U		0.00508	0.0109	1	07/26/2017 04:47	WG1002586
Methylene Chloride	U		0.00109	0.00543	1	07/26/2017 04:47	WG1002586
4-Methyl-2-pentanone (MIBK)	U		0.00204	0.0109	1	07/26/2017 04:47	WG1002586
Methyl tert-butyl ether	U		0.000230	0.00109	1	07/26/2017 04:47	WG1002586
Naphthalene	U		0.00109	0.00543	1	07/26/2017 04:47	WG1002586
n-Propylbenzene	U		0.000224	0.00109	1	07/26/2017 04:47	WG1002586
Styrene	U		0.000254	0.00109	1	07/26/2017 04:47	WG1002586
1,1,1,2-Tetrachloroethane	U		0.000286	0.00109	1	07/26/2017 04:47	WG1002586
1,1,2,2-Tetrachloroethane	U		0.000396	0.00109	1	07/26/2017 04:47	WG1002586
1,1,2-Trichlorotrifluoroethane	U		0.000396	0.00109	1	07/26/2017 04:47	WG1002586
Tetrachloroethene	U		0.000299	0.00109	1	07/26/2017 04:47	WG1002586
Toluene	U		0.000471	0.00543	1	07/26/2017 04:47	WG1002586
1,2,3-Trichlorobenzene	U		0.000332	0.00109	1	07/26/2017 04:47	WG1002586
1,2,4-Trichlorobenzene	U		0.000421	0.00109	1	07/26/2017 04:47	WG1002586
1,1,1-Trichloroethane	U		0.000310	0.00109	1	07/26/2017 04:47	WG1002586
1,1,2-Trichloroethane	U		0.000301	0.00109	1	07/26/2017 04:47	WG1002586
Trichloroethene	U		0.000303	0.00109	1	07/26/2017 04:47	WG1002586
Trichlorofluoromethane	U		0.000414	0.00543	1	07/26/2017 04:47	WG1002586
1,2,3-Trichloropropane	U		0.000804	0.00271	1	07/26/2017 04:47	WG1002586
1,2,4-Trimethylbenzene	U		0.000229	0.00109	1	07/26/2017 04:47	WG1002586
1,2,3-Trimethylbenzene	U		0.000311	0.00109	1	07/26/2017 04:47	WG1002586
1,3,5-Trimethylbenzene	U		0.000289	0.00109	1	07/26/2017 04:47	WG1002586
Vinyl chloride	U		0.000316	0.00109	1	07/26/2017 04:47	WG1002586
Xylenes, Total	U		0.000757	0.00326	1	07/26/2017 04:47	WG1002586
(S) Toluene-d8	100			80.0-120		07/26/2017 04:47	WG1002586
(S) Dibromofluoromethane	96.9			74.0-131		07/26/2017 04:47	WG1002586
(S) 4-Bromofluorobenzene	105			64.0-132		07/26/2017 04:47	WG1002586

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.795	4.34	1	07/28/2017 13:35	WG1002923
C22-C32 Hydrocarbons	2.05	J J6	1.44	4.34	1	07/28/2017 13:35	WG1002923
C32-C40 Hydrocarbons	1.47	J	1.44	4.34	1	07/28/2017 13:35	WG1002923
(S) o-Terphenyl	61.1			18.0-148		07/28/2017 13:35	WG1002923



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.5		1	07/24/2017 10:18	WG1001852

1 Cp

Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	5.29		0.140	0.585	5	07/28/2017 11:52	WG1002072

2 Tc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	U		0.0388	0.117	1	07/27/2017 17:04	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.8			77.0-120		07/27/2017 17:04	WG1003108

3 Ss

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	0.0202	J	0.0130	0.0649	1.11	07/26/2017 05:04	WG1002586
Acrylonitrile	U		0.00233	0.0130	1.11	07/26/2017 05:04	WG1002586
Benzene	0.000363	J	0.000351	0.00130	1.11	07/26/2017 05:04	WG1002586
Bromobenzene	U		0.000369	0.00130	1.11	07/26/2017 05:04	WG1002586
Bromodichloromethane	U		0.000330	0.00130	1.11	07/26/2017 05:04	WG1002586
Bromoform	U		0.000551	0.00130	1.11	07/26/2017 05:04	WG1002586
Bromomethane	U		0.00174	0.00649	1.11	07/26/2017 05:04	WG1002586
n-Butylbenzene	U		0.000335	0.00130	1.11	07/26/2017 05:04	WG1002586
sec-Butylbenzene	U		0.000261	0.00130	1.11	07/26/2017 05:04	WG1002586
tert-Butylbenzene	U		0.000268	0.00130	1.11	07/26/2017 05:04	WG1002586
Carbon tetrachloride	U		0.000426	0.00130	1.11	07/26/2017 05:04	WG1002586
Chlorobenzene	U		0.000275	0.00130	1.11	07/26/2017 05:04	WG1002586
Chlorodibromomethane	U		0.000484	0.00130	1.11	07/26/2017 05:04	WG1002586
Chloroethane	U		0.00123	0.00649	1.11	07/26/2017 05:04	WG1002586
Chloroform	U		0.000297	0.00649	1.11	07/26/2017 05:04	WG1002586
Chloromethane	U		0.000487	0.00325	1.11	07/26/2017 05:04	WG1002586
2-Chlorotoluene	U		0.000391	0.00130	1.11	07/26/2017 05:04	WG1002586
4-Chlorotoluene	U		0.000311	0.00130	1.11	07/26/2017 05:04	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00136	0.00649	1.11	07/26/2017 05:04	WG1002586
1,2-Dibromoethane	U		0.000446	0.00130	1.11	07/26/2017 05:04	WG1002586
Dibromomethane	U		0.000496	0.00130	1.11	07/26/2017 05:04	WG1002586
1,2-Dichlorobenzene	U		0.000396	0.00130	1.11	07/26/2017 05:04	WG1002586
1,3-Dichlorobenzene	U		0.000310	0.00130	1.11	07/26/2017 05:04	WG1002586
1,4-Dichlorobenzene	U		0.000294	0.00130	1.11	07/26/2017 05:04	WG1002586
Dichlorodifluoromethane	U	J3	0.000926	0.00649	1.11	07/26/2017 05:04	WG1002586
1,1-Dichloroethane	U		0.000259	0.00130	1.11	07/26/2017 05:04	WG1002586
1,2-Dichloroethane	U		0.000344	0.00130	1.11	07/26/2017 05:04	WG1002586
1,1-Dichloroethene	U		0.000393	0.00130	1.11	07/26/2017 05:04	WG1002586
cis-1,2-Dichloroethene	U		0.000305	0.00130	1.11	07/26/2017 05:04	WG1002586
trans-1,2-Dichloroethene	U		0.000343	0.00130	1.11	07/26/2017 05:04	WG1002586
1,2-Dichloropropane	U		0.000465	0.00130	1.11	07/26/2017 05:04	WG1002586
1,1-Dichloropropene	U		0.000412	0.00130	1.11	07/26/2017 05:04	WG1002586
1,3-Dichloropropane	U		0.000269	0.00130	1.11	07/26/2017 05:04	WG1002586
cis-1,3-Dichloropropene	U		0.000341	0.00130	1.11	07/26/2017 05:04	WG1002586
trans-1,3-Dichloropropene	U		0.000346	0.00130	1.11	07/26/2017 05:04	WG1002586
2,2-Dichloropropane	U		0.000363	0.00130	1.11	07/26/2017 05:04	WG1002586
Di-isopropyl ether	U		0.000322	0.00130	1.11	07/26/2017 05:04	WG1002586
Ethylbenzene	U		0.000386	0.00130	1.11	07/26/2017 05:04	WG1002586

7 GI

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
Hexachloro-1,3-butadiene	U	J3	0.000445	0.00130	1.11	07/26/2017 05:04	WG1002586	
Isopropylbenzene	U		0.000316	0.00130	1.11	07/26/2017 05:04	WG1002586	
p-Isopropyltoluene	U		0.000264	0.00130	1.11	07/26/2017 05:04	WG1002586	
2-Butanone (MEK)	U		0.00607	0.0130	1.11	07/26/2017 05:04	WG1002586	
Methylene Chloride	U		0.00130	0.00649	1.11	07/26/2017 05:04	WG1002586	
4-Methyl-2-pentanone (MIBK)	U		0.00245	0.0130	1.11	07/26/2017 05:04	WG1002586	
Methyl tert-butyl ether	U		0.000275	0.00130	1.11	07/26/2017 05:04	WG1002586	
Naphthalene	U		0.00130	0.00649	1.11	07/26/2017 05:04	WG1002586	
n-Propylbenzene	U		0.000268	0.00130	1.11	07/26/2017 05:04	WG1002586	
Styrene	U		0.000304	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,1,1,2-Tetrachloroethane	U		0.000343	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,1,2,2-Tetrachloroethane	U		0.000474	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,1,2-Trichlorotrifluoroethane	U		0.000474	0.00130	1.11	07/26/2017 05:04	WG1002586	
Tetrachloroethene	U		0.000358	0.00130	1.11	07/26/2017 05:04	WG1002586	
Toluene	U		0.000564	0.00649	1.11	07/26/2017 05:04	WG1002586	
1,2,3-Trichlorobenzene	U		0.000398	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,2,4-Trichlorobenzene	U		0.000504	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,1,1-Trichloroethane	U		0.000371	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,1,2-Trichloroethane	U		0.000359	0.00130	1.11	07/26/2017 05:04	WG1002586	
Trichloroethene	U		0.000363	0.00130	1.11	07/26/2017 05:04	WG1002586	
Trichlorofluoromethane	U		0.000496	0.00649	1.11	07/26/2017 05:04	WG1002586	
1,2,3-Trichloropropane	U		0.000962	0.00325	1.11	07/26/2017 05:04	WG1002586	
1,2,4-Trimethylbenzene	U		0.000274	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,2,3-Trimethylbenzene	U		0.000372	0.00130	1.11	07/26/2017 05:04	WG1002586	
1,3,5-Trimethylbenzene	U		0.000345	0.00130	1.11	07/26/2017 05:04	WG1002586	
Vinyl chloride	U		0.000378	0.00130	1.11	07/26/2017 05:04	WG1002586	
Xylenes, Total	U		0.000907	0.00390	1.11	07/26/2017 05:04	WG1002586	
(S) Toluene-d8	102			80.0-120		07/26/2017 05:04	WG1002586	
(S) Dibromofluoromethane	99.1			74.0-131		07/26/2017 05:04	WG1002586	
(S) 4-Bromofluorobenzene	102			64.0-132		07/26/2017 05:04	WG1002586	

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
C12-C22 Hydrocarbons	U		0.858	4.68	1	07/28/2017 14:17	WG1002923
C22-C32 Hydrocarbons	U		1.56	4.68	1	07/28/2017 14:17	WG1002923
C32-C40 Hydrocarbons	U		1.56	4.68	1	07/28/2017 14:17	WG1002923
(S) o-Terphenyl	77.4			18.0-148		07/28/2017 14:17	WG1002923



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	90.1		1	07/24/2017 10:18	WG1001852

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	6.56		0.133	0.555	5	07/28/2017 12:05	WG1002072

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	U		0.0368	0.111	1	07/27/2017 17:26	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.1			77.0-120		07/27/2017 17:26	WG1003108

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		0.0111	0.0555	1	07/26/2017 05:29	WG1002586
Acrylonitrile	U		0.00199	0.0111	1	07/26/2017 05:29	WG1002586
Benzene	U		0.000300	0.00111	1	07/26/2017 05:29	WG1002586
Bromobenzene	U		0.000315	0.00111	1	07/26/2017 05:29	WG1002586
Bromodichloromethane	U		0.000282	0.00111	1	07/26/2017 05:29	WG1002586
Bromoform	U		0.000471	0.00111	1	07/26/2017 05:29	WG1002586
Bromomethane	U		0.00149	0.00555	1	07/26/2017 05:29	WG1002586
n-Butylbenzene	U		0.000286	0.00111	1	07/26/2017 05:29	WG1002586
sec-Butylbenzene	U		0.000223	0.00111	1	07/26/2017 05:29	WG1002586
tert-Butylbenzene	U		0.000229	0.00111	1	07/26/2017 05:29	WG1002586
Carbon tetrachloride	U		0.000364	0.00111	1	07/26/2017 05:29	WG1002586
Chlorobenzene	U		0.000235	0.00111	1	07/26/2017 05:29	WG1002586
Chlorodibromomethane	U		0.000414	0.00111	1	07/26/2017 05:29	WG1002586
Chloroethane	U		0.00105	0.00555	1	07/26/2017 05:29	WG1002586
Chloroform	U		0.000254	0.00555	1	07/26/2017 05:29	WG1002586
Chloromethane	U		0.000416	0.00277	1	07/26/2017 05:29	WG1002586
2-Chlorotoluene	U		0.000334	0.00111	1	07/26/2017 05:29	WG1002586
4-Chlorotoluene	U		0.000266	0.00111	1	07/26/2017 05:29	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00555	1	07/26/2017 05:29	WG1002586
1,2-Dibromoethane	U		0.000381	0.00111	1	07/26/2017 05:29	WG1002586
Dibromomethane	U		0.000424	0.00111	1	07/26/2017 05:29	WG1002586
1,2-Dichlorobenzene	U		0.000338	0.00111	1	07/26/2017 05:29	WG1002586
1,3-Dichlorobenzene	U		0.000265	0.00111	1	07/26/2017 05:29	WG1002586
1,4-Dichlorobenzene	U		0.000251	0.00111	1	07/26/2017 05:29	WG1002586
Dichlorodifluoromethane	U	J3	0.000791	0.00555	1	07/26/2017 05:29	WG1002586
1,1-Dichloroethane	U		0.000221	0.00111	1	07/26/2017 05:29	WG1002586
1,2-Dichloroethane	U		0.000294	0.00111	1	07/26/2017 05:29	WG1002586
1,1-Dichloroethene	U		0.000336	0.00111	1	07/26/2017 05:29	WG1002586
cis-1,2-Dichloroethene	U		0.000261	0.00111	1	07/26/2017 05:29	WG1002586
trans-1,2-Dichloroethene	U		0.000293	0.00111	1	07/26/2017 05:29	WG1002586
1,2-Dichloropropane	U		0.000397	0.00111	1	07/26/2017 05:29	WG1002586
1,1-Dichloropropene	U		0.000352	0.00111	1	07/26/2017 05:29	WG1002586
1,3-Dichloropropane	U		0.000230	0.00111	1	07/26/2017 05:29	WG1002586
cis-1,3-Dichloropropene	U		0.000291	0.00111	1	07/26/2017 05:29	WG1002586
trans-1,3-Dichloropropene	U		0.000296	0.00111	1	07/26/2017 05:29	WG1002586
2,2-Dichloropropane	U		0.000310	0.00111	1	07/26/2017 05:29	WG1002586
Di-isopropyl ether	U		0.000275	0.00111	1	07/26/2017 05:29	WG1002586
Ethylbenzene	U		0.000330	0.00111	1	07/26/2017 05:29	WG1002586



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
Hexachloro-1,3-butadiene	U	J3	0.000380	0.00111	1	07/26/2017 05:29	WG1002586	
Isopropylbenzene	U		0.000270	0.00111	1	07/26/2017 05:29	WG1002586	
p-Isopropyltoluene	U		0.000226	0.00111	1	07/26/2017 05:29	WG1002586	
2-Butanone (MEK)	U		0.00519	0.0111	1	07/26/2017 05:29	WG1002586	
Methylene Chloride	U		0.00111	0.00555	1	07/26/2017 05:29	WG1002586	
4-Methyl-2-pentanone (MIBK)	U		0.00209	0.0111	1	07/26/2017 05:29	WG1002586	
Methyl tert-butyl ether	U		0.000235	0.00111	1	07/26/2017 05:29	WG1002586	
Naphthalene	U		0.00111	0.00555	1	07/26/2017 05:29	WG1002586	
n-Propylbenzene	U		0.000229	0.00111	1	07/26/2017 05:29	WG1002586	
Styrene	U		0.000260	0.00111	1	07/26/2017 05:29	WG1002586	
1,1,1,2-Tetrachloroethane	U		0.000293	0.00111	1	07/26/2017 05:29	WG1002586	
1,1,2,2-Tetrachloroethane	U		0.000405	0.00111	1	07/26/2017 05:29	WG1002586	
1,1,2-Trichlorotrifluoroethane	U		0.000405	0.00111	1	07/26/2017 05:29	WG1002586	
Tetrachloroethene	U		0.000306	0.00111	1	07/26/2017 05:29	WG1002586	
Toluene	U		0.000482	0.00555	1	07/26/2017 05:29	WG1002586	
1,2,3-Trichlorobenzene	U		0.000340	0.00111	1	07/26/2017 05:29	WG1002586	
1,2,4-Trichlorobenzene	U		0.000431	0.00111	1	07/26/2017 05:29	WG1002586	
1,1,1-Trichloroethane	U		0.000317	0.00111	1	07/26/2017 05:29	WG1002586	
1,1,2-Trichloroethane	U		0.000307	0.00111	1	07/26/2017 05:29	WG1002586	
Trichloroethene	U		0.000310	0.00111	1	07/26/2017 05:29	WG1002586	
Trichlorofluoromethane	U		0.000424	0.00555	1	07/26/2017 05:29	WG1002586	
1,2,3-Trichloropropane	U		0.000822	0.00277	1	07/26/2017 05:29	WG1002586	
1,2,4-Trimethylbenzene	U		0.000234	0.00111	1	07/26/2017 05:29	WG1002586	
1,2,3-Trimethylbenzene	U		0.000318	0.00111	1	07/26/2017 05:29	WG1002586	
1,3,5-Trimethylbenzene	U		0.000295	0.00111	1	07/26/2017 05:29	WG1002586	
Vinyl chloride	U		0.000323	0.00111	1	07/26/2017 05:29	WG1002586	
Xylenes, Total	U		0.000775	0.00333	1	07/26/2017 05:29	WG1002586	
(S) Toluene-d8	99.7			80.0-120		07/26/2017 05:29	WG1002586	
(S) Dibromofluoromethane	98.4			74.0-131		07/26/2017 05:29	WG1002586	
(S) 4-Bromofluorobenzene	99.2			64.0-132		07/26/2017 05:29	WG1002586	

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
C12-C22 Hydrocarbons	U		0.813	4.44	1	07/28/2017 14:44	WG1002923
C22-C32 Hydrocarbons	U		1.48	4.44	1	07/28/2017 14:44	WG1002923
C32-C40 Hydrocarbons	U		1.48	4.44	1	07/28/2017 14:44	WG1002923
(S) o-Terphenyl	50.4			18.0-148		07/28/2017 14:44	WG1002923



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	86.5		1	07/24/2017 10:18	WG1001852

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	7.78		0.139	0.578	5	07/28/2017 12:09	WG1002072

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
TPHG C5 - C12	0.0458	J	0.0384	0.116	1	07/27/2017 17:48	WG1003108
(S) a,a,a-Trifluorotoluene(FID)	98.2			77.0-120		07/27/2017 17:48	WG1003108

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		0.0116	0.0578	1	07/26/2017 05:46	WG1002586
Acrylonitrile	U		0.00207	0.0116	1	07/26/2017 05:46	WG1002586
Benzene	U		0.000312	0.00116	1	07/26/2017 05:46	WG1002586
Bromobenzene	U		0.000328	0.00116	1	07/26/2017 05:46	WG1002586
Bromodichloromethane	U		0.000294	0.00116	1	07/26/2017 05:46	WG1002586
Bromoform	U		0.000490	0.00116	1	07/26/2017 05:46	WG1002586
Bromomethane	U		0.00155	0.00578	1	07/26/2017 05:46	WG1002586
n-Butylbenzene	U		0.000298	0.00116	1	07/26/2017 05:46	WG1002586
sec-Butylbenzene	U		0.000232	0.00116	1	07/26/2017 05:46	WG1002586
tert-Butylbenzene	U		0.000238	0.00116	1	07/26/2017 05:46	WG1002586
Carbon tetrachloride	U		0.000379	0.00116	1	07/26/2017 05:46	WG1002586
Chlorobenzene	U		0.000245	0.00116	1	07/26/2017 05:46	WG1002586
Chlorodibromomethane	U		0.000431	0.00116	1	07/26/2017 05:46	WG1002586
Chloroethane	U		0.00109	0.00578	1	07/26/2017 05:46	WG1002586
Chloroform	U		0.000265	0.00578	1	07/26/2017 05:46	WG1002586
Chloromethane	U		0.000433	0.00289	1	07/26/2017 05:46	WG1002586
2-Chlorotoluene	U		0.000348	0.00116	1	07/26/2017 05:46	WG1002586
4-Chlorotoluene	U		0.000277	0.00116	1	07/26/2017 05:46	WG1002586
1,2-Dibromo-3-Chloropropane	U		0.00121	0.00578	1	07/26/2017 05:46	WG1002586
1,2-Dibromoethane	U		0.000397	0.00116	1	07/26/2017 05:46	WG1002586
Dibromomethane	U		0.000442	0.00116	1	07/26/2017 05:46	WG1002586
1,2-Dichlorobenzene	U		0.000353	0.00116	1	07/26/2017 05:46	WG1002586
1,3-Dichlorobenzene	U		0.000276	0.00116	1	07/26/2017 05:46	WG1002586
1,4-Dichlorobenzene	U		0.000261	0.00116	1	07/26/2017 05:46	WG1002586
Dichlorodifluoromethane	U	J3	0.000824	0.00578	1	07/26/2017 05:46	WG1002586
1,1-Dichloroethane	U		0.000230	0.00116	1	07/26/2017 05:46	WG1002586
1,2-Dichloroethane	U		0.000306	0.00116	1	07/26/2017 05:46	WG1002586
1,1-Dichloroethene	U		0.000350	0.00116	1	07/26/2017 05:46	WG1002586
cis-1,2-Dichloroethene	U		0.000272	0.00116	1	07/26/2017 05:46	WG1002586
trans-1,2-Dichloroethene	U		0.000305	0.00116	1	07/26/2017 05:46	WG1002586
1,2-Dichloropropane	U		0.000414	0.00116	1	07/26/2017 05:46	WG1002586
1,1-Dichloropropene	U		0.000366	0.00116	1	07/26/2017 05:46	WG1002586
1,3-Dichloropropane	U		0.000239	0.00116	1	07/26/2017 05:46	WG1002586
cis-1,3-Dichloropropene	U		0.000303	0.00116	1	07/26/2017 05:46	WG1002586
trans-1,3-Dichloropropene	U		0.000309	0.00116	1	07/26/2017 05:46	WG1002586
2,2-Dichloropropane	U		0.000323	0.00116	1	07/26/2017 05:46	WG1002586
Di-isopropyl ether	U		0.000287	0.00116	1	07/26/2017 05:46	WG1002586
Ethylbenzene	U		0.000343	0.00116	1	07/26/2017 05:46	WG1002586



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>	1 Cp
Hexachloro-1,3-butadiene	U	J3	0.000395	0.00116	1	07/26/2017 05:46	WG1002586	
Isopropylbenzene	U		0.000281	0.00116	1	07/26/2017 05:46	WG1002586	
p-Isopropyltoluene	U		0.000236	0.00116	1	07/26/2017 05:46	WG1002586	
2-Butanone (MEK)	U		0.00541	0.0116	1	07/26/2017 05:46	WG1002586	
Methylene Chloride	U		0.00116	0.00578	1	07/26/2017 05:46	WG1002586	
4-Methyl-2-pentanone (MIBK)	U		0.00217	0.0116	1	07/26/2017 05:46	WG1002586	
Methyl tert-butyl ether	U		0.000245	0.00116	1	07/26/2017 05:46	WG1002586	
Naphthalene	U		0.00116	0.00578	1	07/26/2017 05:46	WG1002586	
n-Propylbenzene	U		0.000238	0.00116	1	07/26/2017 05:46	WG1002586	
Styrene	U		0.000270	0.00116	1	07/26/2017 05:46	WG1002586	
1,1,1,2-Tetrachloroethane	U		0.000305	0.00116	1	07/26/2017 05:46	WG1002586	
1,1,2,2-Tetrachloroethane	U		0.000422	0.00116	1	07/26/2017 05:46	WG1002586	
1,1,2-Trichlorotrifluoroethane	U		0.000422	0.00116	1	07/26/2017 05:46	WG1002586	
Tetrachloroethene	U		0.000319	0.00116	1	07/26/2017 05:46	WG1002586	
Toluene	U		0.000502	0.00578	1	07/26/2017 05:46	WG1002586	
1,2,3-Trichlorobenzene	U		0.000354	0.00116	1	07/26/2017 05:46	WG1002586	
1,2,4-Trichlorobenzene	U		0.000449	0.00116	1	07/26/2017 05:46	WG1002586	
1,1,1-Trichloroethane	U		0.000331	0.00116	1	07/26/2017 05:46	WG1002586	
1,1,2-Trichloroethane	U		0.000320	0.00116	1	07/26/2017 05:46	WG1002586	
Trichloroethene	U		0.000323	0.00116	1	07/26/2017 05:46	WG1002586	
Trichlorofluoromethane	U		0.000442	0.00578	1	07/26/2017 05:46	WG1002586	
1,2,3-Trichloropropane	U		0.000857	0.00289	1	07/26/2017 05:46	WG1002586	
1,2,4-Trimethylbenzene	U		0.000244	0.00116	1	07/26/2017 05:46	WG1002586	
1,2,3-Trimethylbenzene	U		0.000332	0.00116	1	07/26/2017 05:46	WG1002586	
1,3,5-Trimethylbenzene	U		0.000307	0.00116	1	07/26/2017 05:46	WG1002586	
Vinyl chloride	U		0.000336	0.00116	1	07/26/2017 05:46	WG1002586	
Xylenes, Total	U		0.000807	0.00347	1	07/26/2017 05:46	WG1002586	
(S) Toluene-d8	99.5			80.0-120		07/26/2017 05:46	WG1002586	
(S) Dibromofluoromethane	100			74.0-131		07/26/2017 05:46	WG1002586	
(S) 4-Bromofluorobenzene	90.5			64.0-132		07/26/2017 05:46	WG1002586	

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
C12-C22 Hydrocarbons	U		0.847	4.62	1	07/28/2017 14:58	WG1002923
C22-C32 Hydrocarbons	U		1.54	4.62	1	07/28/2017 14:58	WG1002923
C32-C40 Hydrocarbons	U		1.54	4.62	1	07/28/2017 14:58	WG1002923
(S) o-Terphenyl	81.0			18.0-148		07/28/2017 14:58	WG1002923

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Acenaphthene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Acenaphthylene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Benzo(a)anthracene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Benzo(a)pyrene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Benzo(b)fluoranthene	0.00165	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Benzo(g,h,i)perylene	0.00108	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Benzo(k)fluoranthene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Chrysene	0.00102	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Dibenzo(a,h)anthracene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Fluoranthene	0.00138	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Fluorene	U		0.000694	0.00694	1	07/28/2017 09:18	WG1003374
Indeno(1,2,3-cd)pyrene	0.000816	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374



Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Naphthalene	U		0.00231	0.0231	1	07/28/2017 09:18	WG1003374	¹ Cp
Phenanthrene	0.000986	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374	² Tc
Pyrene	0.00111	J	0.000694	0.00694	1	07/28/2017 09:18	WG1003374	³ Ss
1-Methylnaphthalene	U		0.00231	0.0231	1	07/28/2017 09:18	WG1003374	
2-Methylnaphthalene	U		0.00231	0.0231	1	07/28/2017 09:18	WG1003374	
2-Chloronaphthalene	U		0.00231	0.0231	1	07/28/2017 09:18	WG1003374	
(S) p-Terphenyl-d14	63.2			23.0-120		07/28/2017 09:18	WG1003374	
(S) Nitrobenzene-d5	76.7			14.0-149		07/28/2017 09:18	WG1003374	⁴ Cn
(S) 2-Fluorobiphenyl	69.8			34.0-125		07/28/2017 09:18	WG1003374	⁵ Sr
								⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	87.5		1	07/24/2017 10:18	WG1001852

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Acenaphthene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Acenaphthylene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Benzo(a)anthracene	0.000738	J	0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Benzo(a)pyrene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Benzo(b)fluoranthene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Benzo(g,h,i)perylene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Benzo(k)fluoranthene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Chrysene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Dibenz(a,h)anthracene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Fluoranthene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Fluorene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Indeno(1,2,3-cd)pyrene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Naphthalene	U		0.00229	0.0229	1	07/28/2017 09:39	WG1003374
Phenanthrene	0.000906	J	0.000686	0.00686	1	07/28/2017 09:39	WG1003374
Pyrene	U		0.000686	0.00686	1	07/28/2017 09:39	WG1003374
1-Methylnaphthalene	U		0.00229	0.0229	1	07/28/2017 09:39	WG1003374
2-Methylnaphthalene	U		0.00229	0.0229	1	07/28/2017 09:39	WG1003374
2-Chloronaphthalene	U		0.00229	0.0229	1	07/28/2017 09:39	WG1003374
(S) p-Terphenyl-d14	46.0			23.0-120		07/28/2017 09:39	WG1003374
(S) Nitrobenzene-d5	76.4			14.0-149		07/28/2017 09:39	WG1003374
(S) 2-Fluorobiphenyl	65.0			34.0-125		07/28/2017 09:39	WG1003374



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	95.5		1	07/24/2017 10:18	WG1001852

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Acenaphthene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Acenaphthylene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Benzo(a)anthracene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Benzo(a)pyrene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Benzo(b)fluoranthene	0.00120	J	0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Benzo(g,h,i)perylene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Benzo(k)fluoranthene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Chrysene	0.000898	J	0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Dibenz(a,h)anthracene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Fluoranthene	0.00124	J	0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Fluorene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Indeno(1,2,3-cd)pyrene	U		0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Naphthalene	0.00210	J	0.00209	0.0209	1	07/28/2017 10:00	WG1003374
Phenanthrene	0.000918	J	0.000628	0.00628	1	07/28/2017 10:00	WG1003374
Pyrene	0.000660	J	0.000628	0.00628	1	07/28/2017 10:00	WG1003374
1-Methylnaphthalene	U		0.00209	0.0209	1	07/28/2017 10:00	WG1003374
2-Methylnaphthalene	U		0.00209	0.0209	1	07/28/2017 10:00	WG1003374
2-Chloronaphthalene	U		0.00209	0.0209	1	07/28/2017 10:00	WG1003374
(S) p-Terphenyl-d14	36.2			23.0-120		07/28/2017 10:00	WG1003374
(S) Nitrobenzene-d5	74.2			14.0-149		07/28/2017 10:00	WG1003374
(S) 2-Fluorobiphenyl	60.6			34.0-125		07/28/2017 10:00	WG1003374

L924195-01,02,03,04,05,06,07,08,09

Method Blank (MB)

(MB) R3235822-1 07/24/17 10:18

Analyst	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.000700			

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L924196-01 Original Sample (OS) • Duplicate (DUP)

(OS) L924196-01 07/24/17 10:18 • (DUP) R3235822-3 07/24/17 10:18

Analyst	Original Result %	DUP Result %	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Total Solids	95.1	96.6	1	1.56		5

Laboratory Control Sample (LCS)

(LCS) R3235822-2 07/24/17 10:18

Analyst	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85.0-115	



L924195-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3237005-1 07/28/17 10:46

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Lead	U		0.12	0.500

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3237005-2 07/28/17 10:49 • (LCSD) R3237005-3 07/28/17 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	100	92.6	86.5	93	87	80-120			7	20

L924195-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924195-01 07/28/17 10:56 • (MS) R3237005-6 07/28/17 11:07 • (MSD) R3237005-7 07/28/17 11:11

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Lead	22.4	83.0	196	194	101	99	5	75-125			1	20

L924195-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3236832-3 07/27/17 14:28

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	U		0.0332	0.100
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	101			77.0-120

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236832-1 07/27/17 13:22 • (LCSD) R3236832-2 07/27/17 13:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
TPHG C5 - C12	5.50	6.64	6.66	121	121	75.0-128			0.380	20
(S) <i>a,a,a</i> -Trifluorotoluene(FID)			117	117		77.0-120				

L924195-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924195-01 07/27/17 15:35 • (MS) R3236832-4 07/27/17 22:36 • (MSD) R3236832-5 07/27/17 22:58

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
TPHG C5 - C12	6.16	0.111	3.55	1.17	55.8	17.2	1	10.0-146	J3		101	35
(S) <i>a,a,a</i> -Trifluorotoluene(FID)				104	101			77.0-120				



L924195-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3236191-3 07/26/17 00:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Acetone	U		0.0100	0.0500	¹ Cp
Acrylonitrile	U		0.00179	0.0100	² Tc
Benzene	U		0.000270	0.00100	³ Ss
Bromobenzene	U		0.000284	0.00100	⁴ Cn
Bromodichloromethane	U		0.000254	0.00100	⁵ Sr
Bromoform	U		0.000424	0.00100	⁶ Qc
Bromomethane	U		0.00134	0.00500	⁷ Gl
n-Butylbenzene	U		0.000258	0.00100	⁸ Al
sec-Butylbenzene	U		0.000201	0.00100	⁹ Sc
tert-Butylbenzene	U		0.000206	0.00100	
Carbon tetrachloride	U		0.000328	0.00100	
Chlorobenzene	U		0.000212	0.00100	
Chlorodibromomethane	U		0.000373	0.00100	
Chloroethane	U		0.000946	0.00500	
Chloroform	U		0.000229	0.00500	
Chloromethane	U		0.000375	0.00250	
2-Chlorotoluene	U		0.000301	0.00100	
4-Chlorotoluene	U		0.000240	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	
1,2-Dibromoethane	U		0.000343	0.00100	
Dibromomethane	U		0.000382	0.00100	
1,2-Dichlorobenzene	U		0.000305	0.00100	
1,3-Dichlorobenzene	U		0.000239	0.00100	
1,4-Dichlorobenzene	U		0.000226	0.00100	
Dichlorodifluoromethane	U		0.000713	0.00500	
1,1-Dichloroethane	U		0.000199	0.00100	
1,2-Dichloroethane	U		0.000265	0.00100	
1,1-Dichloroethene	U		0.000303	0.00100	
cis-1,2-Dichloroethene	U		0.000235	0.00100	
trans-1,2-Dichloroethene	U		0.000264	0.00100	
1,2-Dichloropropane	U		0.000358	0.00100	
1,1-Dichloropropene	U		0.000317	0.00100	
1,3-Dichloropropene	U		0.000207	0.00100	
cis-1,3-Dichloropropene	U		0.000262	0.00100	
trans-1,3-Dichloropropene	U		0.000267	0.00100	
2,2-Dichloropropane	U		0.000279	0.00100	
Di-isopropyl ether	U		0.000248	0.00100	
Ethylbenzene	U		0.000297	0.00100	
Hexachloro-1,3-butadiene	U		0.000342	0.00100	
Isopropylbenzene	U		0.000243	0.00100	



L924195-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3236191-3 07/26/17 00:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg								
p-Isopropyltoluene	U		0.000204	0.00100								
2-Butanone (MEK)	U		0.00468	0.0100								
Methylene Chloride	U		0.00100	0.00500								
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100								
Methyl tert-butyl ether	U		0.000212	0.00100								
Naphthalene	U		0.00100	0.00500								
n-Propylbenzene	U		0.000206	0.00100								
Styrene	U		0.000234	0.00100								
1,1,2-Tetrachloroethane	U		0.000264	0.00100								
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100								
Tetrachloroethene	U		0.000276	0.00100								
Toluene	U		0.000434	0.00500								
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100								
1,2,3-Trichlorobenzene	U		0.000306	0.00100								
1,2,4-Trichlorobenzene	U		0.000388	0.00100								
1,1,1-Trichloroethane	U		0.000286	0.00100								
1,1,2-Trichloroethane	U		0.000277	0.00100								
Trichloroethene	U		0.000279	0.00100								
Trichlorofluoromethane	U		0.000382	0.00500								
1,2,3-Trichloropropane	U		0.000741	0.00250								
1,2,3-Trimethylbenzene	U		0.000287	0.00100								
1,2,4-Trimethylbenzene	U		0.000211	0.00100								
1,3,5-Trimethylbenzene	U		0.000266	0.00100								
Vinyl chloride	U		0.000291	0.00100								
Xylenes, Total	U		0.000698	0.00300								
(S) Toluene-d8	98.7			80.0-120								
(S) Dibromofluoromethane	95.5			74.0-131								
(S) 4-Bromofluorobenzene	102			64.0-132								

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236191-1 07/25/17 23:57 • (LCSD) R3236191-2 07/26/17 00:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	0.125	0.0426	0.0526	34.1	42.1	11.0-160			21.0	23
Acrylonitrile	0.125	0.103	0.0918	82.0	73.5	61.0-143			11.0	20
Benzene	0.0250	0.0227	0.0242	90.9	96.9	71.0-124			6.42	20
Bromobenzene	0.0250	0.0242	0.0267	96.6	107	78.0-120			10.1	20
Bromodichloromethane	0.0250	0.0219	0.0235	87.5	94.0	75.0-120			7.10	20



L924195-01,02,03,04,05,06,07

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236191-1 07/25/17 23:57 • (LCSD) R3236191-2 07/26/17 00:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.0250	0.0242	0.0247	96.7	98.8	65.0-133			2.12	20
Bromomethane	0.0250	0.0302	0.0319	121	127	26.0-160			5.39	20
n-Butylbenzene	0.0250	0.0191	0.0223	76.3	89.1	73.0-126			15.5	20
sec-Butylbenzene	0.0250	0.0239	0.0270	95.4	108	75.0-121			12.5	20
tert-Butylbenzene	0.0250	0.0250	0.0280	100	112	74.0-122			11.3	20
Carbon tetrachloride	0.0250	0.0235	0.0266	94.1	106	66.0-123			12.2	20
Chlorobenzene	0.0250	0.0264	0.0296	106	118	79.0-121			11.3	20
Chlorodibromomethane	0.0250	0.0250	0.0267	100	107	74.0-128			6.53	20
Chloroethane	0.0250	0.0252	0.0276	101	110	51.0-147			8.81	20
Chloroform	0.0250	0.0230	0.0245	92.1	98.0	73.0-123			6.21	20
Chloromethane	0.0250	0.0219	0.0239	87.6	95.6	51.0-138			8.66	20
2-Chlorotoluene	0.0250	0.0251	0.0278	100	111	72.0-124			10.1	20
4-Chlorotoluene	0.0250	0.0247	0.0279	98.8	112	78.0-120			12.4	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0184	0.0191	73.5	76.4	65.0-126			3.96	20
1,2-Dibromoethane	0.0250	0.0275	0.0277	110	111	78.0-122			0.640	20
Dibromomethane	0.0250	0.0242	0.0258	96.8	103	79.0-120			6.30	20
1,2-Dichlorobenzene	0.0250	0.0233	0.0250	93.1	100	80.0-120			7.13	20
1,3-Dichlorobenzene	0.0250	0.0258	0.0296	103	119	72.0-123			13.9	20
1,4-Dichlorobenzene	0.0250	0.0231	0.0255	92.5	102	77.0-120			9.93	20
Dichlorodifluoromethane	0.0250	0.0271	0.0332	108	133	49.0-155	J3		20.1	20
1,1-Dichloroethane	0.0250	0.0218	0.0234	87.1	93.4	70.0-128			6.99	20
1,2-Dichloroethane	0.0250	0.0238	0.0246	95.4	98.5	69.0-128			3.19	20
1,1-Dichloroethene	0.0250	0.0259	0.0278	104	111	63.0-131			7.12	20
cis-1,2-Dichloroethene	0.0250	0.0240	0.0261	96.0	104	74.0-123			8.21	20
trans-1,2-Dichloroethene	0.0250	0.0236	0.0251	94.4	100	72.0-122			6.12	20
1,2-Dichloropropane	0.0250	0.0232	0.0249	92.8	99.8	75.0-126			7.22	20
1,1-Dichloropropene	0.0250	0.0226	0.0245	90.2	98.0	72.0-130			8.28	20
1,3-Dichloropropane	0.0250	0.0258	0.0267	103	107	80.0-121			3.37	20
cis-1,3-Dichloropropene	0.0250	0.0221	0.0241	88.2	96.5	80.0-125			8.98	20
trans-1,3-Dichloropropene	0.0250	0.0229	0.0246	91.4	98.4	75.0-129			7.29	20
2,2-Dichloropropane	0.0250	0.0222	0.0249	88.8	99.7	60.0-129			11.5	20
Di-isopropyl ether	0.0250	0.0204	0.0203	81.6	81.1	62.0-133			0.620	20
Ethylbenzene	0.0250	0.0247	0.0277	98.6	111	77.0-120			11.6	20
Hexachloro-1,3-butadiene	0.0250	0.0187	0.0238	75.0	95.1	68.0-128	J3		23.7	20
Isopropylbenzene	0.0250	0.0249	0.0279	99.6	111	75.0-120			11.2	20
p-Isopropyltoluene	0.0250	0.0236	0.0270	94.3	108	74.0-125			13.4	20
2-Butanone (MEK)	0.125	0.0668	0.0713	53.5	57.0	37.0-159			6.46	20
Methylene Chloride	0.0250	0.0232	0.0247	93.0	98.8	67.0-123			6.11	20
4-Methyl-2-pentanone (MIBK)	0.125	0.0871	0.0837	69.7	66.9	60.0-144			3.98	20
Methyl tert-butyl ether	0.0250	0.0227	0.0220	90.6	87.9	66.0-125			3.04	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L924195-01,02,03,04,05,06,07

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236191-1 07/25/17 23:57 • (LCSD) R3236191-2 07/26/17 00:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.0250	0.0237	0.0229	94.9	91.4	64.0-125			3.77	20
n-Propylbenzene	0.0250	0.0239	0.0273	95.4	109	78.0-120			13.6	20
Styrene	0.0250	0.0262	0.0292	105	117	78.0-124			10.9	20
1,1,1,2-Tetrachloroethane	0.0250	0.0255	0.0281	102	113	74.0-124			9.67	20
1,1,2,2-Tetrachloroethane	0.0250	0.0241	0.0241	96.5	96.5	73.0-120			0.0600	20
Tetrachloroethene	0.0250	0.0264	0.0315	106	126	70.0-127			17.4	20
Toluene	0.0250	0.0233	0.0256	93.2	102	77.0-120			9.30	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0271	0.0298	108	119	64.0-135			9.50	20
1,2,3-Trichlorobenzene	0.0250	0.0211	0.0240	84.5	96.2	68.0-126			12.9	20
1,2,4-Trichlorobenzene	0.0250	0.0211	0.0246	84.3	98.4	70.0-127			15.4	20
1,1,1-Trichloroethane	0.0250	0.0244	0.0268	97.7	107	69.0-125			9.32	20
1,1,2-Trichloroethane	0.0250	0.0262	0.0279	105	112	78.0-120			6.34	20
Trichloroethene	0.0250	0.0255	0.0299	102	120	79.0-120			15.8	20
Trichlorofluoromethane	0.0250	0.0270	0.0295	108	118	59.0-136			8.80	20
1,2,3-Trichloropropane	0.0250	0.0246	0.0243	98.3	97.3	73.0-124			1.04	20
1,2,3-Trimethylbenzene	0.0250	0.0217	0.0233	86.6	93.1	76.0-120			7.21	20
1,2,4-Trimethylbenzene	0.0250	0.0245	0.0269	98.0	108	75.0-120			9.26	20
1,3,5-Trimethylbenzene	0.0250	0.0244	0.0277	97.6	111	75.0-120			12.7	20
Vinyl chloride	0.0250	0.0250	0.0273	100	109	63.0-134			8.63	20
Xylenes, Total	0.0750	0.0760	0.0845	101	113	77.0-120			10.6	20
(S) Toluene-d8				101	101	80.0-120				
(S) Dibromofluoromethane				93.5	92.4	74.0-131				
(S) 4-Bromofluorobenzene				98.4	99.3	64.0-132				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L924161-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924161-05 07/27/17 12:50 • (MS) R3236810-1 07/27/17 17:17 • (MSD) R3236810-2 07/27/17 17:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	0.0986	0.0542	0.0624	0.000	0.000	1	10.0-160	J6	J6	14.1
Acrylonitrile	0.125	ND	0.0452	0.0485	36.1	38.8	1	14.0-160			7.07
Benzene	0.0250	ND	0.00837	0.00825	32.4	31.9	1	13.0-146			1.46
Bromobenzene	0.0250	ND	0.00803	0.00727	32.1	29.1	1	10.0-149			10.0
Bromodichloromethane	0.0250	ND	0.00973	0.00957	38.9	38.3	1	15.0-142			1.74
Bromoform	0.0250	ND	0.00872	0.00864	34.9	34.6	1	10.0-147			0.890
Bromomethane	0.0250	ND	0.00572	0.00589	22.9	23.6	1	10.0-160			2.88
n-Butylbenzene	0.0250	ND	0.00901	0.00777	36.0	31.1	1	10.0-154			14.7
sec-Butylbenzene	0.0250	ND	0.0122	0.00988	48.9	39.5	1	10.0-151			21.2
tert-Butylbenzene	0.0250	ND	0.0129	0.0110	51.5	43.9	1	10.0-152			15.9



L924195-01,02,03,04,05,06,07

L924161-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924161-05 07/27/17 12:50 • (MS) R3236810-1 07/27/17 17:17 • (MSD) R3236810-2 07/27/17 17:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Carbon tetrachloride	0.0250	ND	0.0115	0.0112	46.1	44.9	1	13.0-140			2.62	30
Chlorobenzene	0.0250	ND	0.00990	0.00912	39.6	36.5	1	10.0-149			8.20	31
Chlorodibromomethane	0.0250	ND	0.0101	0.00980	40.4	39.2	1	12.0-147			2.92	29
Chloroethane	0.0250	ND	0.00716	0.00672	28.6	26.9	1	10.0-159			6.27	33
Chloroform	0.0250	ND	0.0111	0.0112	44.6	44.7	1	18.0-148			0.390	28
Chloromethane	0.0250	ND	0.00316	0.00344	12.6	13.8	1	10.0-146			8.66	29
2-Chlorotoluene	0.0250	ND	0.00953	0.00843	38.1	33.7	1	10.0-151			12.2	35
4-Chlorotoluene	0.0250	ND	0.00802	0.00772	32.1	30.9	1	10.0-150			3.88	35
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.00753	0.00814	30.1	32.6	1	10.0-149			7.86	34
1,2-Dibromoethane	0.0250	ND	0.0104	0.0104	41.6	41.6	1	14.0-145			0.0600	28
Dibromomethane	0.0250	ND	0.00986	0.00996	39.4	39.8	1	18.0-144			1.03	27
1,2-Dichlorobenzene	0.0250	ND	0.00629	0.00632	25.1	25.3	1	10.0-153			0.600	34
1,3-Dichlorobenzene	0.0250	ND	0.00713	0.00674	28.5	26.9	1	10.0-150			5.65	35
1,4-Dichlorobenzene	0.0250	ND	0.00621	0.00673	24.8	26.9	1	10.0-148			7.99	34
Dichlorodifluoromethane	0.0250	ND	0.00711	0.00641	28.5	25.6	1	10.0-160			10.4	30
1,1-Dichloroethane	0.0250	ND	0.0101	0.00980	40.4	39.2	1	19.0-148			3.08	28
1,2-Dichloroethane	0.0250	ND	0.00946	0.00919	37.9	36.8	1	17.0-147			2.90	27
1,1-Dichloroethene	0.0250	ND	0.00862	0.00774	34.5	31.0	1	10.0-150			10.7	31
cis-1,2-Dichloroethene	0.0250	ND	0.00982	0.00940	39.3	37.6	1	16.0-145			4.33	28
trans-1,2-Dichloroethene	0.0250	ND	0.00703	0.00678	28.1	27.1	1	11.0-142			3.52	29
1,2-Dichloropropane	0.0250	ND	0.0110	0.0101	44.0	40.4	1	17.0-148			8.49	28
1,1-Dichloropropene	0.0250	ND	0.00838	0.00795	33.5	31.8	1	10.0-150			5.33	30
1,3-Dichloropropane	0.0250	ND	0.0105	0.0103	42.1	41.0	1	16.0-148			2.62	27
cis-1,3-Dichloropropene	0.0250	ND	0.00892	0.00911	35.7	36.4	1	13.0-150			2.09	28
trans-1,3-Dichloropropene	0.0250	ND	0.00868	0.00916	34.7	36.6	1	10.0-152			5.42	29
2,2-Dichloropropane	0.0250	ND	0.0131	0.0125	52.5	49.8	1	16.0-143			5.13	30
Di-isopropyl ether	0.0250	ND	0.00884	0.00888	35.3	35.5	1	16.0-149			0.530	28
Ethylbenzene	0.0250	ND	0.0107	0.00986	42.8	39.4	1	10.0-147			8.17	31
Hexachloro-1,3-butadiene	0.0250	ND	0.0110	0.00949	43.8	37.9	1	10.0-154			14.4	40
Isopropylbenzene	0.0250	ND	0.0119	0.0105	47.7	41.9	1	10.0-147			12.9	33
p-Isopropyltoluene	0.0250	ND	0.0113	0.00914	45.2	36.6	1	10.0-156			21.2	37
2-Butanone (MEK)	0.125	ND	0.0464	0.0461	31.7	31.4	1	10.0-160			0.650	33
Methylene Chloride	0.0250	ND	0.00867	0.00810	34.7	32.4	1	16.0-139			6.85	29
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.0629	0.0642	50.3	51.4	1	12.0-160			2.01	32
Methyl tert-butyl ether	0.0250	ND	0.0104	0.00994	41.7	39.8	1	21.0-145			4.63	29
Naphthalene	0.0250	ND	0.00297	0.00358	11.9	14.3	1	10.0-153			18.7	36
n-Propylbenzene	0.0250	ND	0.0109	0.00941	43.7	37.6	1	10.0-151			14.9	34
Styrene	0.0250	ND	0.000605	0.000409	2.42	1.64	1	10.0-155	J6	J3 J6	38.6	34
1,1,2-Tetrachloroethane	0.0250	ND	0.0111	0.0105	44.2	42.1	1	10.0-147			4.76	30
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0102	0.0103	40.8	41.2	1	10.0-155			0.840	31

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L924195-01,02,03,04,05,06,07

L924161-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924161-05 07/27/17 12:50 • (MS) R3236810-1 07/27/17 17:17 • (MSD) R3236810-2 07/27/17 17:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Tetrachloroethene	0.0250	ND	0.0182	0.00934	72.9	37.4	1	10.0-144	J3		64.4	32
Toluene	0.0250	ND	0.00943	0.00911	37.7	36.4	1	10.0-144			3.47	28
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0135	0.0128	54.0	51.0	1	10.0-153			5.65	33
1,2,3-Trichlorobenzene	0.0250	ND	0.00382	0.00402	15.3	16.1	1	10.0-153			5.08	40
1,2,4-Trichlorobenzene	0.0250	ND	0.00407	0.00418	16.3	16.7	1	10.0-156			2.58	40
1,1,1-Trichloroethane	0.0250	ND	0.0128	0.0125	51.2	49.9	1	18.0-145			2.51	29
1,1,2-Trichloroethane	0.0250	ND	0.0120	0.0113	48.0	45.0	1	12.0-151			6.30	28
Trichloroethene	0.0250	ND	0.0123	0.00963	49.4	38.5	1	11.0-148			24.7	29
Trichlorofluoromethane	0.0250	ND	0.0112	0.0106	44.7	42.5	1	10.0-157			4.84	34
1,2,3-Trichloropropane	0.0250	ND	0.0113	0.0109	45.2	43.7	1	10.0-154			3.34	32
1,2,3-Trimethylbenzene	0.0250	ND	0.00782	0.00765	31.3	30.6	1	10.0-150			2.24	33
1,2,4-Trimethylbenzene	0.0250	ND	0.00913	0.00785	36.5	31.4	1	10.0-151			15.0	34
1,3,5-Trimethylbenzene	0.0250	ND	0.00998	0.00864	39.9	34.6	1	10.0-150			14.4	33
Vinyl chloride	0.0250	ND	0.00464	0.00461	18.6	18.4	1	10.0-150			0.760	29
Xylenes, Total	0.0750	ND	0.0302	0.0278	40.3	37.1	1	10.0-150			8.13	31
(S) Toluene-d8				98.7	99.9			80.0-120				
(S) Dibromofluoromethane				95.1	98.1			74.0-131				
(S) 4-Bromofluorobenzene				95.7	92.6			64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L924195-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3237071-1 07/28/17 12:40

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	80.7			18.0-148

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3237071-2 07/28/17 12:54 • (LCSD) R3237071-3 07/28/17 13:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
C22-C32 Hydrocarbons	30.0	23.5	22.2	78.4	73.9	50.0-150			5.95	20
C12-C22 Hydrocarbons	30.0	23.4	22.4	78.0	74.7	50.0-150			4.32	20
(S) o-Terphenyl				90.5	84.1	18.0-148				

L924195-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924195-04 07/28/17 13:35 • (MS) R3237071-4 07/28/17 13:49 • (MSD) R3237071-5 07/28/17 14:03

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
C22-C32 Hydrocarbons	32.6	2.05	15.9	17.6	42.4	47.7	1	50.0-150	J6	J6	10.2	20
C12-C22 Hydrocarbons	32.6	U	16.8	17.3	51.6	53.2	1	50.0-150			2.98	20
(S) o-Terphenyl				54.1	57.7			18.0-148				



Method Blank (MB)

(MB) R3236954-3 07/28/17 03:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg										
Anthracene	U		0.000600	0.00600										
Acenaphthene	U		0.000600	0.00600										
Acenaphthylene	U		0.000600	0.00600										
Benzo(a)anthracene	U		0.000600	0.00600										
Benzo(a)pyrene	U		0.000600	0.00600										
Benzo(b)fluoranthene	U		0.000600	0.00600										
Benzo(g,h,i)perylene	U		0.000600	0.00600										
Benzo(k)fluoranthene	U		0.000600	0.00600										
Chrysene	U		0.000600	0.00600										
Dibenz(a,h)anthracene	U		0.000600	0.00600										
Fluoranthene	U		0.000600	0.00600										
Fluorene	U		0.000600	0.00600										
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600										
Naphthalene	U		0.00200	0.0200										
Phenanthrene	U		0.000600	0.00600										
Pyrene	U		0.000600	0.00600										
1-Methylnaphthalene	U		0.00200	0.0200										
2-Methylnaphthalene	U		0.00200	0.0200										
2-Chloronaphthalene	U		0.00200	0.0200										
(S) Nitrobenzene-d5	67.3			14.0-149										
(S) 2-Fluorobiphenyl	74.9			34.0-125										
(S) p-Terphenyl-d14	77.0			23.0-120										

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236954-1 07/28/17 03:05 • (LCSD) R3236954-2 07/28/17 03:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Anthracene	0.0800	0.0673	0.0681	84.1	85.2	50.0-125			1.23	20
Acenaphthene	0.0800	0.0604	0.0620	75.5	77.5	52.0-120			2.61	20
Acenaphthylene	0.0800	0.0619	0.0628	77.3	78.5	51.0-120			1.54	20
Benzo(a)anthracene	0.0800	0.0690	0.0705	86.2	88.1	46.0-121			2.20	20
Benzo(a)pyrene	0.0800	0.0584	0.0593	73.0	74.1	42.0-121			1.48	20
Benzo(b)fluoranthene	0.0800	0.0627	0.0638	78.4	79.8	42.0-123			1.77	20
Benzo(g,h,i)perylene	0.0800	0.0714	0.0703	89.3	87.9	43.0-128			1.57	20
Benzo(k)fluoranthene	0.0800	0.0686	0.0688	85.8	86.0	45.0-128			0.220	20
Chrysene	0.0800	0.0673	0.0696	84.1	87.0	48.0-127			3.37	20
Dibenz(a,h)anthracene	0.0800	0.0744	0.0747	93.0	93.3	43.0-132			0.380	20
Fluoranthene	0.0800	0.0762	0.0784	95.3	97.9	49.0-129			2.74	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3236954-1 07/28/17 03:05 • (LCSD) R3236954-2 07/28/17 03:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Fluorene	0.0800	0.0655	0.0667	81.9	83.3	50.0-120			1.80	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0722	0.0715	90.3	89.4	44.0-131			1.05	20
Naphthalene	0.0800	0.0570	0.0565	71.2	70.7	50.0-120			0.760	20
Phenanthrene	0.0800	0.0645	0.0651	80.6	81.4	48.0-120			0.970	20
Pyrene	0.0800	0.0589	0.0596	73.6	74.5	48.0-135			1.29	20
1-Methylnaphthalene	0.0800	0.0692	0.0696	86.5	87.0	52.0-122			0.680	20
2-Methylnaphthalene	0.0800	0.0659	0.0672	82.4	84.0	52.0-120			1.97	20
2-Chloronaphthalene	0.0800	0.0634	0.0642	79.3	80.3	50.0-120			1.25	20
(S) Nitrobenzene-d5				69.8	73.0	14.0-149				
(S) 2-Fluorobiphenyl				80.7	84.1	34.0-125				
(S) p-Terphenyl-d14				80.3	81.3	23.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L924143-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L924143-06 07/28/17 05:30 • (MS) R3236954-4 07/28/17 05:51 • (MSD) R3236954-5 07/28/17 06:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Anthracene	0.0924	U	0.0703	0.0815	76.0	88.2	1	20.0-136			14.8	24
Acenaphthene	0.0924	U	0.0634	0.0740	68.6	80.1	1	29.0-124			15.4	20
Acenaphthylene	0.0924	U	0.0647	0.0748	70.0	80.9	1	35.0-120			14.5	20
Benzo(a)anthracene	0.0924	0.00101	0.0719	0.0827	76.7	88.4	1	13.0-132			14.0	27
Benzo(a)pyrene	0.0924	0.000701	0.0708	0.0814	75.9	87.3	1	14.0-138			13.9	27
Benzo(b)fluoranthene	0.0924	0.00110	0.0669	0.0795	71.2	84.8	1	10.0-129			17.2	31
Benzo(g,h,i)perylene	0.0924	0.000896	0.0735	0.0836	78.5	89.5	1	10.0-133			12.9	30
Benzo(k)fluoranthene	0.0924	U	0.0695	0.0772	75.2	83.5	1	15.0-131			10.5	27
Chrysene	0.0924	U	0.0713	0.0820	77.1	88.7	1	15.0-137			13.9	25
Dibenz(a,h)anthracene	0.0924	U	0.0766	0.0873	82.9	94.5	1	15.0-132			13.1	27
Fluoranthene	0.0924	0.000846	0.0733	0.0916	78.3	98.2	1	13.0-139			22.2	28
Fluorene	0.0924	U	0.0675	0.0797	73.0	86.3	1	27.0-122			16.6	22
Indeno(1,2,3-cd)pyrene	0.0924	0.000732	0.0741	0.0843	79.4	90.4	1	11.0-133			12.8	29
Naphthalene	0.0924	U	0.0592	0.0658	64.0	71.2	1	18.0-136			10.6	21
Phenanthrene	0.0924	U	0.0653	0.0761	70.6	82.4	1	15.0-133			15.3	25
Pyrene	0.0924	0.000840	0.0582	0.0677	62.1	72.3	1	11.0-146			15.1	29
1-Methylnaphthalene	0.0924	U	0.0712	0.0805	77.0	87.1	1	24.0-137			12.3	22
2-Methylnaphthalene	0.0924	U	0.0688	0.0781	74.4	84.5	1	23.0-136			12.7	22
2-Chloronaphthalene	0.0924	U	0.0664	0.0771	71.8	83.4	1	36.0-120			14.9	20
(S) Nitrobenzene-d5				69.3	75.0	14.0-149						
(S) 2-Fluorobiphenyl				73.4	81.0	34.0-125						
(S) p-Terphenyl-d14				69.5	74.0	23.0-120						

GLOSSARY OF TERMS

ONE LAB. NATIONWIDE.



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL (dry)	Reported Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

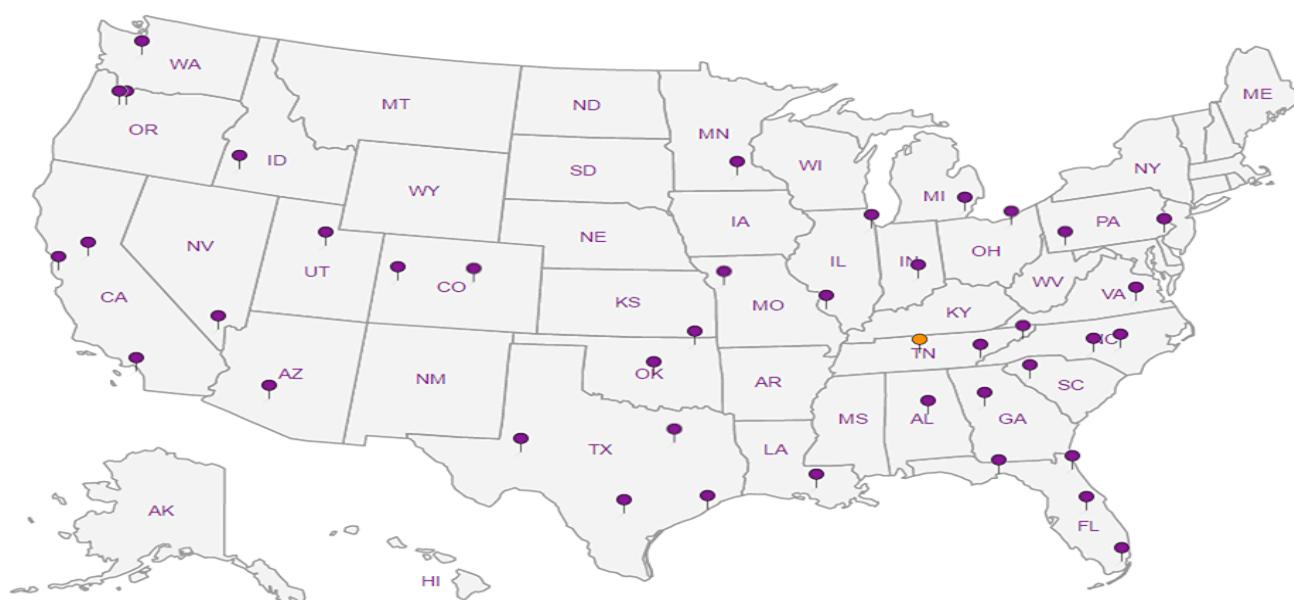
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ Sc

AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597		Billing Information: Accounts Payable- Jeremy Smith 2500 Camino Diablo Walnut Creek, CA 94597		Pres Chk	Analysis / Container / Preservative		Chain of Custody Page 1 of 2			
Report to: Jonathan Sanders		Email To: jsanders@aeiconsultants.com; nbricker@aeiconsultants.com								
Project Description: Harvest Investments		City/State: California Collected: California, CA								
Phone: 925-746-6028	Client Project # 335476	Lab Project #: AEICONWCCA-335476								
Fax:										
Collected by (print): <i>Nathan Bricker</i>	Site/Facility ID #: 27501 LOYOLA AVE	P.O. #: 136001								
Collected by (signature): <i>Nathan Bricker</i>	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rush Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rush Only) <input type="checkbox"/> Three Day	Quote #		Date Results Needed	No. of Encls					
Immediately Packed on Ice N <input checked="" type="checkbox"/>										
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	GRO-CA 2ozClr-NoPres	GRO-CA 40ml/NaHSO4/Sy/MeOH (2240)	PAH 8270SIM 40ozClr-NoPres and Naphthalene	VOCs by 8260 40ml/NaHSO4/Sy/MeOH	HOLP
SB-1-0.5	Grab	SS	0-5	7/18/17	0825	X	X	X	X	
SB-1-2.5		SS	2.5		0830	X	X	X	X	
SB-2-0.5		SS	0.5		0847	X	X	X	X	
SB-2-2.5		SS	2.5		0852	X	X	X	X	
SB-3-0.5		SS	0.5		0942	X	X	X	X	
SB-3-2.5		SS	2.5		0947	X	X	X	X	
SB-4-0.5		SS	0.5		0957	X	X	X	X	
SB-4-2.5		SS	2.5		0901					
SB-1-0.5		SS	0.5		0917					
SB-1-2.5		SS	2.5		0925					
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks:				pH _____ Temp _____	Sample Receipt Checklist: CDC Seal Present/Intact: <input checked="" type="checkbox"/> CDC Signed/Accurate: <input checked="" type="checkbox"/> Bottles arrive intact: <input checked="" type="checkbox"/> Correct bottles used: <input checked="" type="checkbox"/> Sufficient volume sent: <input checked="" type="checkbox"/> if applicable VGA zero headspace: <input checked="" type="checkbox"/> Preservation correct/checked: <input checked="" type="checkbox"/>				
Samples returned via: UPS FedEx Courier		Tracking # 7372 1964 0169		Flow _____	Other _____					
Relinquished by: (Signature) <i>Nathan Bricker</i>	Date: 7/18/17	Time: 1230	Received by: (Signature)		Trip Blank Received: <input checked="" type="checkbox"/> No HCL / MeOH TBA 1					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)		Temp: 20 °C Bottles Received: 112	If preservation required by Lab: Date/Time				
Relinquished by: (Signature)	Date	Time	Received for lab by: (Signature) <i>Matthew Sordino</i>		Date: 7-19-17 Time: 0915	7-065	Condition: NCF / <input checked="" type="checkbox"/>			
						7-067				

AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597			Billing Information: Accounts Payable- Jeremy Smith 2500 Camino Diablo Walnut Creek, CA 94597			Pres Chk	Analysis / Container / Preservative			Chain of Custody	Page 2 of 2		
Report to: Jonathan Sanders			Email To: jsanders@aeiconsultants.com; nbricker@aeiconsultants.com										
Project Description: Harvest Investments			City/State Collected: Hayward, California										
Phone: 925-746-6028	Client Project # 335476		Lab Project # AEICONWCCA-335476										
Collected by (print): <i>Nathan Bricker</i>	Site/Facility ID # 27501 LOYOLA AVE		P.O. # 136001										
Collected by (signature): <i>Nathan Bricker</i>	Rush? [Lab MUST Be Notified] Same Day _____ Five Day _____ Next Day _____ 5 Day (Rud Only) _____ Two Day _____ 10 Day (Rud Only) _____ Three Day _____		Quote #			Date Results Needed	No. of Cntns						
Immediately Packed on ice: <input checked="" type="checkbox"/>													
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time								
SGA-2-0.5	<i>Gravel</i>	SS	0.5	7/18/17	1010	7	GRO/ORD w/ SGT 40zCir-NoPres (8oz/Sn)	GRO-CA 2ozCir-NoPres	PAH 82705M 40zCir-NoPres incl. Naphthalene	VOCs by 8260 40ml/NaHSO4/Syr/MeOH	HOLD		
SGA-2-2.5		SS	2.5		1015						X		
SGA-3-0.5		SS	0.5		1057								
SGA-3-2.5		SS	2.5		1102								
SGA-4-0.5		SS	0.5		1035								
SGA-4-2.5		SS	2.5		1040								
		SS											
		SS											
		SS											
		SS											
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other	Remarks:						pH	Temp					
							Flow	Other					
Samples returned via: UPS FedEx Courier						Tracking # 7372 1964 0169						Sample Receipt Checklist: CDC Seal Present/Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> CDC Signed/Accurate: <input checked="" type="checkbox"/> <input type="checkbox"/> Bottles arrive intact: <input checked="" type="checkbox"/> <input type="checkbox"/> Correct bottles used: <input checked="" type="checkbox"/> <input type="checkbox"/> Sufficient volume sent: <input checked="" type="checkbox"/> <input type="checkbox"/> if applicable VOA Seal Present: <input checked="" type="checkbox"/> <input type="checkbox"/> Preservation Correct/Checked: <input checked="" type="checkbox"/> <input type="checkbox"/>	
Relinquished by: (Signature) <i>Nathan Bricker</i>	Date: 7/18/17	Time: 1230	Received by: (Signature)			Trip Blank Received: <input checked="" type="checkbox"/> Yes/No ACL/MeOH TBR							
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)			Temp: 20°C Bottles Received: 112				If preservation required by Lab: Date/Time			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Jonathan Sanders</i>			Date: 7-19-17 Time: 0845				HOLD:	Condition: NCF 100		

AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597			Billing Information: Accounts Payable- Jeremy Smith 2500 Camino Diablo Walnut Creek, CA 94597			Pres Chk	Analysis / Container / Preservative			Chain of Custody Page 1 of 2				
Report to: Jonathan Sanders			Email To: jsanders@aeiconsultants.com; nbricker@aeiconsultants.com											
Project Description: Harvest Investments			City/State: Walnut Creek, California											
Phone: 925-746-6028	Client Project # 335476		Lab Project # AEICONWCCA-335476											
Fax:														
Collected by (print): Nathan Bricker	Site/Facility ID # 27501 LOYOLA AVE		P.O. # 136001											
Collected by (signature): Nathan Bricker	Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day		Quote # Date Results Needed			No. of Cntrs	DRO/ORO w/ SGT 4ozClr-NoPres	GRO-CA 2ozClr-NoPres	GRO-CA 40ml/NaHSO4/Syr/MeOH	Lead by 6020 4ozClr-NoPres	PAH 8270SIM 4ozClr-NoPres	VOCs by 8260 2ozClr-NoPres	VOCs by 8260 40ml/NaHSO4/Syr/MeOH	HOLP
Immediately Packed on Ice N Y X														
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time									
SB-1-0.5	Grab	SS	0.5	7/18/17	0825	7							X	
SB-1-2.5		SS	2.5		0830									
SB-2-0.5		SS	0.5		0847									
SB-2-2.5		SS	2.5		0852									
SB-3-0.5		SS	0.5		0942									
SB-3-2.5		SS	2.5		0947									
SB-4-0.5		SS	0.5		0757									
SB-4-2.5		SS	2.5		0801									
SG-1-0.5		SS	0.5		0917									
SG-1-2.5	▼	SS	2.5	▼	0925	▼							▼	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks: Samples returned via: UPS FedEx Courier										pH _____ Temp _____ Flow _____ Other _____	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> N <input type="checkbox"/> COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/>		
Relinquished by : (Signature) Nathan Bricker	Date: 7/18/17	Time: 1230	Received by: (Signature)			Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCL / MeOH TBR	Tracking # 7372 1964 0169			If applicable If preservation required by Login: Date/Time				
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)			Temp: 2.0 °C	Bottles Received: 112							
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Matthew Sordino			Date: 7-19-17	Time: 0925				Condition: NCF / OK			
									7-065					
									7-067					

AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597			Billing Information: Accounts Payable- Jeremy Smith 2500 Camino Diablo Walnut Creek, CA 94597			Pres Chk	Analysis / Container / Preservative			Chain of Custody	
Report to: Jonathan Sanders			Email To: jsanders@aeiconsultants.com; nbricker@aeiconsultants.com							Page 2 of 2	
Project Description: Harvest Investments			City/State <i>Hanford</i> Collected: <i>California</i>							ESC	
Phone: 925-746-6028	Client Project # 335476		Lab Project # AEICONWCCA-335476							L-A-B S-C-I-E-N-C-E-S	
Fax:										YOUR LAB OF CHOICE	
Collected by (print): <i>Nathan Bricker</i>	Site/Facility ID # 27501 LOYOLA AVE		P.O. # 136001							12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Collected by (signature): <i>Nathan Bricker</i>	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Quote #							QR Code	
Immediately Packed on Ice N Y <i>X</i>	Date Results Needed			No. of Cntrs						L #	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		VOCs by 8260 40ml/NaHSO4/Syr/MeOH		Table #		
SG-2-0.5	<i>Grapes</i>	SS	0.5	7/18/17	1010	7			Acctnum: AEICONWCCA		
SG-2-2.5		SS	2.5		1015	1			Template: T125322		
SG-3-0.5		SS	0.5		1057	1			Prelogin: P607971		
SG-3-2.5		SS	2.5		1102				TSR: 110 - Brian Ford		
SG-4-0.5		SS	0.5		1035				PB: <i>b.30.17cm</i>		
SG-4-2.5		SS	2.5		1040	↓			Shipped Via: FedEx Ground		
		SS							Remarks		
		SS							Sample # (lab only)		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks:										
<p>pH _____ Temp _____</p> <p>Flow _____ Other _____</p> <p>Samples returned via: UPS FedEx Courier _____</p> <p>Tracking # <i>7372 1964 0169</i></p>											
Relinquished by : (Signature) <i>Nathan Bricker</i>			Date: <i>7/18/17</i>	Time: <i>1230</i>	Received by: (Signature)			Trip Blank Received: <input checked="" type="checkbox"/> Yes / No <i>1</i> MeOH TBR	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Relinquished by : (Signature)			Date:	Time:	Received by: (Signature)			Temp: <i>20°</i> °C Bottles Received: <i>112</i>	If preservation required by Login: Date/Time		
Relinquished by : (Signature)			Date:	Time:	Received for lab by: (Signature) <i>Millicha Sochhare</i>			Date: <i>7-19-17</i> Time: <i>0845</i>	Hold:	Condition: NCF / OK	