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**Subsurface Characterization Investigation in the
Former Diesel Spray Area
Hanson Aggregates Mission Valley Rock Facility
7999 Athenour Way
Sunol, Alameda County, California**

**March 14, 2008
001-09480-05**

Prepared for
Hanson Aggregates Northern California
3000 Busch Road
Pleasanton, California 94566

Prepared by
LFR Inc.
1900 Powell Street, 12th Floor
Emeryville, California 94608

March 14, 2008

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

Subject: **Subsurface Characterization Investigation Report in the Former Diesel Spray Area
Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol,
Alameda County, California, SLIC Case #RO0000207 and GeoTracker ID
T0600102092**

Dear Mr. Wickham:

The enclosed report titled "Subsurface Characterization Investigation in the Former Diesel Spray Area" was prepared by LFR Inc. (LFR) on behalf of Hanson Aggregates Northern California for the former diesel spray area of the Hanson Aggregates Former Mission Valley Rock Facility, located at 7999 Athenour Way, Sunol, California ("the Site"). This Work Plan presents the methodology and results for the characterization investigation completed at the Site during January 2008. The investigation consisted of advancing temporary soil borings in ten locations to conduct real-time screening for the presence of petroleum hydrocarbons and collecting confirmation soil and grab groundwater samples. The scope of work completed for the investigation was in accordance with the August 3, 2007, work plan approved by the Alameda County Environmental Health in its technical comment letter dated August 30, 2007.

Results indicate that the former diesel spray area has been sufficiently characterized and no additional subsurface investigations are recommended. Petroleum hydrocarbons (primarily total petroleum hydrocarbons as diesel [TPHd]) have affected the shallow soil and groundwater at low concentrations in the immediate vicinity of the former diesel spray rack. The nature and extent of the TPHd in soil and groundwater do not warrant any active remediation at the Site.

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

If you have any questions or comments concerning this Work Plan, please call me at (925) 426-4170 or Katrin Schliwen of LFR at (510) 652-4500.

Sincerely,



Lee W. Cover
Environmental Manager
Hanson Aggregates Northern California

Attachment

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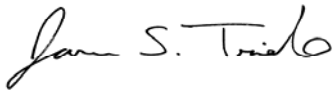
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CERTIFICATION

LFR Inc. has prepared this characterization investigation report for additional subsurface investigation work conducted in the former diesel spray area of the Hanson Aggregates Mission Valley Rock Facility in Sunol, California, on behalf of Hanson Aggregates Northern California in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This characterization investigation report was prepared under the technical direction of the undersigned California Professional Geologist.



March 14, 2008

Jason S. Triolo
Project Geologist

Date



March 14, 2008

Katrin M. Schliewen, P.G.
Senior Hydrogeologist
California Professional Geologist No. 7808

Date



Expires Feb. 28, 2009

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

1.0 INTRODUCTION

LFR Inc. (LFR) has prepared this “Subsurface Characterization Investigation Report in the Former Diesel Spray Area” on behalf of Hanson Aggregates Northern California (“Hanson”) for the facility located at 7999 Athenour Way in Sunol, Alameda County, California (Figure 1). The purpose of the characterization investigation was to further assess the lateral and vertical extent of petroleum hydrocarbon-affected soil and groundwater in the vicinity of the former diesel spray area (“the Site”; Figure 1).

This report summarizes field activities performed by LFR in accordance with the relevant portions of the “Work Plan to Conduct a Groundwater Remediation Pilot Test at the Asphalt Plant and Additional Subsurface Characterization in the Former Diesel Spray Area” (“the Work Plan”), submitted to Alameda County Environmental Health (ACEH) on August 3, 2007 (LFR 2007b). Field investigation activities consisted of advancing 10 temporary soil borings to determine the presence of petroleum hydrocarbons and collecting confirmation soil and grab groundwater samples. The Work Plan was approved by ACEH in a letter dated August 30, 2007 and entitled “Fuel Leak Case No. RO0000207 and GeoTracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, CA – Work Plan Approval.”

This report is organized as follows: Section 2.0 presents a site description and history of potential environmental impacts, a summary of the previous investigation conducted at the Site, a summary of the ACEH requirements, and LFR’s investigation objectives; Section 3.0 describes the investigation methodology; Section 4.0 presents and discusses the results of the characterization investigation; and Section 5.0 summarizes the conclusions and recommendations of the investigation.

2.0 HISTORY OF POTENTIAL ENVIRONMENTAL IMPACTS AND PREVIOUS INVESTIGATIONS

2.1 Site Description

The Former Diesel Spray Area is located near the center of the approximately 588-acre property owned and operated by Hanson since early 2005 (Hanson Aggregates Mission Valley Rock Facility [“the Hanson-Sunol facility”]). The property previously was owned and operated by Mission Valley Rock Company (“Mission Valley”) since the 1950s. The Hanson-Sunol facility is operated as a sand and gravel quarry with an asphalt manufacturing facility and ready mix concrete plant. Additionally, various areas throughout the property are leased for industrial, agricultural, and storage purposes.

2.2 Site Geology and Hydrogeology

The regional and local geology and hydrogeology are described in more detail in the Site Conceptual Model included in Appendix A of the “Site Assessment Report of Additional Lateral and Vertical Characterization and Plan for Interim Remediation at the Asphalt Plant,” dated April 10, 2007 (LFR 2007a). According to investigations conducted in the asphalt plant area located approximately 250 feet east of the Site, the local geology in the vicinity of the Site consists of approximately 10 to 20 feet of relatively less permeable silts, clays, and clayey gravels overlying approximately 20 to 30 feet of relatively more permeable fine- to coarse-grained gravels considered to be the main water-bearing stratum. The Livermore Formation, which underlies the main water-bearing stratum, appears to be somewhat less permeable compared to the overlying strata due to increased fines content encountered at approximately 30 to 35 feet below ground surface (bgs).

Local groundwater flow conditions in the nearby asphalt plant area have been, and continue to be, influenced by low permeability barriers such as the former gravel pits previously used as de-silting basins and now filled with relatively less permeable finer-grained sediment. The depth to groundwater in the asphalt plant area has ranged from approximately 1.0 to 10 feet bgs although it typically ranges from approximately 4.0 to 6.0 feet bgs. The local groundwater flow direction generally has been to the south, southeast, and east, as measured in groundwater monitoring wells in the asphalt plant area since approximately 1998. The groundwater flow at the Site has not been determined. Historically, the local groundwater flow direction likely was toward nearby open gravel pits; as nearby aggregate mining pits were advanced, dewatered, and later filled with water and silt, the groundwater table likely rose and fell significantly.

2.3 History of Potential Environmental Impacts

The former diesel spray rack was located and operated at the Site until approximately 1989 (Figures 1 and 2). This area reportedly was used to spray down the beds of the trucks with diesel prior to asphalt loading to prevent the materials from sticking in the truck beds. Diesel spray may have reached the ground surface, potentially infiltrating and affecting the subsurface. The area currently is comprised of an elevated platform approximately 50 feet long located in the center of the main north-south road that runs through the facility and west of the main administrative buildings. At present, the Site is used for spraying down the beds of trucks with soapy water.

2.4 Previous Environmental Site Investigations

At the request of ACEH, during a characterization investigation conducted in the asphalt plant area in February and March 2007, LFR advanced one temporary soil boring adjacent to the former diesel spray rack. Membrane interface probe (MIP) technology was used to conduct real-time screening for the potential presence of

petroleum hydrocarbons in the subsurface during drilling. The boring (MIP-4) was advanced to approximately 25 feet bgs, and screening results from the temporary soil boring indicated the potential presence of elevated petroleum hydrocarbon concentrations in soil and/or groundwater, particularly between approximately 10 and 20 feet bgs. No confirmation samples were collected at this time. These results were presented in the "Site Assessment Report of Additional Lateral and Vertical Characterization and Plan for Interim Remediation at the Asphalt Plant," submitted to ACEH on April 10, 2007. In this report, LFR recommended that a subsurface investigation be conducted to characterize the lateral and vertical extent of the potential petroleum hydrocarbons in the former diesel spray area. ACEH, in an April 27, 2007 letter, requested that a work plan proposing a characterization investigation be submitted; the proposed scope of work was approved without comment by ACEH in an August 30, 2007 letter.

2.5 Investigation Objectives

The primary objective of the subsurface investigation proposed in the work plan was to characterize the lateral and vertical extent of petroleum hydrocarbons in the former diesel spray area.

The screening results from the former soil boring MIP-4 indicated the potential presence of petroleum hydrocarbons and associated compounds in shallow soil and groundwater in the former diesel spray area. As described in Section 3.0 below, lateral characterization was conducted through the advancement of new temporary soil borings at locations to the north, south, east, and west of the former diesel spray area, and vertical characterization was conducted through the advancement of new temporary soil borings at locations deeper and in the vicinity of the former MIP-4 location. LFR used the MIP tool to conduct qualitative screening during drilling to obtain a real-time vertical profile of petroleum hydrocarbons and related compounds in soil and groundwater. Soil and grab groundwater samples were collected to confirm MIP results and to obtain quantitative analytical data.

3.0 INVESTIGATION METHODOLOGY

3.1 Pre-Field Activities

3.1.1 Permitting

LFR acquired the appropriate soil boring drilling permit from the Alameda County Zone 7 Water Agency (Appendix A).

3.1.2 Subsurface Utility Clearance

Prior to intrusive fieldwork, subsurface utility clearance was obtained by notifying Underground Service Alert (USA) of the proposed invasive activities, subcontracting a private utility locator, and reviewing the potential for subsurface utilities with facility personnel. LFR notified USA the required 72 hours before commencing drilling to identify public underground utilities located in the vicinity of the proposed soil boring locations. LFR also subcontracted C. Cruz Subsurface Locators Inc. of Milpitas, California, to perform subsurface utility locating at the Site to identify possible subsurface obstructions and utilities. All proposed boring locations were cleared. A field sketch illustrating the approximate locations of conflicting utilities in the vicinity of the former diesel spray area was generated, and copies of the applicable clearance forms were maintained in the field during the investigation activities.

All proposed soil boring locations were reviewed and coordinated with facility personnel before commencing drilling activities in order not to significantly interfere with plant operations.

3.1.3 Health and Safety Plan

The site-specific Health and Safety Plan (HSP) previously prepared for the well installation work conducted by LFR in April 2006 was amended to incorporate the most recent groundwater monitoring data, and to address health and safety concerns specific to the current field activities. The HSP documents the potential hazards to worker health and safety at the Site during the proposed field activities and specifies the appropriate means to mitigate or control these hazards. The HSP addresses the potential for exposure to hazardous constituents and describes general safety procedures.

A health and safety tailgate meeting was conducted daily by on-site LFR personnel prior to commencing fieldwork activities. All fieldwork activities were completed according to the HSP to ensure that appropriate health and safety procedures were followed. In addition, before beginning the investigation, LFR and its subcontractors attended the on-site health and safety training conducted by facility personnel as required by Hanson.

3.2 Soil Borings Advanced for Lateral and Vertical Characterization

The proposed soil boring locations were selected to further characterize the lateral and vertical extent of petroleum hydrocarbons beneath the Site. All investigation activities were performed in accordance with LFR's August 3, 2007 Work Plan (LFR 2007b), except that it was not necessary to use sonic drilling technology to conduct the vertical characterization of the former diesel spray area.

3.2.1 Soil Boring Locations and Depths

Drilling of temporary soil borings and field screening methods were chosen to provide real-time data used to select successive step-out drilling and sampling locations. As such, the total number of successive sample locations and the maximum depth of each soil boring were determined based on field conditions and preliminary screening results. Depth-discrete samples were subsequently collected based on the preliminary results. A total of 20 temporary soil borings were advanced in the 10 locations shown on Figure 2 (MIP-7 through MIP-16).

LFR used both MIP and cone penetration testing (CPT) data to characterize the lateral and vertical extent of petroleum hydrocarbons and associated compounds in soil and groundwater adjacent to the former diesel spray area. MIP technology was used as a field screening tool to help delineate the extent of petroleum hydrocarbons. CPT technology was used as an electronic soil logging tool to identify relative changes in lithology with depth.

The 10 temporary MIP/CPT soil borings were advanced between January 21 and 23, 2008. The soil borings were advanced using Gregg Drilling and Testing's ("Gregg Drilling's") direct-push drill rig and CPT logging technology in cooperation with Vironex Environmental Field Services' ("Vironex's") MIP screening technology. On January 24 and 25, 2008, the 10 temporary soil borings to collect confirmation soil and grab groundwater samples were advanced by Gregg Drilling. Both Gregg Drilling and Vironex are California licensed drilling contractors, and all work was conducted under the direct supervision of an LFR field geologist.

Lateral Characterization

The lateral characterization was conducted by advancing seven MIP/CPT locations northwest, north, northeast, southeast, and south of the former diesel spray area. One depth-discrete soil and one grab groundwater sample were collected from each of the seven MIP/CPT boring locations. The total depths and number of soil and grab groundwater samples collected are listed in Table 1.

One boring, MIP-7, was advanced northwest of the former diesel spray rack to a total depth of approximately 30 feet bgs. Two borings, MIP-8 and MIP-10, were advanced north of the former diesel spray rack to total depths of approximately 30 and 18.5 feet bgs, respectively. One boring, MIP-15, was advanced to the northeast to a total depth of approximately 20 feet bgs. One boring, MIP-16, was advanced to the southeast to a total depth of approximately 20 feet bgs. Two borings, MIP-12 and MIP-13, were advanced south of the former diesel spray area to total depths of approximately 25 and 30 feet bgs, respectively. The approximate location of each MIP boring is shown on Figure 2.

Vertical Characterization

Three MIP/CPT locations were advanced directly east and west of the former diesel spray area to characterize the vertical extent of potential petroleum hydrocarbons in the subsurface. One soil sample and several depth-discrete grab groundwater samples were collected from each of these three boring locations. The total depths and number of soil and grab groundwater samples collected are listed in Table 1.

Two borings, MIP-9 and MIP-14, were advanced on the eastern side of the former diesel spray rack, to a total depth of approximately 45 and 43 feet bgs, respectively. Boring MIP-11 was advanced on the western side of the former diesel spray rack to a total depth of approximately 30 feet bgs. The approximate location of each MIP boring is shown on Figure 2.

3.2.2 MIP/CPT Investigation

Before direct-push drilling was performed, each boring location was pre-drilled with both a 4-inch auger bit and hand auger to penetrate the initial 5.0 feet of compacted fill material present at the Site. The MIP/CPT borings (MIP-7 through MIP-16) were then advanced using a 30-ton direct-push (CPT-type) drill rig to screen for the potential presence of petroleum hydrocarbons in soil and groundwater. Total depths ranged from approximately 18.5 to 45 feet bgs, depending upon their purpose, location, and achievable depths. Lithologic information and screening for the presence of petroleum hydrocarbons was conducted using the CPT and MIP detectors, respectively.

The MIP tool was added to the CPT rod “string” to provide vertical definition of the fuel hydrocarbon compounds. The MIP tool utilizes a small heat pad to volatilize organic compounds, including petroleum hydrocarbons, from soils and groundwater as the tool is pushed through the subsurface. Organic vapors are drawn through a ceramic filter port at the center of the heat pad, and carried to the surface via tubing with an inert carrier gas to be analyzed on-site by field instruments located in the MIP instrumentation vehicle. The MIP tool can detect those compounds that have the capability to migrate through the membrane of the probe; in particular, the MIP tool includes three different detectors:

- The electron capture detector (ECD), which is best suited to detect chlorinated compounds;
- The photoionization detector (PID), which is best suited to detect aromatic and double-bonded compounds such as petroleum hydrocarbons and related compounds, including total petroleum hydrocarbons (TPH) as diesel (TPHd) and as gasoline (TPHg); and
- The flame ionization detector (FID), which is best suited to detect straight-chained hydrocarbons such as methane and benzene, toluene, ethylbenzene, and total xylenes (BTEX) compounds.

The MIP detector responses are measured in microvolts (μV) and are qualitative responses; the results do not provide quantitative results nor do they typically correspond to analytical concentration results. The MIP responses are best evaluated as relative responses within individual soil borings and/or within one survey.

Continuous MIP measurements and CPT logging were recorded electronically at each boring location. The real-time investigation results were evaluated by the LFR field geologist and used to identify successive boring locations, as well as target depths for the depth-discrete soil and grab groundwater sampling.

3.2.3 Soil and Grab Groundwater Confirmation Sampling

Additional temporary soil borings were advanced specifically to collect depth-discrete soil and grab groundwater samples to confirm the MIP screening results and to obtain quantitative analytical data. Shallow soil samples were collected from each soil boring between approximately 2.5 and 6.0 feet bgs. These shallow soil samples were transferred into appropriate clean, laboratory-provided sample bottles, stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

A Hydropunch sampler was advanced to target depths to collect depth-discrete grab groundwater samples from soil borings MIP-7 through MIP-16. The groundwater samples were collected using a hydraulically driven temporary piezometer consisting of a hollow-rod assembly with a 5-foot-long stainless steel screen attached at the leading end of the assembly (Hydropunch). The temporary piezometer was advanced to the desired depth interval, and the rod assembly was retracted to raise the outer piezometer sleeve, thereby exposing the screen and allowing groundwater to pass through the screen into the piezometer for sampling. Each groundwater sample was collected by lowering a stainless steel bailer through the hollow-push rods into the piezometer screen. The groundwater samples were transferred into appropriate clean, laboratory-provided sample bottles, stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

Depth-discrete soil and grab groundwater samples were analyzed by Curtis & Tompkins, Ltd., a California-certified analytical laboratory in Berkeley, California, for concentrations of TPHd and TPHg; BTEX compounds; and methyl tertiary-butyl ether (MTBE).

3.2.4 Equipment Decontamination Procedures

Drilling and sampling equipment were properly decontaminated before each use and between each location. Down-hole drilling equipment, including the hand auger and drill rods and bits, were decontaminated by steam cleaning within a portable containment basin. Groundwater samples were collected using stainless steel bailers

that were decontaminated by washing in nonphosphate detergent solution, deionized water rinse, and final deionized water rinse before each use.

3.2.5 Soil Boring Abandonment

After field screening and soil logging were completed, and after the appropriate samples were collected, temporary soil borings were properly abandoned by filling the borings from the bottom to ground surface with neat cement grout using a tremie pipe.

3.3 Waste Characterization, Handling, and Disposal

The investigative-derived waste that was generated during the field activities included soil cuttings, purge water, equipment decontamination rinse water, and used personal protective equipment (PPE). Waste soil and water were placed in clean, Department of Transportation-approved 55-gallon steel drums. Used PPE and disposable sampling equipment were placed in double plastic bags and disposed of in an industrial disposal bin located on-site. The drums were temporarily stored at a centralized location at the facility until waste characterization results are approved and disposal is arranged.

3.4 Field Documentation

Field activities were documented using the following forms, as needed: health and safety tailgate meeting attendance log, daily field forms, electronic logs from the CPT logging and MIP screening tools, sampling logs, and chain-of-custody forms. These forms will be kept on file at LFR and will be available upon request.

4.0 LATERAL AND VERTICAL CHARACTERIZATION RESULTS

4.1 Results of the MIP/CPT Field Investigation

The initial 5.0 feet of each temporary soil boring were logged visually and identified as compacted fill material. The CPT logs generally are consistent with results from subsurface investigations conducted previously in the asphalt plant area. According to the CPT logs, primarily fine-grained sediments (silts and clays) were encountered to approximately 15 feet bgs. At depths greater than approximately 15 feet bgs, relatively coarser-grained sediments were present to the total depths of each soil boring. The relatively coarser-grained sediments were identified as sands on the CPT logs; these likely are equivalent to the gravels encountered below approximately 15 feet bgs in soil borings advanced in the asphalt plant area during previous investigations. CPT logs and MIP detector responses are presented in Appendix B.

Preliminary results from the MIP/CPT screening were reviewed in the field and, based on these results, intervals were selected for confirmation sampling. In general, the MIP survey detectors resulted in the following results:

- ECD: no significant ECD responses were recorded.
- PID: significant responses were recorded only in soil borings MIP-11 and MIP-14 and confirmation samples were collected in part based on the PID results.
- FID: minor responses were recorded in all borings and confirmation samples were collected in part based on the FID results.

4.1.1 ECD Detector Results

No significant responses were recorded by the ECD detector in any of the temporary soil borings. The lack of ECD response is consistent with the type of contamination expected at this Site (hydrocarbons [in particular TPHd] and not chlorinated compounds, which are typically detected by the ECD detector).

4.1.2 PID Detector Results

The PID detector is the most reliable indicator of the potential presence of heavier petroleum hydrocarbons such as TPHd. During this survey, only the PID detector results for soil borings MIP-11 and MIP-14, located nearest the former diesel spray rack, recorded significant responses. The PID results for all other borings were essentially non-detect. The PID results for MIP-11 and MIP-14 recorded significantly increased responses beginning at approximately 6.0 feet bgs. Responses reached the highest level at approximately 8.0 to 9.0 feet bgs and remained elevated before starting to decrease at approximately 20 feet bgs. The PID responses in soil borings MIP-11 and MIP-14 did not return to baseline response values before the borings were terminated at approximately 28 and 40 feet bgs, respectively, although the PID responses started to become asymptotic near the bottom of the borings. The shape of the PID responses for MIP-11 and MIP-14 with the long tail with increasing depth, in conjunction with essentially non-detect FID responses deeper than approximately 20 feet bgs, indicated that, although petroleum hydrocarbons likely are present between approximately 6.0 and 20 feet bgs, there likely are no significant concentrations below approximately 20 feet bgs. Confirmation groundwater samples were collected from approximately 16, 20, and 25 feet bgs in the MIP-11 location, and from approximately 18 and 41 feet bgs in the MIP-14 location.

4.1.3 FID Detector Results

The FID detector recorded readings above the baseline in every soil boring between approximately 3.0 and 7.0 feet bgs. The depth to groundwater was measured in two temporary soil borings to be approximately 5.5 to 6.0 feet bgs. To confirm the shallow FID readings, soil samples were collected from each boring location from

approximately above the water table and/or from the higher FID readings in the top 7.0 feet. An attempt was made in several borings to collect grab groundwater samples from immediately below the water table; however, in none of the locations advanced did groundwater enter the soil borings at depths shallower than approximately 16 feet bgs, approximately equivalent to the depth where coarser-grained sediments were encountered.

The FID detector also recorded isolated narrow spikes at various depths in several soil borings. Based on LFR's experience conducting an MIP survey during subsurface characterization in the asphalt plant area, these isolated narrow spikes typically do not correlate with elevated petroleum hydrocarbon detections (LFR 2007a). To confirm the most significant FID spikes recorded during this investigation, depth-discrete grab groundwater samples were collected from depths approximately equivalent to the most elevated FID responses. Appendix B includes a discussion of the intervals where FID spikes were recorded and from which corresponding grab groundwater samples were collected for confirmation sampling. A copy of the MIP report is included in Appendix B.

4.1.4 Summary of MIP/CPT Characterization Investigation Results

The lateral characterization to the north and south of the Site was based primarily on results from the MIP/CPT investigation where preliminary results indicated that no additional step-out boring locations were required or possible. No further step-out locations were necessary to the northwest, north, and northeast, or to the southeast and south of the former diesel spray rack. The only MIP responses indicative of potential petroleum hydrocarbon concentrations were the PID responses in borings MIP-11 and MIP-14, located in the immediate vicinity of the former diesel spray rack. No additional step-out locations could be advanced farther west of MIP-11, or east of MIP-9, because of the proximity of subsurface utilities to the west and east, and because of the administrative and maintenance buildings to the east of MIP-9. The storage of large equipment to the southeast prohibited advancing additional boring locations southeast of the Site. Based on the initial MIP/CPT investigation results, the lateral extent of petroleum hydrocarbon-affected soil and groundwater appears to be limited laterally by MIP-10 and MIP-13, located approximately 30 feet north and south of the former diesel spray rack.

The vertical characterization was based primarily on MIP/CPT results for borings MIP-9, MIP-11, and MIP-14, which were advanced to approximately 44, 30, and 40 feet bgs, respectively. As discussed above, the PID responses for MIP-11 and MIP-14 tapered below approximately 20 feet bgs and no FID responses were recorded. Confirmation groundwater samples were collected, and these results are discussed in the following section.

4.2 Analytical Results of Soil and Grab Groundwater Sampling

Ten depth-discrete soil samples and 14 grab groundwater samples were collected from 10 temporary soil borings (MIP-7 to MIP-16) during January 24 and 25, 2008. Soil and grab groundwater samples were analyzed for TPHg, TPHd, BTEX compounds, and MTBE. Analytical results are summarized in Table 2 and presented on Figure 3, based on values reported in the laboratory-certified analytical report (Appendix C), and are discussed below. Analytical results were compared to the California Regional Water Quality Control Board Environmental Screening Levels (ESLs) for groundwater for soil beneath industrial/commercial areas where groundwater is a current or potential source of drinking water (Table 2).

4.2.1 Total Petroleum Hydrocarbons

TPHd was detected in nine shallow soil samples and TPHg was detected in four shallow soil samples collected at the Site. With few exceptions, the TPHd and TPHg results were qualified by the laboratory as exhibiting chromatographic patterns that did not resemble the laboratory standard for diesel or gasoline, likely indicative of degraded TPH compounds. None of the TPHd or TPHg concentrations detected were above the ESL for soil (2,500 milligrams per kilogram (mg/kg) for TPHd and 83 mg/kg for TPHg). The highest TPHd and TPHg concentrations were detected in the soil sample collected from the MIP-14 location at approximately 5.5 feet bgs (1,300 mg/kg TPHd and 8.5 mg/kg TPHg), both below the ESLs.

TPHd was detected in seven of the 14 groundwater samples collected and TPHg was detected in only one groundwater sample (Table 2). All TPHd and TPHg concentrations detected in groundwater samples were qualified by the laboratory as exhibiting chromatographic patterns that did not resemble the laboratory standard for diesel or gasoline, likely indicative of degraded TPH compounds. Four of the TPHd concentrations detected exceeded the ESL for TPHd (100 micrograms per liter [$\mu\text{g/L}$]); these were detected in groundwater samples collected from borings MIP-9 and MIP-11, located in the immediate vicinity of the former diesel spray rack.

TPHd was detected at concentrations above the ESLs in the grab groundwater samples collected from boring MIP-9 at approximately 18.5 feet bgs (110 $\mu\text{g/L}$) and 31 feet bgs (450 $\mu\text{g/L}$), and from boring MIP-11 at approximately 20 feet bgs (270 $\mu\text{g/L}$) and 25 feet bgs (120 $\mu\text{g/L}$).

Analytical results for the soil and grab groundwater samples collected from the temporary soil borings were used to confirm the preliminary results from the MIP/CPT investigation, and to help characterize the lateral and vertical extent of petroleum hydrocarbons in soil and groundwater beneath the Site. The PID results indicated that the MIP-11 and MIP-14 boring locations potentially would result in elevated TPH concentrations. At these two boring locations, confirmation samples indicated that groundwater in the MIP-11 area immediately west of the former diesel spray rack was

affected by low concentrations of TPHd and that the shallow soil in the MIP-14 area immediately east of the rack was somewhat affected by TPHd, although not at concentrations exceeding the ESLs. The MIP/CPT investigation results did not indicate significantly affected groundwater in the MIP-9 location; however, grab groundwater samples contained TPHd concentrations above the ESLs, including the grab groundwater sample collected from approximately 31 feet bgs. The grab groundwater sample collected at approximately 41 feet bgs from boring MIP-14, located approximately 15 feet west of boring MIP-9 and closer to the former diesel spray rack, helps characterize the potential vertical extent of contamination at the Site.

4.2.2 BTEX Compounds

The only BTEX compounds detected in soil or grab groundwater samples were ethylbenzene and xylenes, and none of the detected concentrations exceeded the ESLs for these compounds (Table 2). Ethylbenzene and xylenes were detected in the 3-foot soil sample and in the 31-foot grab groundwater sample collected from boring MIP-9. A low m,p-xylenes concentration just above the laboratory reporting limit was reported for the 41-foot grab groundwater sample collected from boring MIP-14. Based on these results, the BTEX compounds are not a significant soil or groundwater contaminant in the former diesel spray area.

4.2.3 Fuel Oxygenates

The fuel oxygenate MTBE was detected at low concentrations below the ESL (5 $\mu\text{g/L}$) in three grab groundwater samples collected from borings MIP-9 and MIP-11. MTBE was not detected in any of the shallow soil samples. Based on these results, MTBE is not a significant soil or groundwater contaminant in the former diesel spray area.

4.3 Lateral and Vertical Characterization Summary

Based on the analytical results, the primary compound of concern at the Site is TPHd. This is in agreement with the primary suspected source of contamination from diesel spraying conducted historically at the former diesel spray rack.

The lateral extent of TPHd in shallow soil and groundwater appears limited to within approximately 30 feet of the former diesel spray rack. The Site has been sufficiently characterized laterally, based primarily on the MIP/CPT investigation results and on the confirmation sampling results. The Site also has been characterized laterally within the physical constraints imposed by site features, including the presence of underground utilities to the west and east, the former aggregate mining pit to the west, and the buildings and equipment to the east. However, the characterization investigations conducted to the north and south provide sufficient characterization laterally for this Site.

The vertical extent of TPHd in groundwater appears to be to approximately 30 feet bgs, and limited to the immediate vicinity of the former diesel spray rack.

In general, analytical results indicate that TPHd in groundwater does not resemble diesel standard, likely because the TPHd in groundwater is degraded. TPHd is expected to continue to degrade naturally over time. Investigation results indicate that the TPHd has not migrated significantly from the Site, and therefore is not of significant environmental concern in this area.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The primary objective of this investigation was to characterize the lateral and vertical extent of petroleum hydrocarbons and associated compounds in soil and groundwater beneath the Site. The potential presence of affected soil or groundwater was previously identified based on the qualitative screening results from a single temporary soil boring (MIP-4) advanced in February 2007. In response to a directive from ACEH, LFR submitted a work plan describing a scope of work to characterize the Site; the work plan was approved by ACEH and the characterization investigation was completed during January 21 through 25, 2008.

LFR conducted an MIP/CPT investigation and collected confirmation soil and grab groundwater samples to characterize the lateral and vertical extent of petroleum hydrocarbons in soil and groundwater beneath the Site. The MIP/CPT investigation results indicated the potential presence of petroleum hydrocarbons in the immediate vicinity of the former diesel spray rack. MIP/CPT borings advanced in step-out locations to the north and south indicated that the lateral extent of the potential contamination appears to be limited to within approximately 30 feet of the former diesel spray rack. No additional step-out locations could be advanced to the west and east due to physical constraints of the Site and its vicinity, including underground utilities, the nearby former mining pit, buildings, and stored equipment.

Confirmation sampling generally confirmed the MIP/CPT investigation results. The primary compound detected in shallow soil and groundwater is TPHd. TPHg, ethylbenzene, and xylenes were also detected, but only in isolated samples and at low concentrations below the ESLs. TPHd was detected at concentrations above the ESLs in four grab groundwater samples collected from two of the soil borings located adjacent to the former diesel spray rack.

The nature and extent of TPHd in shallow soil and groundwater has been sufficiently characterized. The low TPHd concentrations detected represent degraded TPHd, and the lateral and vertical extent of contamination appears to be limited to the immediate vicinity of the former diesel spray rack. There is no indication that the low concentrations of TPHd have migrated from the Site. The source of TPHd no longer exists since the practice of using diesel to spray down truck beds in this area ceased approximately 19 years ago and has been replaced with the use of soapy water, which

is not expected to affect the subsurface. It is expected that over time the TPHd concentrations remaining in shallow soil and groundwater will continue to degrade and will not further affect the subsurface. Based on the results of this investigation, LFR does not recommend any additional characterization investigations for this Site, nor are any active remedial activities warranted in this area.

6.0 LIMITATIONS STATEMENT

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

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

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

7.0 REFERENCES

- Alameda County Environmental Health (ACEH). 2007a. Letter to Mr. Lee Cover of Hanson Aggregates West Region from Jerry Wickham, re: Fuel Leak Case No. RO0000207 and GeoTracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California, 94586. April 27.
- . 2007b. Letter to Mr. Lee Cover of Hanson Aggregates West Region from Jerry Wickham, re: Fuel Leak Case No. RO0000207 and Geotracker Global ID T0600102092, Mission Valley Rock and Asphalt, 7999 Athenour Way, Sunol, California, 94586. August 30.
- LFR Inc. (LFR). 2007a. Site Assessment Report of Additional Lateral and Vertical Characterization and Plan for Interim Remediation at the Asphalt Plant, Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol, Alameda County, California. April 10.
- . 2007b. Work Plan to Conduct a Groundwater Remediation Pilot Test at the Asphalt Plant and Additional Subsurface Characterization in the Former Diesel Spray Area, Hanson Aggregates Mission Valley Rock Facility, 7999 Athenour Way, Sunol, Alameda County, California. August 3.

Table 1
Soil and Grab Groundwater Sample Matrix, January 2008
Hanson Aggregates
Sunol, California

Soil Boring ID	Total Depth (feet bgs)	Date Sampled	Sample Type	Estimated Sample Depth (feet bgs)
MIP-7	30.0	1/24/2008	Soil -	2.5 - 3.0
			- GGW	15.5 -16.5
MIP-8	30.0	1/24/2008	Soil -	4.5 - 5.0
			- GGW	17.0 - 18.0
MIP-9	45.0	1/25/2008	Soil -	2.5 - 3.0
			- GGW	16.5 - 18.5
			- GGW	30.0 - 31.0
MIP-10	18.5	1/25/2008	Soil -	5.5 - 6.0
			- GGW	17.0 - 18.0
MIP-11	30.0	1/24/2008	Soil -	3.5 - 4.0
			- GGW	15.0 - 16.0
			- GGW	19.0 - 20.0
			- GGW	24.0 - 25.0
MIP-12	25.0	1/24/2008	Soil -	4.5 - 5.0
			- GGW	15.0 - 16.0
MIP-13	30.0	1/25/2008	Soil -	3.5 - 4.0
			- GGW	15.0 - 16.5
MIP-14	43.0	1/25/2008	Soil -	5.0 - 5.5
			- GGW	16.0 - 18.0
			- GGW	40.0 - 41.0
MIP-15	20.0	1/25/2008	Soil -	4.5 - 5.0
			- GGW	16.0 - 17.0
MIP-16	20.0	1/24/2008	Soil -	5.5 - 6.0
			- GGW	15 - 17.0
Number of Samples			10	14

Notes:

ID = identification; soil boring identification number
feet bgs = feet below ground surface
GGW = grab groundwater
- = not applicable

Table 2
Soil and Grab Groundwater Analytical Results, January 2008
Hanson Aggregates
Sunol, California

Soil Boring ID	Date Sampled	Sample Type	Sample Depth (feet bgs)	TPH-diesel 8015	TPH-gas 8015 / 8260	Units	MTBE 8260	Benzene 8260	Toluene 8260	Ethybenzene 8260	m,p-Xylenes 8260	o-Xylene 8260	Units
MIP-7-SS 3.0	1/24/08	Soil	3.0	53 Y	< 1.0	mg/kg	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	µg/kg
MIP-7-GGW 16.5	1/24/08	GGW	16.5	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-8-SS 5.0	1/24/08	Soil	5.0	250	< 1.0	mg/kg	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	µg/kg
MIP-8-GGW 18.0	1/24/08	GGW	18.0	52 Y	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-9-SS 3.0	1/25/08	Soil	3.0	210	6.8 Y	mg/kg	< 4.7	< 4.7	< 4.7	11	47	21	µg/kg
MIP-9-GGW 18.5	1/25/08	GGW	18.5	110 Y	< 50	µg/L	0.77	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-9-GGW 31.0	1/25/08	GGW	31.0	450 Y	68 Y	µg/L	1.3	< 0.50	< 0.50	0.6	2.3	0.93	µg/L
MIP-10-SS 6.0	1/25/08	Soil	6.0	< 1.0	< 1.0	mg/kg	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	µg/kg
MIP-10-GGW 18.0	1/25/08	GGW	18.0	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-11-SS 4.0	1/25/08	Soil	4.0	150 Y	4.0 Y	mg/kg	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	µg/kg
MIP-11-GGW 16.0	1/25/08	GGW	16.0	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-11-GGW 20.0	1/25/08	GGW	20.0	270 Y	< 50	µg/L	< 0.50	< 0.50	< 0.50	0.04	< 0.50	< 0.50	µg/L
MIP-11-GGW 25.0	1/25/08	GGW	25.0	120 Y	< 50	µg/L	0.57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-12-SS 5.0	1/25/08	Soil	5.0	8.3 Y	< 1.0	mg/kg	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	µg/kg
MIP-12-GGW 16.0	1/25/08	GGW	16.0	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-13-SS 4.0	1/24/08	Soil	4.0	61	1.4 Y	mg/kg	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	µg/kg
MIP-13-GGW 16.5	1/24/08	GGW	16.5	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-14-SS 5.5 *	1/25/08	Soil	5.5	1,300	8.5 Y	mg/kg	< 360 / < 16	< 360 / < 18	< 360 / < 20	< 360 / < 14	< 360 / < 24	< 360 / < 11	µg/kg
MIP-14-GGW 18.0	1/25/08	GGW	18.0	60 Y	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-14-GGW 41.0	1/25/08	GGW	41.0	97 Y	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 0.50	µg/L
MIP-15-SS 5.0	1/25/08	Soil	5.0	1.5 Y	< 1.0	mg/kg	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	µg/kg
MIP-15-GGW 17.0	1/25/08	GGW	17.0	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
MIP-16-SS 6.0	1/24/08	Soil	6.0	3.1 Y	< 1.0	mg/kg	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	< 4.6	µg/kg
MIP-16-GGW 17.0	1/24/08	GGW	17.0	< 50	< 50	µg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	µg/L
ESLs		Shallow Commercial Soil		2,500	83	mg/kg	23	40	290	330	230	230	µg/kg
		Potential Source Drinking Water		100	100	µg/L	5.0	1.0	40	30	20	20	µg/L

Notes:

ID = identification; soil boring identification number

feet bgs = feet below ground surface

GGW = Grab groundwater

mg/kg = milligrams per kilogram (ppm) or * = concentrations for the grab groundwater sample reported in milligrams per liter (mg/L; ppm)

µg/kg = micrograms per kilogram (ppb)

µg/L = micrograms per liter (ppb)

"<" = analyte not detected at or above the noted laboratory reporting limit

* = Soil sample MIP-14-SS 5.5 reporting limits (RLs) were elevated because the sample was diluted during analysis due to high levels of suspected hydrocarbons; as a result, the method detection limit (MDL) is also provided (<RL / <MDL).

VOCs = volatile organic compounds by means of EPA Method 8260B

TPH-gas = total petroleum hydrocarbons as gasoline by means of EPA Method 8015M for soil and EPA Method 8260 for water

TPH-diesel = total petroleum hydrocarbons as diesel by EPA Method 8015

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

ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board (RWQCB), November 2007, for Shallow Soils where Groundwater is Not a Current or Potential Source of Drinking Water

Bold = analyte detected at or above the laboratory method detection limit (LMDL)

Boxed Bold = analyte detected at or above the applicable ESL

Concentrations above the ESLs are shown in boxes.

K:\001 EMV\00000 PROPOSAL\Hanson_sunol\Hanson_sunol\Prop2_8_5x11.mxd - 2/29/2008 @ 2:53:02 PM



Site Location Map





Hanson Aggregates, 7999 Athenour Way, Sunol, CA



Figure 1



EXPLANATION:

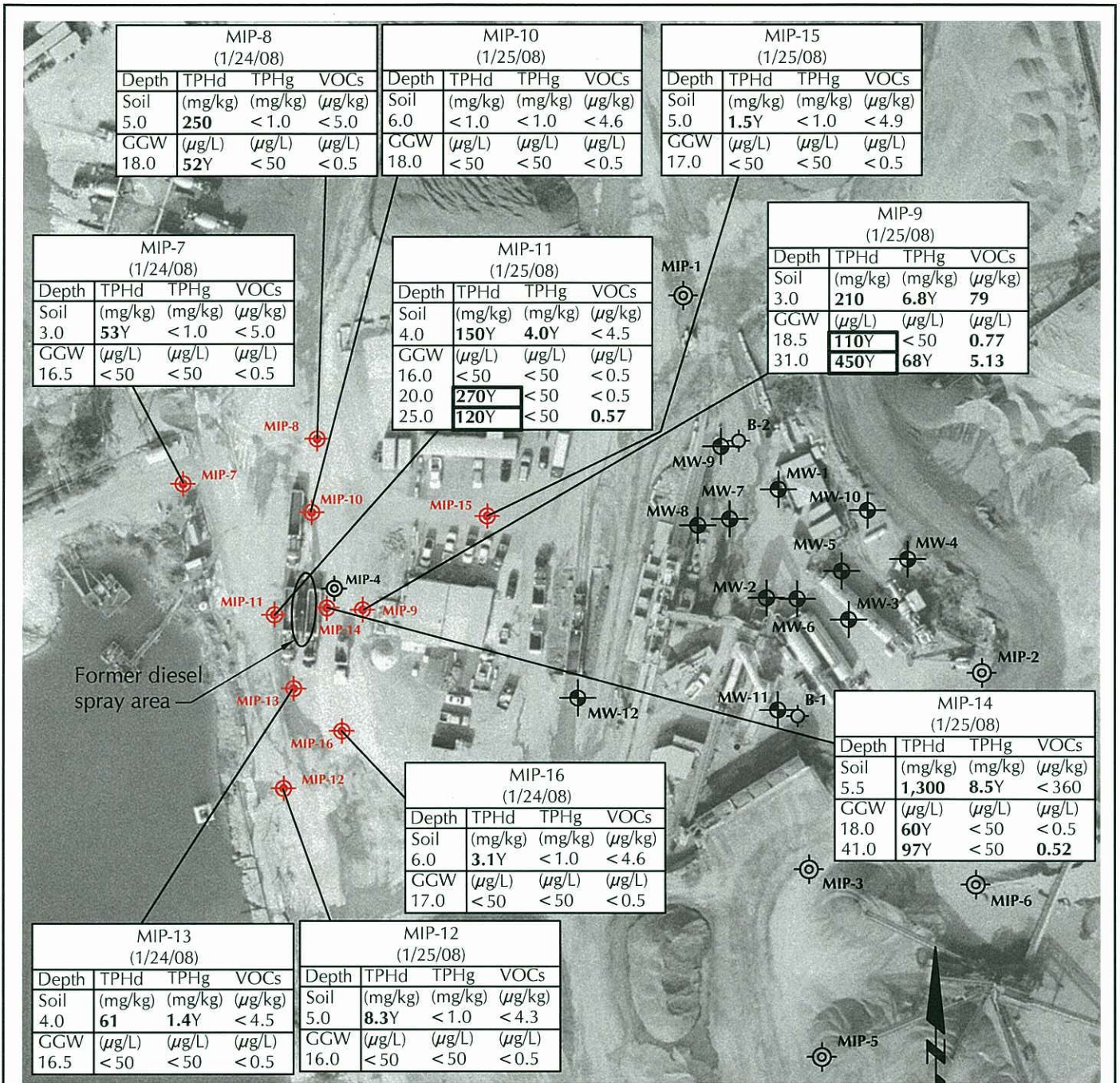
- 
MW-9 Groundwater monitoring well
(Single completion; nested and well cluster)
- 
MIP-3 MIP boring / grab groundwater (2007)
- 
B-1 Sonic boring / grab groundwater (2007)
- 
MIP-12 MIP boring / soil and grab groundwater sample location (Jan 2008)

**MIP / Soil Boring Locations
Former Diesel Spray Area**

Hanson Aggregates, Sunol, California



Figure 2



EXPLANATION:

- MW-9 Groundwater monitoring well (Single completion; nested and well cluster)
- MIP-3 MIP boring / grab groundwater (2007)
- B-1 Sonic boring / grab groundwater (2007)
- MIP-12 MIP boring / soil and grab groundwater sample location (Jan 2008)



MIP-7 (1/24/08)			
Depth	TPHd	TPHg	VOC
Soil	(mg/kg)	(mg/kg)	(μ g/kg)
3.0	53Y	< 1.0	< 1.0
GGW	(μ g/L)	(μ g/L)	(μ g/L)
16.5	< 50	< 50	< 0.5

- MIP/Soil boring identification
- Sample date
- Analyte
- Concentrations detected in soil samples (mg/kg or μ g/kg) and in grab groundwater samples (μ g/L)

SEE TABLE 2 FOR ADDITIONAL NOTES

Soil and Grab Groundwater Analytical Results Former Diesel Spray Area

Hanson Aggregates, Sunol, California



Figure 3

APPENDIX A

Permit



ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Hanson Aggregates

7999 Atherton Way, Sunol CA

California Coordinates Source _____ ft. Accuracy • _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT Name Lee Cover (Env. Manager)
Address 3000 Busch Road Phone 923-426-4170
City Pleasanton, CA Zip 94566

APPLICANT Name LFR, Inc. Katrin Schliewen
Email _____ Fax (510) 652-4906
Address 1400 Powell St. 12th Floor Phone (510) 652-4500
City Emeryville, CA Zip 94608

TYPE OF PROJECT:
Well Construction •• Geotechnical Investigation ••
Well Destruction •• Contamination Investigation ••
Cathodic Protection •• Other _____ ••

PROPOSED WELL USE:
Domestic •• Irrigation ••
Municipal •• Remediation ••
Industrial •• Groundwater Monitoring ••
Dewatering •• Other _____ ••

DRILLING METHOD:
Mud Rotary •• Air Rotary •• Hollow Stem Auger ••
Cable Tool •• Direct Push •• Other _____ ••

DRILLING COMPANY Gregg Drilling w/ Vironex
(CPT Drilling) (MIP)
DRILLER'S LICENSE NO. #656407 + 705927

WELL SPECIFICATIONS:
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

SOIL BORINGS:
Number of Borings 10 Maximum
Hole Diameter ~2.0 in. Depth _____ ft.

ESTIMATED STARTING DATE 1/21/08
ESTIMATED COMPLETION DATE 1/25/08

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] Date 1-14-07
Katrin Schliewen
ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 28007
WELL NUMBER _____
APN 096-0080-001-07

PERMIT CONDITIONS (Circled Permit Requirements Apply)

- A. GENERAL
 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
 1. Minimum surface seal diameter is four inches greater than the well casing diameter.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
 3. Grout placed by tremie.
 4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 5. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
 3. Grout placed by tremie.
- D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION. See attached.
- G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved [Signature] Date 1/15/08
Wyman Hong

APPENDIX B

CPT/MIP Results Reports

Appendix B

Discussion of MIP Responses and Confirmation Sample Depths

MIP-7

Soil boring MIP-7 was located approximately 100 feet northwest of the former diesel spray rack and was advanced to a total depth of approximately 30 feet below ground surface (bgs). The only notable responses detected were by the FID detector, narrow flame ionization detector (FID) spikes were recorded at approximately 3.0 and 17 to 18 feet bgs. A soil sample was collected from approximately 2.5 to 3.0 feet bgs, and a grab groundwater confirmation sample was collected at approximately 15.5 to 16.5 feet bgs to confirm the membrane interface probe (MIP) results. Screening results indicated that no additional step-out soil boring locations to the northwest were warranted.

MIP-8

Soil boring MIP-8 was located approximately 100 feet north of the former diesel spray area and was advanced to a depth of approximately 30 feet bgs. The only notable responses recorded were by the FID detector between approximately 4.0 to 7.0 feet bgs. To confirm the FID response, a soil sample was collected from approximately 4.5 to 5.0 feet bgs. In addition, a grab groundwater sample was collected from approximately 17 to 18 feet bgs, approximately at the top of the relatively coarser-grained sediments, based on the cone penetration testing (CPT) log.

MIP-9

Soil boring MIP-9 was located approximately 25 feet east of the former diesel spray area rack and was advanced to a total depth of approximately 45 feet bgs. The only notable responses detected were by the FID detector, between approximately 5.0 to 8.0, 16 to 17, and 30 to 31 feet bgs. To confirm the MIP results, a soil sample was collected from approximately 5.0 to 5.5 feet bgs, and grab groundwater samples were collected from approximately 16.5 to 18.5 and 30 to 31 feet bgs.

MIP-10

Soil boring MIP-10 was located approximately 40 feet north of the former diesel spray area and was advanced to a total depth of approximately 18.5 feet bgs. The only notable responses detected were by the FID detector; FID spikes were recorded at approximately 5.0 to 6.0 and 7.0 to 8.0 feet bgs. A soil sample was collected from approximately 5.5 to 6.0 feet bgs, and a grab groundwater sample was collected at approximately 17 to 18 feet bgs to confirm the MIP results.

MIP-11

Soil boring MIP-11 was located approximately adjacent to the former diesel spray rack and was advanced to approximately 30.0 feet bgs. The MIP field screening results show a significant response in the photoionization detector (PID) detector starting at approximately 7.0 feet bgs, with the highest readings recorded between approximately 9.0 and 16 feet bgs. The PID readings decrease gradually below approximately 16 feet bgs to almost flat-lined values at approximately 23 feet bgs. The FID response is elevated between approximately 3.0 and 9.0 feet bgs, and above the baseline to a depth of approximately 19 feet bgs. The PID and FID detector responses indicate the potential presence of total petroleum hydrocarbon (TPH) concentrations in groundwater to a depth of approximately 20 feet bgs. The gradual decrease in the PID response below approximately 20 feet bgs is likely a result of vertical smearing in the PID detector where the relatively heavy hydrocarbon compounds take additional time to clear the detector lines. To confirm the vertical extent of TPH contamination potentially identified in the MIP results, a confirmation soil sample was collected at 3.5 to 4.0 feet bgs and grab groundwater samples were collected from approximately 15 to 16, 19 to 20, and 24 to 25 feet bgs.

MIP-12

Soil boring MIP-12 was located approximately 75 feet south of the former diesel spray area and was advanced to approximately 25 feet bgs. The only notable responses detected were by the FID detector between approximately 4.0 to 7.0 feet bgs. A soil sample was collected from 4.5 to 5.0 feet bgs, and a grab groundwater sample was collected from approximately 15 to 16 feet bgs, approximately at the top of the relatively coarser-grained sediments, based on the CPT log.

MIP-13

Soil boring MIP-13 was located approximately 25 feet south of the former diesel spray area and was advanced to a total depth of approximately 30 feet bgs. The only notable responses detected were by the FID detector, within approximately the upper 7 feet bgs. Minor FID responses were recorded at approximately 14 to 15 and at 17 feet bgs. A soil sample was collected from approximately 3.5 to 4.0 feet bgs, and a grab groundwater sample was collected from approximately 15 to 16.5 feet bgs, approximately at the top of the relatively coarser-grained sediments, based on the CPT log.

MIP-14

Soil boring MIP-14 was located approximately adjacent to and east of the former diesel spray rack, and was advanced to a total depth of approximately 45 feet bgs. The MIP field screening results show a significant response in the PID detector starting at approximately 5.0 (just above the estimate depth to the water table). The highest PID

readings were recorded between approximately 8.0 and 20 feet bgs, and the response gradually reduced to flat-lined values at approximately 35 feet bgs. The FID detector recorded FID responses between approximately 5.0 and 8.0 feet bgs, with values slightly above the baseline continuing to a depth of approximately 21 feet bgs. A minor FID response was recorded at approximately 29 to 30 feet bgs. The PID and FID detector responses indicate the potential presence of TPH concentrations in groundwater to a depth of approximately 20 feet bgs. The gradual decrease in the PID response below approximately 20 feet bgs is likely a result of vertical smearing in the PID detector where the relatively heavy hydrocarbon compounds take additional time to clear the detector lines.

To confirm the vertical extent of TPH contamination potentially identified in the MIP results, a confirmation soil sample was collected at 5.0 to 6.5 feet bgs and grab groundwater samples were collected from approximately 16 to 18 and 40 to 41 feet bgs.

MIP-15

Soil boring MIP-15 was located approximately 125 feet northeast of the former diesel spray area and was advanced to a total depth of approximately 20 feet bgs. The only notable responses detected were by the FID detector, between approximately 3.0 and 7.5 feet bgs, and spikes at approximately 11.5 and 13 feet bgs. A soil sample was collected from 4.5 to 5.0 feet bgs and a grab groundwater sample was collected from approximately 16 to 17 feet bgs, approximately at the top of the relatively coarser-grained sediments, based on the CPT log.

MIP-16

Soil boring MIP-16 was located approximately 40 feet southeast of the former diesel spray rack and was advanced to a total depth of approximately 20 feet bgs. The only notable responses detected were by the FID detector, between approximately 5.0 and 7.0 feet bgs, and to a lesser degree at approximately 13 to 14 feet bgs. A soil sample was collected from 5.5 to 6.0 feet bgs, and a grab groundwater sample was collected from approximately 15 to 16 feet bgs, approximately at the top of the relatively coarser-grained sediments, based on the CPT log.



GREGG DRILLING & TESTING, INC.

GEOTECHNICAL AND ENVIRONMENTAL INVESTIGATION SERVICES

January 28, 2008

LFR

Attn: Jason Triolo
1900 Powell St. 12th Floor
Emeryville, California 94608

Subject: CPT Site Investigation
Hanson Aggregates
Sunol, California
GREGG Project Number: 08-018MA

Dear Mr. Triolo:

The following report presents the results of GREGG Drilling & Testing's Cone Penetration Test investigation for the above referenced site. The following testing services were performed:

Table with 4 columns: Item Number, Test Name, Abbreviation, and Status (checkbox). Rows include Cone Penetration Tests (CPTU), Pore Pressure Dissipation Tests (PPD), Seismic Cone Penetration Tests (SCPTU), Resistivity Cone Penetration Tests (RCPTU), UVIF Cone Penetration Tests (UVIFCPTU), Groundwater Sampling (GWS), Soil Sampling (SS), Vapor Sampling (VS), Vane Shear Testing (VST), and SPT Energy Calibration (SPTe).

A list of reference papers providing additional background on the specific tests conducted is provided in the bibliography following the text of the report. If you would like a copy of any of these publications or should you have any questions or comments regarding the contents of this report, please do not hesitate to contact our office at (925) 313-5800.

Sincerely,
GREGG Drilling & Testing, Inc.

Mary Walden
Operations Manager



GREGG DRILLING & TESTING, INC.

GEOTECHNICAL AND ENVIRONMENTAL INVESTIGATION SERVICES

Cone Penetration Test Sounding Summary

-Table 1-

CPT Sounding Identification	Date	Termination Depth (Feet)	Depth of Groundwater Samples (Feet)	Depth of Soil Samples (Feet)	Depth of Pore Pressure Dissipation Tests (Feet)
CPT-07	1/21/08	30	16.5	3	-
CPT-08	1/21/08	30	18	5	22.5
CPT-09	1/22/08	45	18.5, 31	3.5, 5	-
CPT-10	1/22/08	19	18	6	-
CPT-11	1/23/08	30	16, 20, 25	3.5	-
CPT-12	1/22/08	25	16	5	-
CPT-13	1/23/08	30	16.5	4.5	-
CPT-14	1/23/08	43	18, 41	5	-
CPT-15	1/23/08	20	17	5	-
CPT-16	1/23/08	20	16	4	-



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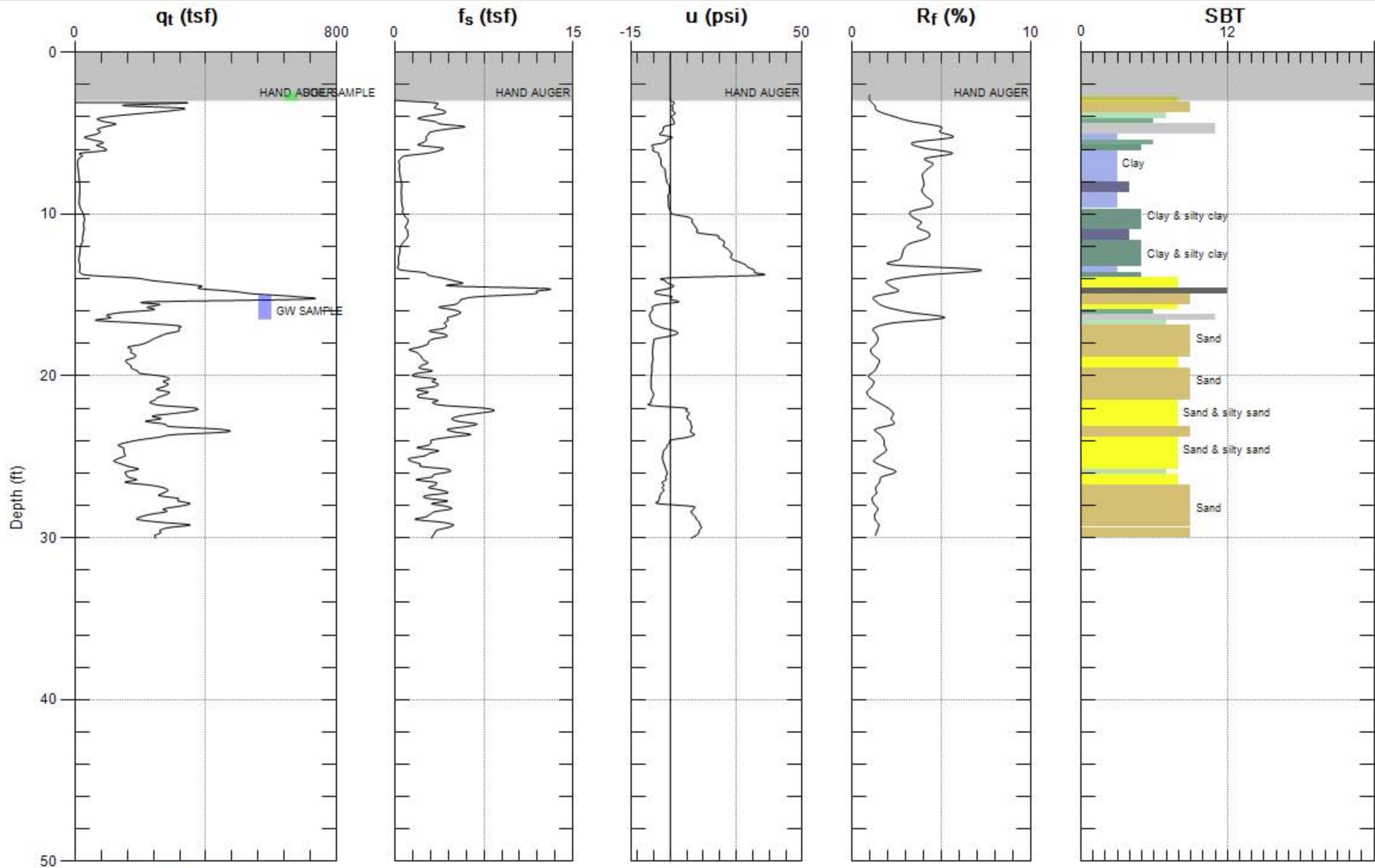
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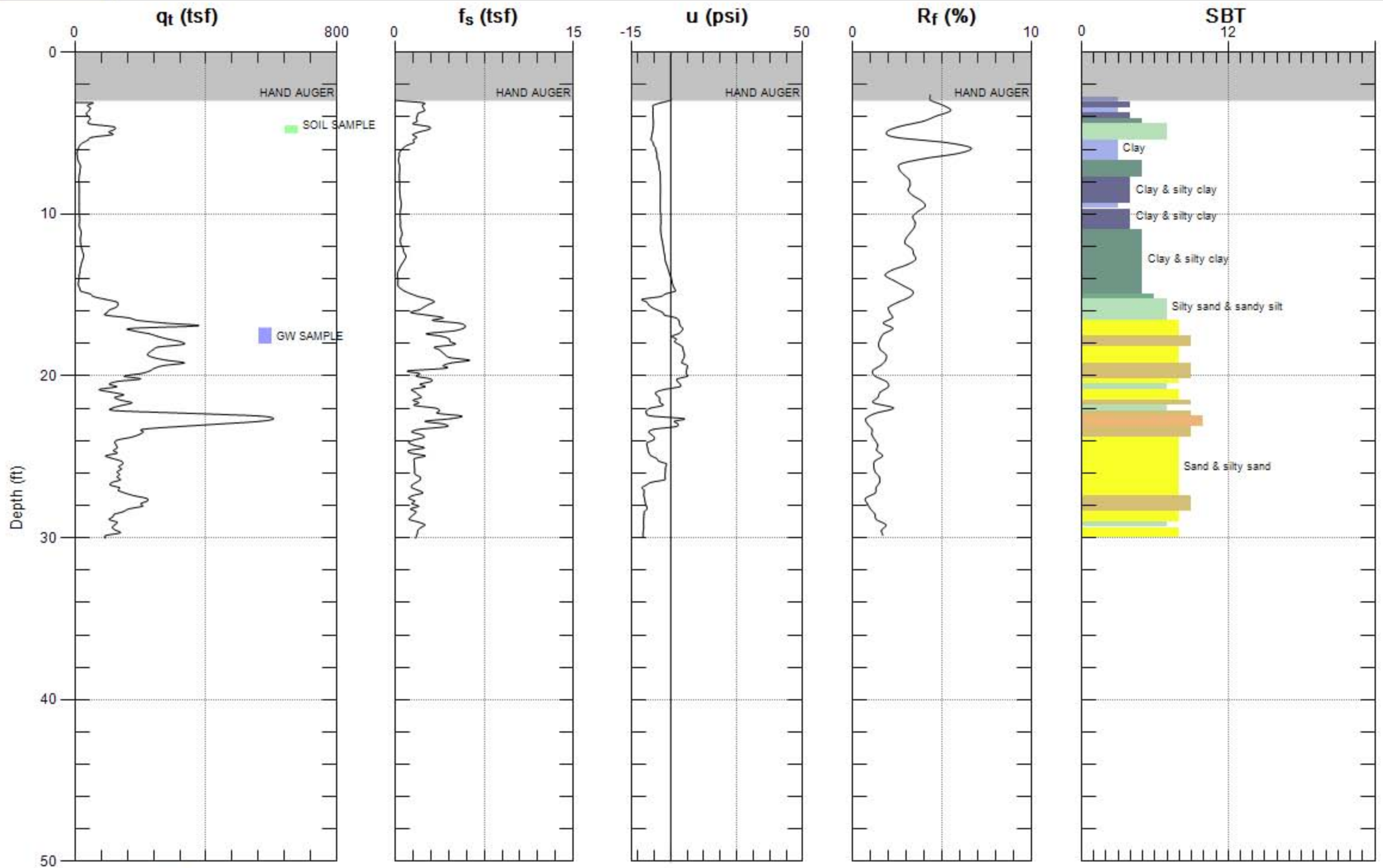
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Copies of ASTM Standards are available through www.astm.org



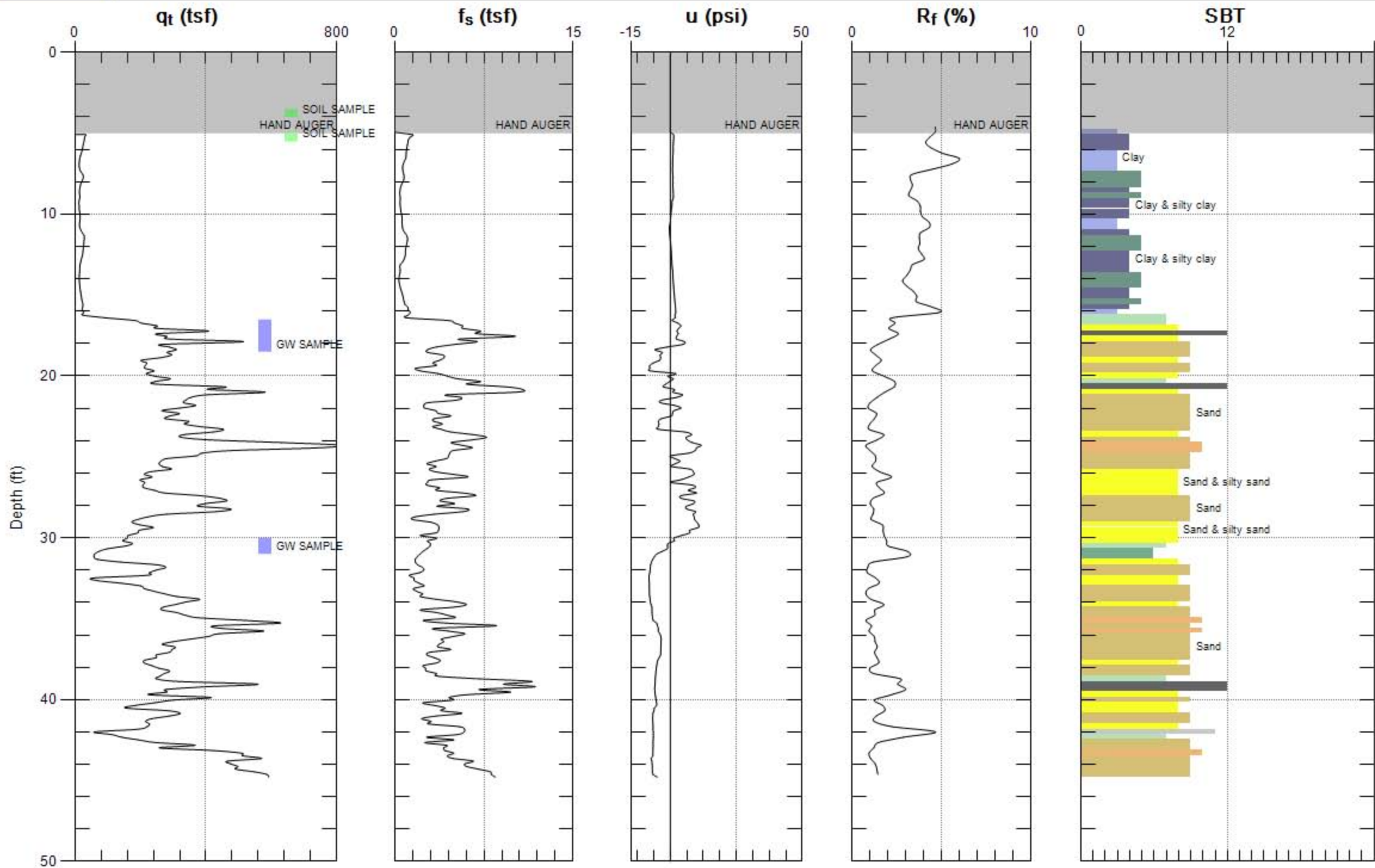
Max. Depth: 30.020 (ft)
 Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



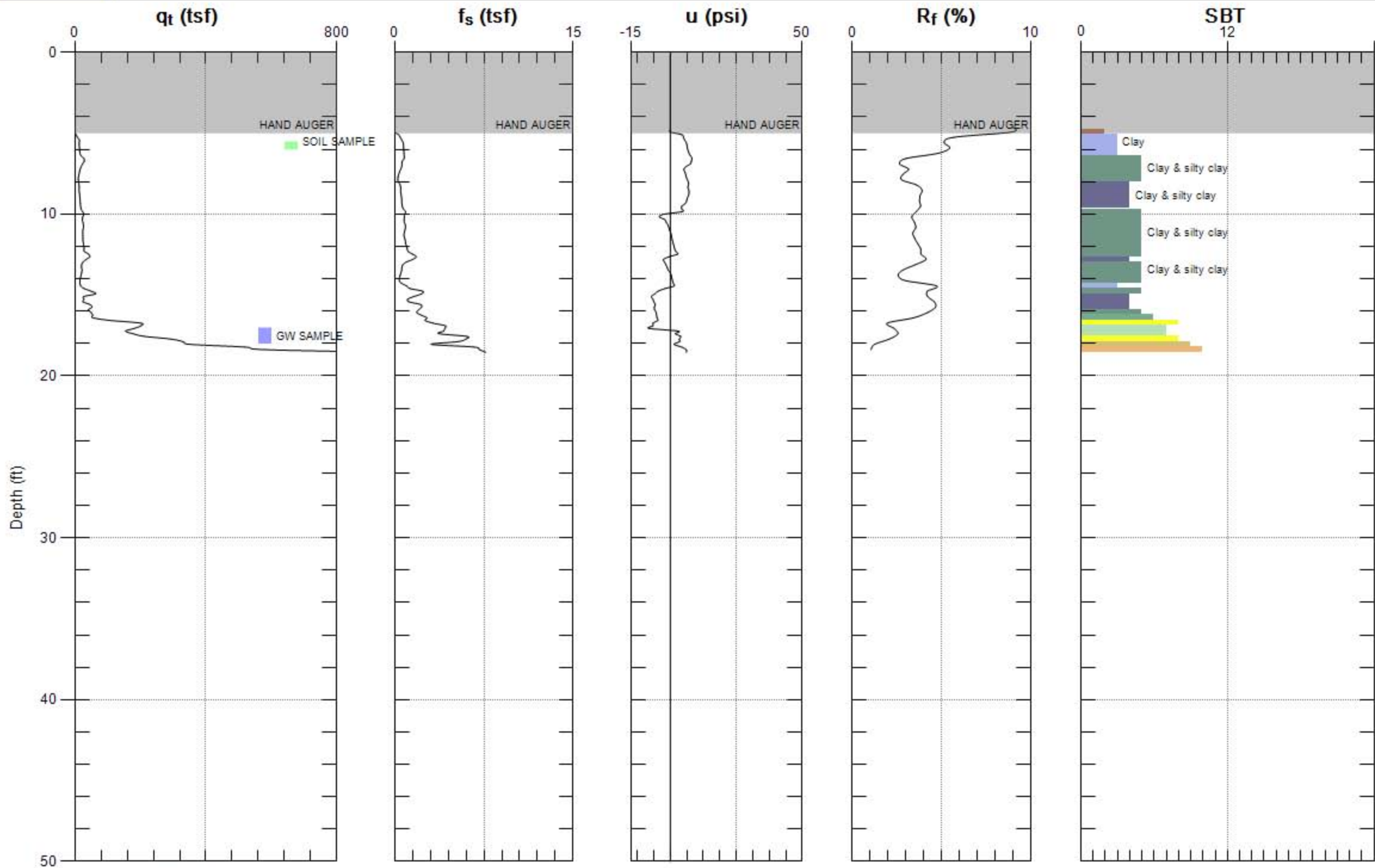
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SBT: Soil Behavior Type (Robertson 1990)



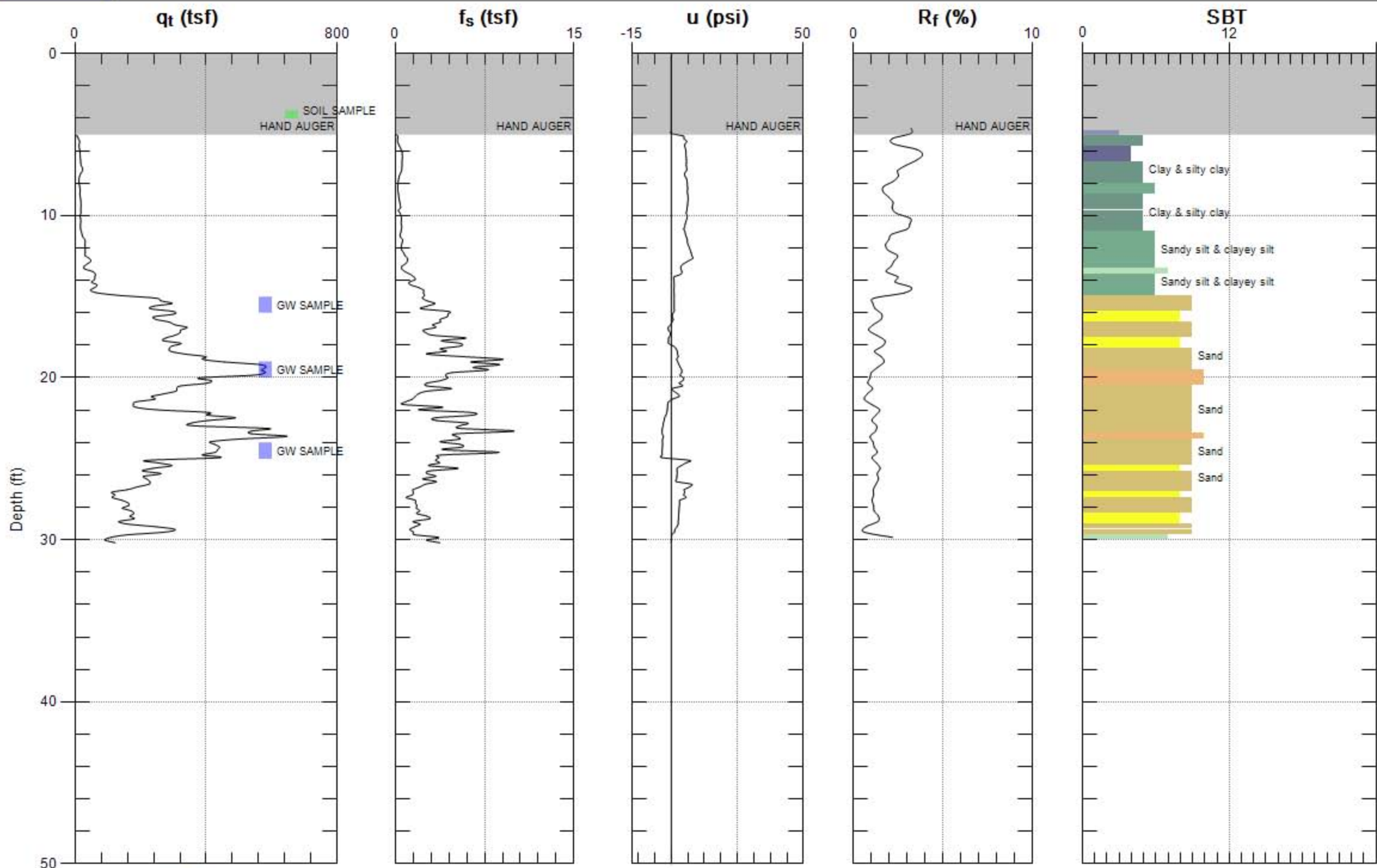
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SBT: Soil Behavior Type (Robertson 1990)



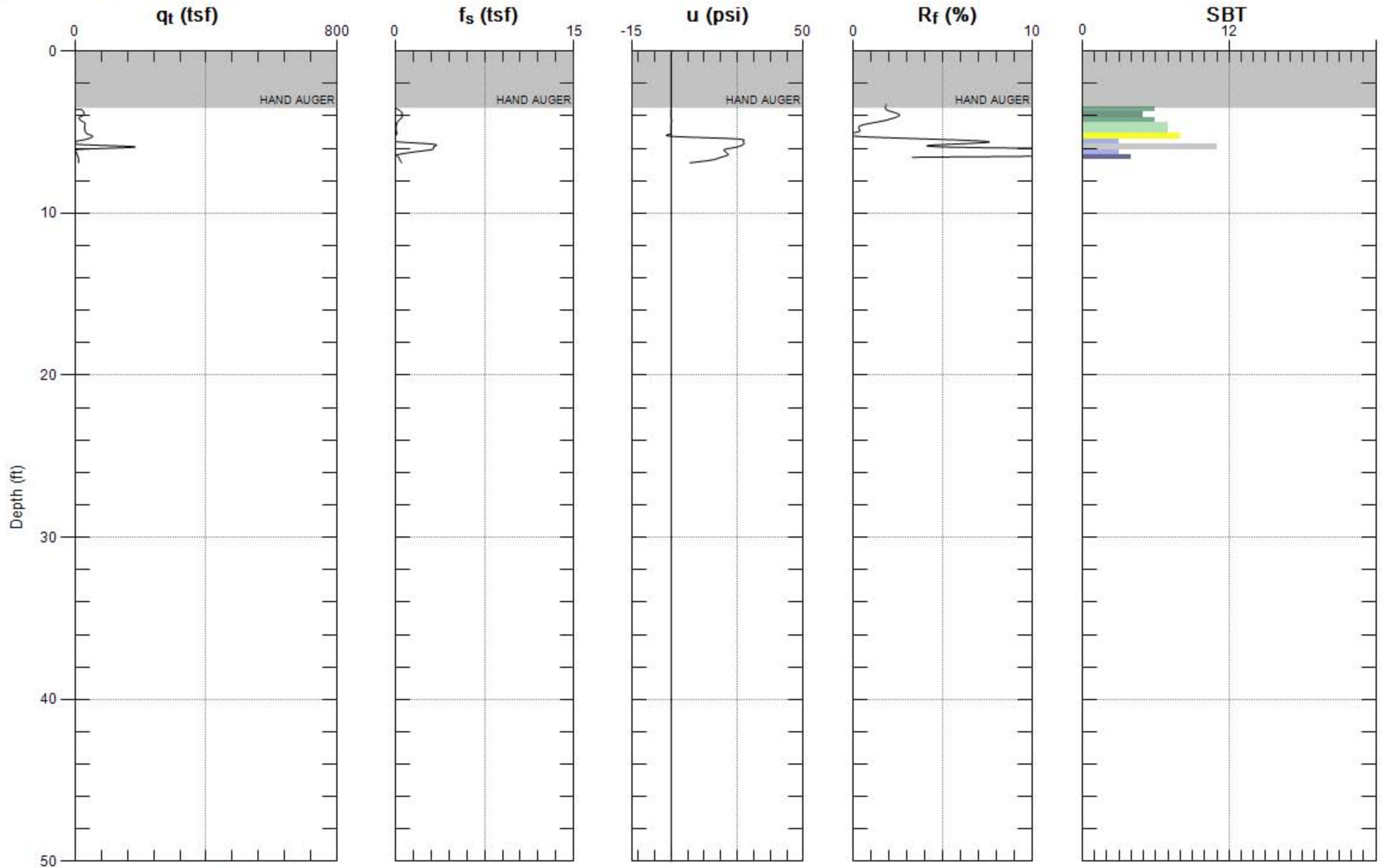
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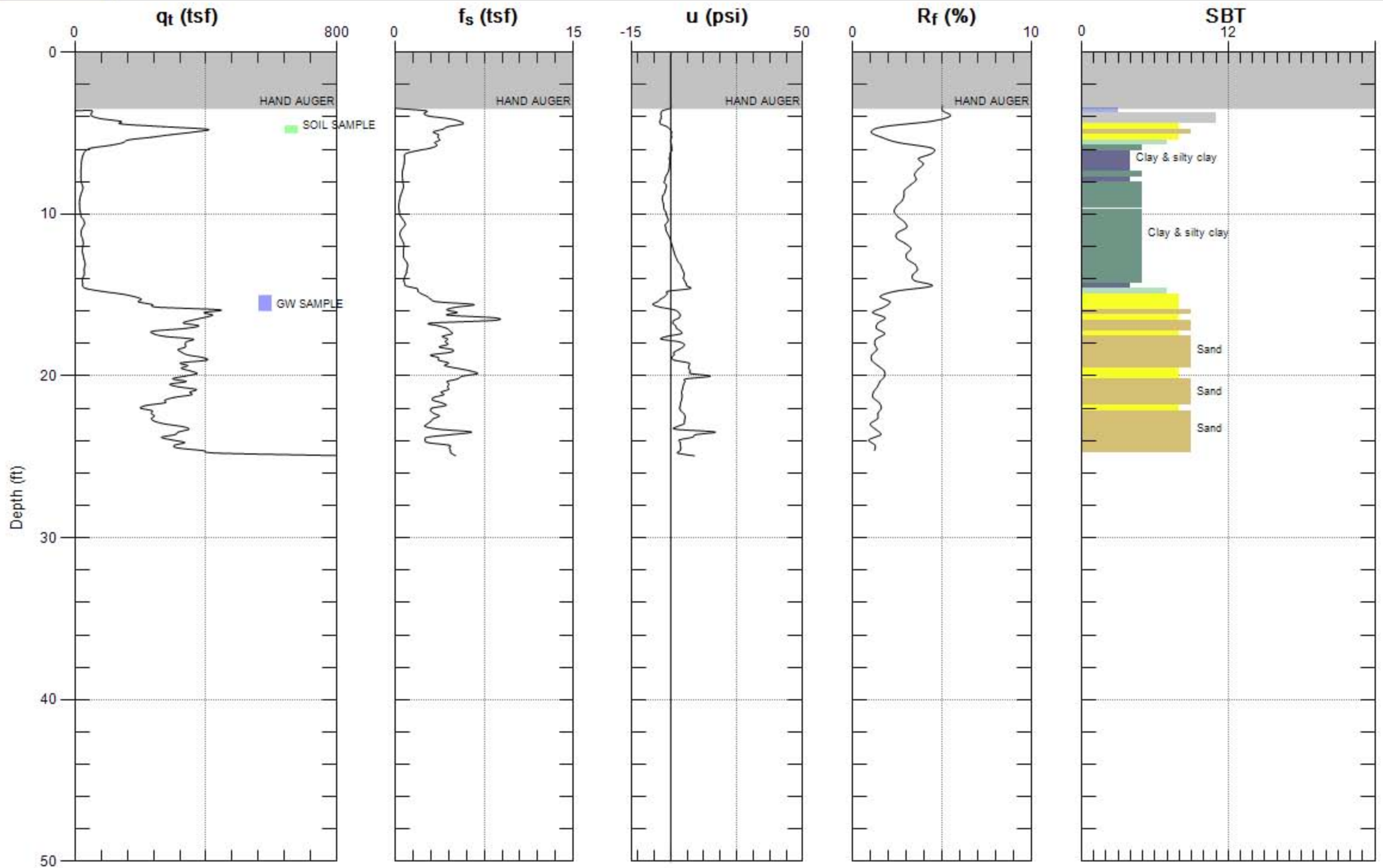
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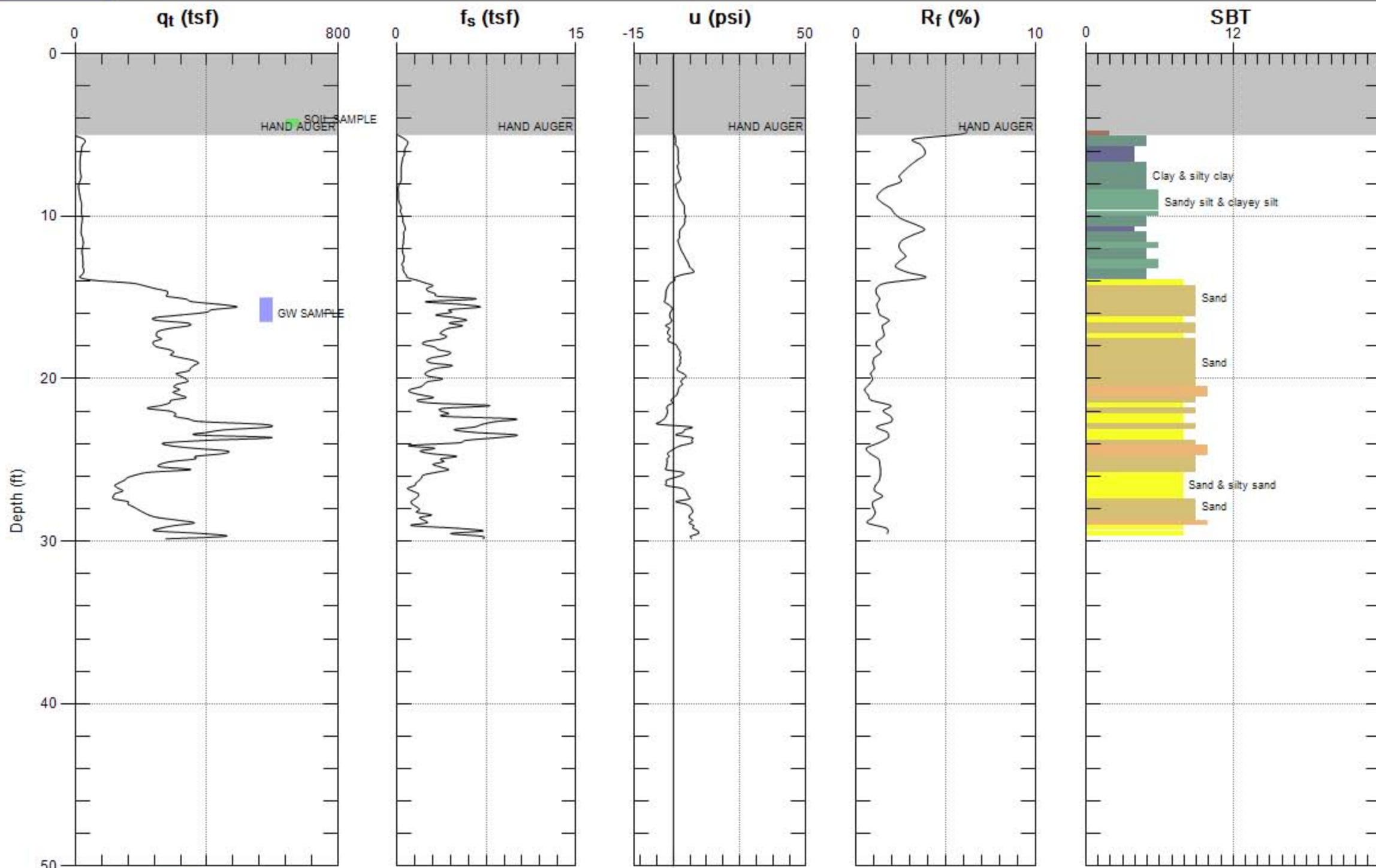
Max. Depth: 6.890 (ft)
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SBT: Soil Behavior Type (Robertson 1990)



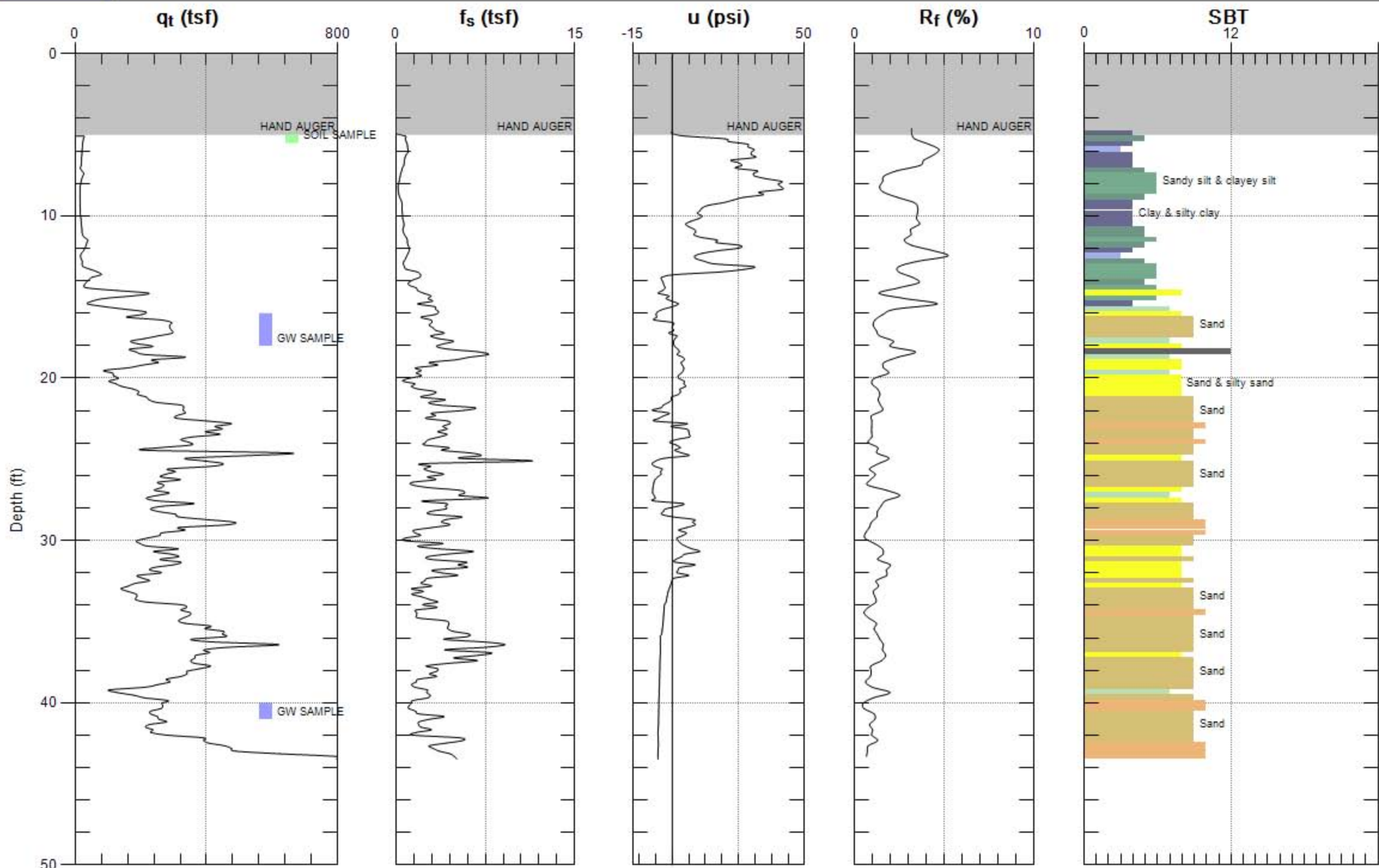
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SBT: Soil Behavior Type (Robertson 1990)



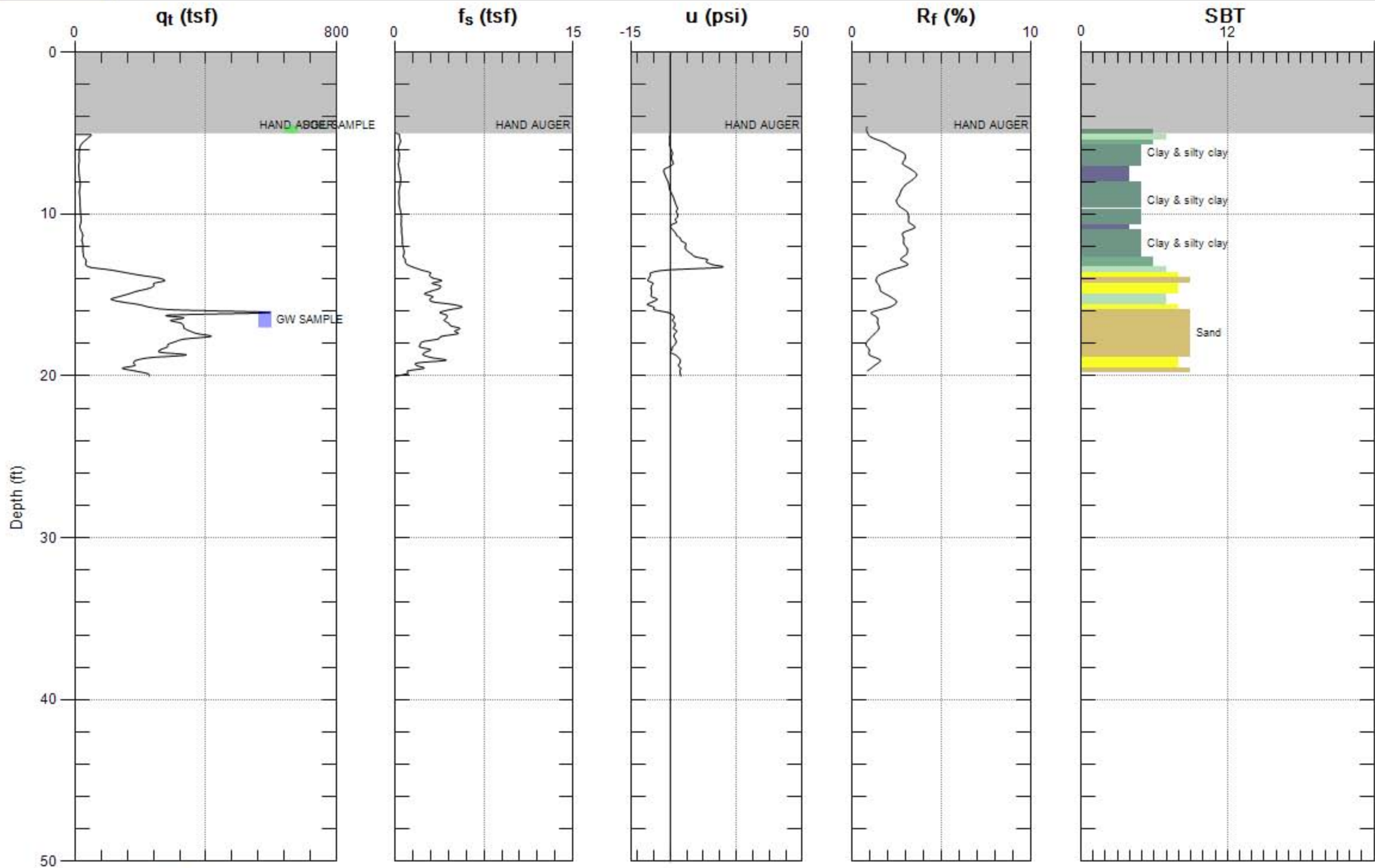
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SBT: Soil Behavior Type (Robertson 1990)



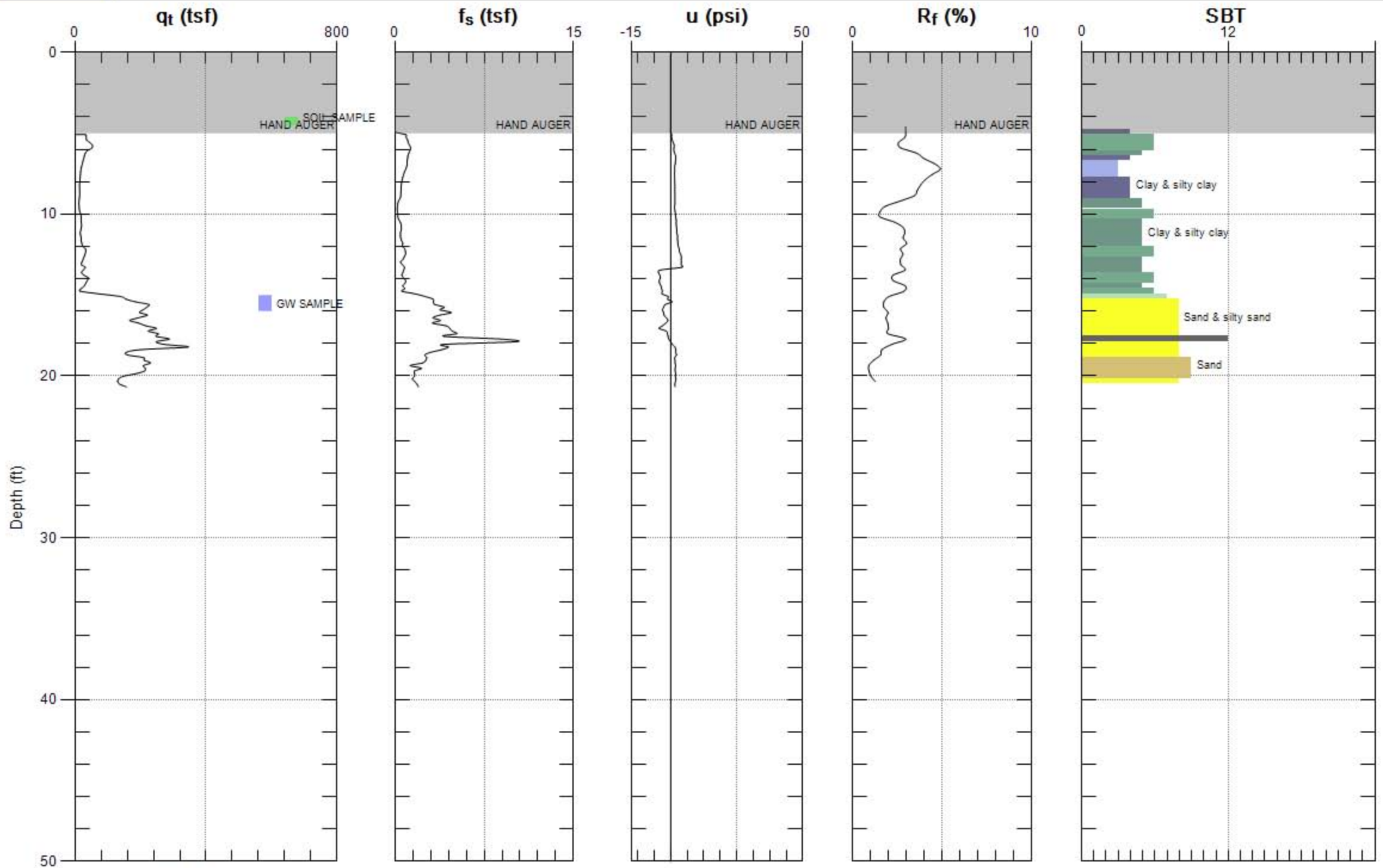
Max. Depth: 43.471 (ft)
 Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Max. Depth: 20.013 (ft)
 Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Max. Depth: 20.669 (ft)
 Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



MIP REPORT

7999 Anthenour Way

LFR



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Client: LFR

Jason Triolo
6615 – 6617 San Leandro Street
Oakland, CA 94621

Site Address: 7999 Anthenour Way, Sunol, CA

Project Name 7999 Anthenour Way

Dear Jason,

On behalf of Vironex, I would like to express our appreciation for the opportunity to provide you MIP data. We believe that the information contained in the enclosed report is true and correct. If you have any questions regarding this report please contact me at 714-647-6290.

A handwritten signature in black ink, appearing to read "Frank Stolfi", with a long, sweeping horizontal stroke extending to the right.

Frank Stolfi
National Director of MIP Services

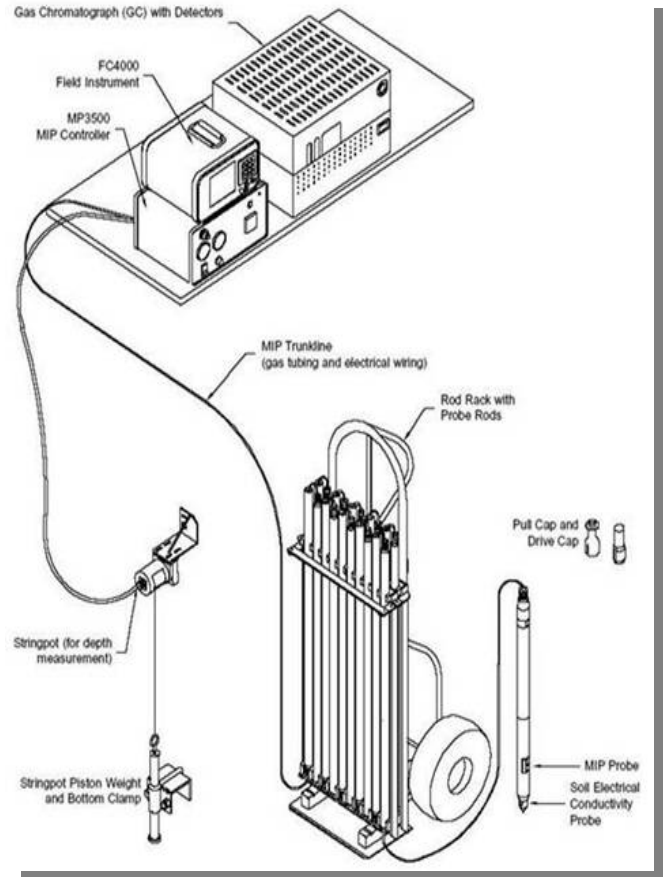
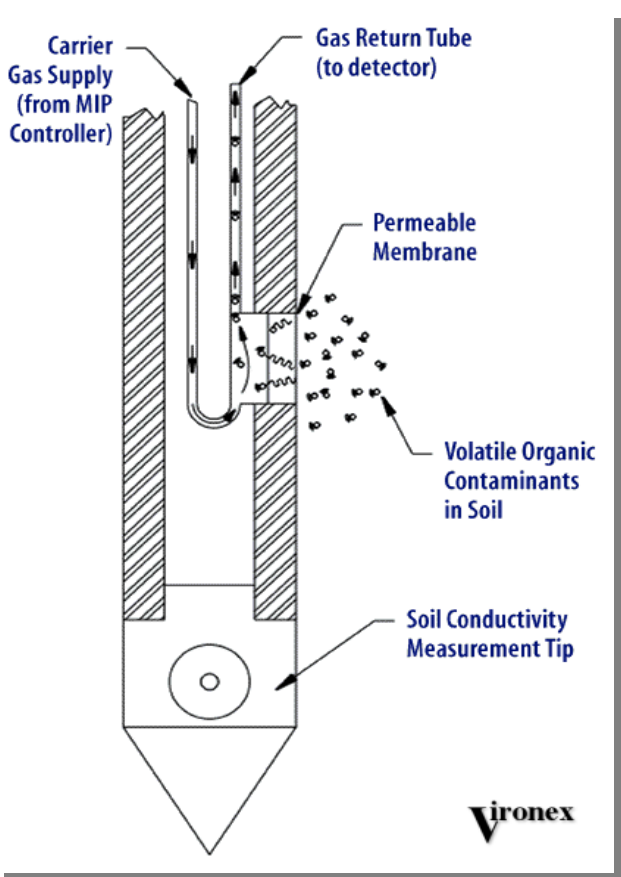
Jeff Paul
Northern California MIP Specialist



MIP System Basic Description:

The MIP is a direct push tool that produces continuous chemical and physical logs of the vadose and saturated zones. It locates VOCs in-situ and shows you where they occur relative to the geologic and hydrologic units. Vertical profiles, transects, 3D pictures and maps can all be made from the electronic data generated by the MIP logs. Its unique capability of providing reliable, real-time information allows you to make better and timely decisions while your team is still in the field.

The MIP is a down hole tool that heats the soils and groundwater adjacent to the probe to 120 degrees C. This increases volatility and the vapor phase diffuses across a membrane into a closed, inert gas loop that carries these vapors to a series of detectors housed at the surface. Continuous chemical logs or profiles are generated from each hole. Soil conductivity is also measured and these logs can be compared to the chemical logs to better understand where the VOCs occur. The MIP technology is only appropriate for volatile organic compounds (VOCs). The gas stream can be analyzed with multiple detectors, for example an electron capture detector is used to detect chlorinated solvents, a photo-ionization detector is used to detect petroleum hydrocarbons, and a flame ionization detector is used to detect methane.





Equipment Used:

- Gregg CPT Unit
- MIP Controller (Nitrogen Flow and Heater)
- Geoprobe FC 5000 Computer
- HP 5890 Gas Chromatograph
- ECD (Electron Capture Detector)
- PID (Photo Ionization Detector) 10.2 eV Lamp
- FID (Photo Ionization Detector)
- 200' Geoprobe Trunkline
- 1.75" O.D. 6510 MIP Probe
- 1.5" O.D. Drive Rods

Data Parameters:

Depth

Data is collected from twenty data points per foot. 0.05', 0.10', 0.15', etc...

Electrical Conductivity

Electrical Conductivity data is measured/collected in milli-siemens per Meter (ms/M). The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, will have a higher EC signal. While coarser grained sediments, sands and gravel, will have a lower EC signal. The coarser grained sediments will allow the migration of contaminants and the finer grained sediments will trap the contaminant.

Speed / Advancement Rate

Speed data is measured/collected in feet per minute (ft/min). Speed is an indication of the physical advancement rate of the MIP probe. Speed of the MIP probe can vary due to operator advancement and dense soil types. Speed log can provide soil type information which can be correlated with electrical conductivity. Lower advancement speed, correlated with lower conductivity or larger grained soils would more than likely be associated with dense or compacted sands.

Temperature

Temperature data is measured/collected in Degrees Celcius. Temperature is an indication of the physical temperature of the MIP block. Minimum and Maximum temperature is collected at each vertical interval. Vironex's temperature protocol indicates that the MIP probe temperature shall maintain a minimum temperature of 75 Degrees Celcius.

Pressure

Pressure data is measured/collected in PSI. Pressure is an indication of the internal pressure of the nitrogen lines located within the trunkline and the pressure behind the membrane. Minimum and Maximum temperature is collected at each vertical interval. Geoprobe's temperature protocol indicates that the MIP probe pressure shall not exceed 1.5 PSI difference from baseline.

Detector (ECD, PID, FID)

Detector responses are measured/collected in micro Volts (uV). Detector responses are an indication of relative contaminant responses. Minimum and Maximum detector responses are collected at each vertical interval.



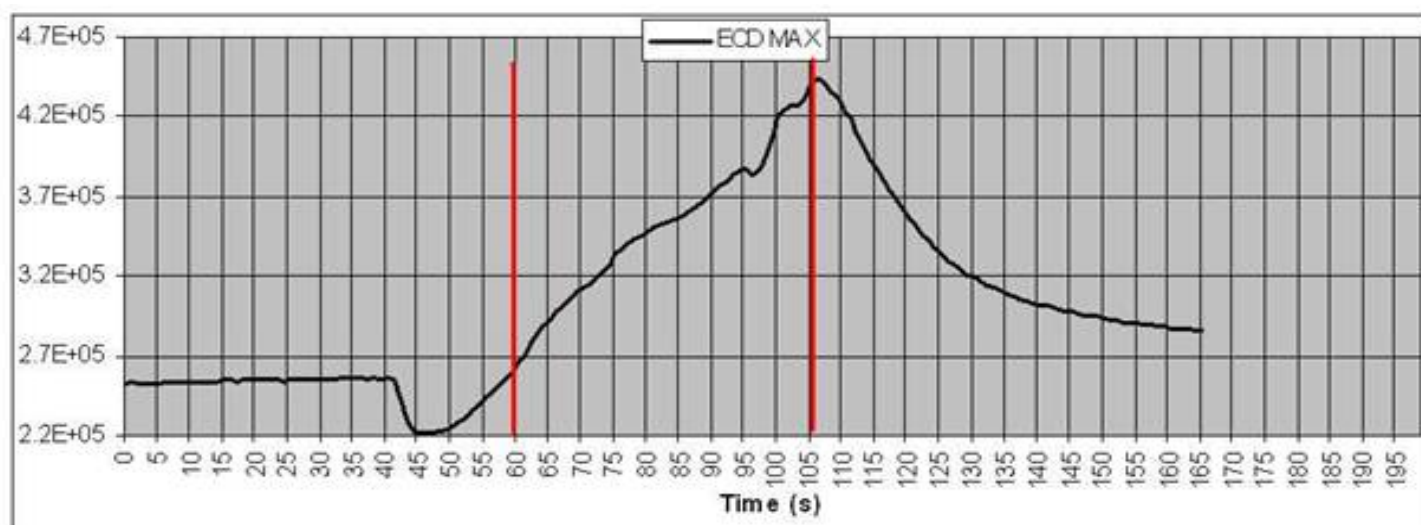
MIP Responses Test:

Vironex adheres to Geoprobe's Standard Operating Procedure, technical Bulletin No. MK3010, prepared: May, 2003. The response testing is a necessary part of the MIP logging process because it ensures that the system is working correctly and also enables the operator to measure the response time. Response time is the time it takes for the contaminant to go from the probe, through the trunk line, and to the detectors. This time is entered into the FC5000 computer for depth calculations. A response test is completed at the beginning of the day, between each boring, and at the end of each day. The response time will vary due to weather temperatures and length of the trunkline.

Per Geoprobe's SOP, a pass response is indicated as double the noise above the baseline.

1. A Standard of 1ppm of TCE and/Toluene is made and poured into a metal test pipe.
2. The MIP probe is immersed into a metal tube.
3. The MIP probe remains in the metal tube for 45 seconds, and then extracted. An oxygen drop will occur on the ECD prior to increase or response of contaminant.
4. The time is measured by determining the peak time in seconds and subtracting 45 seconds from that peak. In the graph below the peak is approximately 105 seconds and 45 seconds behind that is approximately 60 seconds, which will be the trip time.
5. The response time is noted and entered into the FC 400 (Field Computer) to compensate for electrical conductivity vs. volatile depth response.

45 Second Response Test





Detectors:

ECD

ECD uses a radioactive Beta emitter (electrons) to ionize some of the carrier gas and produce a current between a biased pair of electrodes. When organic molecules contain electronegative functional groups, such as halogens, phosphorous, and nitro groups pass by the detector, they capture some of the electrons and reduce the current measured between the electrodes.

PID

PID sample stream flows through the detector's reaction chamber where it is continuously irradiated with high energy ultraviolet light. When compounds are present that have a lower ionization potential than that of the irradiation energy (10.2 electron volts with standard lamp) they are ionized. The ions formed are collected in an electrical field, producing an ion current that is proportional to compound concentration. The ion current is amplified and output by the gas chromatograph's electrometer.

FID

FID consists of a hydrogen / air flame and a collector plate. The effluent from the GC (trunkline) passes through the flame, which breaks down organic molecules and produces ions. The ions are collected on a biased electrode and produce an electric signal.



Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
1,1,1,2-Tetrachloroethane	C ₂ H ₂ Cl ₄	1.5532	6	167.8498	-70.2	130.5	<0.1 g/100 mL at 20.5 C	•		
1,1,1-Trichloroethane	C ₂ H ₃ Cl ₃	1.3376	N/A	133.4047	-32.6	74.1	Slightly soluble. 0.1495 g/100 mL	•		
1,1,2,2-Tetrachloroethane	C ₂ H ₂ Cl ₄	1.595	N/A	167.8498	-43	146.3	Soluble. 0.2962 g/100 mL	•		
1,1,2-Trichloroethane	C ₂ H ₃ Cl ₃	1.4411	N/A	133.4047	-36.5	113.8	Insoluble. 0.442 g/100 mL	•		
1,1-Dichloroethane	C ₂ H ₄ Cl ₂	1.176	-5	98.9596	-97.4	57.3	Slightly soluble. 0.506 g/100 mL	•		
1,1-Dichloroethene	C ₂ H ₂ Cl ₂	1.213	-28	96.9438	-122.1	31.7	Insoluble. 0.225 g/100 mL	•	•	
2,3-Dichloropropene	C ₃ H ₄ Cl ₂	1.204	10	110.9706	10	94	<0.1 g/100 mL at 22 C	•	•	
1,2,3-Trichlorobenzene	C ₆ H ₃ Cl ₃	1.69	126	181.4487	52.6	219	Insoluble	•	•	
1,2,3-Trichloropropane	C ₃ H ₅ Cl ₃	1.389	82	147.4315	-14.7	156	insoluble. 0.18 g/100 mL	•		
1,2,4-Trichlorobenzene	C ₆ H ₃ Cl ₃	1.4634	110	181.4487	16.95	214.4	Insoluble. 0.0049 g/100 mL	•	•	
1,2-Dichlorobenzene	C ₆ H ₄ Cl ₂	1.306	67	147.0036	-15	180.5	slightly soluble. 0.008396 g/100 mL	•	•	
1,2-Dichloroethane	C ₂ H ₄ Cl ₂	1.253	13	98.9596	-35.3	83.5	Slightly soluble. 0.8608 g/100 mL	•		
1,2-Dichloropropane	C ₃ H ₆ Cl ₂	1.1558	15	112.9864	-100.4	96.8	Slightly soluble. 0.27 g/100 mL	•		
1,3-Dichlorobenzene	C ₆ H ₄ Cl ₂	1.288	67	147.0036	-24.76	173	insoluble. 0.0125 g/100 mL	•	•	
1,4-Dichlorobenzene	C ₆ H ₄ Cl ₂	1.2417	67	147.0036	53.1	173.4	Insoluble. 0.00813 g/100 mL	•	•	
1,2-Dichloropropane	C ₃ H ₆ Cl ₂	1.1558	15	112.9864	-100.4	96.8	Slightly soluble. 0.27 g/100 mL	•		
2-Chloropropane	C ₃ H ₇ Cl	0.862	-32	78.5413	-117.18	35.74	0.31 g/100 mL at 20 C	•		
2-Chlorotoluene	C ₇ H ₇ Cl	1.082	47	126.5853	-35.1	158.97	Slightly soluble	•	•	
3-Chloropropene	C ₃ H ₅ Cl	0.938	-29	76.5255	-134.5	44 - 46	Slightly soluble. 0.337 g/100 mL	•	•	
4-Chlorotoluene	C ₇ H ₇ Cl	1.07	49	126.5853	7.5	161.9	<0.1 g/100 mL at 20 C	•	•	
Carbon tetrachloride	CCl ₄	1.594	N/A	153.823	-22.9	76.7	Slightly sol. 0.08048 g/100 mL	•		
Chlorobenzene	C ₆ H ₅ Cl	1.1066	29	112.5585	-45.6	130	Slightly soluble. 0.0497 g/100 mL	•	•	
Chloroethane	C ₂ H ₅ Cl	0.92	-50	64.5145	-136.4	12.3	Soluble. 0.574 g/100 mL at 20 C	•		
Chloroform	CHCl ₃	1.49845	N/A	119.3779	-63.7	61.7	Slightly sol. 0.795 g/100 mL	•		
Chloromethane	CH ₃ Cl	0.991	N/A	50.4877	-97.1	-24.2	insoluble. 0.5325 g/100 mL	•		
cis-1,2-Dichloroethene	C ₂ H ₂ Cl ₂	1.284	6	96.9438	-80.5	60	0.08 g/100 mL	•	•	
cis-1,3-Dichloropropene	C ₃ H ₄ Cl ₂	1.22	N/A	110.9706	-50	104.3	<0.1 g/100 mL at 20.5 C	•	•	
cis-1,4-Dichloro-2-butene	C ₄ H ₆ Cl ₂	1.188	56	124.9974	-48	152	0.058 g/100 mL	•	•	
Methylene Chloride	CH ₂ Cl ₂	1.3255	N/A	84.9328	-96.7	39.8	Slightly sol. 1.32 g/100 mL	•		
Tetrachloroethene	C ₂ Cl ₄	1.623	N/A	165.834	-22.3	121.1	Almost insoluble 0.015 g/100 mL	•	•	
Trans-1,2-Dichloroethene	C ₂ H ₂ Cl ₂	1.257	6	96.9438	-50	47.5	Slightly. 0.63 g/100 mL	•	•	



Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
trans-1,3-Dichloropropene	C ₃ H ₄ Cl ₂	1.217	27	110.9706	N/A	112	<0.1 g/100 mL at 20.5 C	•	•	
trans-1,4-Dichloro-2-butene	C ₄ H ₆ Cl ₂	1.183	N/A	124.9974	2	155.5	0.085 g/100 mL at 25 C	•	•	
Trichloroethene	C ₂ HCl ₃	1.462	N/A	131.3889	-86	86.7	Slightly soluble. 0.11 g/100 mL	•	•	
Vinyl Chloride	C ₂ H ₃ Cl	0.9106	42	62.4987	-153.7	-13.9	Slightly soluble 0.11 g/100 mL	•	•	
Benzene	C ₆ H ₆	0.8786	-11	78.1134	5.5	80.1	Slightly sol. 0.18 g/100 mL		•	•
Hexane	C ₆ H ₁₄	0.6548	-22	86.1766	-95	69	Slightly sol. .000947 g/100 mL		•	•
n-Butylbenzene	C ₁₀ H ₁₄	0.86	59	134.2206	-88	183	insoluble		•	•
1,2,4-Trimethylbenzene	C ₉ H ₁₂	0.876	48	120.1938	-43.8	169	Slightly soluble		•	•
1,3,5-Trimethylbenzene	C ₉ H ₁₂	0.865	44	120.1938	-44.7	165	insoluble		•	•
Ethyl Benzene	C ₈ H ₁₀	0.867	15	106.167	-94.9	136.2	0.0206 g/100 mL		•	•
m,p-Xylene	C ₈ H ₁₀	0.862	25	106.167	-50	140	Insoluble. 0.0175 g/100 mL		•	•
Naphthalene	C ₁₀ H ₈	0.997	78	128.1732	80.6	218	Slightly soluble. 0.0031 g/100 mL		•	•
o-Xylene	C ₈ H ₁₀	0.897	32	106.167	-25.2	144	0.00 g/100 mL. Insoluble		•	•
n-Propylbenzene	C ₉ H ₁₂	0.862	47	120.1938	-101.6	159	insoluble		•	•
Toluene	C ₇ H ₈	0.867	4	92.1402	-93	110.6	Slightly sol. 0.0526 g/100 mL		•	•
1,2-Dibromo-3-chloropropane	C ₃ H ₅ Br ₂ Cl	2.05	N/A	236.3335	6	195	0.123 g/100 mL	•		
1,2-Dibromoethane	C ₂ H ₄ Br ₂	2.17	1	187.8616	9.97	131.7	Slightly sol. 0.4152 g/100 mL	•		
1,3-Dichloropropane	C ₃ H ₆ Cl ₂	1.188	20	112.9864	-99	120.4	insoluble	•		
Acrylonitrile	C ₃ H ₃ N	0.8075	-5	53.0634	-83.55	77.3	Soluble. 7.45 g/100 mL		•	
Bromobenzene	C ₆ H ₅ Br	1.495	51	157.0095	-30.8	155	insoluble. <0.1 g/100 mL at 20.5 C	•	•	
Bromochloromethane	CH ₂ BrCl	1.991	N/A	129.3838	-88	67.8	Slightly soluble. 0.1-0.5 g/100 mL at 20 C	•		
Bromodichloromethane	CHBrCl ₂	1.971	N/A	163.8289	-57.1	90.1	Slightly soluble. 0.6735 g/100 mL	•		
Bromoform	CHBr ₃	2.894	N/A	252.7309	8.3	149.5	Slightly soluble. 0.301 g/100 mL	•		
Bromomethane	CH ₃ Br	1.732	N/A	94.9387	-93.7	3.56	Very slightly soluble. 1.522 g/100 mL	•		
Carbon disulfide	CS ₂	1.2632	-30	76.131	-110	46.2	Slightly sol. 0.1185 g/100 mL		•	
Cumene	C ₉ H ₁₂	0.862	31	120.1938	-96	151	insoluble. 0.00499 g/100 mL		•	
Dibromochloromethane	CHBr ₂ Cl	2.451	N/A	208.2799	-22	120	0.4 g/100 mL	•		
Dibromomethane	CH ₂ Br ₂	2.497	N/A	173.8348	-53	97	Soluble. 1.193 g/100 mL	•		
Freon 11	CCl ₃ F	1.494	N/A	137.3684	-111	23.8	insoluble. 0.124 g/100 mL	•		
Freon 113	C ₂ Cl ₃ F ₃	1.575	N/A	187.3762	-36.4	47.6	0.02 g/100 mL. Slightly soluble. Insoluble	•		



Compound	Formula	Density	Flashpoint* (°C)	Molecular Weight	Melting Point (°C)	Boiling Point (°C)	Water Solubility**	ECD	PID	FID
Hexachlorobutadiene	C ₄ Cl ₆	1.68	N/A	260.762	-21	210	Insoluble. 0.00032 g/100 mL	•	•	
p-Cymene	C ₁₀ H ₁₄	0.86	47	134.2206	-67	176 - 178	insoluble		•	
sec-Butylbenzene	C ₁₀ H ₁₄	0.862	45	134.2206	-75	173	0.00176 g/100mL		•	
Styrene	C ₈ H ₈	0.9045	32	104.1512	-30.6	145.2	0.032 g/100 mL		•	•
tert-Butylbenzene	C ₁₀ H ₁₄	0.867	44	134.2206	-58	169	0.00295 g/100 mL		•	

* Compound with no flashpoint are not ignitable.

** If temperature is not otherwise noted, assume 25° C.

• indicates a possible response on specific detector

Associated Parent Compound
Chlorinated
Gasoline
Diesel
Gasoline and Diesel
Not typical of primary compounds



Client: LFR

Jason Triolo
6615 – 6617 San Leandro Street
Oakland, CA 94621

Start Date: 1/21/2008

Completed Date: 1/23/2008

Site Address: 7999 Anthenour Way, Sunol, CA

Project Name: 7999 Anthenour Way

Project Scope: Collected Membrane Interface Probe logs from 11 boring locations from approximately surface to as deep as 43 feet to delineate presence and relative concentrations of contaminants in the unsaturated and saturated soils.

Project Information:

MIP-7	Pre drill+C11 to 3' bgs. No conductivity - GREGG CPT.
MIP-8	Pre drill to 3' bgs. No conductivity - GREGG CPT.
MIP-12	Pre drill to 3' bgs. No conductivity - GREGG CPT. Refusal at 22' bgs.
MIP-10	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT.
MIP-9	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal at 43.75'
MIP-13	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. New membrane.
MIP-11	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT.
MIP-14	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal at 39.2'
MIP-15	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. New membrane.
MIP-16	Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal twice for pre drill.

MIP Boring and Confirmation Sampling Summary

Date Sampled	Time Sampled	Boring Name	Total Depth	Confirmation Samples Soil	Confirmation Samples Groundwater
Jan 21 2008	12:21	MIP-7	28.10	Not Provided	Not Provided
Jan 21 2008	13:59	MIP-8	26.70	Not Provided	Not Provided
Jan 22 2008	08:49	MIP-12	22.00	Not Provided	Not Provided
Jan 22 2008	11:35	MIP-10	14.70	Not Provided	Not Provided
Jan 22 2008	14:02	MIP-9	43.75	Not Provided	Not Provided
Jan 23 2008	09:18	MIP-13	27.15	Not Provided	Not Provided
Jan 23 2008	10:39	MIP-11	27.35	Not Provided	Not Provided
Jan 23 2008	12:15	MIP-14	39.20	Not Provided	Not Provided
Jan 23 2008	14:45	MIP-15	16.55	Not Provided	Not Provided
Jan 23 2008	16:29	MIP-16	17.55	Not Provided	Not Provided



Client: LFR
 Jason Triolo
 6615 – 6617 San Leandro Street
 Oakland, CA 94621

Start Date: 1/21/2008
Completed Date: 1/23/2008

Site Address: 7999 Anthenour Way, Sunol, CA
Project Name: 7999 Anthenour Way

MIP Quality Control

Standard Summary

Boring Name	Date	Time	Standard	PID Response	ECD Response	Pressure (PSI)	Response Time (s)
QA QC 1	Jan 21 2008	12:10	1 ppm TCE & Toluene	Yes	Yes	16.23	65
MIP-7	Jan 21 2008	12:21				16.06	65
QA QC 2	Jan 21 2008	13:50	1 ppm TCE & Toluene	Yes	Yes	16.30	60
MIP-8	Jan 21 2008	13:59				16.29	60
QA QC 3	Jan 22 2008	08:40	1 ppm TCE & Toluene	Yes	Yes	16.95	60
MIP-12	Jan 22 2008	08:49				16.93	60
QA QC 5	Jan 22 2008	11:30	1 ppm TCE & Toluene	Yes	Yes	16.80	60
MIP-10	Jan 22 2008	11:35				16.84	60
QA QC 6	Jan 22 2008	13:55	1 ppm TCE & Toluene	Yes	Yes	16.45	60
MIP-9	Jan 22 2008	14:02				16.59	60
QA QC 7	Jan 23 2008	09:07	1 ppm TCE & Toluene	Yes	Yes	16.38	65
MIP-13	Jan 23 2008	09:18				16.72	65
QA QC 8	Jan 23 2008	10:24	1 ppm TCE & Toluene	Yes	Yes	16.81	70
MIP-11	Jan 23 2008	10:39				16.93	70
QA QC 9	Jan 23 2008	12:07	1 ppm TCE & Toluene	Yes	Yes	16.48	65
MIP-14	Jan 23 2008	12:15				16.58	65
QA QC 10	Jan 23 2008	14:29	1 ppm TCE & Toluene	Yes	Yes	16.39	55
MIP-15	Jan 23 2008	14:45				16.19	55
QA QC 11	Jan 23 2008	16:23	1 ppm TCE & Toluene	Yes	Yes	16.78	60
MIP-16	Jan 23 2008	16:29				16.85	60



End of Day QA QC Summary

Boring Name	Date	Time	Standard	PID Response	ECD Response	Pressure (PSI)	Response Time (s)
End of Day 1	Jan 21 2008	15:20	1 ppm TCE & Toluene	Yes	Yes	16.36	60
End of Day 2	Jan 22 2008	15:15	1 ppm TCE & Toluene	Yes	Yes	15.58	70
End of Day 3	Jan 23 2008	17:07	1 ppm TCE & Toluene	Yes	Yes	16.63	60



Appendix A
MIP Boring Logs
7999 Anthenour Way
LFR



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-7

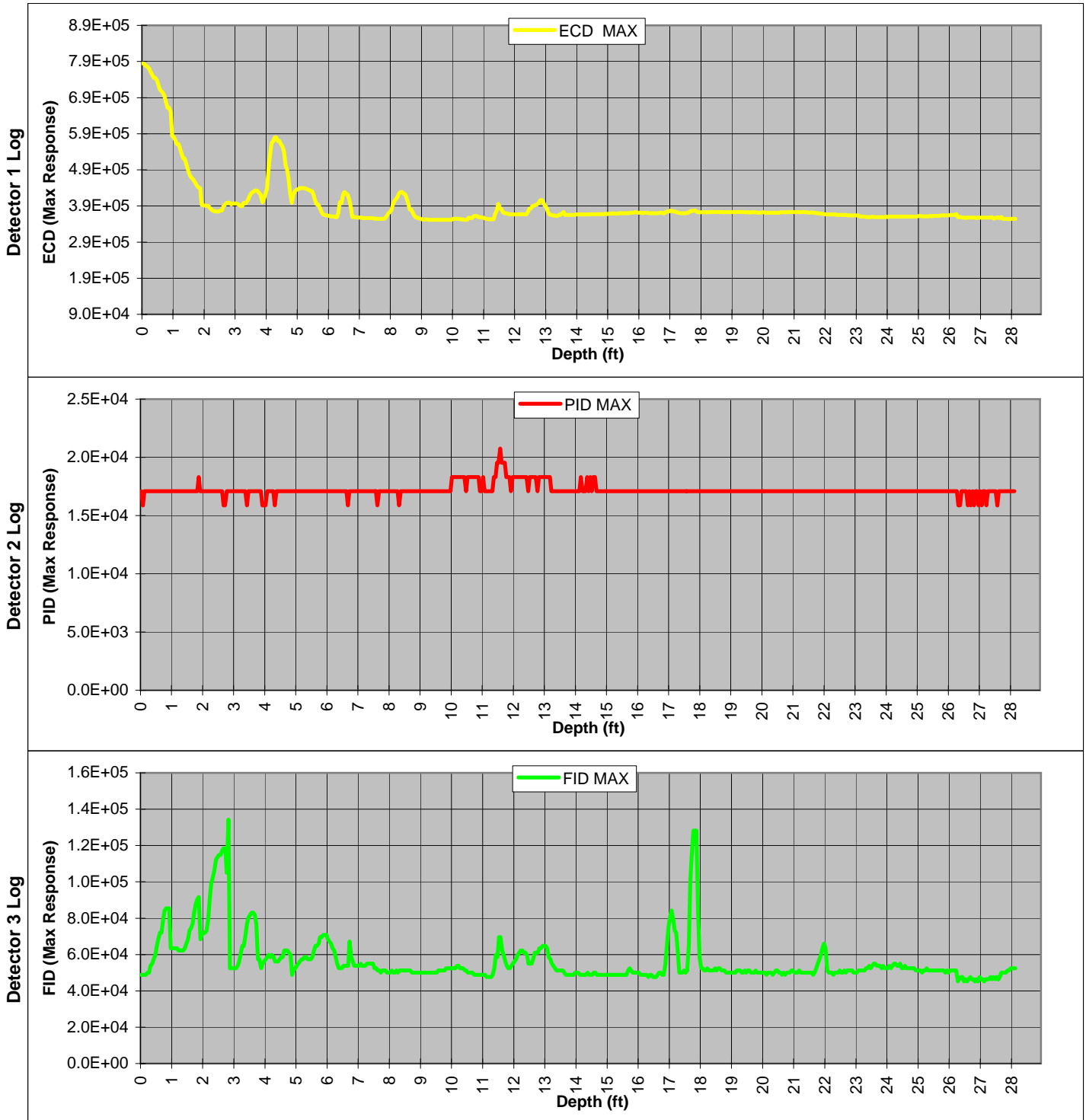
Detector 1 : Electron Capture (ECD)

Date: Jan 21 2008

Detector 2 : Photo Ionization (PID)

Time: 12:21

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

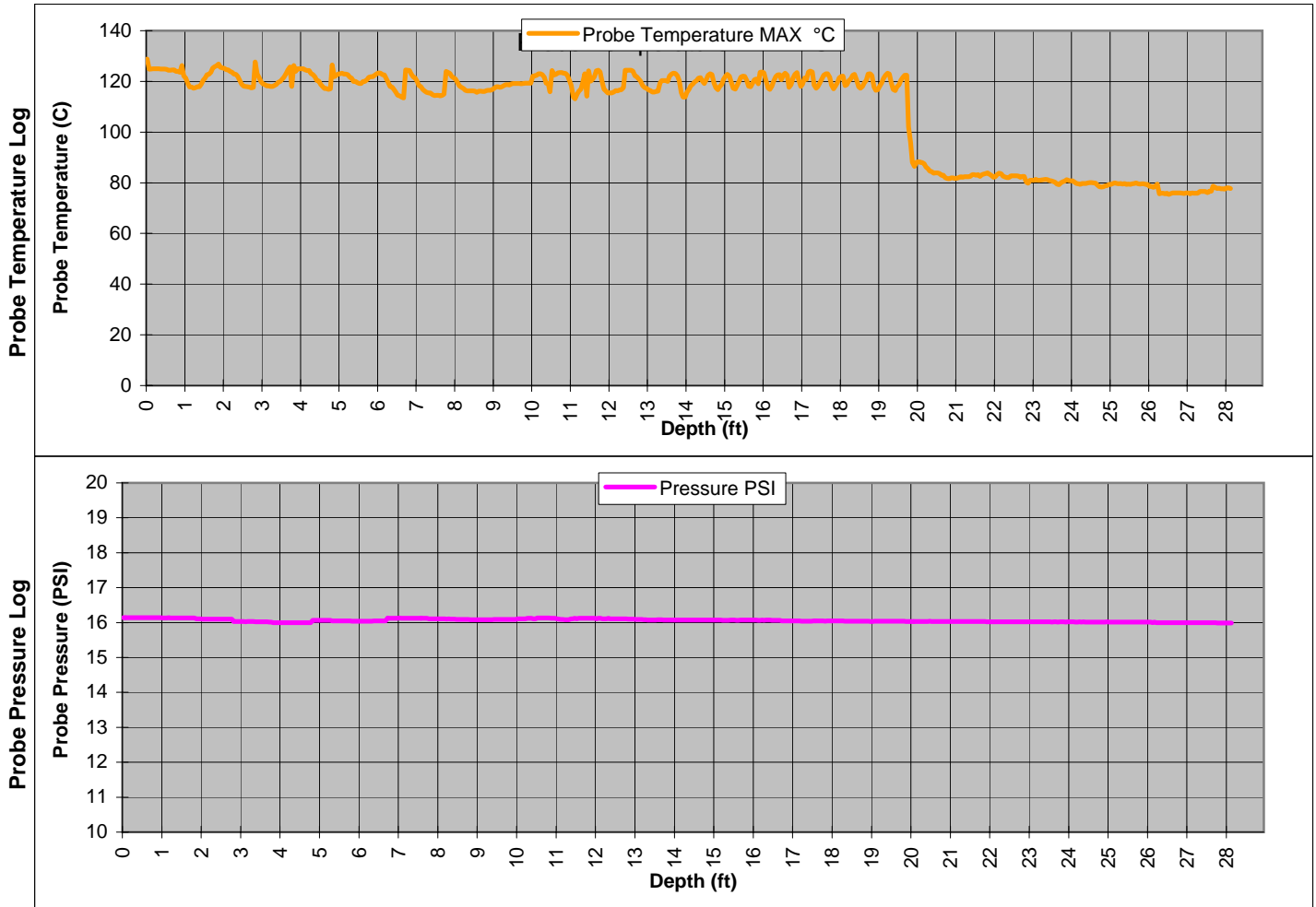
Boring I.D.: MIP-7

Graph 1 : Probe Temperature (C)

Date: Jan 21 2008

Graph 2 : Probe Pressure (PSI)

Time: 12:21



Explanation: Pre drill+C11 to 3' bgs. No conductivity - GREGG CPT.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-8

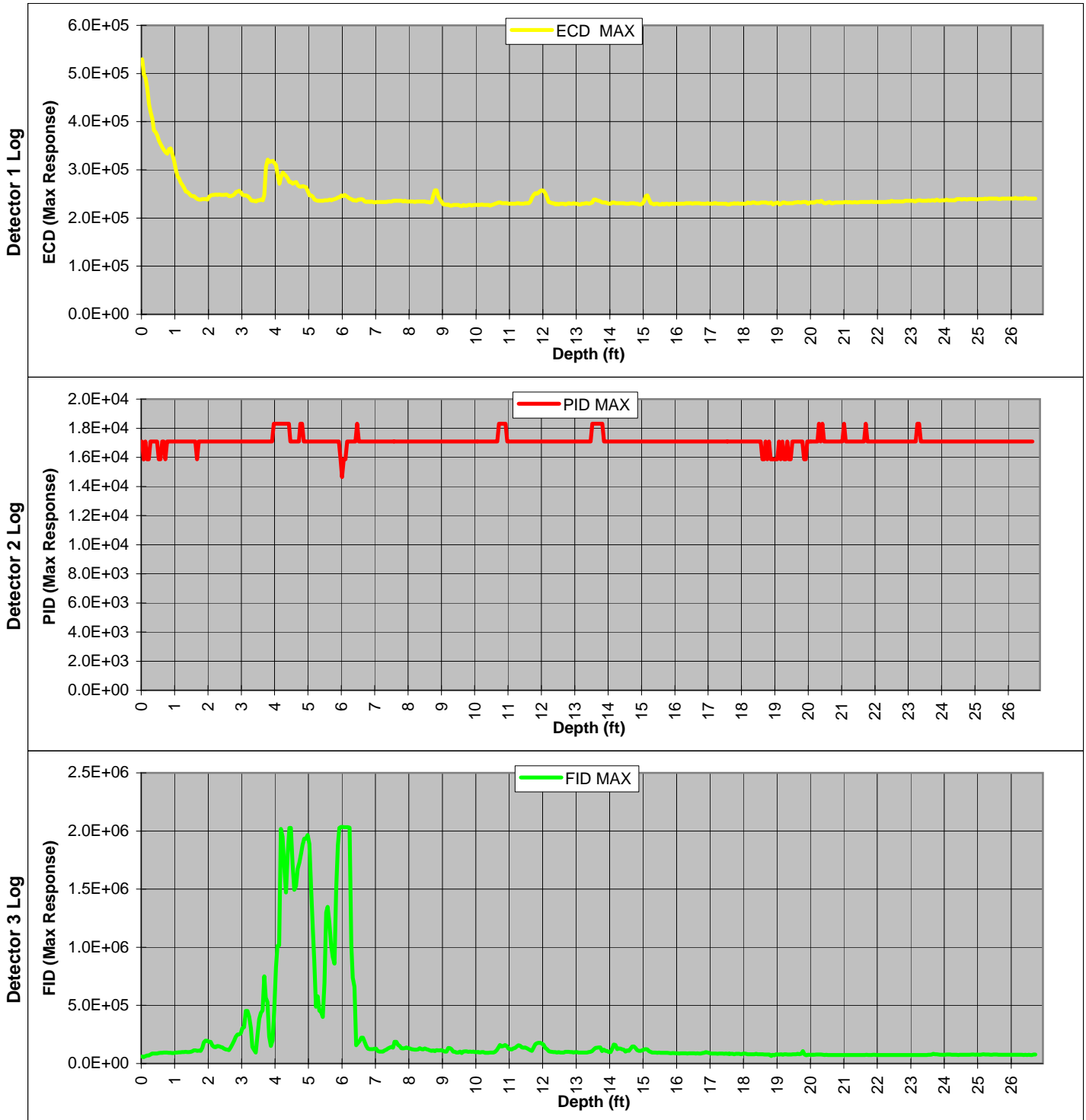
Detector 1 : Electron Capture (ECD)

Date: Jan 21 2008

Detector 2 : Photo Ionization (PID)

Time: 13:59

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

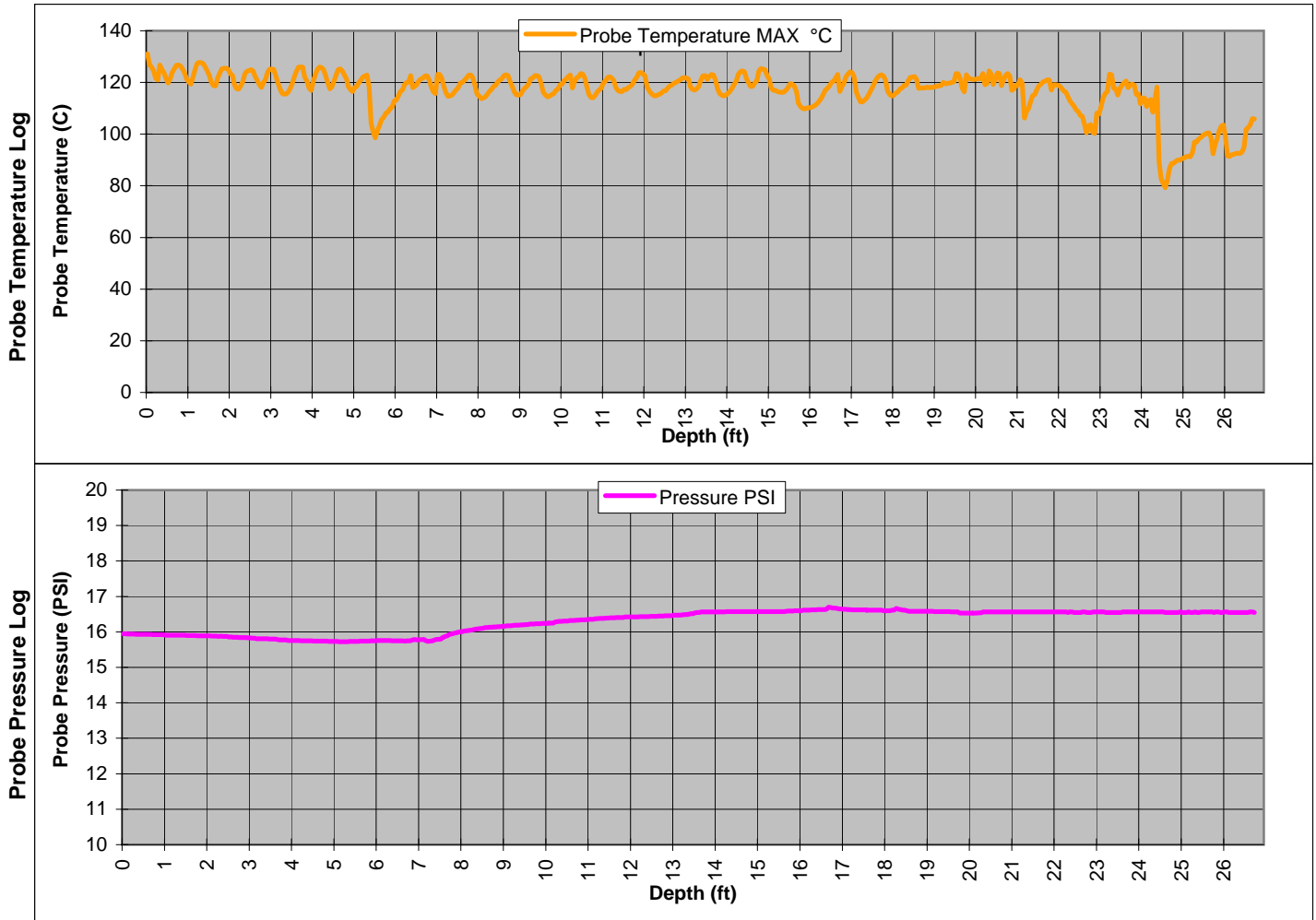
Boring I.D.: MIP-8

Graph 1 : Probe Temperature (C)

Date: Jan 21 2008

Graph 2 : Probe Pressure (PSI)

Time: 13:59



Explanation: Pre drill to 3' bgs. No conductivity - GREGG CPT.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-12

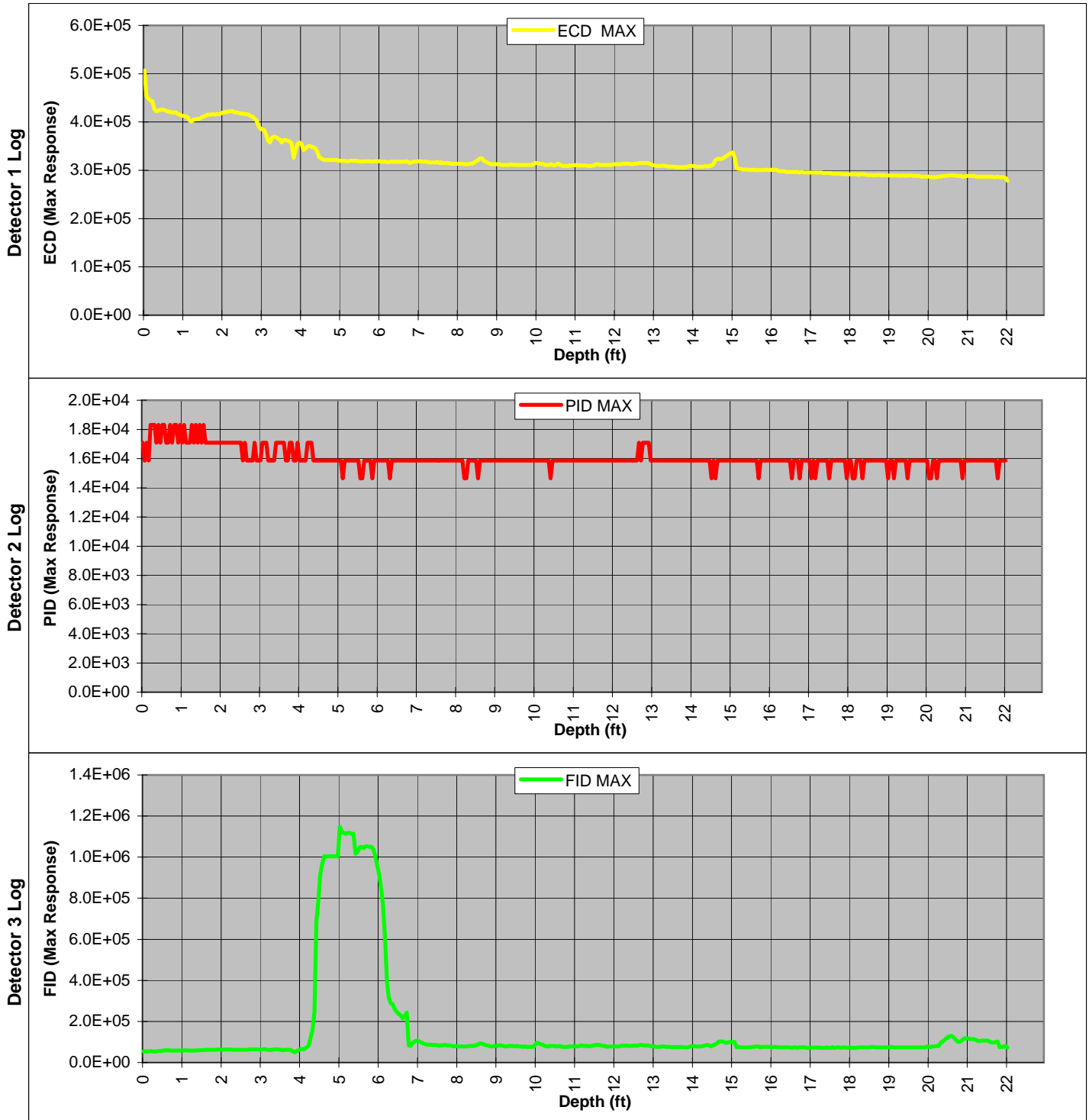
Detector 1 : Electron Capture (ECD)

Date: Jan 22 2008

Detector 2 : Photo Ionization (PID)

Time: 08:49

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

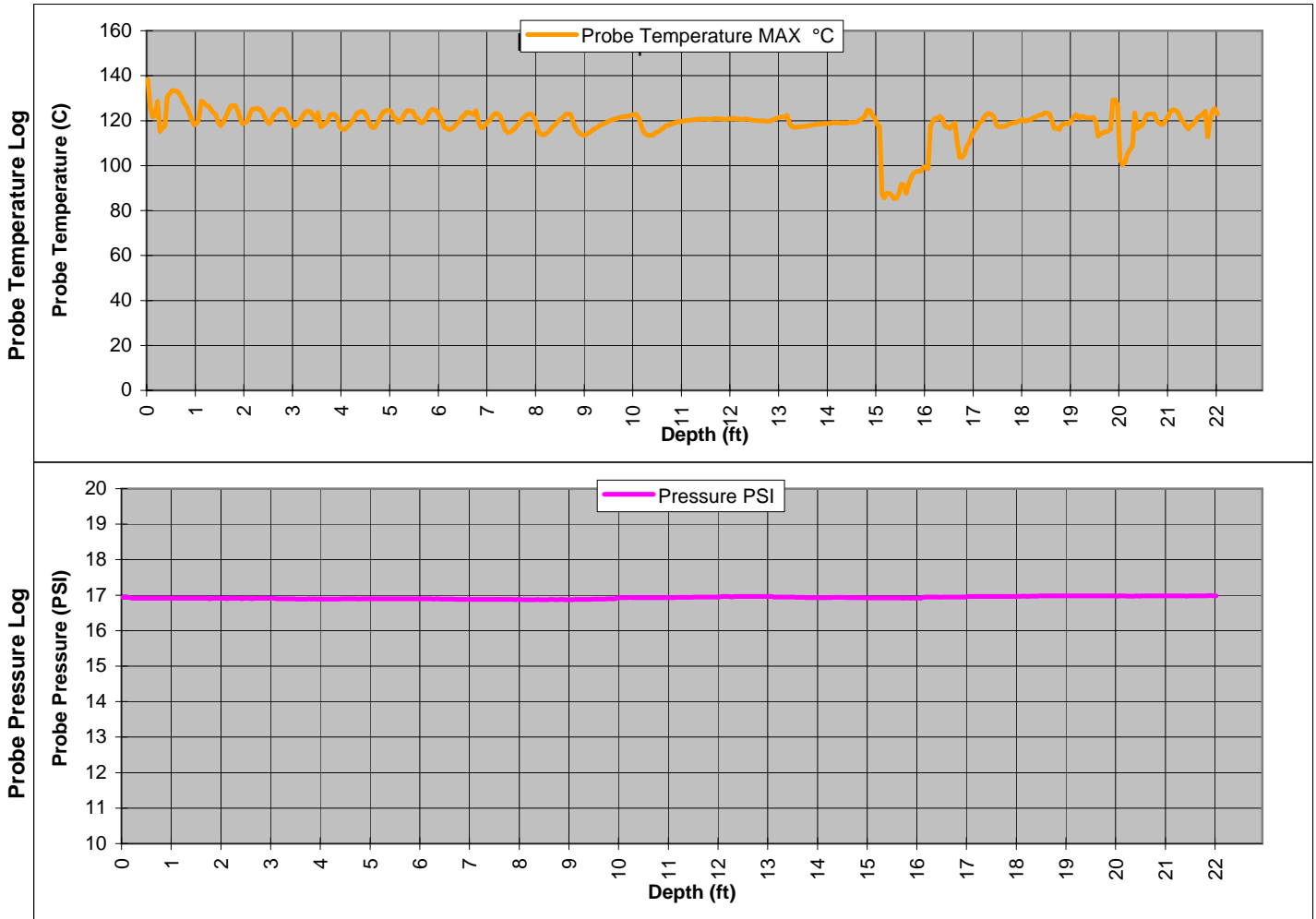
Boring I.D.: MIP-12

Graph 1 : Probe Temperature (C)

Date: Jan 22 2008

Graph 2 : Probe Pressure (PSI)

Time: 08:49



Explanation: Pre drill to 3' bgs. No conductivity - GREGG CPT. Refusal at 22' bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-10

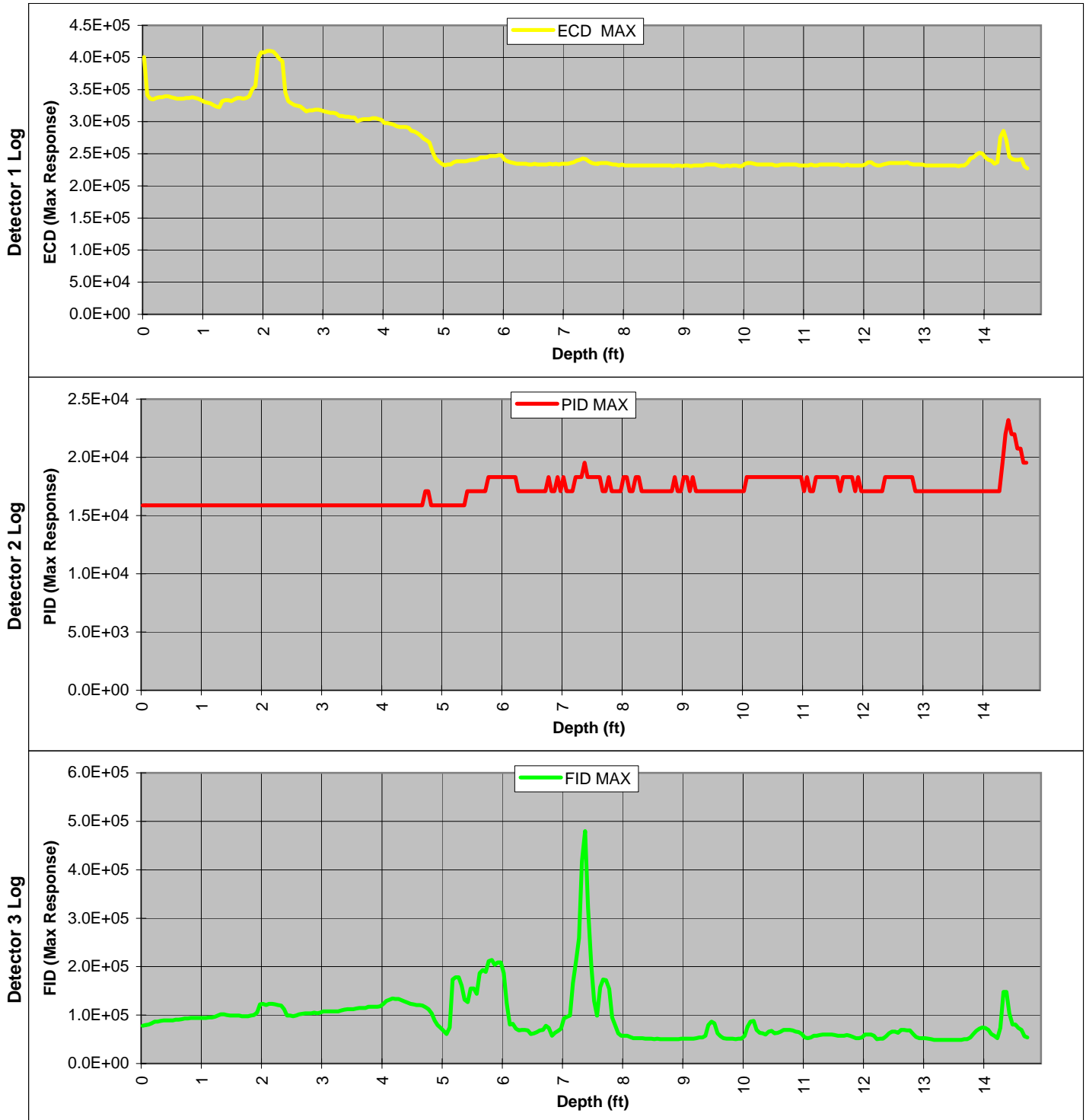
Detector 1 : Electron Capture (ECD)

Date: Jan 22 2008

Detector 2 : Photo Ionization (PID)

Time: 11:35

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

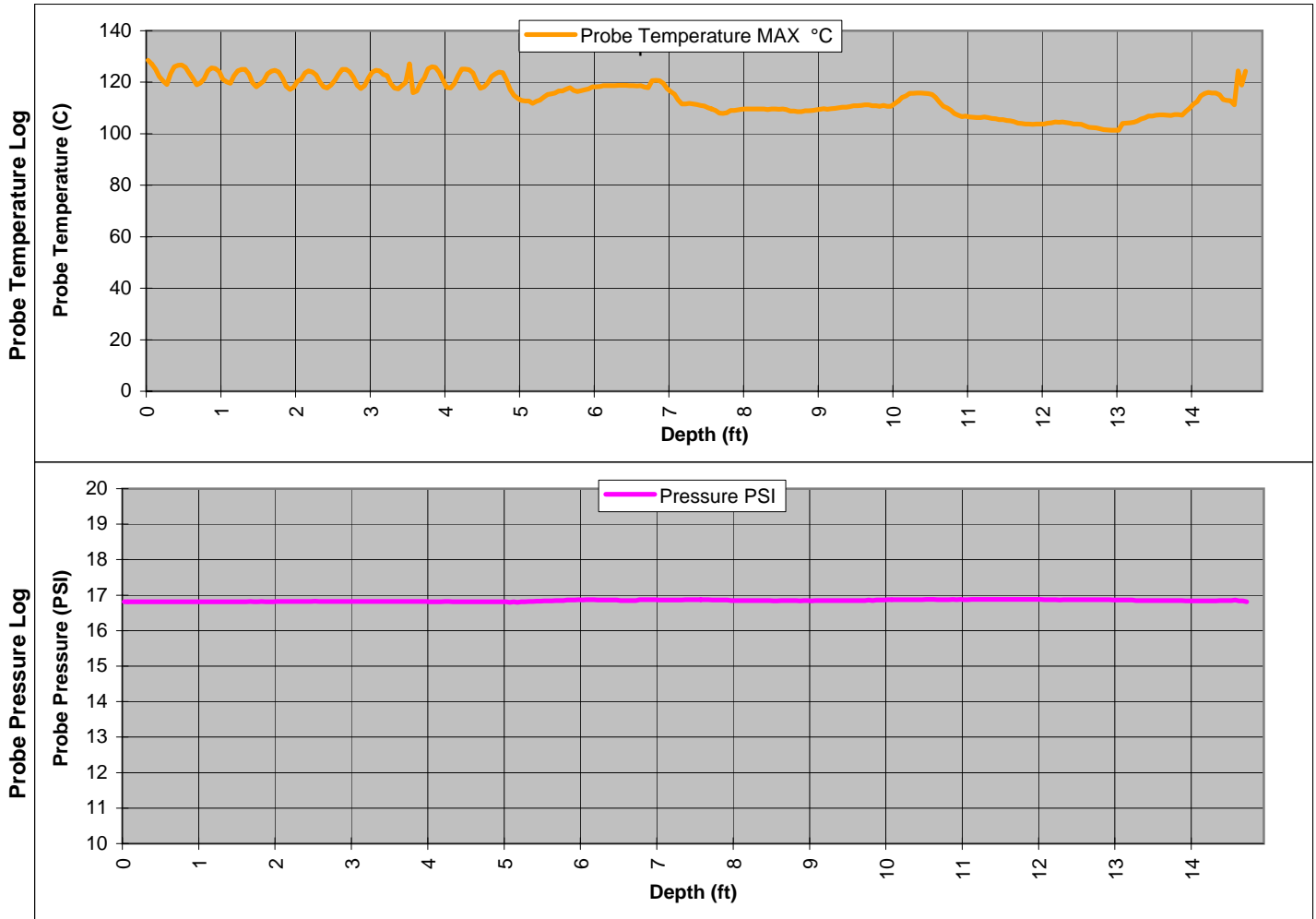
Boring I.D.: MIP-10

Graph 1 : Probe Temperature (C)

Date: Jan 22 2008

Graph 2 : Probe Pressure (PSI)

Time: 11:35



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-9

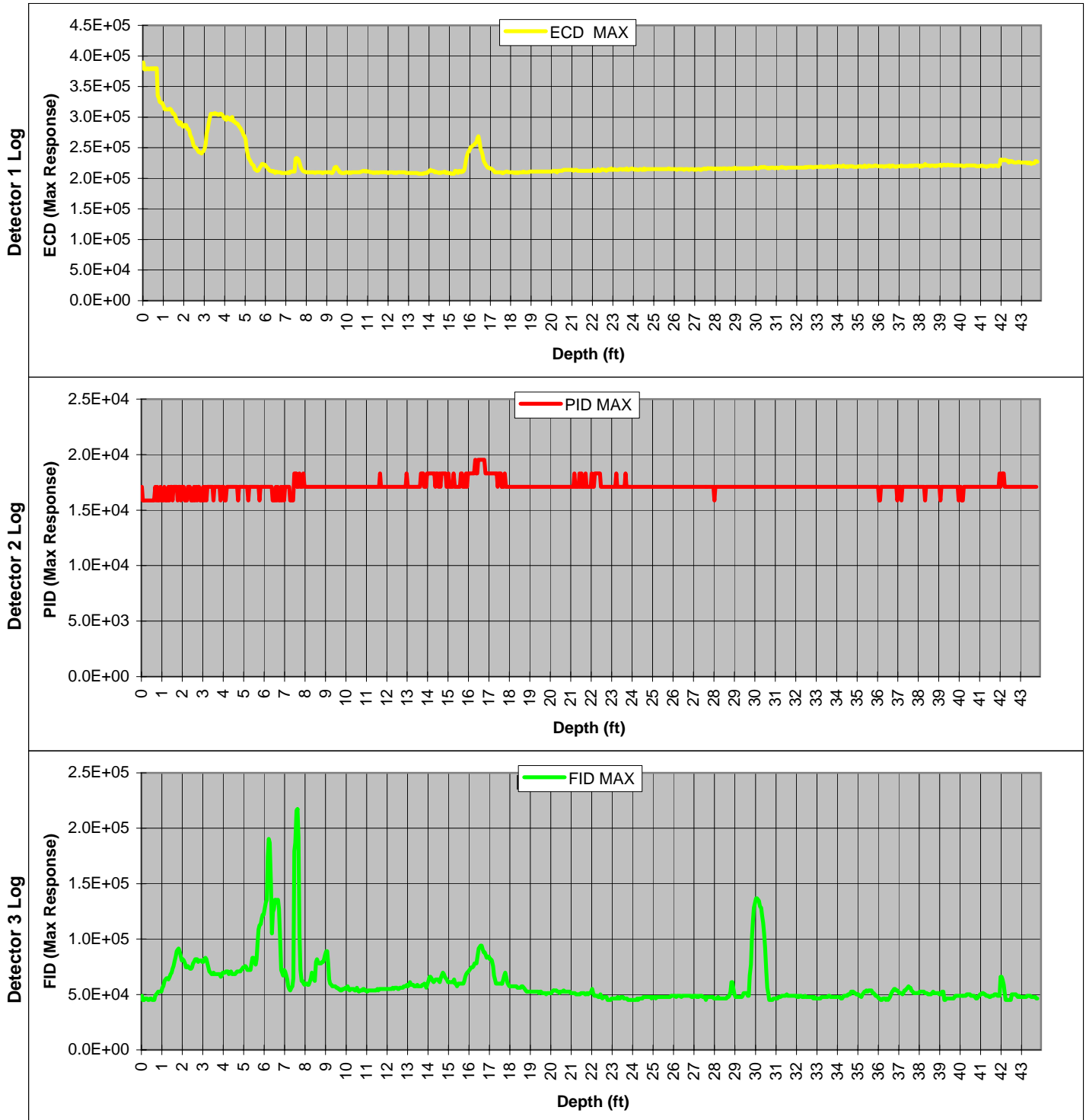
Detector 1 : Electron Capture (ECD)

Date: Jan 22 2008

Detector 2 : Photo Ionization (PID)

Time: 14:02

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

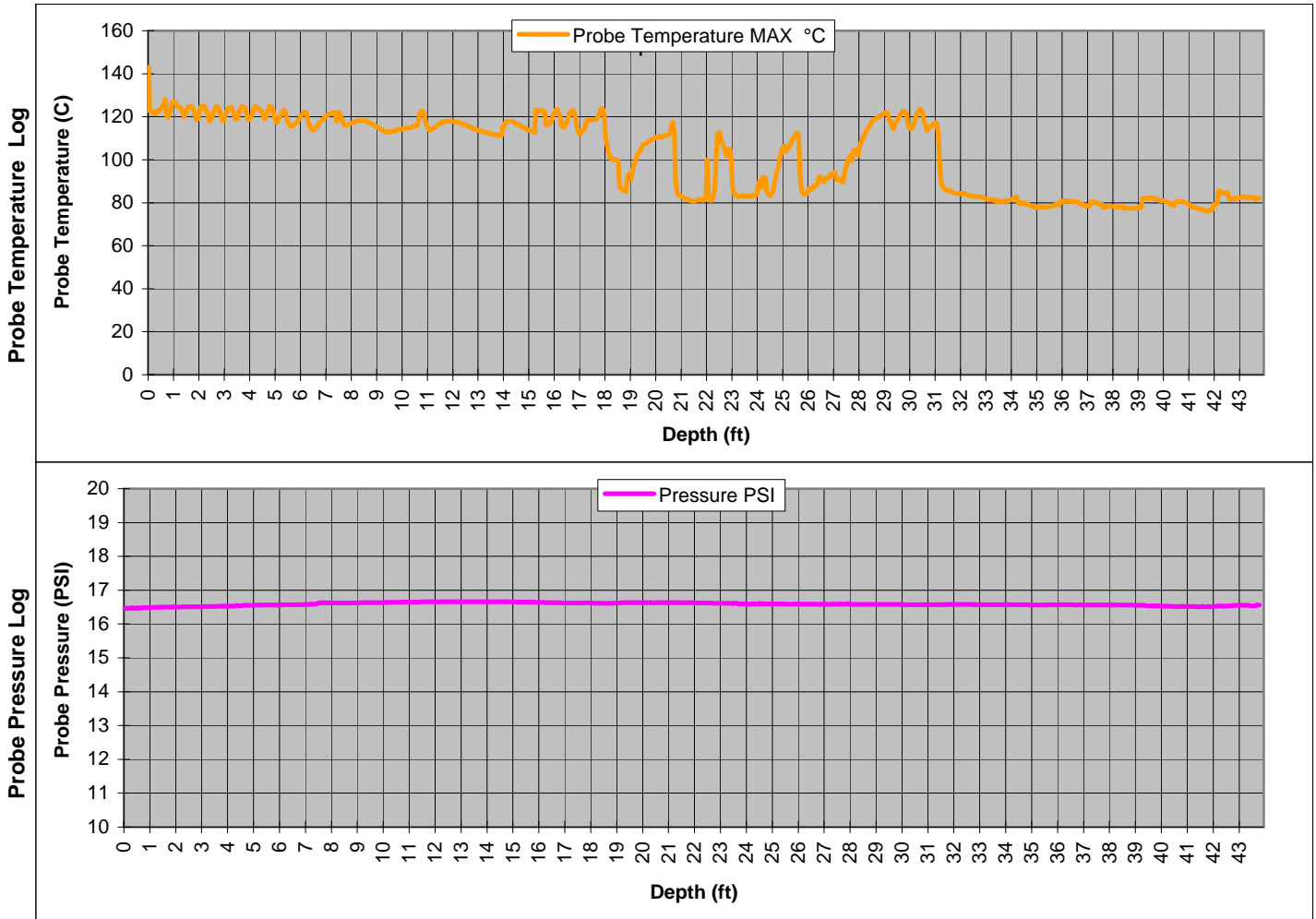
Boring I.D.: MIP-9

Graph 1 : Probe Temperature (C)

Date: Jan 22 2008

Graph 2 : Probe Pressure (PSI)

Time: 14:02



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal at 43.75' bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-13

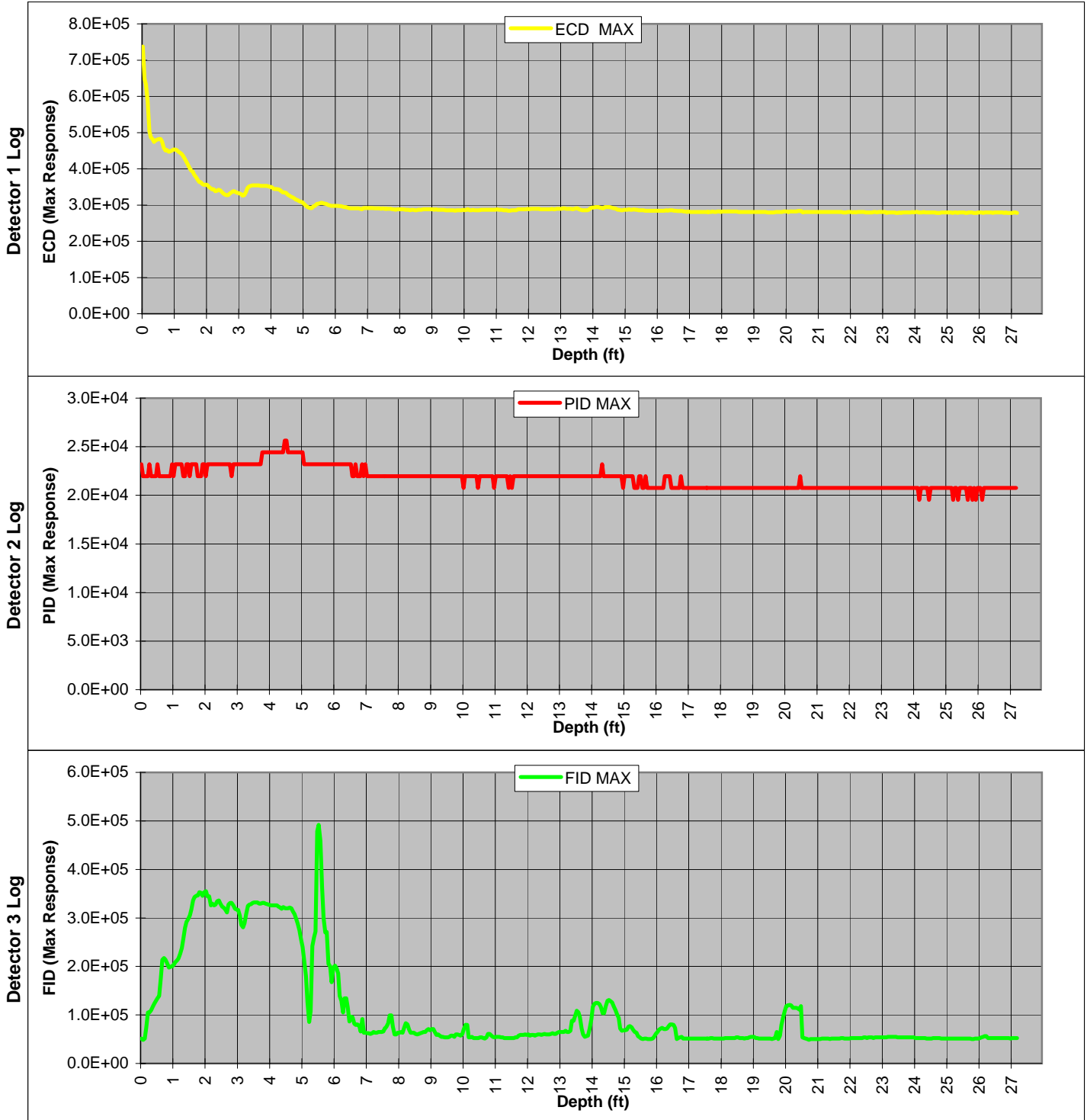
Detector 1 : Electron Capture (ECD)

Date: Jan 23 2008

Detector 2 : Photo Ionization (PID)

Time: 09:18

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

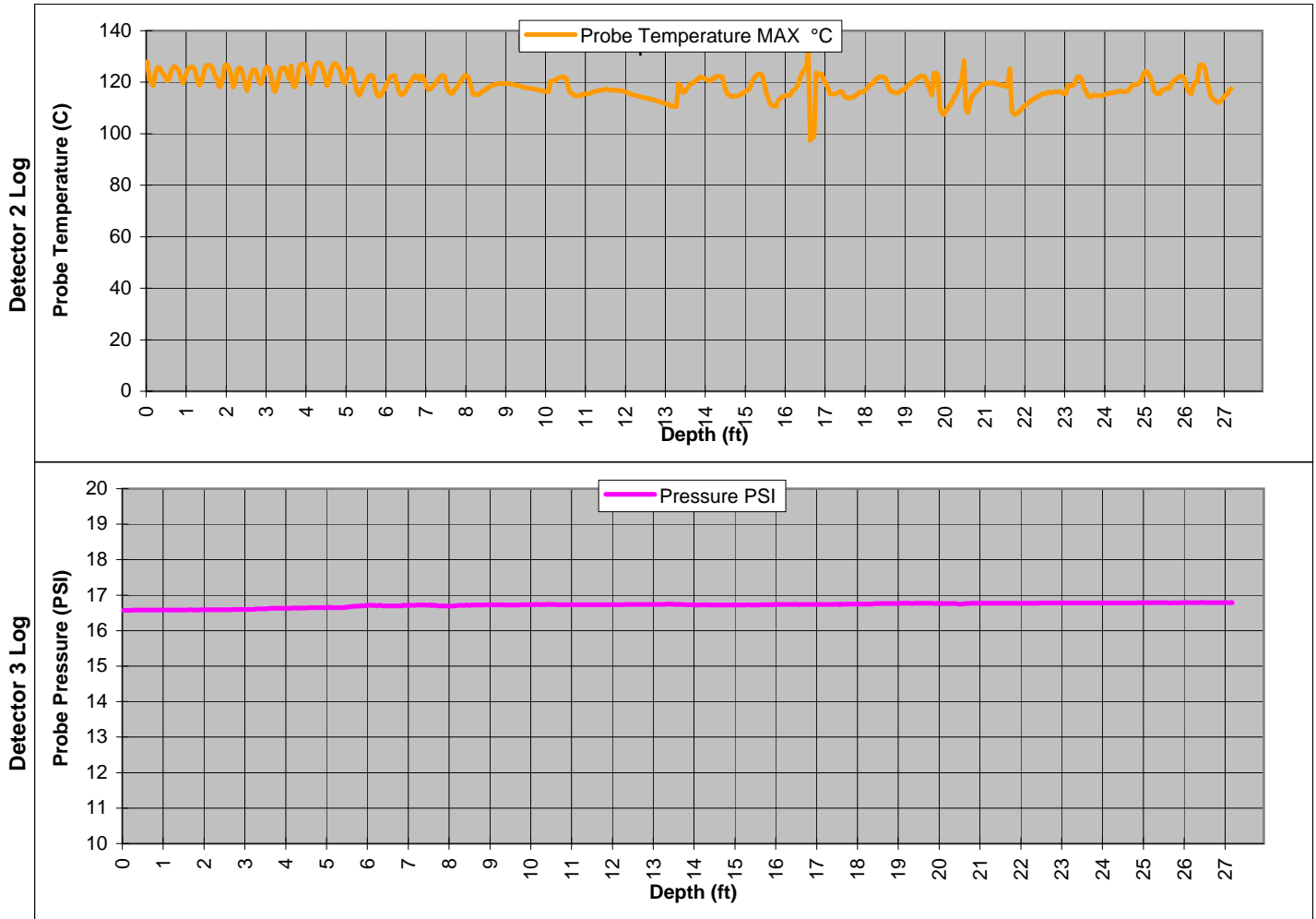
Boring I.D.: MIP-13

Graph 1 : Probe Temperature (C)

Date: Jan 23 2008

Graph 2 : Probe Pressure (PSI)

Time: 09:18



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. New membrane.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-11

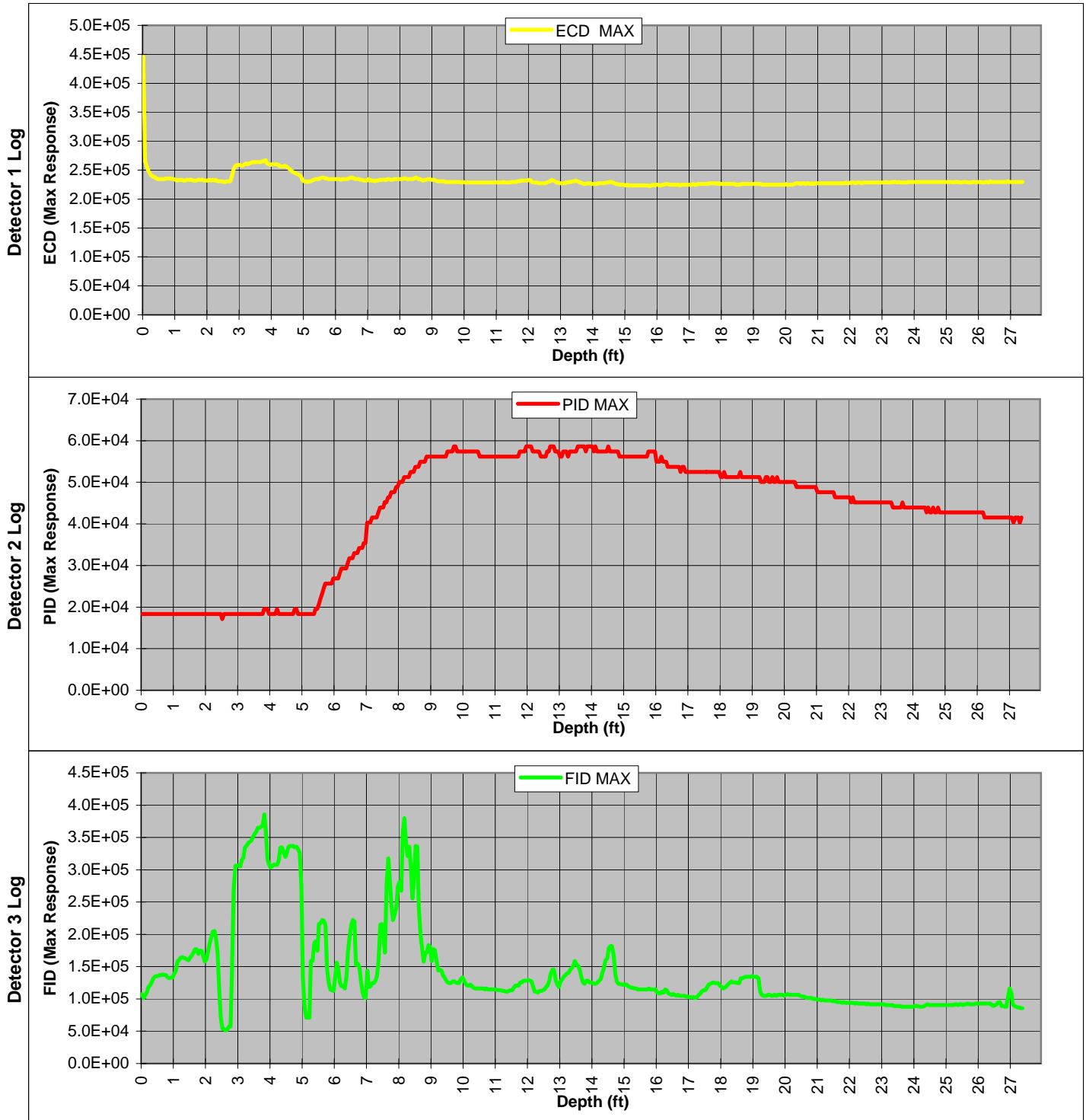
Detector 1 : Electron Capture (ECD)

Date: Jan 23 2008

Detector 2 : Photo Ionization (PID)

Time: 10:39

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

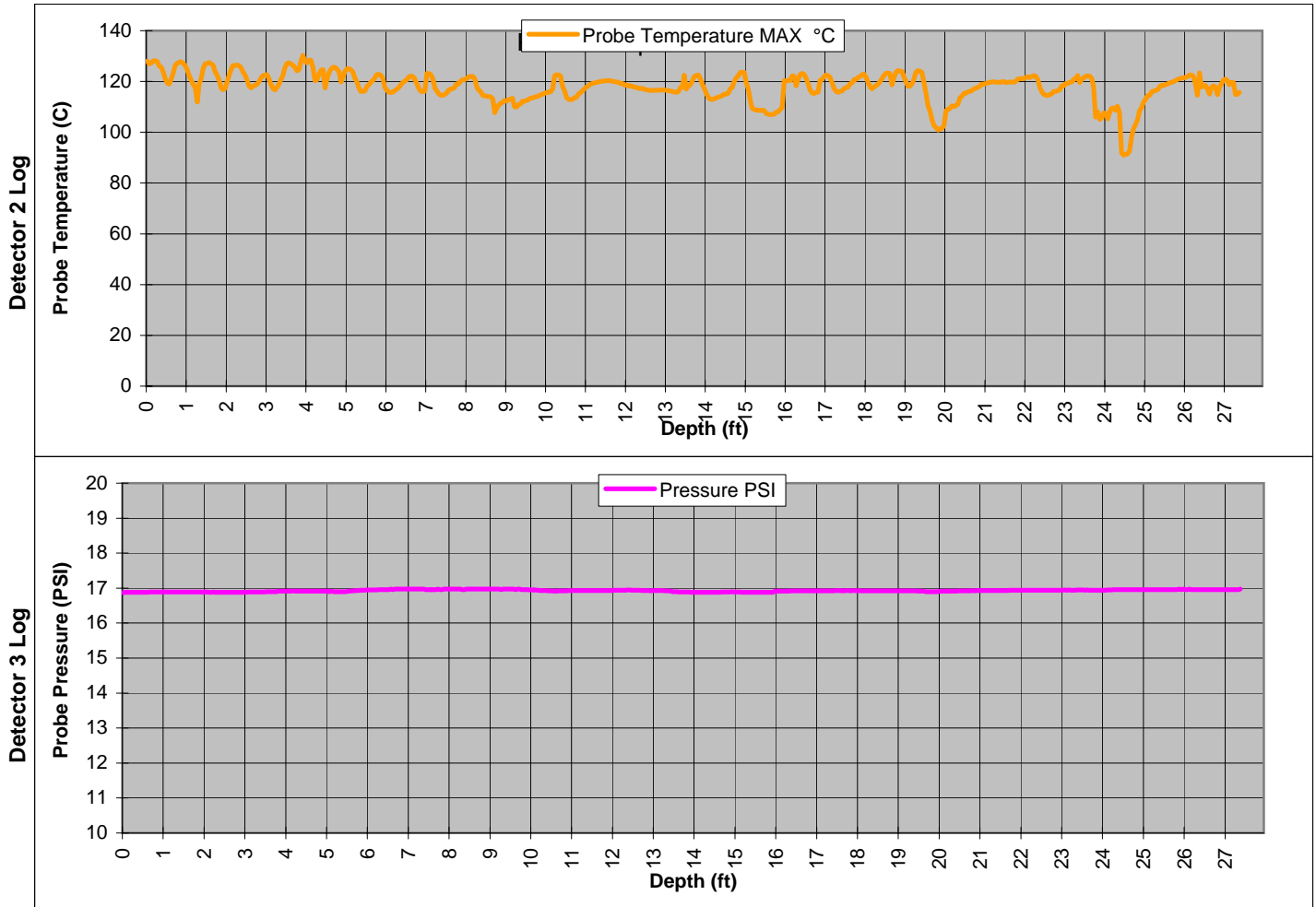
Boring I.D.: MIP-11

Graph 1 : Probe Temperature (C)

Date: Jan 23 2008

Graph 2 : Probe Pressure (PSI)

Time: 10:39



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-14

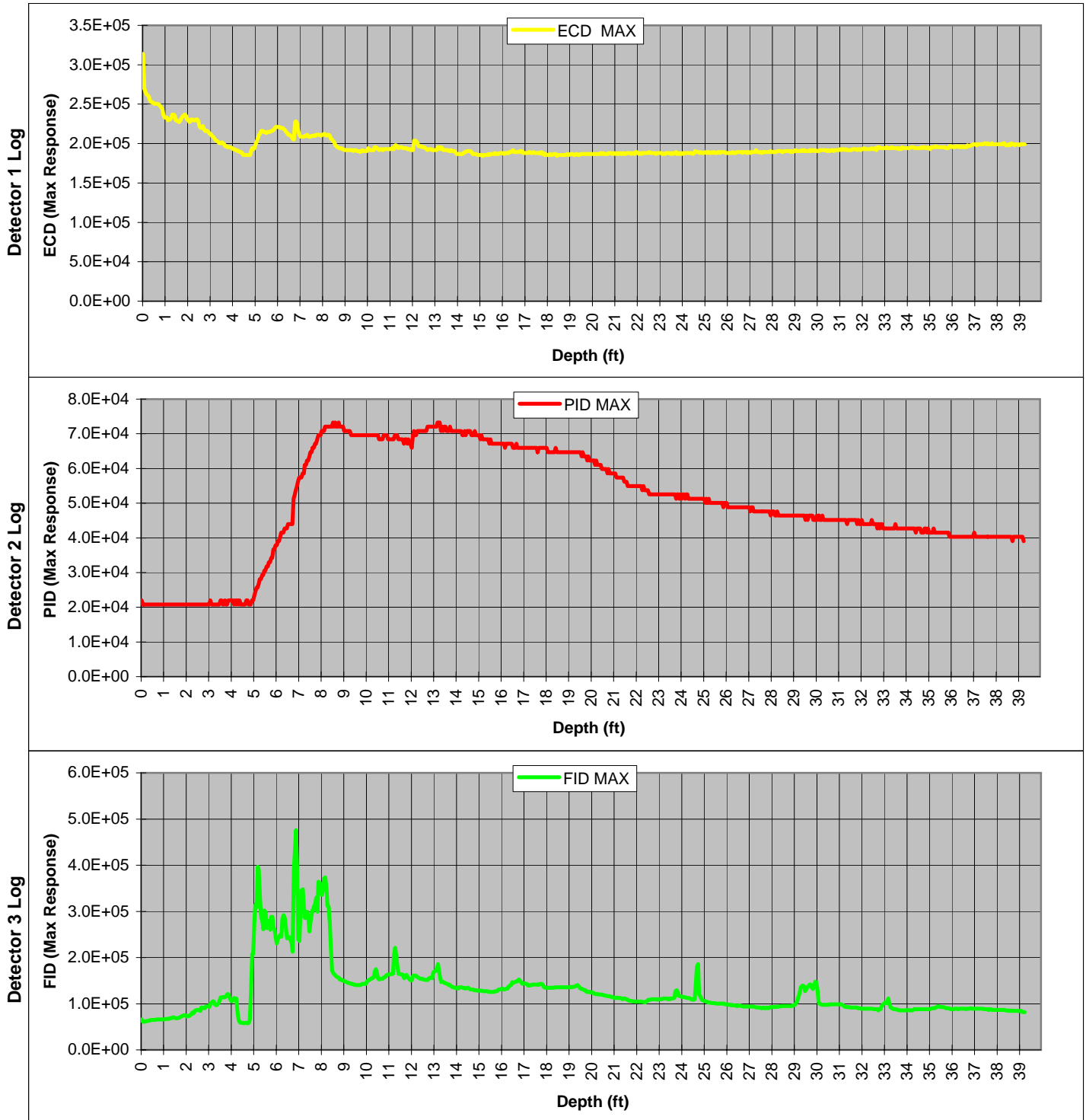
Detector 1 : Electron Capture (ECD)

Date: Jan 23 2008

Detector 2 : Photo Ionization (PID)

Time: 12:15

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

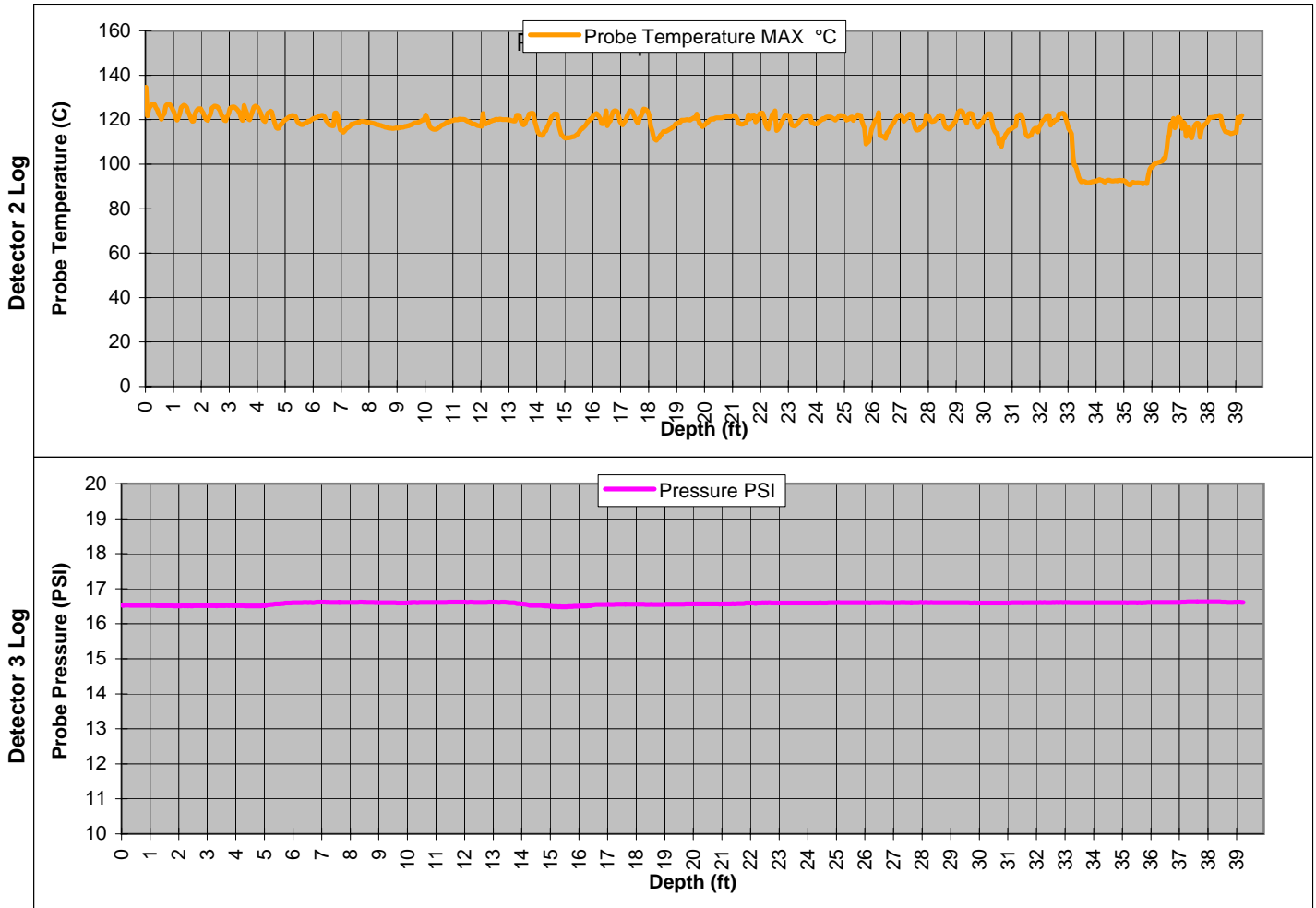
Boring I.D.: MIP-14

Graph 1 : Probe Temperature (C)

Date: Jan 23 2008

Graph 2 : Probe Pressure (PSI)

Time: 12:15



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal at 39.2' bgs.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-15

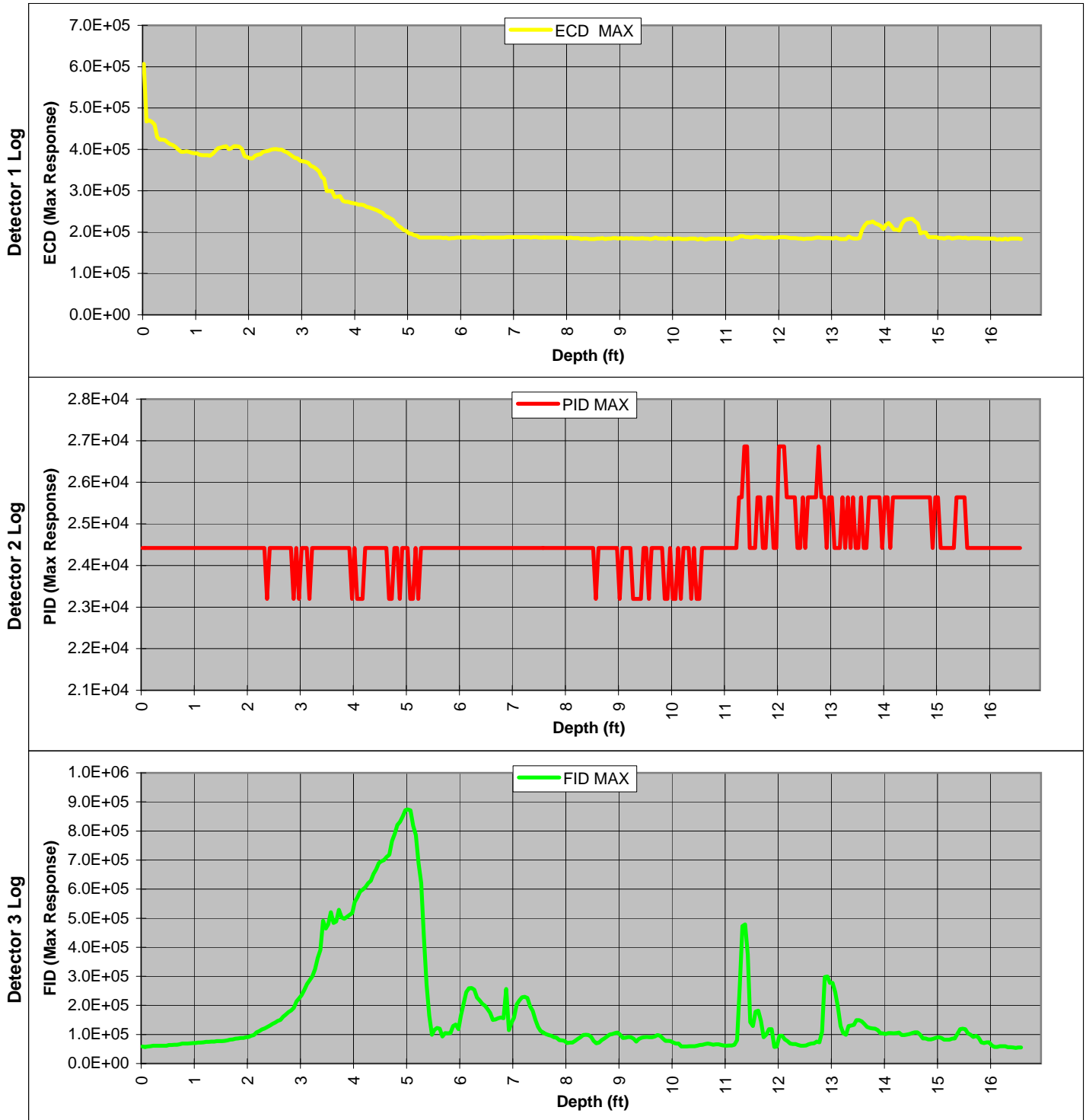
Detector 1 : Electron Capture (ECD)

Date: Jan 23 2008

Detector 2 : Photo Ionization (PID)

Time: 14:45

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

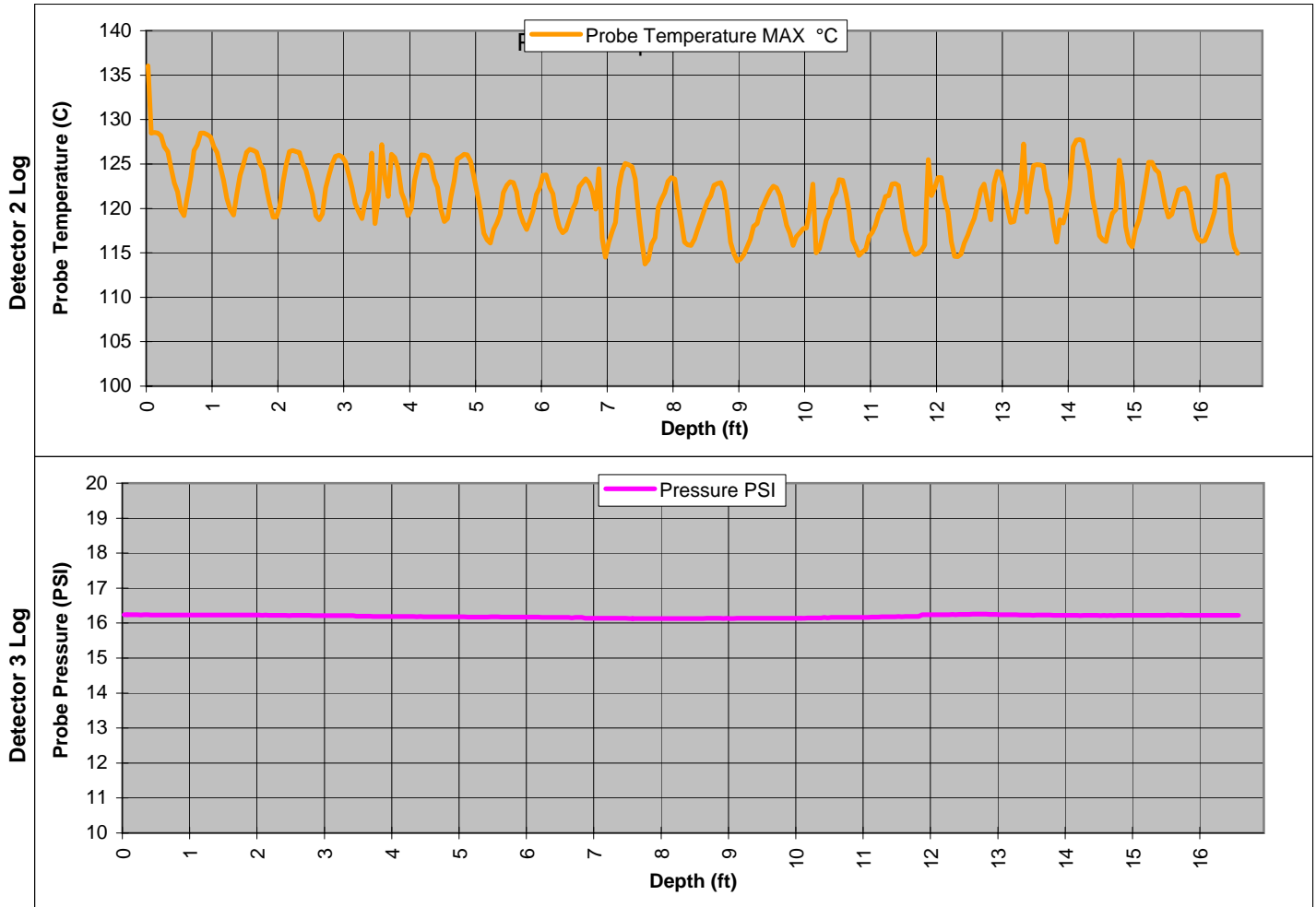
Boring I.D.: MIP-15

Graph 1 : Probe Temperature (C)

Date: Jan 23 2008

Graph 2 : Probe Pressure (PSI)

Time: 14:45



Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. New membrane.



MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

Boring I.D.: MIP-16

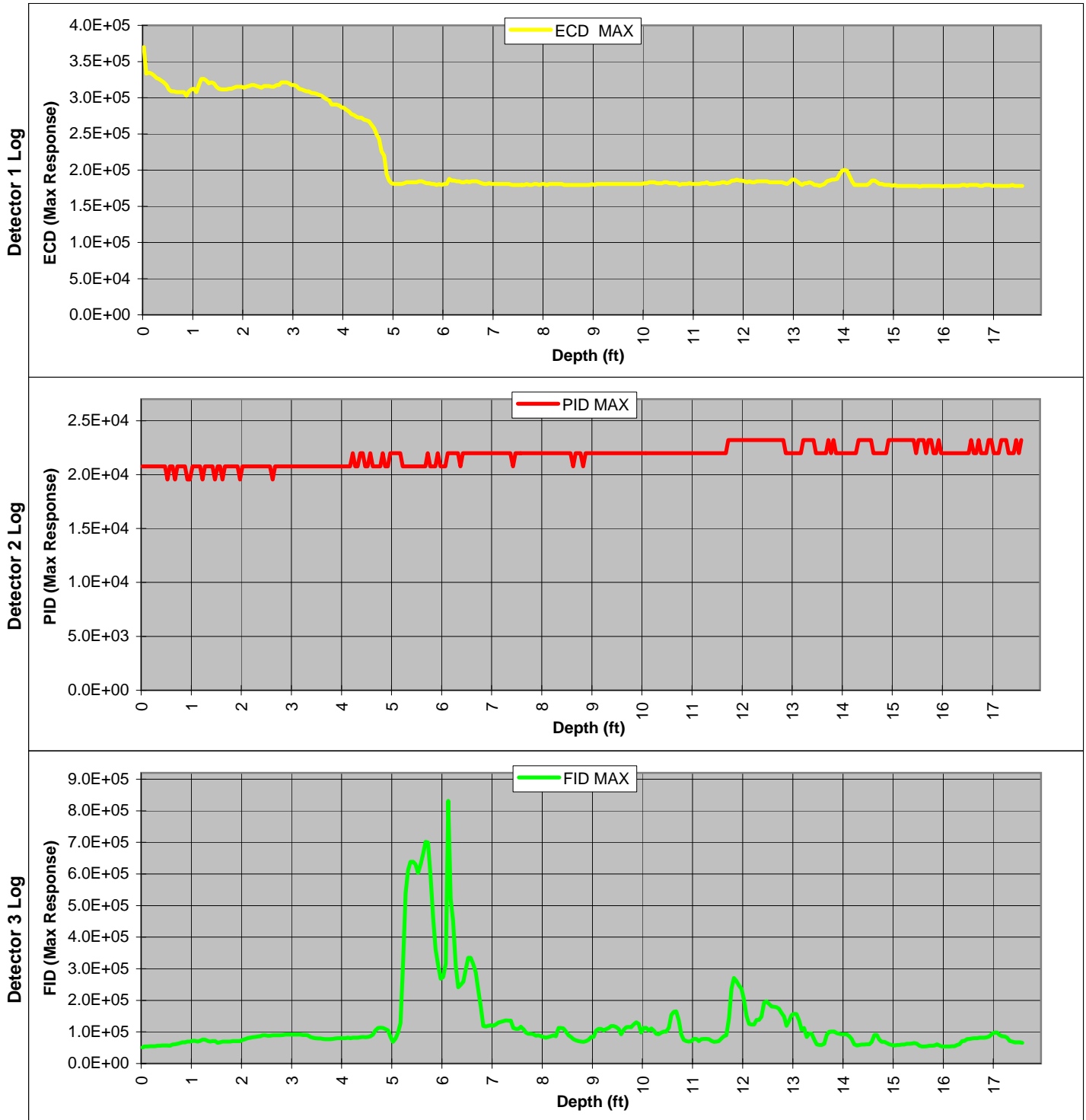
Date: Jan 23 2008

Time: 16:29

Detector 1 : Electron Capture (ECD)

Detector 2 : Photo Ionization (PID)

Detector 3 : Flame Ionization (FID)





MIP Log Results by Boring - Detector Reading vs. Depth

Client: LFR

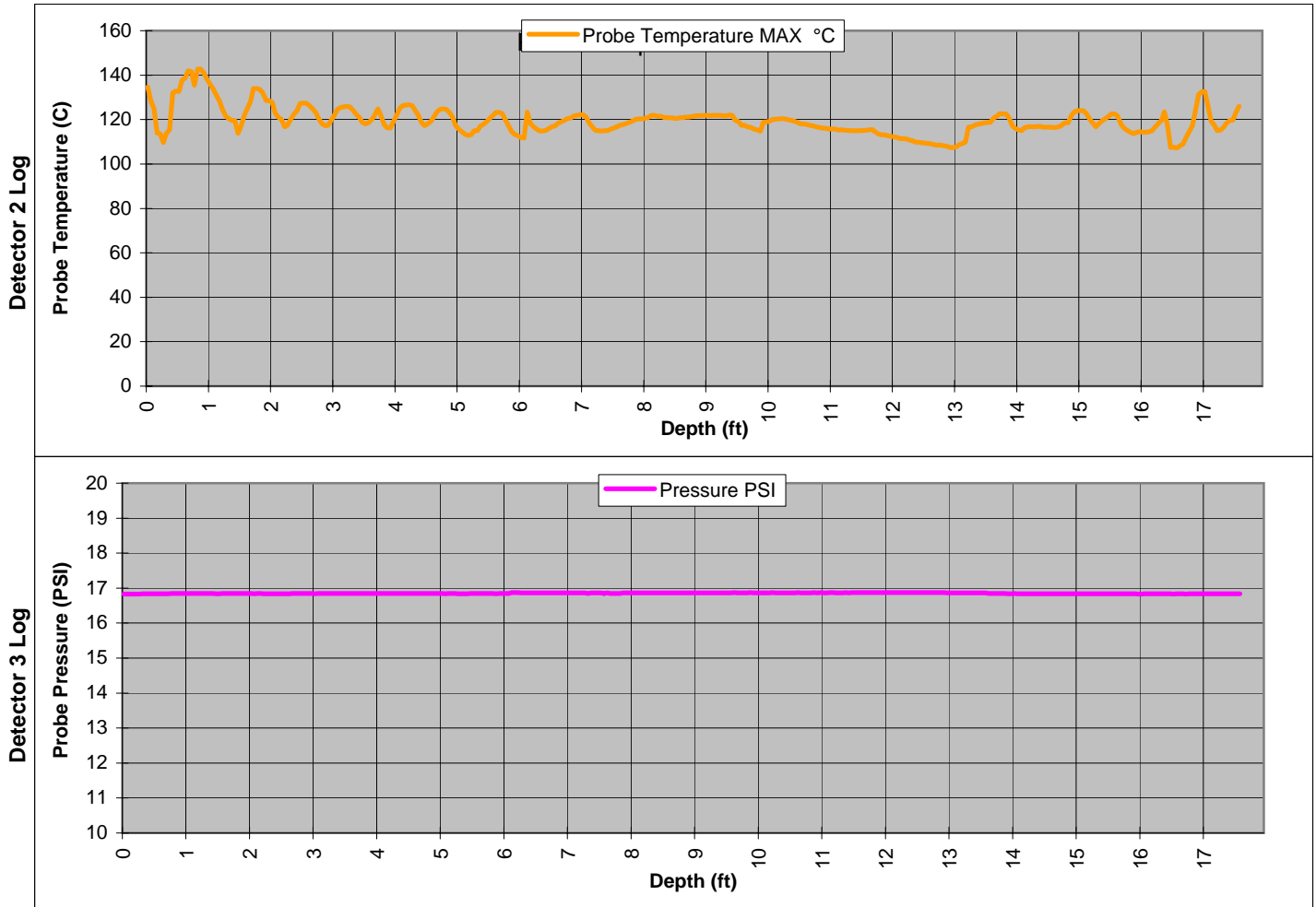
Boring I.D.: MIP-16

Graph 1 : Probe Temperature (C)

Date: Jan 23 2008

Graph 2 : Probe Pressure (PSI)

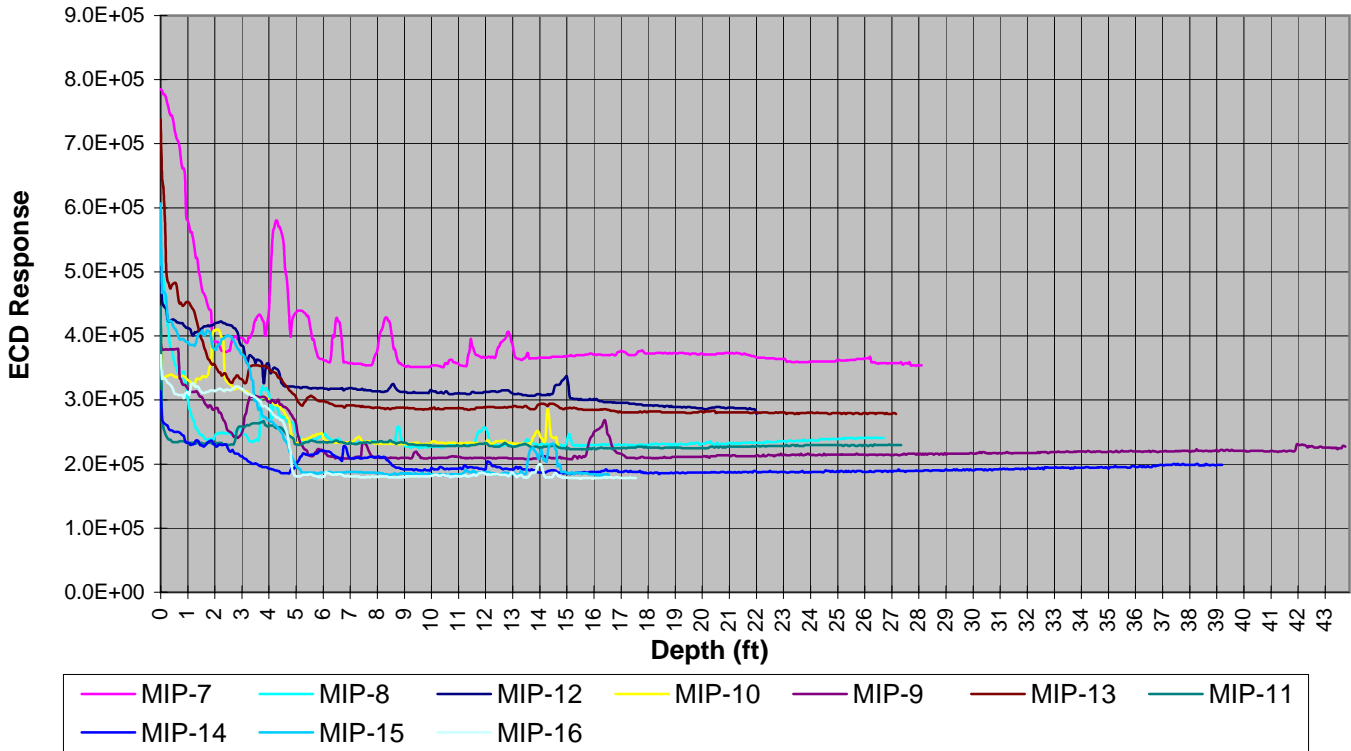
Time: 16:29



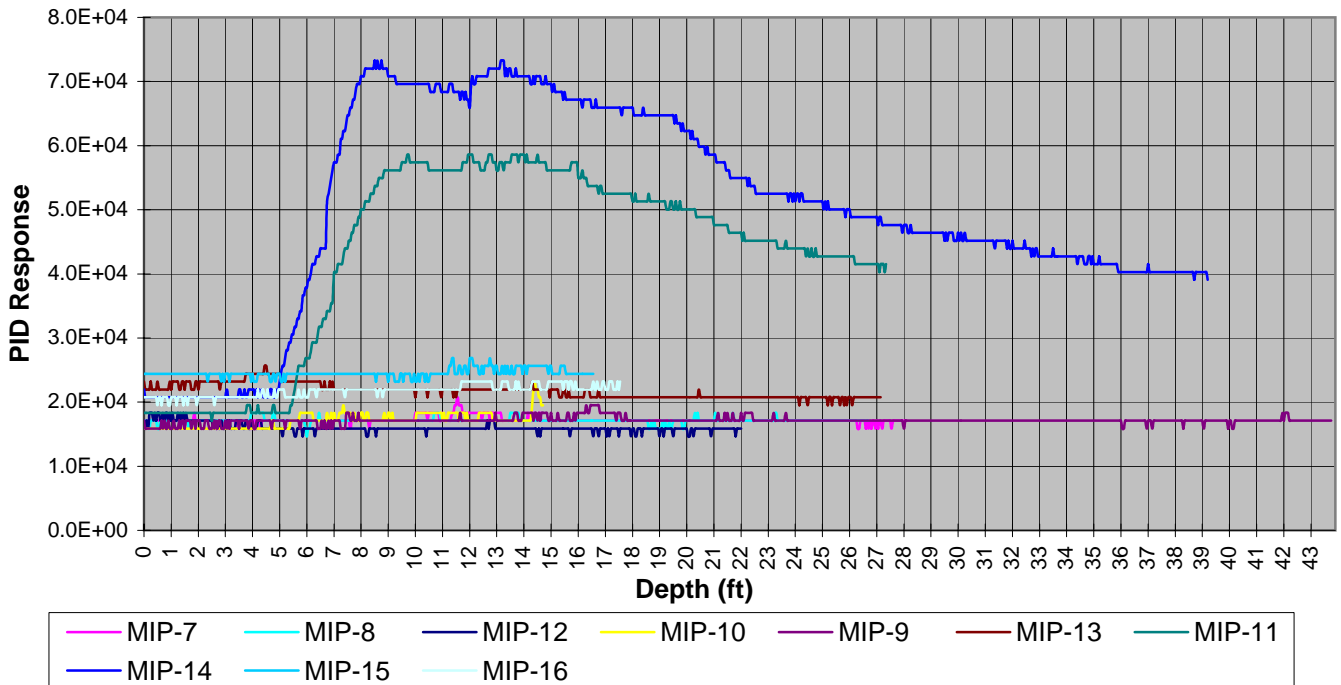
Explanation: Pre drill to 3' bgs. Hand auger to 5' bgs. No conductivity - GREGG CPT. Refusal twice for pre drill.



Maximum ECD Response Same Scale

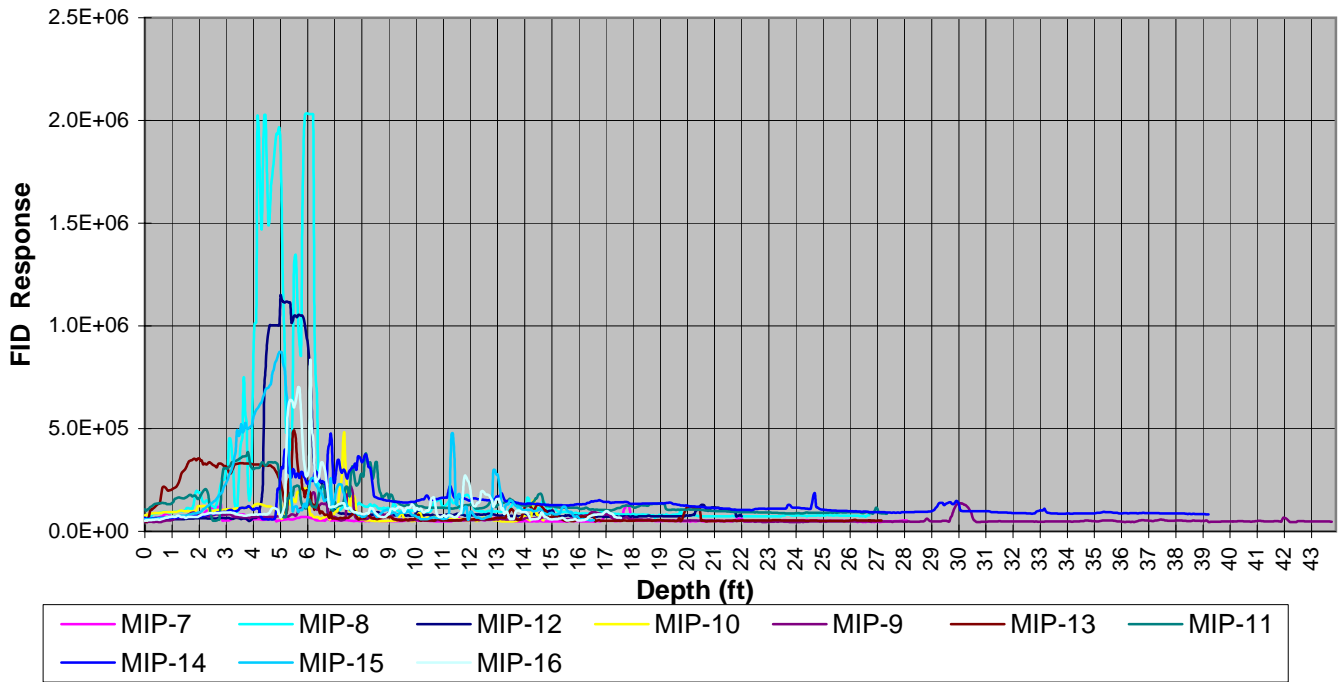


Maximum PID Response Same Scale





Maximum FID Response Same Scale



APPENDIX C

Laboratory Certified Analytical Report



Laboratory Job Number 200786
ANALYTICAL REPORT

LFR Levine Fricke
1900 Powell Street
Emeryville, CA 94608

Project : 001-09480-06
Location : Hanson Sunol
Level : II

Table with 4 columns: Sample ID, Lab ID, Sample ID, Lab ID. Contains 24 rows of data with various sample IDs and corresponding Lab IDs.

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

Signature: [Handwritten Signature]
Project Manager

Date: 02/04/2008

Signature: [Handwritten Signature]
Operations Manager

Date: 02/04/2008

CASE NARRATIVE

Laboratory number: 200786
Client: LFR Levine Fricke
Project: 001-09480-06
Location: Hanson Sunol
Request Date: 01/25/08
Samples Received: 01/25/08

This hardcopy data package contains sample and QC results for fourteen water samples and ten soil samples, requested for the above referenced project on 01/25/08. The samples were received cold and intact. All data were e-mailed to Katrin Schliewen on 02/01/08.

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

Low recoveries were observed for gasoline C7-C12 in the MS/MSD of MIP-11-SS 4.0 (lab # 200786-010), due to matrix interference; these low recoveries were confirmed by re-analysis, the LCS was within limits, and the associated RPD was within limits. MIP-14-SS 5.5 (lab # 200786-018) was diluted due to high levels of hydrocarbons. No other analytical problems were encountered.

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

No analytical problems were encountered.

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

A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

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

No analytical problems were encountered.

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

No analytical problems were encountered.

Total Volatile Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	134192
Basis:	as received	Received:	01/25/08

Field ID: MIP-11-SS 4.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-010

Analyte	Result	RL
Gasoline C7-C12	4.0 Y	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	71-132
Bromofluorobenzene (FID)	101	69-145

Field ID: MIP-12-SS 5.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-014

Analyte	Result	RL
Gasoline C7-C12	ND	0.97

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	71-132
Bromofluorobenzene (FID)	99	69-145

Field ID: MIP-13-SS 4.0 Sampled: 01/24/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-016

Analyte	Result	RL
Gasoline C7-C12	1.4 Y	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	71-132
Bromofluorobenzene (FID)	98	69-145

Field ID: MIP-14-SS 5.5 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-018

Analyte	Result	RL
Gasoline C7-C12	8.5 Y	0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	71-132
Bromofluorobenzene (FID)	111	69-145

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Volatile Hydrocarbons

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	134192
Basis:	as received	Received:	01/25/08

Field ID:	MIP-15-SS 5.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/29/08
Lab ID:	200786-021		

Analyte	Result	RL
Gasoline C7-C12	ND	0.97

Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	71-132
Bromofluorobenzene (FID)	100	69-145

Field ID:	MIP-16-SS 6.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/29/08
Lab ID:	200786-023		

Analyte	Result	RL
Gasoline C7-C12	ND	0.96

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	71-132
Bromofluorobenzene (FID)	98	69-145

Type:	BLANK	Analyzed:	01/28/08
Lab ID:	QC425756		

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	71-132
Bromofluorobenzene (FID)	94	69-145

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC425757	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134192
Units:	mg/Kg	Analyzed:	01/28/08

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	4.862	97	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	71-132
Bromofluorobenzene (FID)	98	69-145

Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8015B
Field ID:	MIP-11-SS 4.0	Diln Fac:	1.000
MSS Lab ID:	200786-010	Batch#:	134192
Matrix:	Soil	Sampled:	01/25/08
Units:	mg/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Type: MS Lab ID: QC425758

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	3.978	10.00	6.693	27 *	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	71-132
Bromofluorobenzene (FID)	98	69-145

Type: MSD Lab ID: QC425759

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.901	6.682	27 *	43-120	1	25

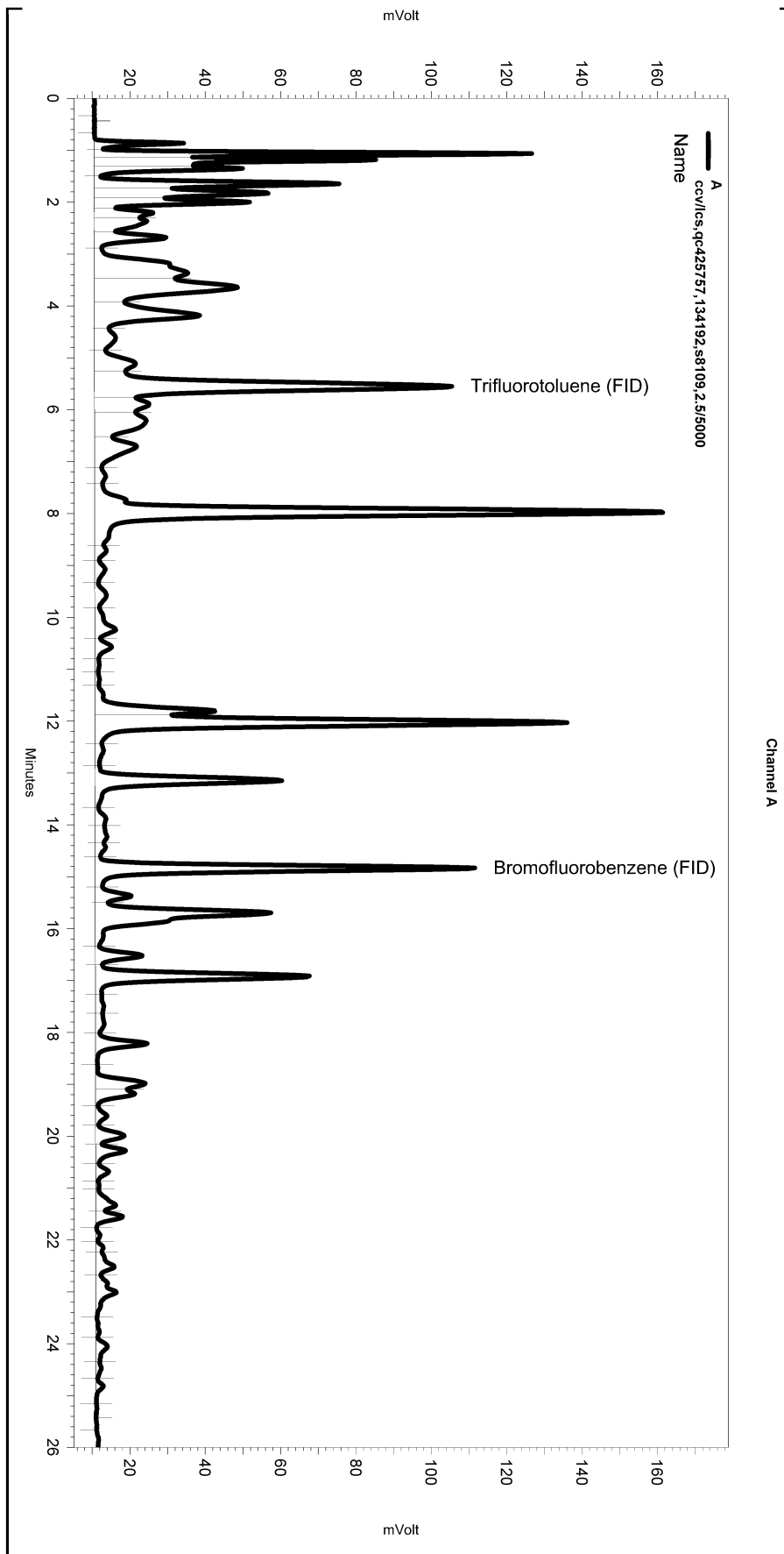
Surrogate	%REC	Limits
Trifluorotoluene (FID)	95	71-132
Bromofluorobenzene (FID)	102	69-145

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC07\Sequence\028.seq
 Sample Name: ccv/lcs,qc425757,134192,s8109,2.5/5000
 Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\028_005
 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\lvhbtxe019.met

Software Version 3.1.7
 Run Date: 1/28/2008 1:45:01 PM
 Analysis Date: 1/29/2008 7:29:54 AM
 Sample Amount: 1 Multiplier: 1
 Vial & pH or Core ID: {Data Description}



 ---< General Method Parameters >-----

No items selected for this section

 ---< A >-----

No items selected for this section

 Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

 Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\028_005

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	134158
Units:	ug/L	Received:	01/25/08
Diln Fac:	1.000	Prepared:	01/27/08

Field ID: MIP-7-GGW 16.5 Sampled: 01/24/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-002 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	87	61-133

Field ID: MIP-8-GGW 18.0 Sampled: 01/24/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-004 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	52 Y	50

Surrogate	%REC	Limits
Hexacosane	94	61-133

Field ID: MIP-9-GGW 18.5 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-006 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	110 Y	50

Surrogate	%REC	Limits
Hexacosane	93	61-133

Field ID: MIP-9-GGW 31.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-007 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	450 Y	50

Surrogate	%REC	Limits
Hexacosane	93	61-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	134158
Units:	ug/L	Received:	01/25/08
Diln Fac:	1.000	Prepared:	01/27/08

Field ID: MIP-10-GGW 18.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-009 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	93	61-133

Field ID: MIP-11-GGW 16.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-011 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	100	61-133

Field ID: MIP-11-GGW 20.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-012 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	270 Y	50
Surrogate	%REC	Limits
Hexacosane	93	61-133

Field ID: MIP-11-GGW 25.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/29/08
 Lab ID: 200786-013 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	120 Y	50
Surrogate	%REC	Limits
Hexacosane	94	61-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	134158
Units:	ug/L	Received:	01/25/08
Diln Fac:	1.000	Prepared:	01/27/08

Field ID: MIP-12-GGW 16.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-015 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	97	61-133

Field ID: MIP-13-GGW 16.5 Sampled: 01/24/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-017 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	90	61-133

Field ID: MIP-14-GGW 18.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-019 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	60 Y	50
Surrogate	%REC	Limits
Hexacosane	94	61-133

Field ID: MIP-14-GGW 41.0 Sampled: 01/25/08
 Type: SAMPLE Analyzed: 01/28/08
 Lab ID: 200786-020 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	97 Y	50
Surrogate	%REC	Limits
Hexacosane	93	61-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	134158
Units:	ug/L	Received:	01/25/08
Diln Fac:	1.000	Prepared:	01/27/08

Field ID:	MIP-15-GGW 17.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-022	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	93	61-133

Field ID:	MIP-16GGW 17.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-024	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	100	61-133

Type:	BLANK	Analyzed:	01/28/08
Lab ID:	QC425638	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Surrogate	%REC	Limits
Hexacosane	96	61-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	134158
Units:	ug/L	Prepared:	01/27/08
Diln Fac:	1.000	Analyzed:	01/28/08

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC425639

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,138	86	58-128

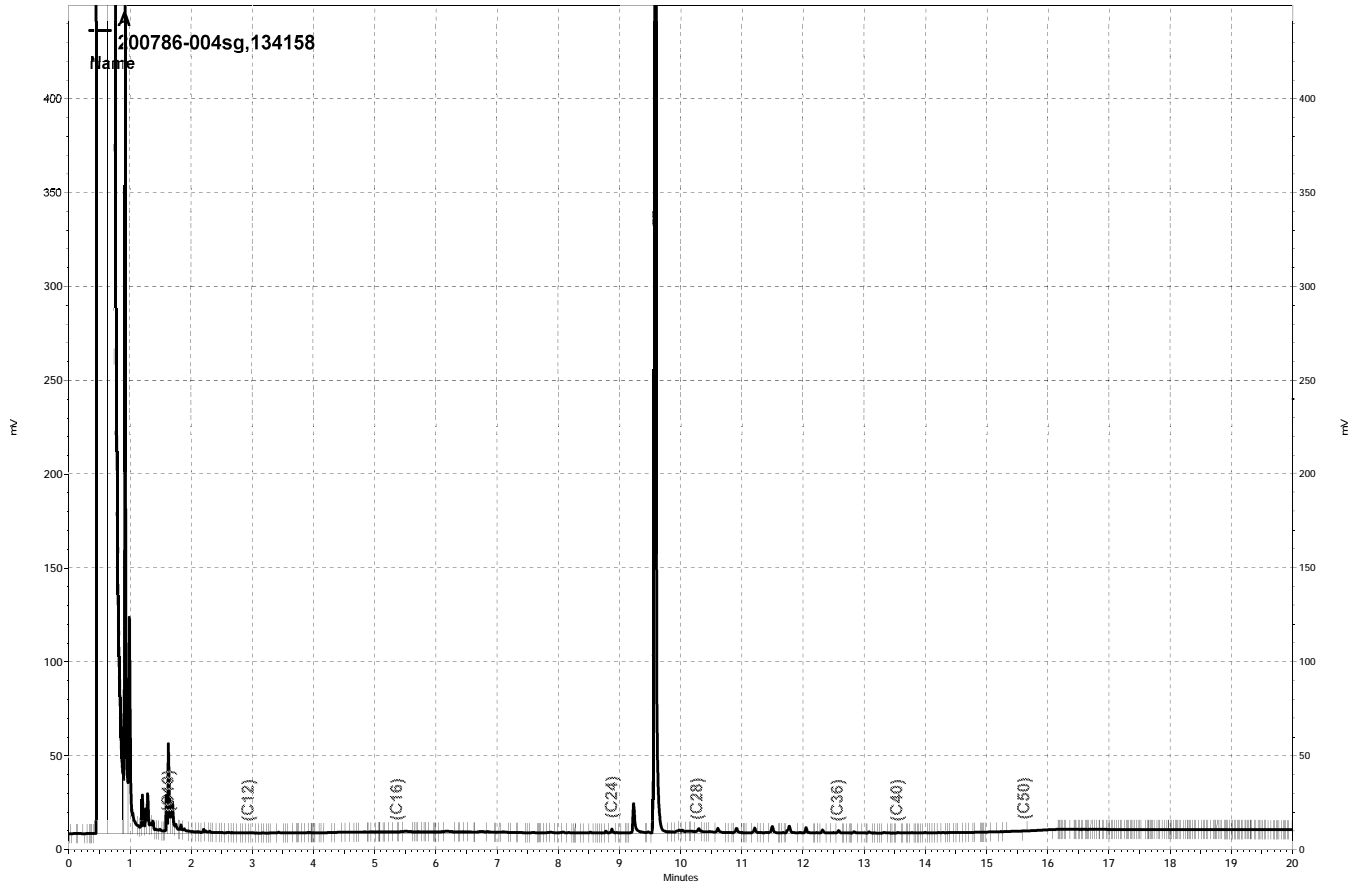
Surrogate	%REC	Limits
Hexacosane	92	61-133

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC425640

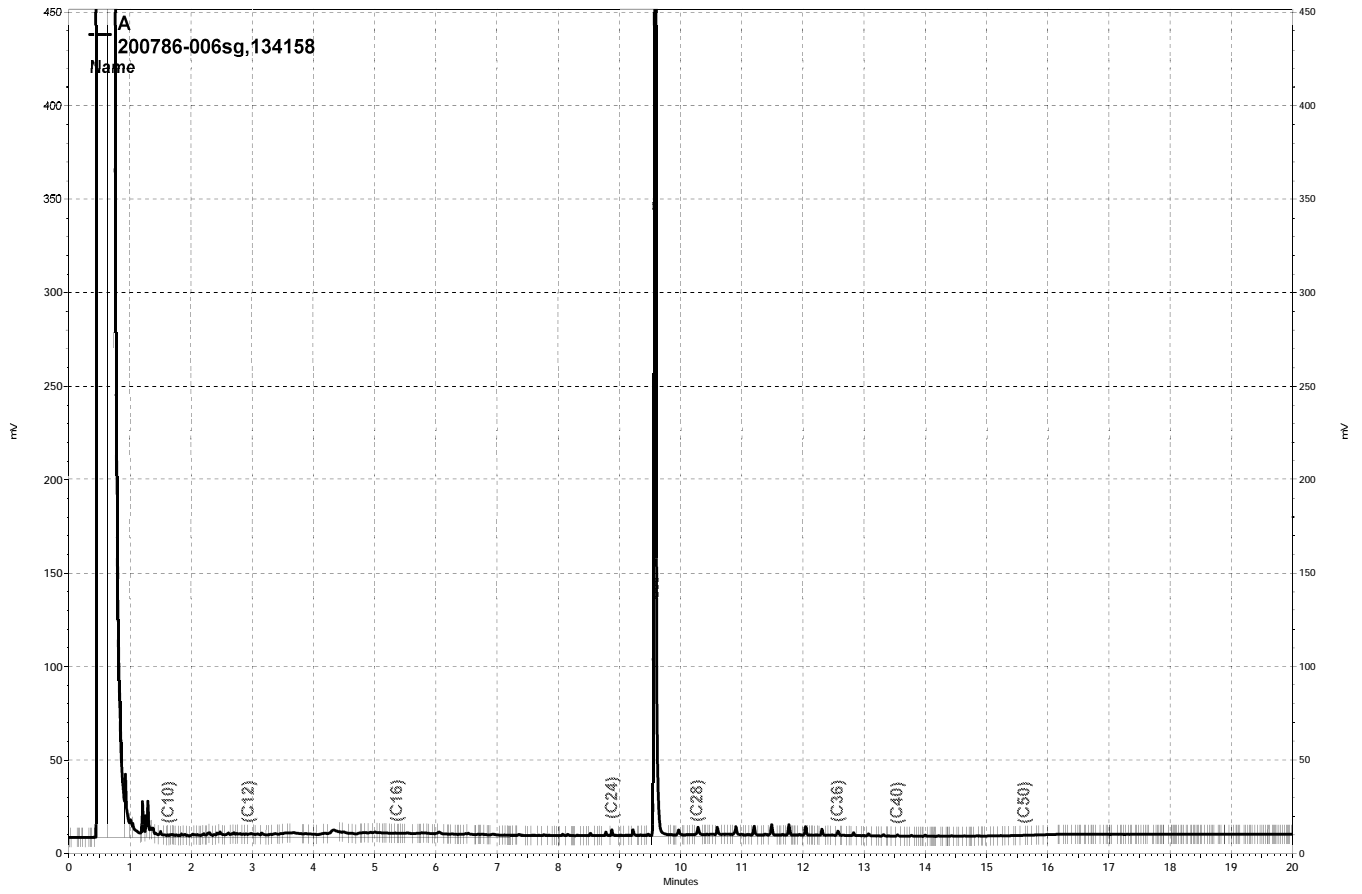
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,310	92	58-128	8	29

Surrogate	%REC	Limits
Hexacosane	98	61-133

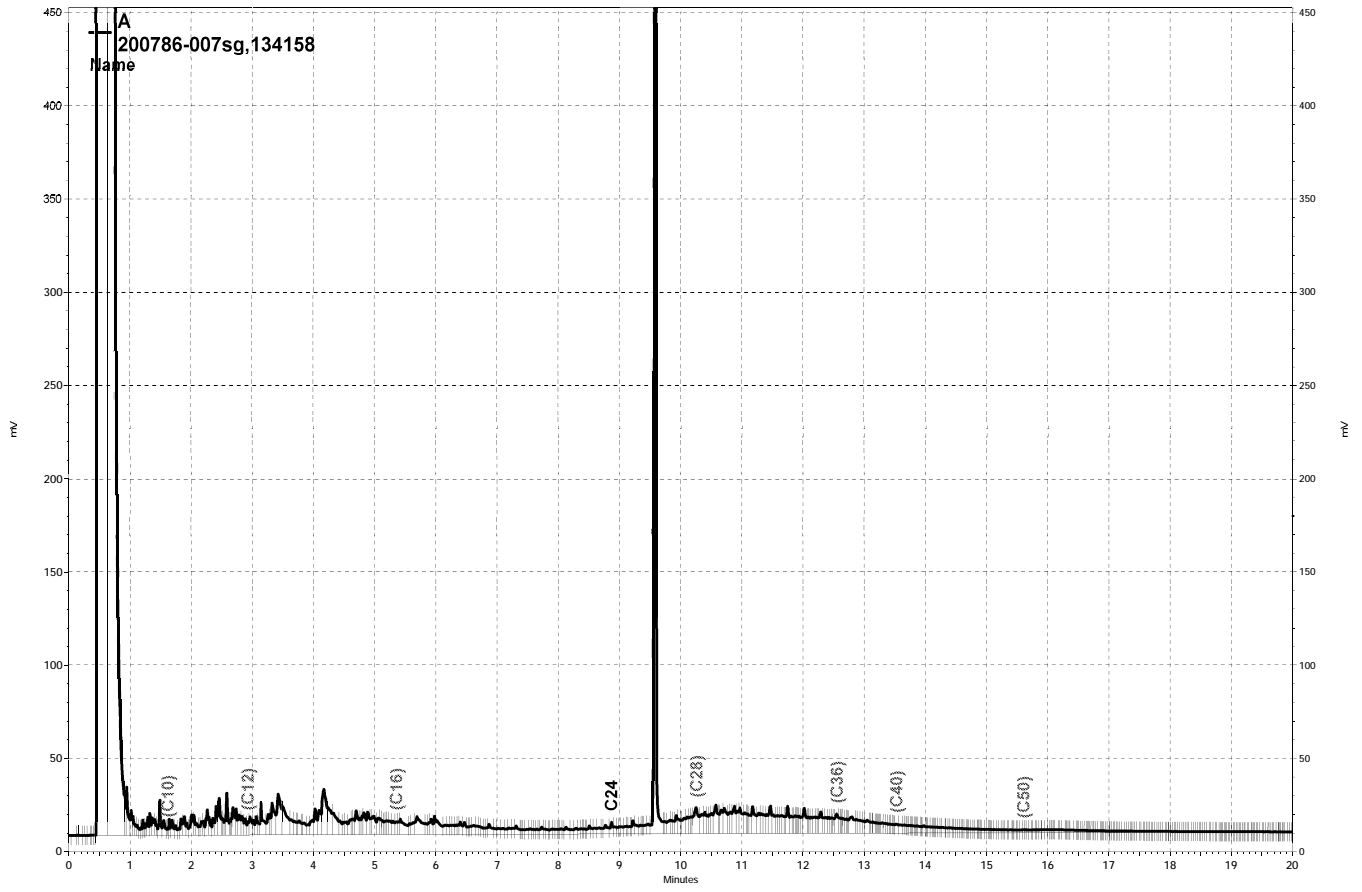
RPD= Relative Percent Difference



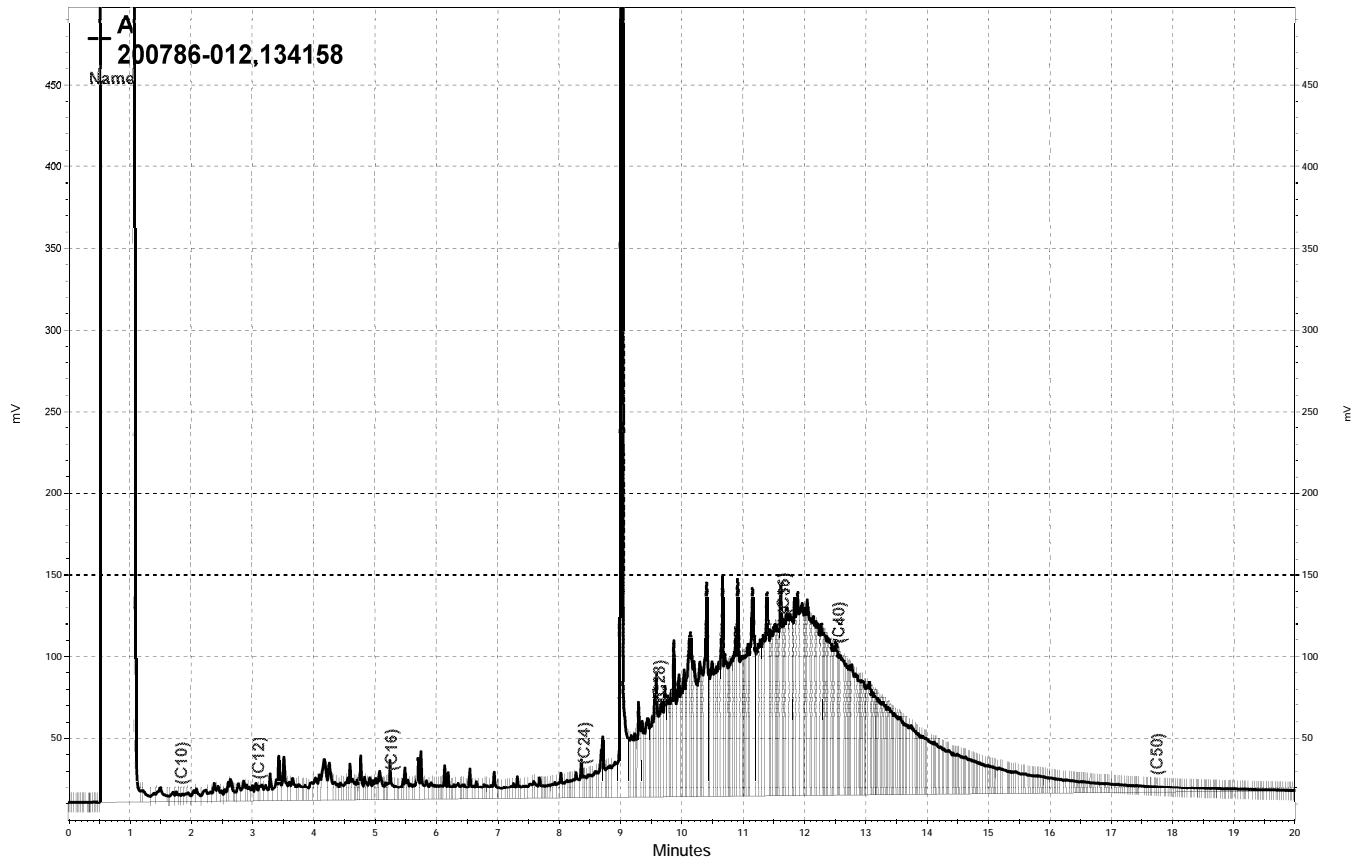
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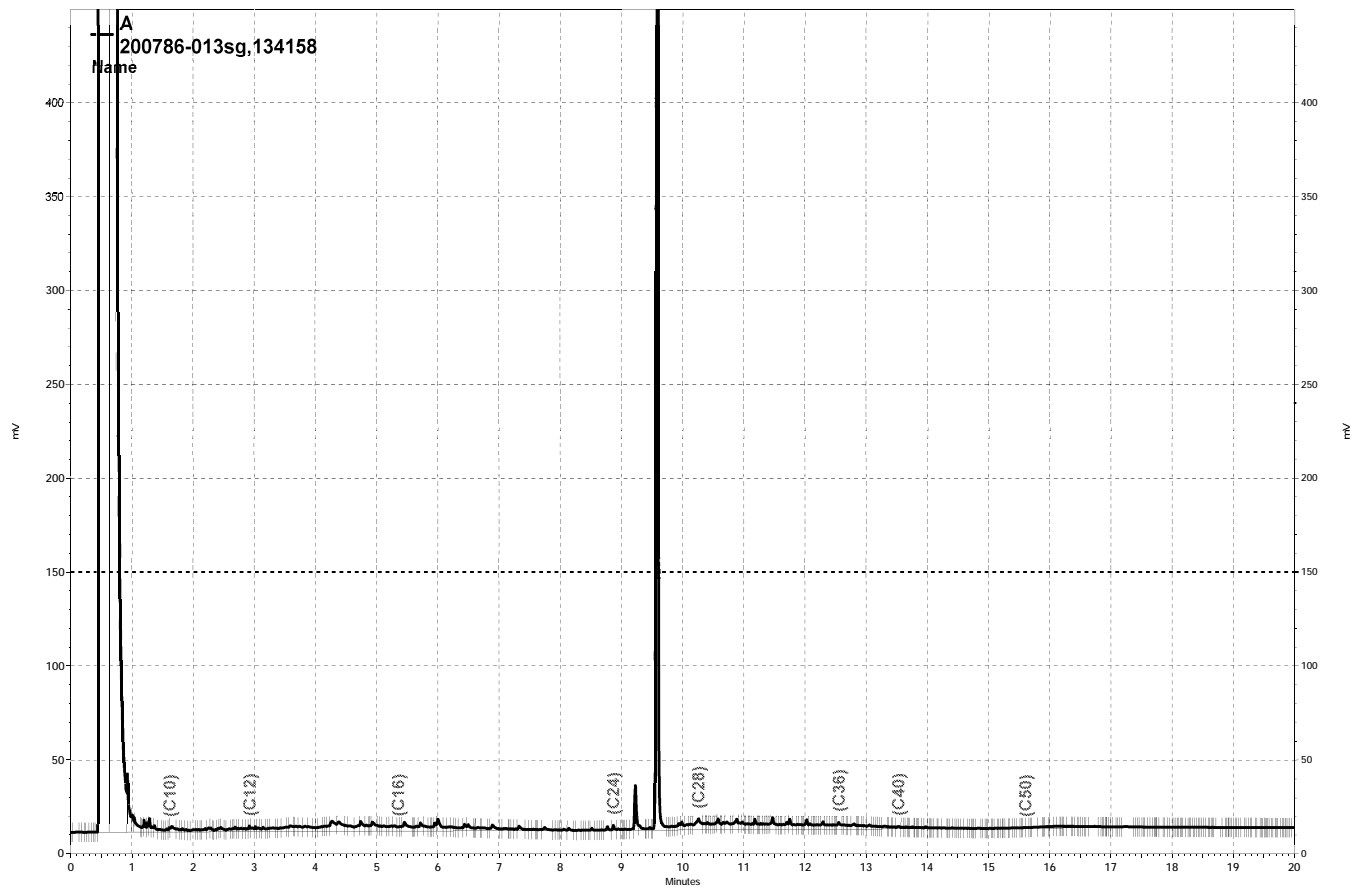
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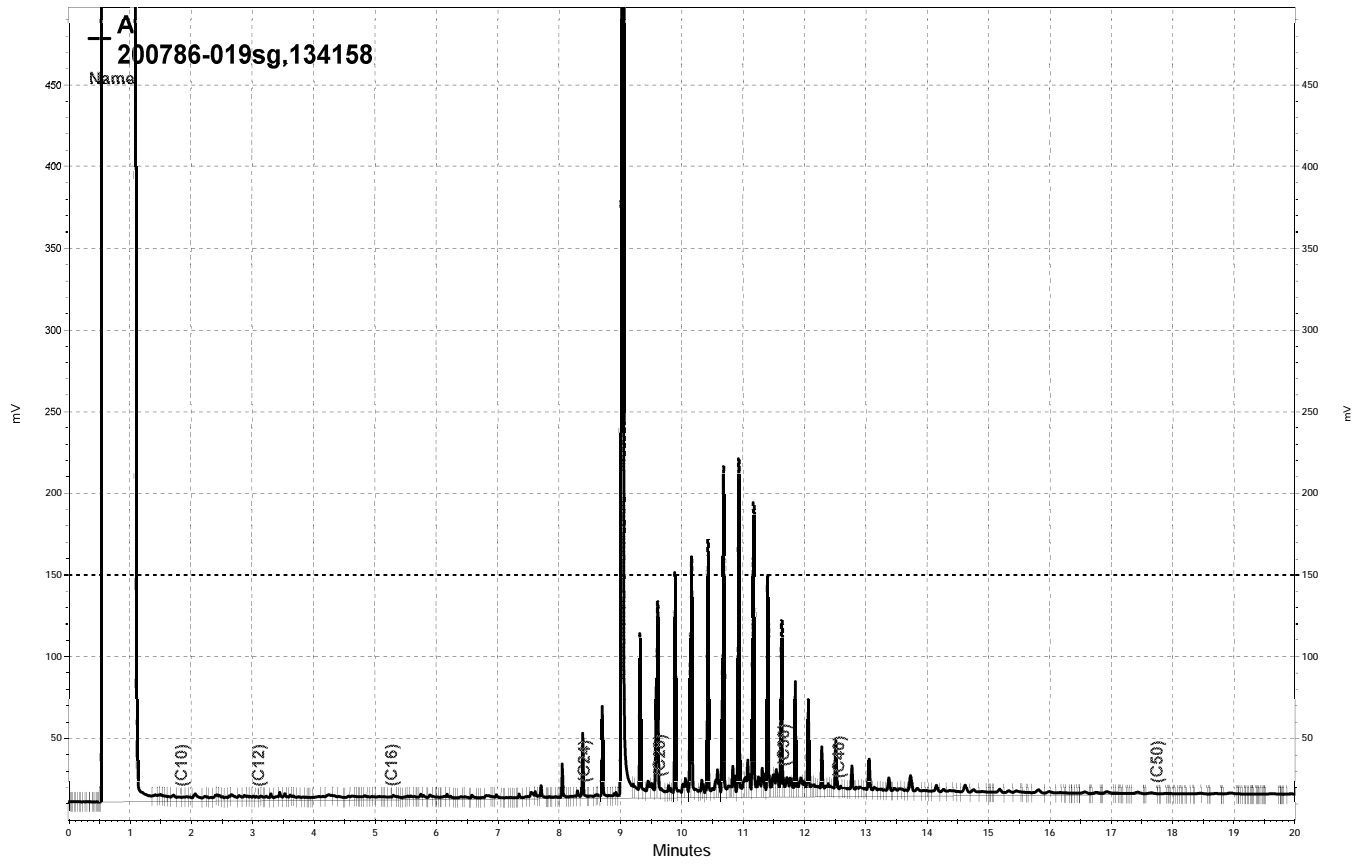
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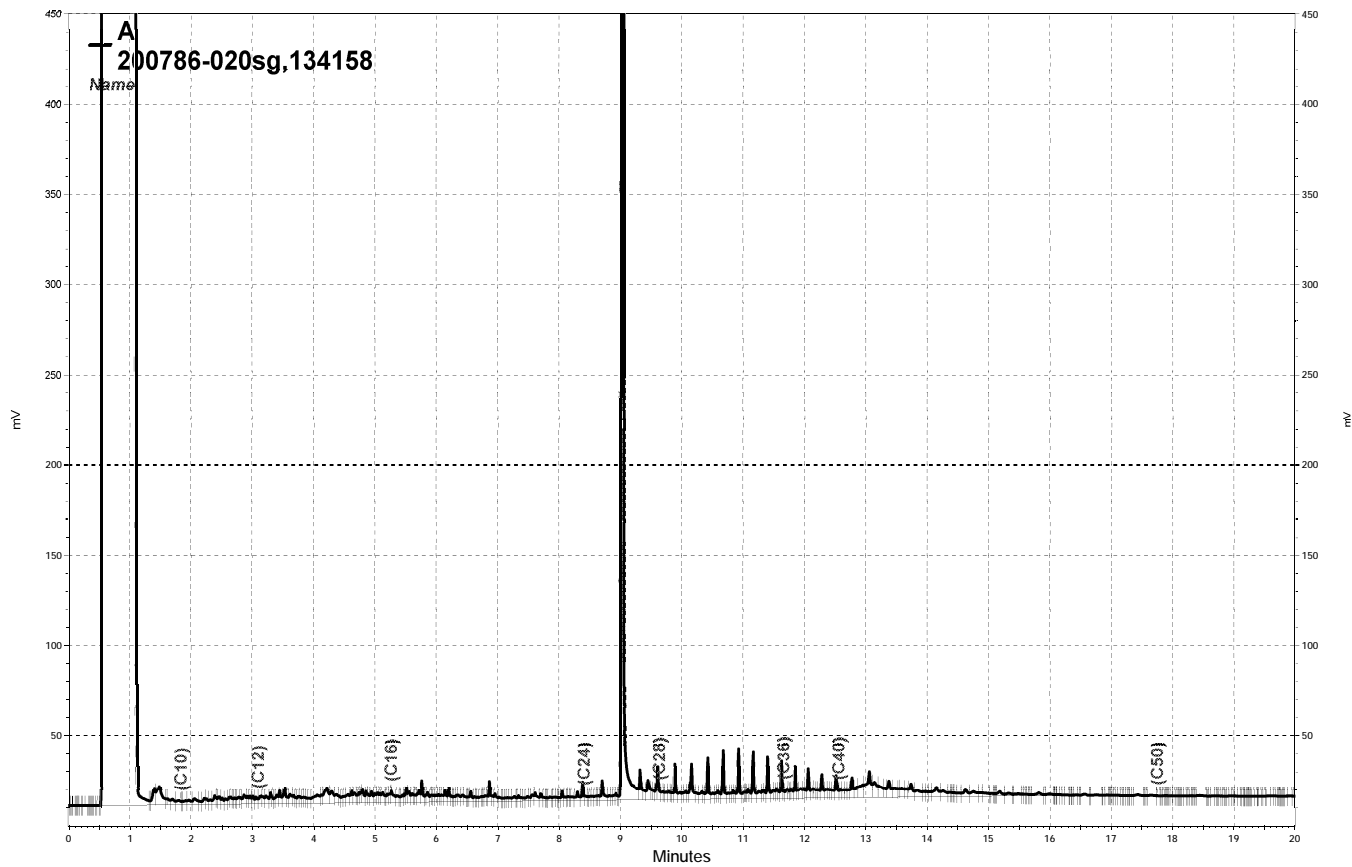
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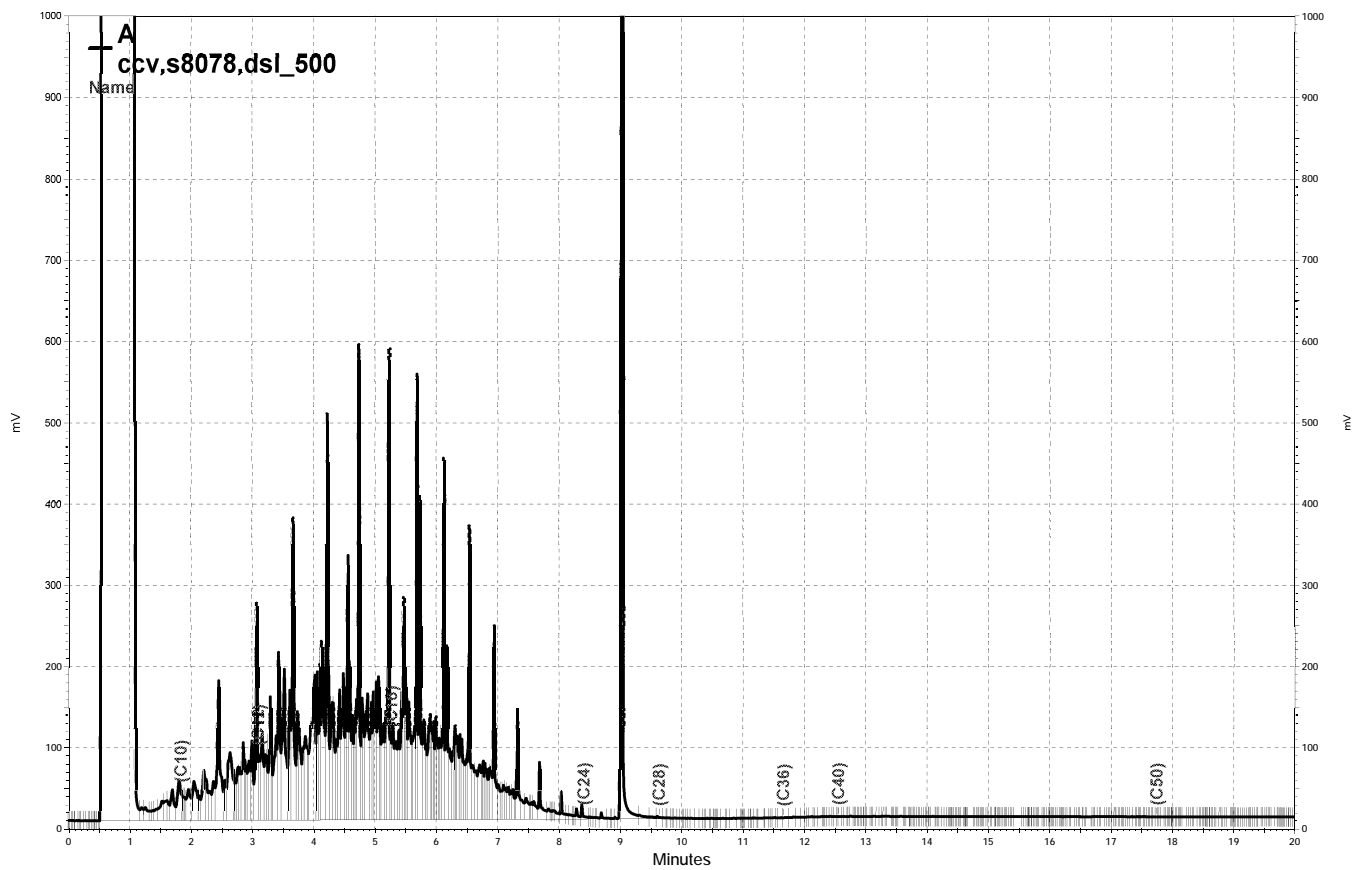
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— \\Lims\gdrive\ezchrom\Projects\GC17A\Data\028a017, A

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	134145
Units:	mg/Kg	Received:	01/25/08
Basis:	as received	Prepared:	01/27/08

Field ID:	MIP-7-SS 3.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-001	Cleanup Method:	EPA 3630C
Diln Fac:	20.00		

Analyte	Result	RL
Diesel C10-C24	53 Y	20

Surrogate	%REC	Limits
Hexacosane	DO	46-128

Field ID:	MIP-8-SS 5.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-003	Cleanup Method:	EPA 3630C
Diln Fac:	5.000		

Analyte	Result	RL
Diesel C10-C24	250	5.0

Surrogate	%REC	Limits
Hexacosane	80	46-128

Field ID:	MIP-9-SS 3.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-005	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	210	1.0

Surrogate	%REC	Limits
Hexacosane	59	46-128

Field ID:	MIP-10-SS 6.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-008	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	69	46-128

Y= Sample exhibits chromatographic pattern which does not resemble standard
 DO= Diluted Out
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	134145
Units:	mg/Kg	Received:	01/25/08
Basis:	as received	Prepared:	01/27/08

Field ID:	MIP-11-SS 4.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/29/08
Lab ID:	200786-010	Cleanup Method:	EPA 3630C
Diln Fac:	20.00		

Analyte	Result	RL
Diesel C10-C24	150 Y	20

Surrogate	%REC	Limits
Hexacosane	DO	46-128

Field ID:	MIP-12-SS 5.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-014	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	8.3 Y	1.0

Surrogate	%REC	Limits
Hexacosane	67	46-128

Field ID:	MIP-13-SS 4.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-016	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	61	1.0

Surrogate	%REC	Limits
Hexacosane	78	46-128

Field ID:	MIP-14-SS 5.5	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/29/08
Lab ID:	200786-018	Cleanup Method:	EPA 3630C
Diln Fac:	10.00		

Analyte	Result	RL
Diesel C10-C24	1,300	10

Surrogate	%REC	Limits
Hexacosane	DO	46-128

Y= Sample exhibits chromatographic pattern which does not resemble standard
 DO= Diluted Out
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE
Project#:	001-09480-06	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	134145
Units:	mg/Kg	Received:	01/25/08
Basis:	as received	Prepared:	01/27/08

Field ID:	MIP-15-SS 5.0	Sampled:	01/25/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-021	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	1.5 Y	1.0

Surrogate	%REC	Limits
Hexacosane	49	46-128

Field ID:	MIP-16-SS 6.0	Sampled:	01/24/08
Type:	SAMPLE	Analyzed:	01/28/08
Lab ID:	200786-023	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	3.1 Y	1.0

Surrogate	%REC	Limits
Hexacosane	56	46-128

Type:	BLANK	Analyzed:	01/28/08
Lab ID:	QC425601	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	0.99

Surrogate	%REC	Limits
Hexacosane	73	46-128

Y= Sample exhibits chromatographic pattern which does not resemble standard
 DO= Diluted Out
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE
Project#:	001-09480-06	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC425602	Batch#:	134145
Matrix:	Soil	Prepared:	01/27/08
Units:	mg/Kg	Analyzed:	01/28/08
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.93	30.09	60	55-131

Surrogate	%REC	Limits
Hexacosane	69	46-128

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE
Project#:	001-09480-06	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	134145
MSS Lab ID:	200765-006	Sampled:	01/25/08
Matrix:	Soil	Received:	01/25/08
Units:	mg/Kg	Prepared:	01/27/08
Basis:	as received	Analyzed:	01/28/08
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC425603

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<0.1289	50.43	35.08	70	31-150

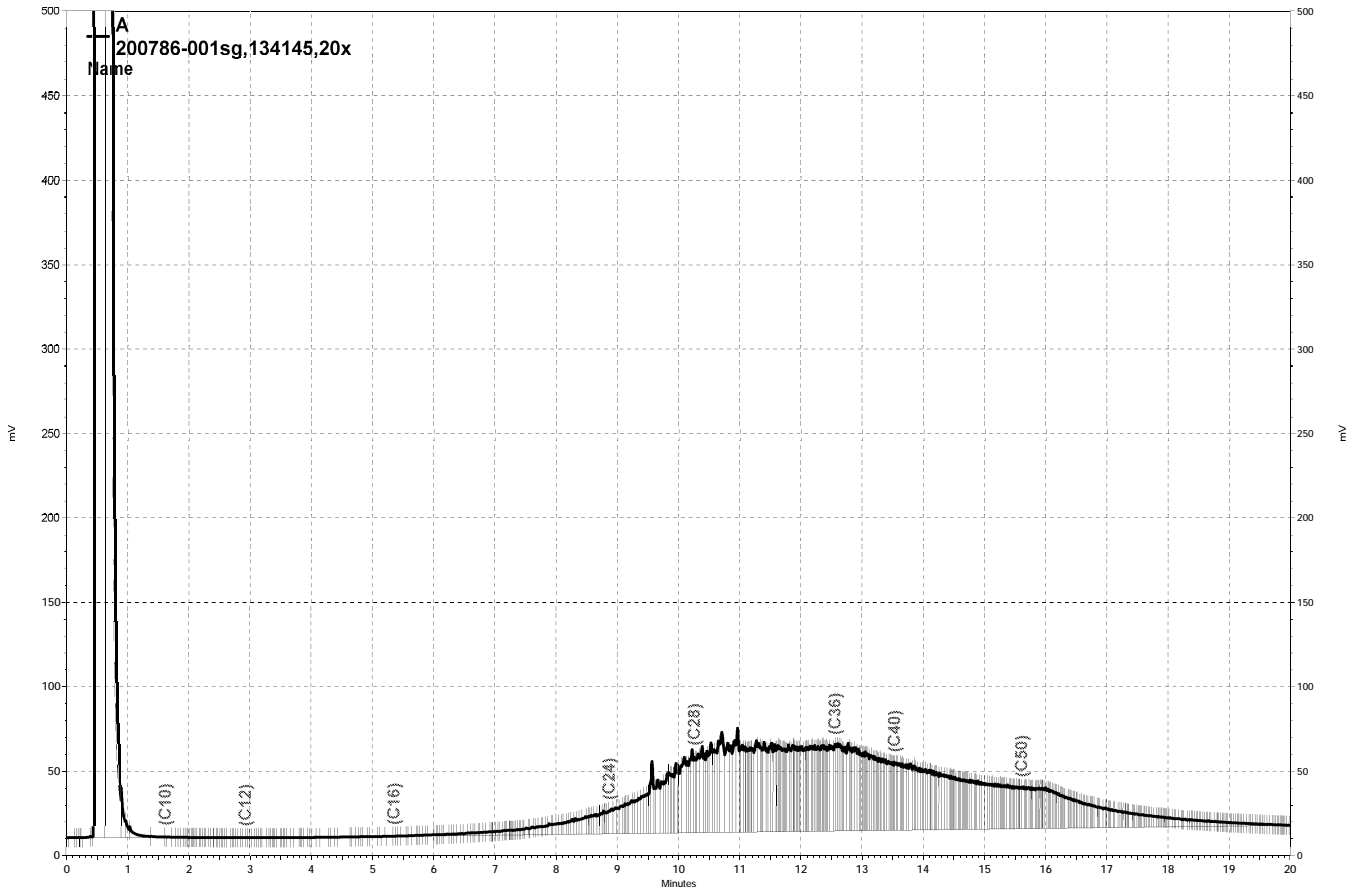
Surrogate	%REC	Limits
Hexacosane	75	46-128

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC425604

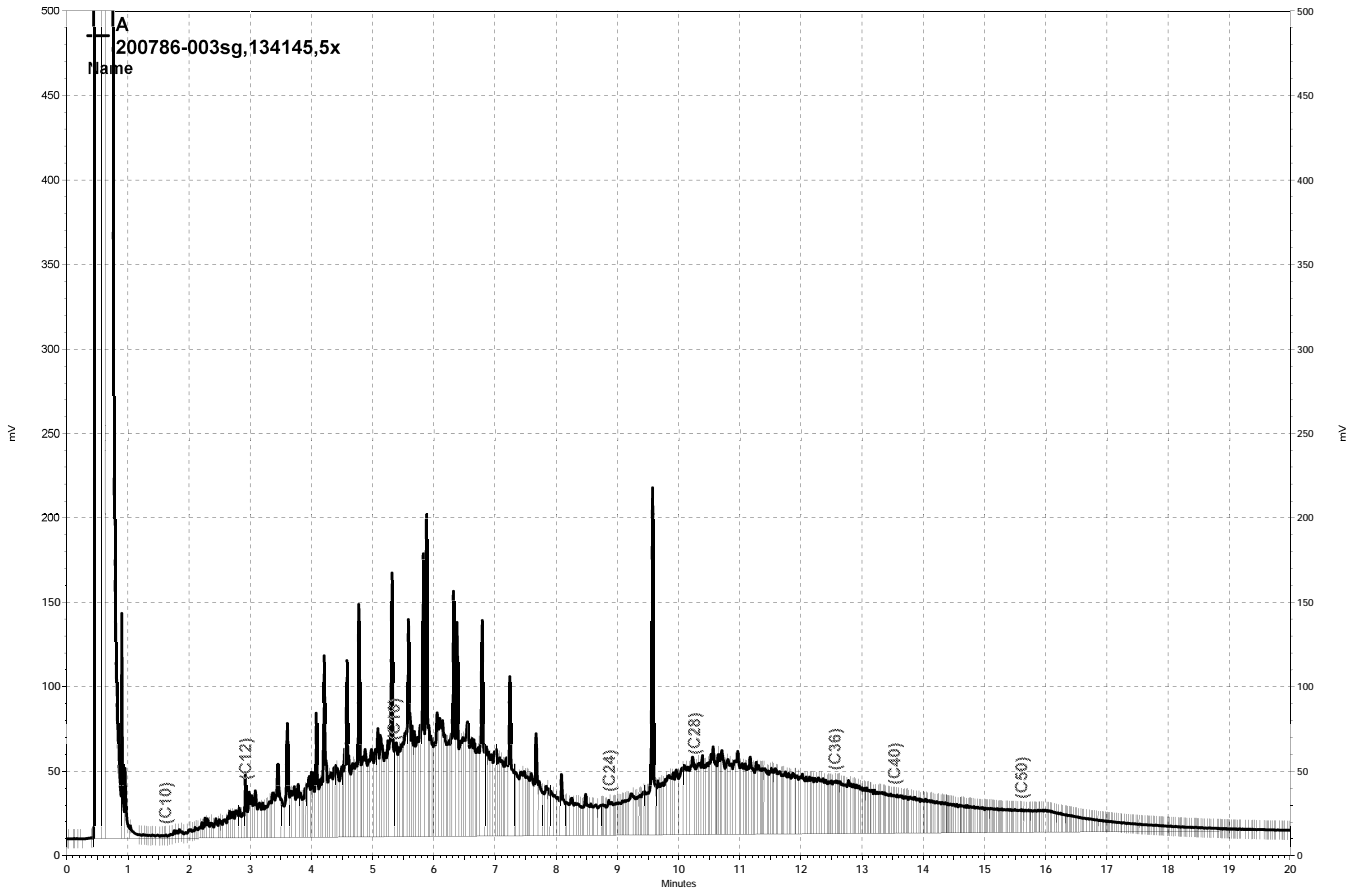
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.75	47.68	96	31-150	32	42

Surrogate	%REC	Limits
Hexacosane	102	46-128

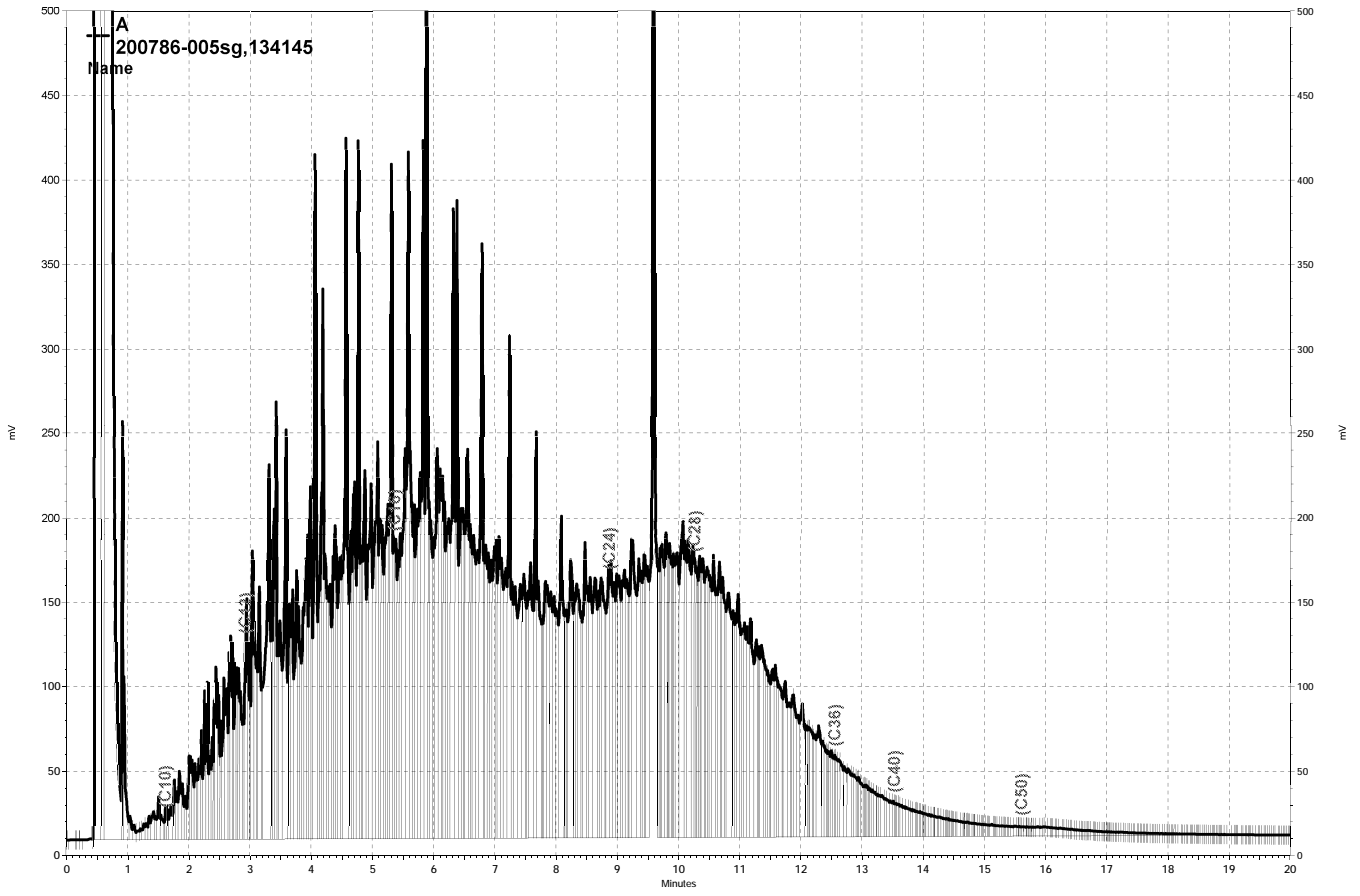
RPD= Relative Percent Difference



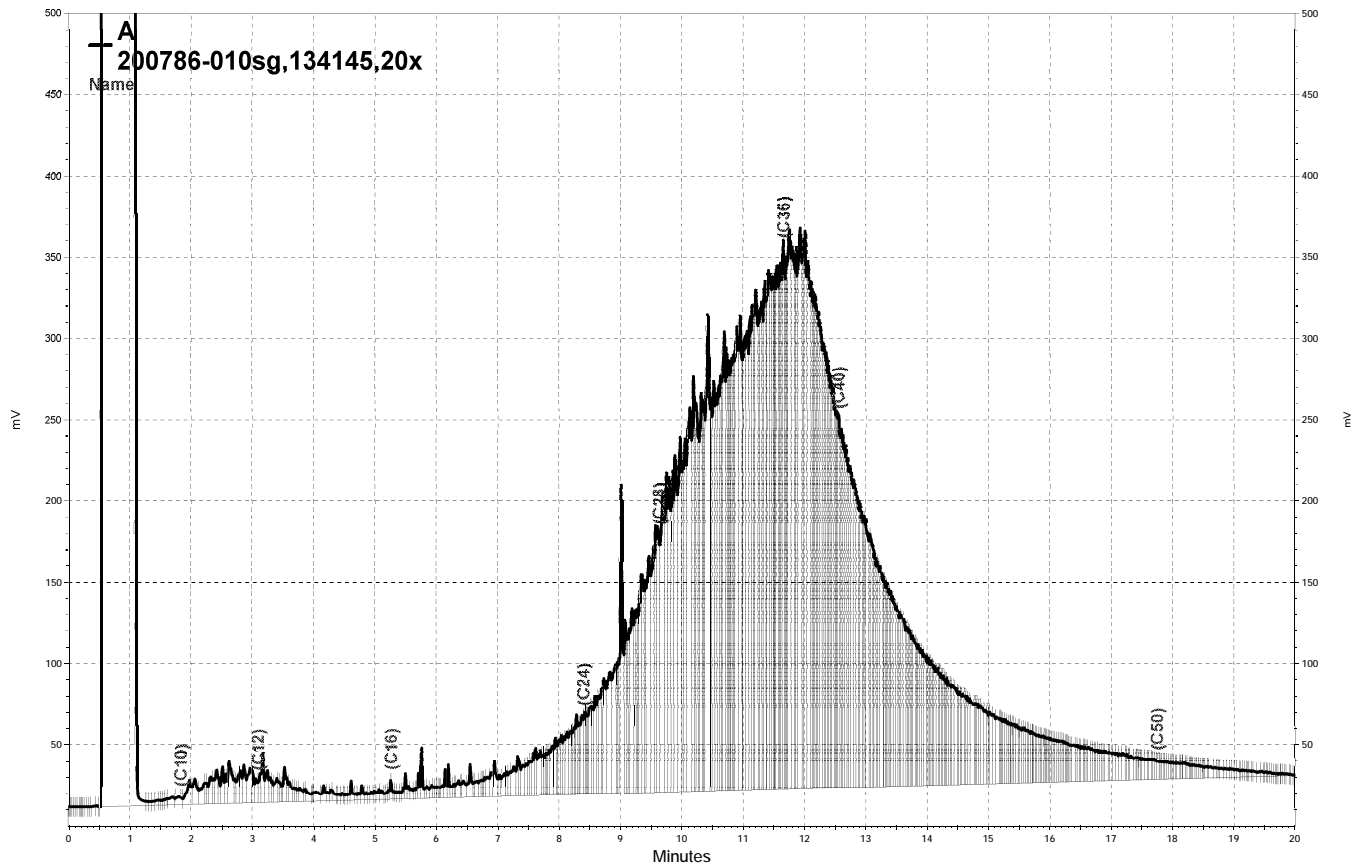
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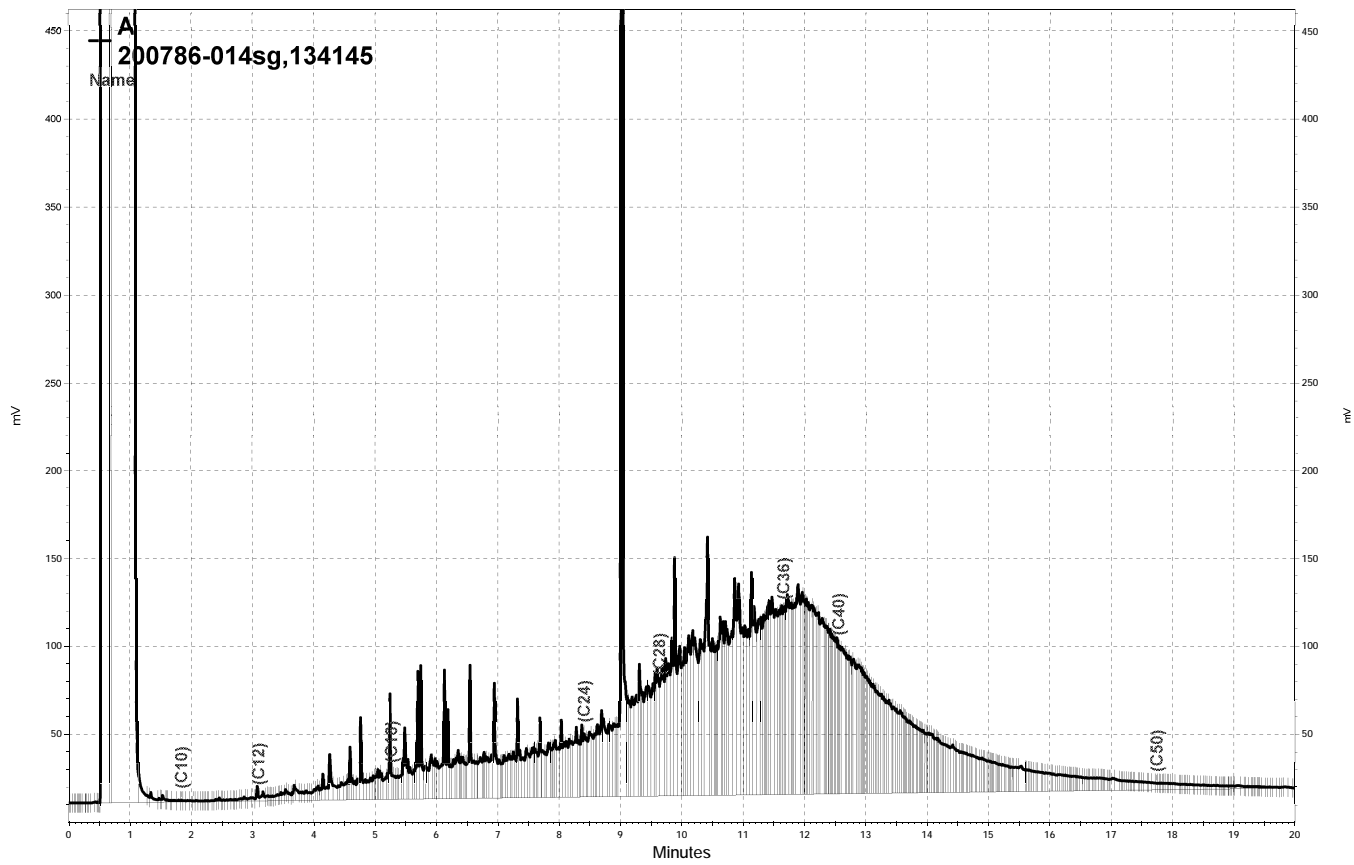
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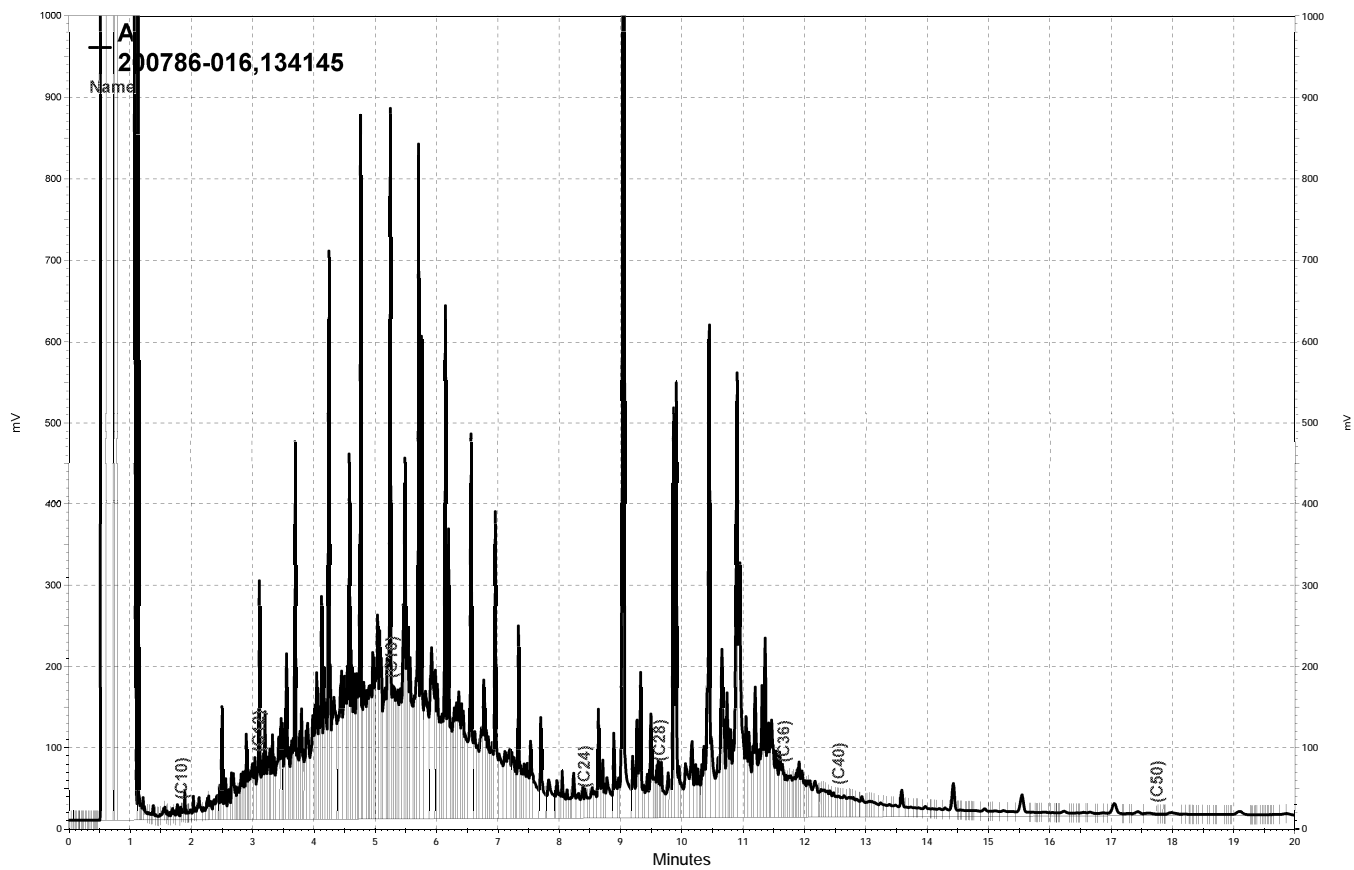
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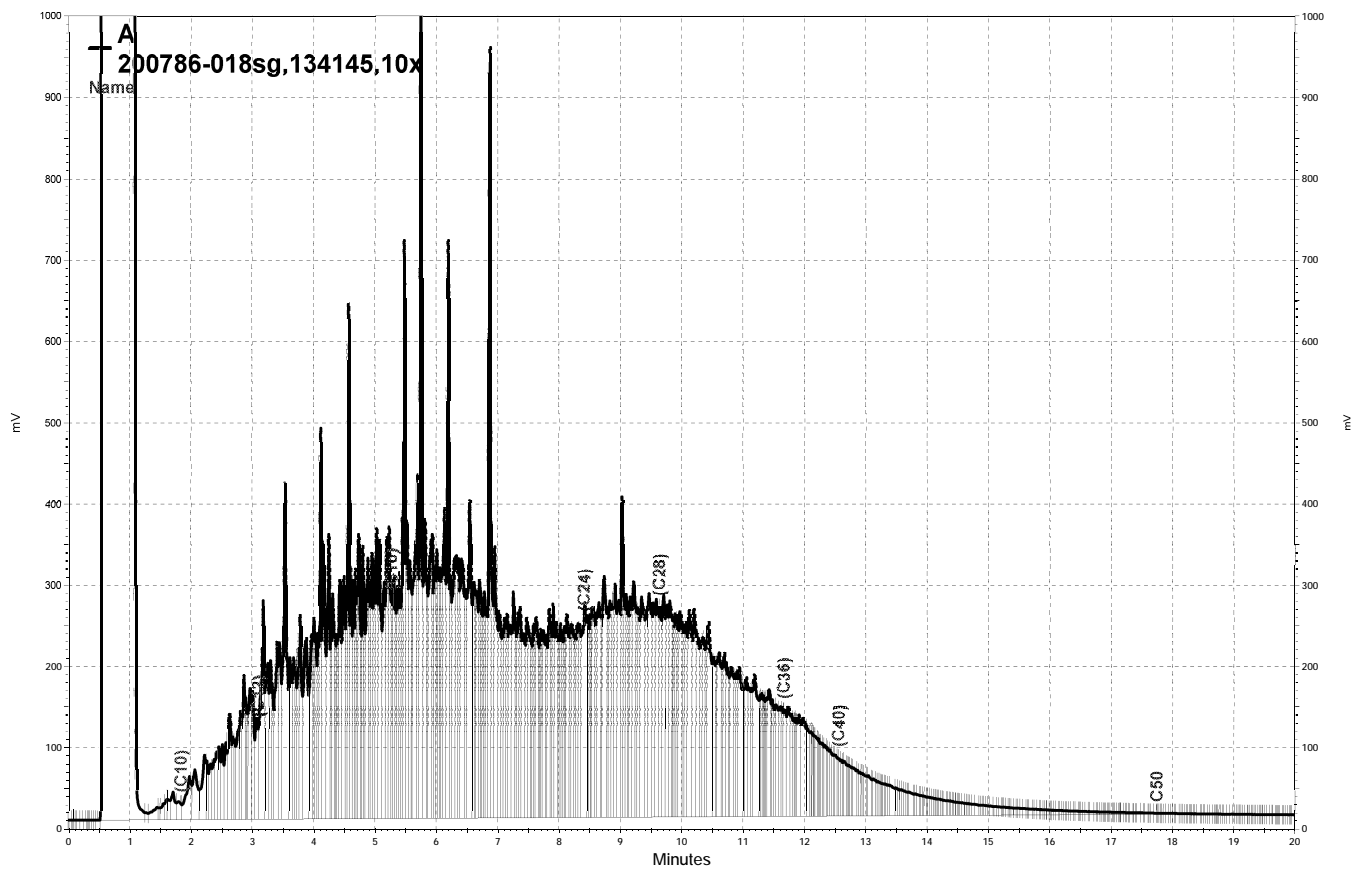
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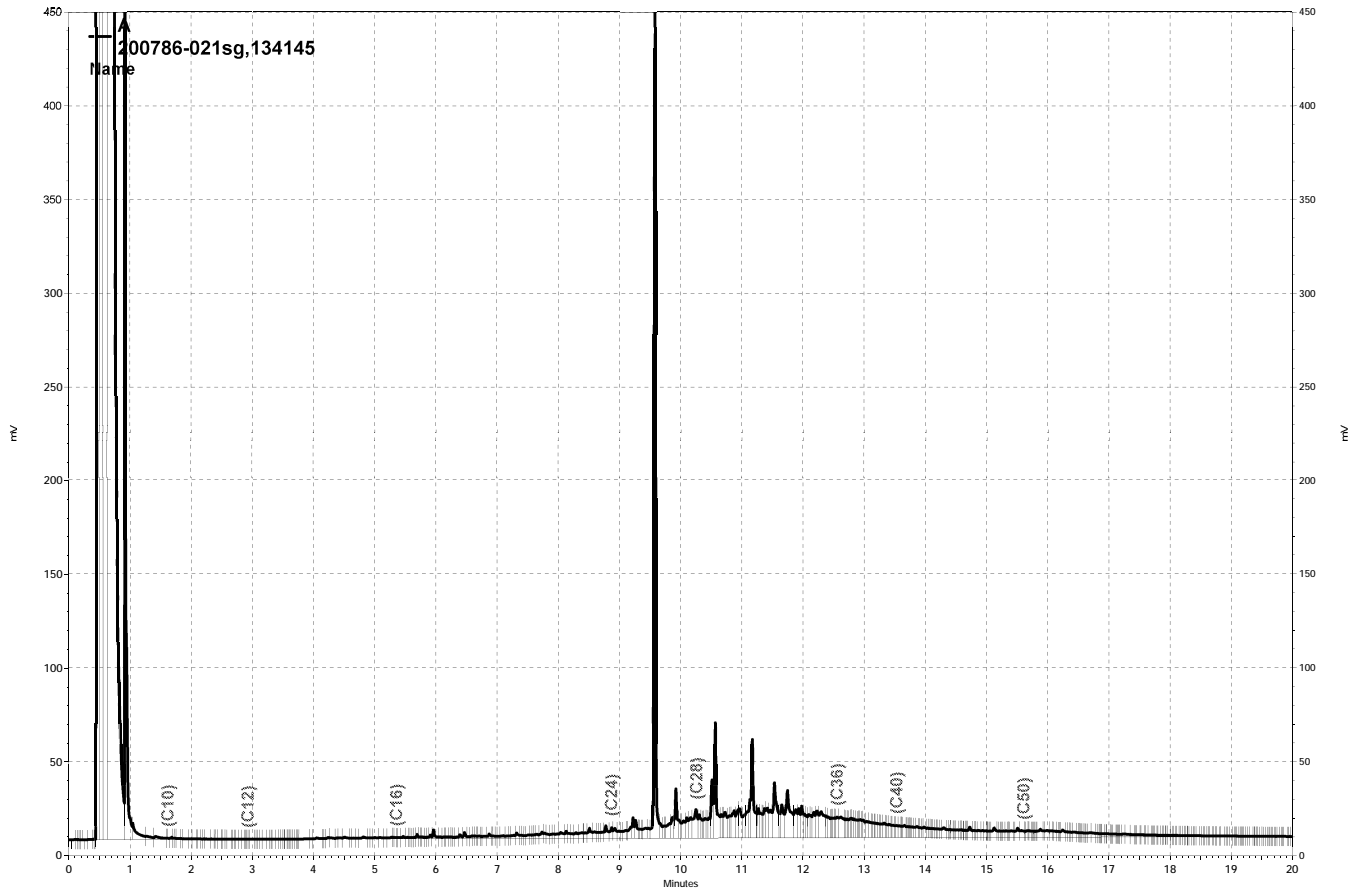
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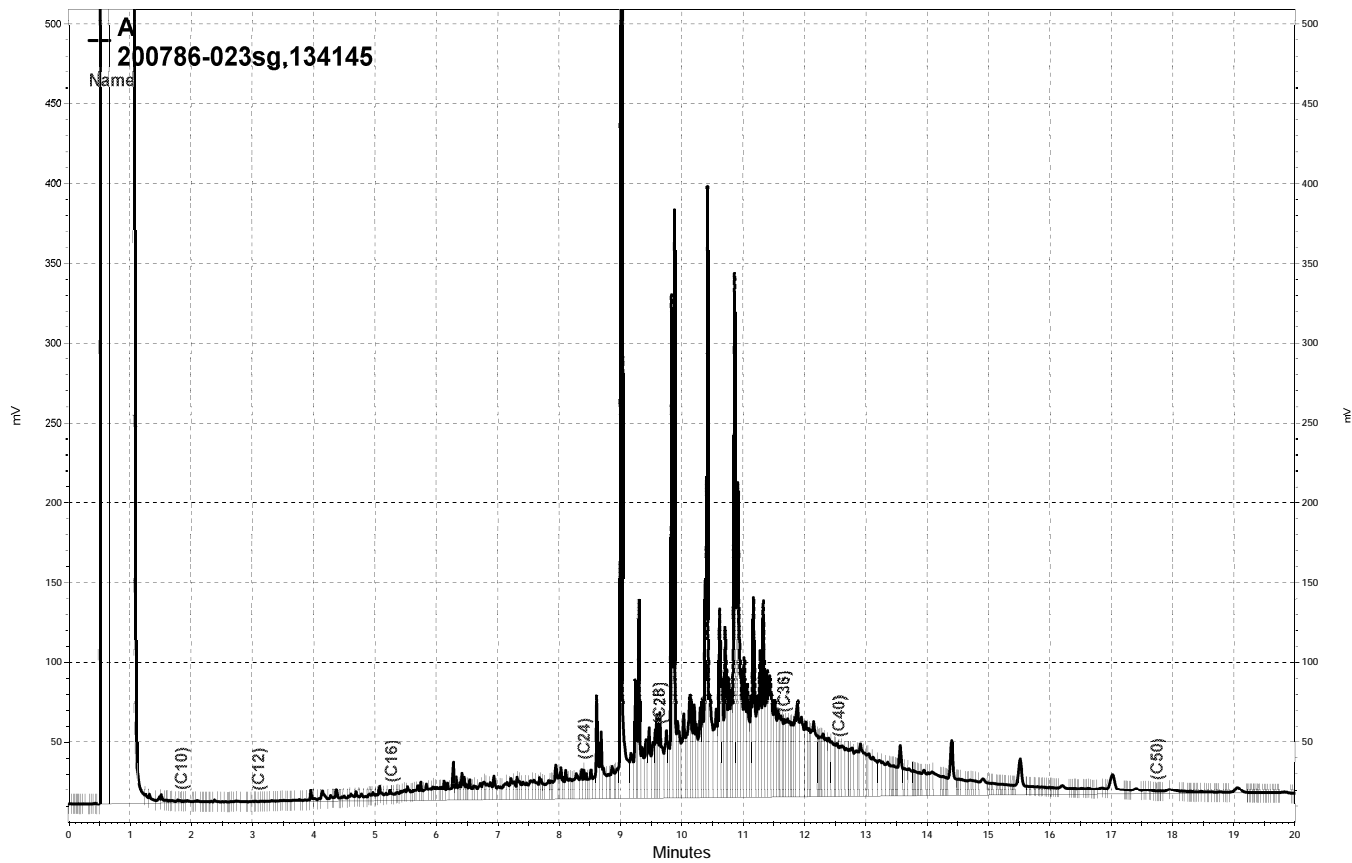
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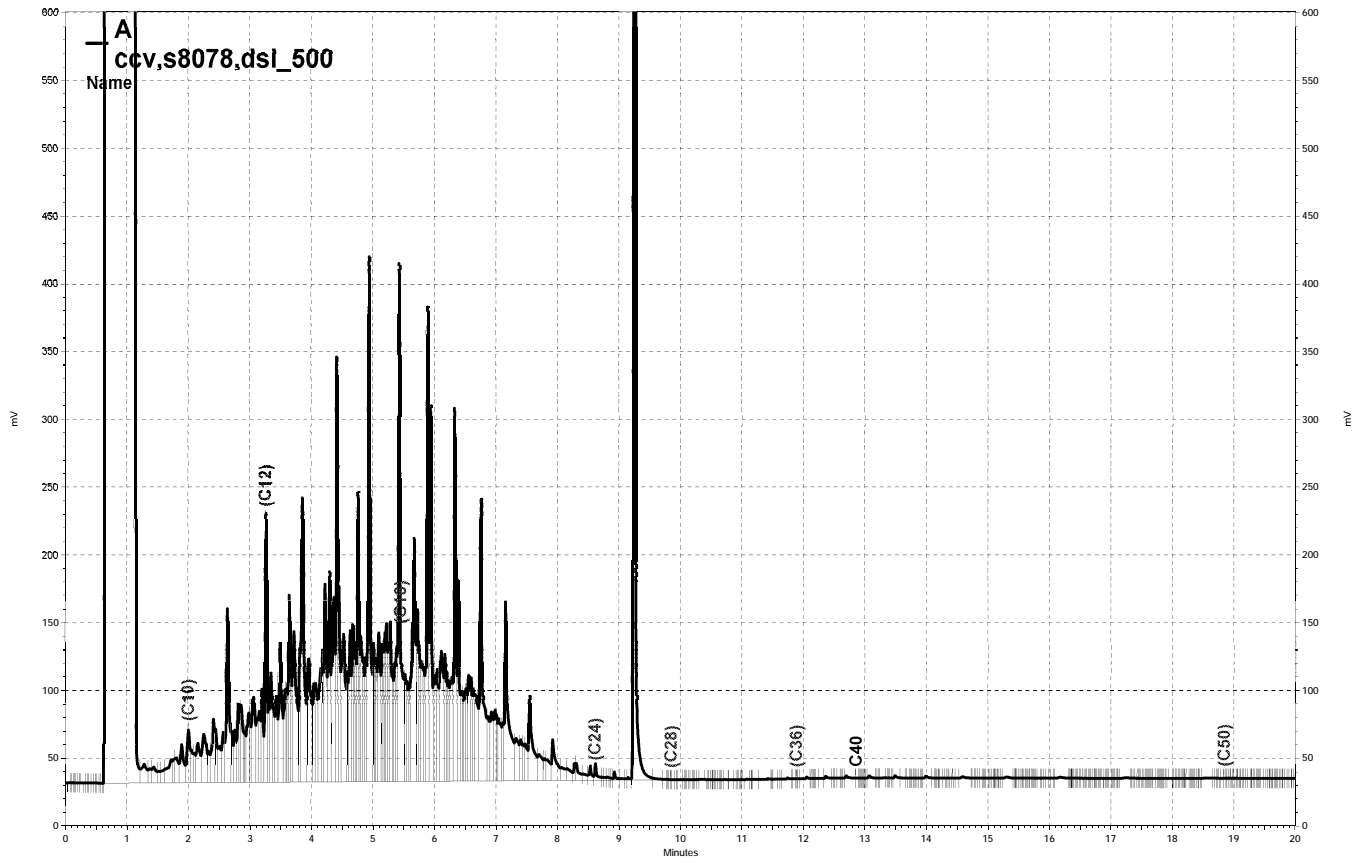
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\\Lims\drive\ezchrom\Projects\GC11A\Data\028a004, A

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-7-GGW 16.5 Batch#: 134265
 Type: SAMPLE Sampled: 01/24/08
 Lab ID: 200786-002 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	110	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

Field ID: MIP-8-GGW 18.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/24/08
 Lab ID: 200786-004 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	116	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-9-GGW 18.5 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-006 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	0.77	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	109	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Field ID: MIP-9-GGW 31.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-007 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	68 Y	50
MTBE	1.3	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	0.60	0.50
m,p-Xylenes	2.3	0.50
o-Xylene	0.93	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	115	74-137
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-10-GGW 18.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-009 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	112	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

Field ID: MIP-11-GGW 16.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-011 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	110	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-11-GGW 20.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-012 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	116	74-137
Toluene-d8	104	80-120
Bromofluorobenzene	100	80-120

Field ID: MIP-11-GGW 25.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-013 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	0.57	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	117	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID:	MIP-12-GGW 16.0	Batch#:	134265
Type:	SAMPLE	Sampled:	01/25/08
Lab ID:	200786-015	Analyzed:	01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	114	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-120

Field ID:	MIP-13-GGW 16.5	Batch#:	134265
Type:	SAMPLE	Sampled:	01/24/08
Lab ID:	200786-017	Analyzed:	01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	119	74-137
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-14-GGW 18.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-019 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	114	74-137
Toluene-d8	103	80-120
Bromofluorobenzene	104	80-120

Field ID: MIP-14-GGW 41.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-020 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.52	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	118	74-137
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Field ID: MIP-15-GGW 17.0 Batch#: 134265
 Type: SAMPLE Sampled: 01/25/08
 Lab ID: 200786-022 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	114	74-137
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-120

Field ID: MIP-16GGW 17.0 Batch#: 134313
 Type: SAMPLE Sampled: 01/24/08
 Lab ID: 200786-024 Analyzed: 01/31/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	112	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	01/25/08

Type: BLANK Batch#: 134265
 Lab ID: QC426018 Analyzed: 01/30/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	112	74-137
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

Type: BLANK Batch#: 134313
 Lab ID: QC426213 Analyzed: 01/31/08

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	113	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134265
Units:	ug/L	Analyzed:	01/30/08
Diln Fac:	1.000		

Type: BS Lab ID: QC426016

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.31	93	60-130
Benzene	25.00	25.69	103	80-120
Toluene	25.00	26.28	105	80-122
Ethylbenzene	25.00	26.77	107	80-127
m,p-Xylenes	50.00	52.69	105	80-130
o-Xylene	25.00	25.94	104	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	109	74-137
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-120

Type: BSD Lab ID: QC426017

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	22.29	89	60-130	4	20
Benzene	25.00	24.49	98	80-120	5	20
Toluene	25.00	24.71	99	80-122	6	20
Ethylbenzene	25.00	25.02	100	80-127	7	20
m,p-Xylenes	50.00	49.93	100	80-130	5	20
o-Xylene	25.00	24.10	96	80-126	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	109	74-137
Toluene-d8	104	80-120
Bromofluorobenzene	98	80-120

RPD= Relative Percent Difference

Batch QC Report

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134265
Units:	ug/L	Analyzed:	01/30/08
Diln Fac:	1.000		

Type: BS Lab ID: QC426039

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,934	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	108	74-137
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC426040

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,021	101	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	106	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-120

RPD= Relative Percent Difference

Batch QC Report

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134313
Units:	ug/L	Analyzed:	01/31/08
Diln Fac:	1.000		

Type: BS Lab ID: QC426209

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.54	94	60-130
Benzene	25.00	26.09	104	80-120
Toluene	25.00	26.22	105	80-122
Ethylbenzene	25.00	26.98	108	80-127
m,p-Xylenes	50.00	54.14	108	80-130
o-Xylene	25.00	26.33	105	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	112	74-137
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC426210

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	21.75	87	60-130	8	20
Benzene	25.00	24.08	96	80-120	8	20
Toluene	25.00	24.62	98	80-122	6	20
Ethylbenzene	25.00	25.06	100	80-127	7	20
m,p-Xylenes	50.00	49.01	98	80-130	10	20
o-Xylene	25.00	24.24	97	80-126	8	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	110	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-120

RPD= Relative Percent Difference

Batch QC Report

Gasoline by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	134313
Units:	ug/L	Analyzed:	01/31/08
Diln Fac:	1.000		

Type: BS Lab ID: QC426211

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,953	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	110	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC426212

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,846	92	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	110	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-120

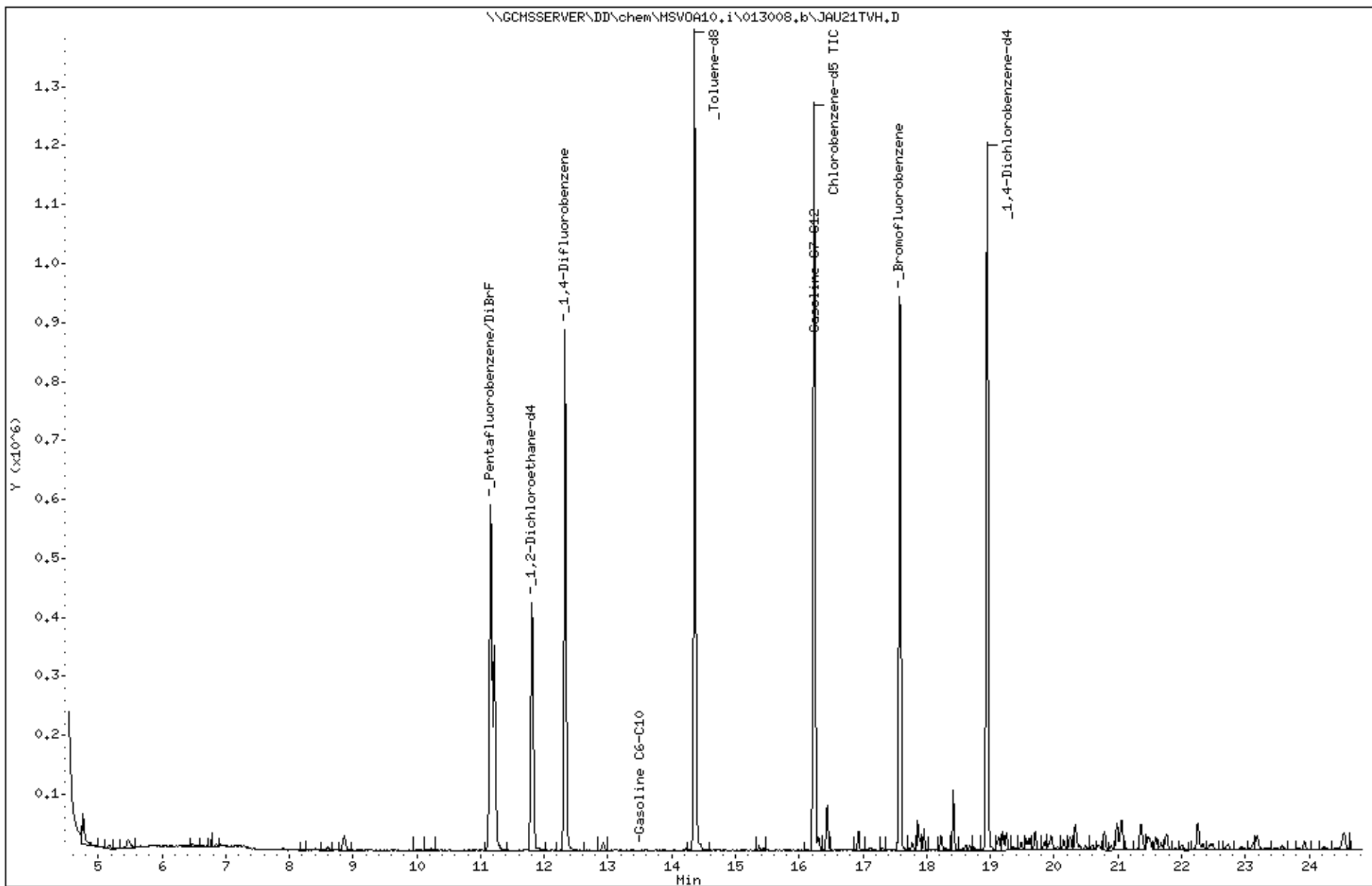
RPD= Relative Percent Difference

Date : 30-JAN-2008 21:06
Client ID: DYNA P&T
Sample Info: S,200786-007

Instrument: MSV0A10.i

Operator: VOA
Column diameter: 2.00

Column phase:



Date : 30-JAN-2008 12:27

Client ID: DYNA P&T

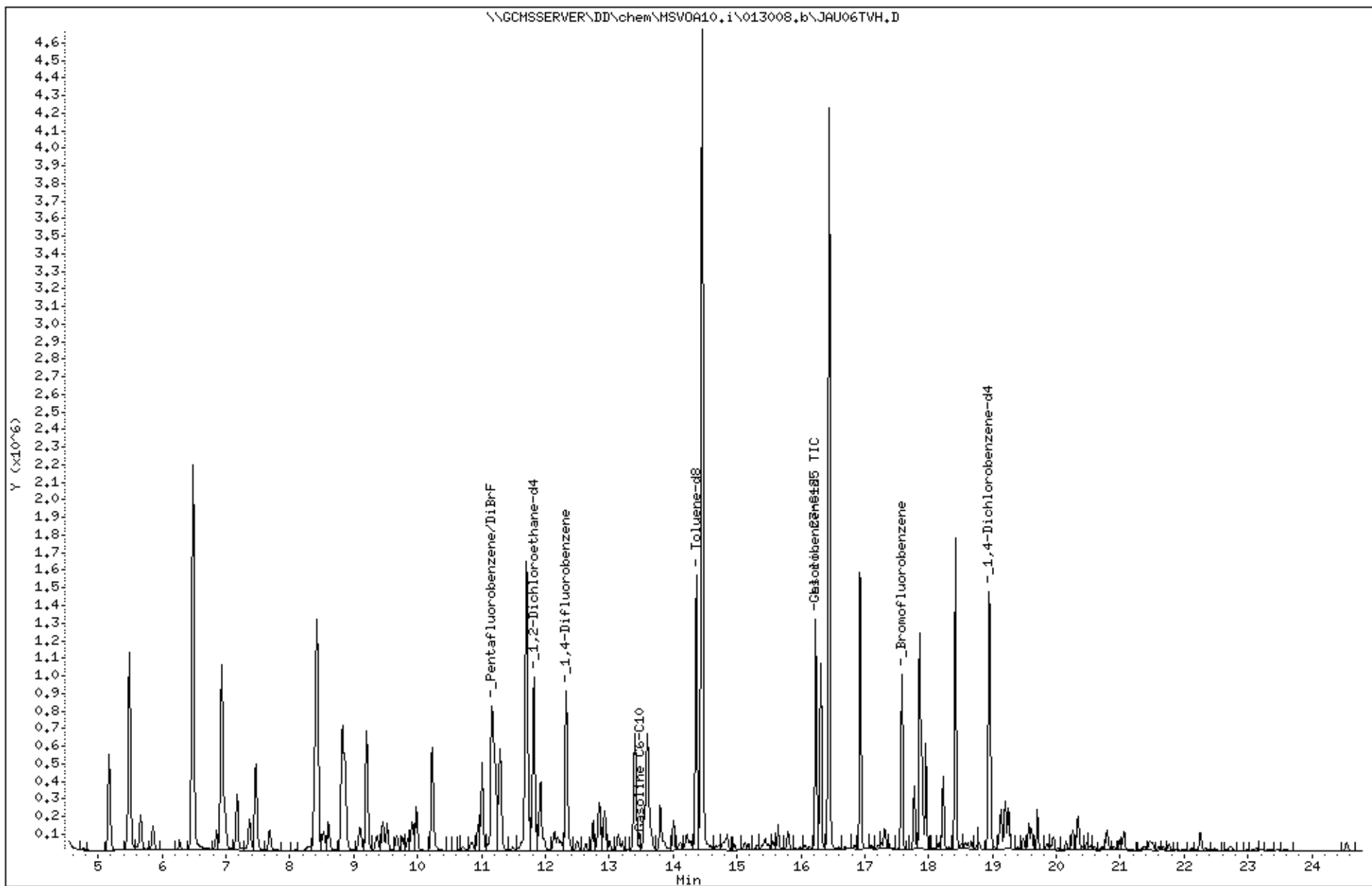
Sample Info: BS, QC426039, 134265, 1/1, S8009, 0, 02/100

Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:



Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-7-SS 3.0	Diln Fac:	1.000
Lab ID:	200786-001	Batch#:	134270
Matrix:	Soil	Sampled:	01/24/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/30/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	116	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	120	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-8-SS 5.0	Diln Fac:	1.000
Lab ID:	200786-003	Batch#:	134179
Matrix:	Soil	Sampled:	01/24/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	119	79-136
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-9-SS 3.0	Diln Fac:	0.9434
Lab ID:	200786-005	Batch#:	134179
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	4.7
Benzene	ND	4.7
Toluene	ND	4.7
Ethylbenzene	11	4.7
m,p-Xylenes	47	4.7
o-Xylene	21	4.7

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	119	79-136
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-10-SS 6.0	Diln Fac:	0.9259
Lab ID:	200786-008	Batch#:	134179
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	4.6
Benzene	ND	4.6
Toluene	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	79-136
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-11-SS 4.0	Diln Fac:	0.9091
Lab ID:	200786-010	Batch#:	134179
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	4.5
Benzene	ND	4.5
Toluene	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	79-136
Toluene-d8	99	80-120
Bromofluorobenzene	108	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-12-SS 5.0	Diln Fac:	0.8621
Lab ID:	200786-014	Batch#:	134179
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	4.3
Benzene	ND	4.3
Toluene	ND	4.3
Ethylbenzene	ND	4.3
m,p-Xylenes	ND	4.3
o-Xylene	ND	4.3

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	79-136
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-13-SS 4.0	Diln Fac:	0.8929
Lab ID:	200786-016	Batch#:	134179
Matrix:	Soil	Sampled:	01/24/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	4.5
Benzene	ND	4.5
Toluene	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	79-136
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-14-SS 5.5	Diln Fac:	71.43
Lab ID:	200786-018	Batch#:	134326
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/31/08

Analyte	Result	RL
MTBE	ND	360
Benzene	ND	360
Toluene	ND	360
Ethylbenzene	ND	360
m,p-Xylenes	ND	360
o-Xylene	ND	360

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	79-136
Toluene-d8	105	80-120
Bromofluorobenzene	107	80-122
Trifluorotoluene (MeOH)	102	55-146

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-15-SS 5.0	Diln Fac:	0.9804
Lab ID:	200786-021	Batch#:	134222
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/29/08

Analyte	Result	RL
MTBE	ND	4.9
Benzene	ND	4.9
Toluene	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	115	80-122

ND= Not Detected
 RL= Reporting Limit

Purgeable Aromatics by GC/MS

Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-16-SS 6.0	Diln Fac:	0.9259
Lab ID:	200786-023	Batch#:	134222
Matrix:	Soil	Sampled:	01/24/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received	Analyzed:	01/29/08

Analyte	Result	RL
MTBE	ND	4.6
Benzene	ND	4.6
Toluene	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	129	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	113	80-122

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC425716	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134179
Units:	ug/Kg	Analyzed:	01/28/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	121	79-136
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC425717	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134179
Units:	ug/Kg	Analyzed:	01/28/08

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	12.69	101	66-120
Benzene	12.50	12.24	98	77-121
Toluene	12.50	13.27	106	79-122
Ethylbenzene	12.50	12.92	103	80-127
m,p-Xylenes	25.00	25.66	103	80-126
o-Xylene	12.50	12.26	98	80-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	118	79-136
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-122

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC425879	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134222
Units:	ug/Kg	Analyzed:	01/29/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	110	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	MIP-16-SS 6.0	Diln Fac:	0.9259
MSS Lab ID:	200786-023	Batch#:	134222
Matrix:	Soil	Sampled:	01/24/08
Units:	ug/Kg	Received:	01/25/08
Basis:	as received		

Type: MS Analyzed: 01/29/08
 Lab ID: QC425939

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.3284	46.30	45.21	98	52-120
Benzene	<0.4265	46.30	39.73	86	57-123
Toluene	<0.4615	46.30	36.64	79	53-126
Ethylbenzene	<0.5510	46.30	35.24	76	51-130
m,p-Xylenes	<1.234	92.59	65.39	71	49-128
o-Xylene	<0.5472	46.30	32.71	71	49-126

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	131	79-136
Toluene-d8	104	80-120
Bromofluorobenzene	108	80-122

Type: MSD Analyzed: 01/30/08
 Lab ID: QC425940

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	46.30	48.84	105	52-120	8	27
Benzene	46.30	42.89	93	57-123	8	25
Toluene	46.30	40.08	87	53-126	9	27
Ethylbenzene	46.30	37.15	80	51-130	5	28
m,p-Xylenes	92.59	69.12	75	49-128	6	28
o-Xylene	46.30	34.47	74	49-126	5	28

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	130	79-136
Toluene-d8	104	80-120
Bromofluorobenzene	107	80-122

RPD= Relative Percent Difference

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC426041	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134270
Units:	ug/Kg	Analyzed:	01/30/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	120	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	114	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC426042	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134270
Units:	ug/Kg	Analyzed:	01/30/08

Analyte	Spiked	Result	%REC	Limits
MTBE	12.50	12.62	101	66-120
Benzene	12.50	12.22	98	77-121
Toluene	12.50	12.20	98	79-122
Ethylbenzene	12.50	12.25	98	80-127
m,p-Xylenes	25.00	23.45	94	80-126
o-Xylene	12.50	11.44	91	80-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	79-136
Toluene-d8	103	80-120
Bromofluorobenzene	107	80-122

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	BLANK	Basis:	as received
Lab ID:	QC426268	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134326
Units:	ug/Kg	Analyzed:	01/31/08

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	79-136
Toluene-d8	101	80-120
Bromofluorobenzene	113	80-122

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Type:	LCS	Basis:	as received
Lab ID:	QC426269	Diln Fac:	1.000
Matrix:	Soil	Batch#:	134326
Units:	ug/Kg	Analyzed:	01/31/08

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	28.38	114	66-120
Benzene	25.00	28.54	114	77-121
Toluene	25.00	28.93	116	79-122
Ethylbenzene	25.00	29.27	117	80-127
m,p-Xylenes	50.00	56.93	114	80-126
o-Xylene	25.00	27.64	111	80-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	79-136
Toluene-d8	102	80-120
Bromofluorobenzene	107	80-122

Batch QC Report

Purgeable Aromatics by GC/MS			
Lab #:	200786	Location:	Hanson Sunol
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09480-06	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9259
MSS Lab ID:	200808-007	Batch#:	134326
Matrix:	Soil	Sampled:	01/25/08
Units:	ug/Kg	Received:	01/29/08
Basis:	as received	Analyzed:	02/01/08

Type: MS Lab ID: QC426318

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.3284	46.30	44.82	97	52-120
Benzene	<0.4265	46.30	45.02	97	57-123
Toluene	<0.4615	46.30	43.94	95	53-126
Ethylbenzene	<0.5510	46.30	44.01	95	51-130
m,p-Xylenes	<1.234	92.59	85.48	92	49-128
o-Xylene	<0.5472	46.30	42.00	91	49-126

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	79-136
Toluene-d8	103	80-120
Bromofluorobenzene	105	80-122

Type: MSD Lab ID: QC426319

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	46.30	38.73	84	52-120	15	27
Benzene	46.30	37.06	80	57-123	19	25
Toluene	46.30	36.59	79	53-126	18	27
Ethylbenzene	46.30	36.79	79	51-130	18	28
m,p-Xylenes	92.59	70.57	76	49-128	19	28
o-Xylene	46.30	34.39	74	49-126	20	28

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	109	79-136
Toluene-d8	103	80-120
Bromofluorobenzene	106	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878

2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

Page _____ of _____

Analysis

C & T LOGIN #: 200786

Sampler: JS

Report To: Katrin S. & Jason T.

Company: LFR, Inc

Telephone: (510) 596-9678

Fax: _____

Project No.: 001-04180

Project Name: Hanson Sunol

Project P.O.: _____

Turnaround Time: STD

Lab No.	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Preservative			
				Soil	Water	Waste		HCL	H ₂ SO ₄	HNO ₃	ICE
1	MIP-7-SS 3.0	1/24	1000	X			1				
2	MIP-7-GGW 16.5	1/24	1200		X		4	X			X
3	MIP-8-SS 5.0	1/24	1215	X			1				X
4	MIP-8-GGW 18.0	1/24	1245		X		4	X			X
5	MIP-9-SS 3.0	1/25	1300	X			4				X
6	MIP-9-GGW 18.5	1/25	1345		X		4	X			X
7	MIP-9-GGW 31.0	1/25	1415		X		4	X			X
8	MIP-10-SS 6.0	1/25	1030	X			4	X			X
9	MIP-10-GGW 18.0	1/25	1100		X		4				X
10	MIP-11-SS 4.0	1/25	1600	X			4	X			X
11	MIP-11-GGW 16.0	1/25	1630		X		4				X
12	MIP-11-GGW 20.0	1/25	1645		X		4	X			X
13	MIP-11-GGW 25.0	1/25	1700	X			4	X			X

TPH₉ / BTEX / MTBE by 8260
 TPH₄
 Silica gel for TEH

Notes:
For soils dc TKN
by 8015 per KS

SAMPLE RECEIPT

Intact Cold

On Ice Ambient

Preservative Correct?

Yes No N/A

RELINQUISHED BY: JS 1/25/08

RECEIVED BY: [Signature] 1/25 6:27

DATE / TIME _____

DATE / TIME _____

DATE / TIME _____

DATE / TIME _____

TD 1/25/08
SIGNATURE

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1
Effective Date: 08-Aug-07
Revision: 3 Number 1 of 3
Filename: FAQCAForms\QC\Cooler.wpd



COOLER RECEIPT CHECKLIST

Login#: 200786 Date Received: 1/25/08 Number of Coolers: 3
Client: LFR Project: Hanson Smel

A. Preliminary Examination Phase

Date Opened: 1/25 By (print): K. Wellbrock (sign) K. Wellbrock

1. Did cooler come with a shipping slip (airbill, etc.)?..... YES NO
- If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler?..... YES NO
- How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO N/A
4. Were custody papers dry and intact when received?..... YES NO
5. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
6. Did you sign the custody papers in the appropriate place?..... YES NO
7. Was project identifiable from custody papers?..... YES NO
- If YES, enter project name at the top of this form. _____
8. Describe type of packing in cooler: foam block
9. If required, was sufficient ice used? Samples should be ≤ 6 degrees C. YES NO
- Type of ice: wet Temperature: no temp ϕ - cold on ice
10. Were Encore sampling devices present in the cooler?..... YES NO
- If YES, enter time they were transferred to the freezer _____

B. Login Phase

Date Logged In: 1/25/08 By (print): M. Villeneuve (sign) M. Villeneuve

1. Did all bottles arrive unbroken?..... YES NO
2. Were labels in good condition and complete (ID, date, time, signature, etc.)?..... YES NO
3. Did bottle labels agree with custody papers?..... YES NO
4. Were appropriate containers used for the tests indicated?..... YES NO
5. Were correct preservatives added to samples?..... YES NO
6. Was sufficient amount of sample sent for tests indicated?..... YES NO
7. Were bubbles absent in VOA samples? If NO, list sample IDs below..... YES NO
8. Was the client contacted concerning this sample delivery?..... YES NO

If YES, give details below.

Who was called? _____ By whom? _____ Date: _____

Additional Comments:

