

November 21, 2014 Project No. 00133805.000A

Ms. Josephine Gonzalez Los Angeles Department of Water and Power 111 North Hope Street, Room 1044 Los Angeles, California 90012

Subject: Phase II Environmental Site Assessment Report

Former Figueroa Pump Station

5800 South Figueroa Street, Los Angeles, California

Agreement 47051-2, Site Investigation and Remediation Services

Dear Ms. Gonzalez:

Kleinfelder is pleased to present this Phase II Environmental Site Assessment (ESA) Report documenting soil assessment activities performed in the area of a previously removed fuel reservoir at the former Figueroa Pump Station (FPS), which is owned by the City of Los Angeles Department of Water and Power (LADWP). The former FPS is located at 5800 South Figueroa Street, Los Angeles, California (see Plate 1), and is referred to herein as the Site.

The assessment was completed pursuant to and in accordance with Kleinfelder's Proposal Number 117377/RIV13P0241, issued to LADWP on April 12, 2013. This report presents the methodology, analytical results, and conclusions pertaining to soil sampling activities performed at the Site between May 13 and 20, 2013.

The objective of the environmental scope of services discussed herein was to assess the potential presence, nature, and extent of hazardous substances in soil at the area of the removed fuel reservoir.

In summary, based on Kleinfelder's environmental contaminant evaluation for the soil samples collected for this assessment, soils at the seven sampled locations are not considered to pose a threat to human health and/or the environment.

The remainder of this report provides a summary of background information, further discusses the scope of the assessment activities, presents the analytical results, and summarizes our evaluation and conclusions.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The Site is an approximately 20,300-square foot, presently vacant lot bound by South Figueroa Street to the west, West 58th Street to the north, residences to the east, and a railroad easement and West Slauson Avenue to the south.

Based on information provided in a report of a Phase I ESA of the Site performed by Dames & Moore (Dames & Moore, 1999), LADWP operated a pump station at the Site from approximately 1908 to 1959. During that time, the Site contained two pumps, a boiler, a 175,000-gallon underground water reservoir, and an underground fuel reservoir with a capacity of 874 barrels. The fuel reservoir was supplied by a conveyance line with a fill port situated adjacent to the railroad located directly south of the Site. In 1959, the pump station was removed, the reservoir's supply piping was capped, and the reservoirs were backfilled with unspecified material.

A report of a Phase II ESA performed at the Site by Parsons, Inc. (Parsons, 2004) was reviewed by Kleinfelder and indicates 12 exploratory soil bores (SB-1 through SB-12) were drilled and sampled on August 5, 2003. A plan showing historical soil bore locations is presented as Plate 2. The bores were advanced to a depth of approximately 5 feet below ground surface (bgs), except for Bore SB-8, which was advanced to approximately 10 feet bgs at a location within the footprint of the filled-in fuel reservoir. Soil samples were collected at approximate depths of 1 foot, 3 feet. 5 feet, and 10 feet bgs. The samples were analyzed for moisture content; petroleum hydrocarbon compounds as gasoline and diesel fuel; motor oil; the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, ortho-xylene (o-xylene), and meta- and para-xylenes (m-, p-xylenes); and the metals arsenic, lead, and mercury. The historical analytical data are summarized in Tables 1 and 2. Based on the results, Parsons, Inc. concluded the only identified recognized environmental condition was lead-impacted soil (although the data indicate soil containing hydrocarbon concentrations above 1,000 milligrams per kilogram [mg/kg] was encountered at several of the bore locations, including Bores SB-3, SB-4, and SB-6 through SB-8). Concentrations of total lead detected in soil samples from four of the bores (SB-3, SB-4, SB-6, and SB-8) exceeded the then-applicable residential preliminary remediation goal (PRG) for lead of 150 mg/kg. However, none of the samples contained concentrations exceeding the lead industrial PRG of 750 mg/kg applicable at the time. In addition, the report indicated discolored soils and a potential part of the former fuel reservoir structure were encountered during the investigation, and it was concluded they could pose a concern during future Site construction work.

Other limited, unpublished records provided to Kleinfelder by LADWP indicate that on August 11, 2005, LADWP advanced and sampled 15 additional exploratory bores (B-13 through B-27) at the Site to approximate depths ranging from 3 feet to 10 feet bgs. These approximate bore locations are also shown on Plate 2. Bores B-13 through B-16 were advanced at step-out locations around Bore SB-3; Bores B-17 through B-20 were advanced at step-out locations around Bore SB-4; and Bores B-23 through B-26 were advanced at step-out locations around Bore SB-6. Bore B-21 was located within the

footprint of the former fuel reservoir; Bore B-22 was located within the footprint of the former pump station; and Bore B-27 was located within the footprint of the former water tank. Soil samples from the 15 bores were analyzed for total recoverable petroleum hydrocarbons (TRPH) and California Code of Regulations (CCR) Title 22 Metals (including soluble metals as warranted based on the results of the total metals analyses). In addition, selected soil samples were analyzed for hydrocarbons including diesel-range organics (DRO) having a carbon range of C₁₀ through C₂₈, and total extractable petroleum hydrocarbons (TEPH), with a carbon range of C₉ through C₃₆. These historical soil analytical data are summarized in Tables 1 through 3. Total lead concentrations of shallow soil samples from several locations across the Site exceeded the residential soil PRG of 130 mg/kg that was applicable in 2005. Additionally, soluble lead concentrations of shallow soil samples from several locations exceeded the CCR Title 22 Soluble Threshold Limit Concentration for lead of 5 milligrams per liter. Certain soil samples collected from Bores B-13 through B-17, B-20, B-21, B-23, B-25, and B-27 contained TRPH concentrations above 1,000 mg/kg. Most of these soil samples were collected from depths of 5 feet bgs or shallower, with the exception of samples collected from depths of approximately 9 feet to 10 feet bgs in Bores B-13 (advanced in the area of the former water tank), B-20 (advanced approximately 40 feet west of the former fuel reservoir, toward the southwest corner of the Site), and B-21 (advanced at the location of the former fuel reservoir).

Remedial activities were subsequently performed at the Site by LADWP in June and July of 2009, at which time petroleum-impacted soil was removed by excavating within the approximate footprint of the former fuel reservoir. On June 23, 2009, during the remedial excavation work, LADWP collected a sample of a tar-like substance and submitted it for analysis of polychlorinated biphenyls (PCBs), CCR Title 22 Metals, and hydrocarbon-type identification. Kleinfelder understands this sample was a "grab" sample collected from the approximate elevation of the bottom of the fuel reservoir. The analytical results indicated the sample contained diesel-range hydrocarbons and did not contain detected PCBs. Metals results indicated 10 of the 17 CCR Title 22 Metals were detected, including antimony (15.7 J mg/kg, where the "J" qualifier indicates a trace concentration above the method detection limit [MDL] but below the reporting limit [RL]), barium (9.5 J mg/kg), beryllium (0.095 J mg/kg), total chromium (1.3 J mg/kg), copper (3.6 J mg/kg), lead (47.3 mg/kg), nickel (21.9 mg/kg), selenium (5.6 J mg/kg), vanadium (20.5 mg/kg), and zinc (99.0 mg/kg).

The excavation was continued to an approximate depth of 17 feet bgs, but then stopped before complete removal of petroleum-impacted soils due to slope stability concerns associated with the nearby railroad right-of-way adjoining to the south of the Site. On July 8, 2009, LADWP collected a soil sample that Kleinfelder understands came from the bottom of the excavation, below the vicinity of what would have been the western edge of the former fuel reservoir, and submitted the sample for analysis of TRPH, gasoline-range organics (GRO), DRO, motor oil, and full-scan VOCs. A summary of the analytical results is included in Table 1. The soil sample contained a TRPH concentration of 70,100 mg/kg, a GRO concentration of 29.2 mg/kg, and a DRO concentration of 24,000 mg/kg, but it did not contain detected motor oil or VOCs.

Following the soil removal activities, LADWP reportedly backfilled the excavation with slurry up to a depth of approximately 4 feet bgs.

SCOPE OF SERVICES

Kleinfelder's services included the collection and analysis of soil samples from seven hollow-stem auger bores (KLF-1 through KLF-7) at the locations shown on Plate 3. The field activities were performed between May 13 and 20, 2013. Each of the bore locations was selected by Kleinfelder in consultation with LADWP staff. The services provided by Kleinfelder included the activities discussed below.

Health and Safety Plan

Kleinfelder prepared a project Site-specific Health and Safety Plan, which addressed the health and safety of Kleinfelder's workers, provided contingency plans for potential emergencies, and provided guidelines for PPE and safety procedures that were used by Kleinfelder staff during the field activities. This plan was prepared based on the general knowledge of the chemical characteristics of materials reportedly present, and suspected to be present, at and adjoining to the Site.

Utility Clearance

Underground Service Alert of Southern California (also known as DigAlert), at telephone number 1-800-642-2444, provides a partial location service for major utility lines free of charge. California law requires providing at least 48 hours (2 business days) notification to DigAlert prior to performing intrusive activities, and Kleinfelder provided the required notification to DigAlert in accordance with State requirements to arrange for utility marking within pertinent public rights of way and utility easements. After marking the initially-proposed bore locations, on May 2, 2013, Kleinfelder notified DigAlert of the proposed soil sampling intrusive field activities, and DigAlert provided Ticket Numbers A31221193 (for Kleinfelder), A31221197 (for Martini Drilling Corporation), and A31221201 (for LADWP).

Because DigAlert may not mark underground utilities on private property, a geophysical services subcontractor (SubSurface Surveys & Associates, Inc. [SubSurface Surveys]) was contracted by Kleinfelder to locate and mark detectable utility lines at the proposed sampling locations. The purpose of the geophysical survey was to clear (insofar as possible), the proposed boreholes of drilling obstructions. On May 7, 2013 SubSurface Surveys used geophysical instruments to survey the areas of the proposed soil bores for underground obstructions. Visual inspection of the locations was also performed to assess for potential subsurface obstructions. Some bores had to be moved a few feet from their planned original locations to safely avoid identified utility lines, but most of the planned bore locations were not in conflict with utilities.

Soil Sampling

Kleinfelder's soil sampling activities at the Site were performed between May 13 and 20, 2013, during which soil bores were advanced and sampled by Martini Drilling Corporation of Huntington Beach, California. Kleinfelder's soil sampling activities at the Site were performed at the direction and under the oversight of a California-registered professional engineer.

The bores were advanced using a Central Mining Equipment (CME) 75™ drill rig equipped with 6-inch outside diameter (OD) hollow-stem augers. Bores KLF-1 through KLF-3 were advanced within the former fuel tank soil remedial excavation. These bores were advanced to total depths ranging from approximately 66.5 feet bgs (KLF-2 and KLF-3) to 91.5 bgs (KLF-1). Since the ground surface within the former remedial excavation is approximately 4 feet below the surface of the remaining part of the Site, corresponding total depths of these three bores beneath the main part of the Site are approximately 70.5 feet to 95.5 feet bgs. Bores KLF-4 through KLF-7 were each advanced outside the former remedial excavation to an approximate depth of 71.5 feet bgs. Soil samples were generally collected at 5-foot vertical intervals for analytical testing from each of these seven bores. Each bore was backfilled with cement grout containing bentonite at the completion of sampling.

Soil samples were collected using a 2-inch OD, standard penetration split-spoon sampler lined with 1.5-inch OD, stainless steel sample sleeves. At each specified depth of sampling for laboratory analysis, the ends of a 6-inch long sample sleeve were covered with Teflon™ sheeting followed by tight-fitting plastic caps. The soil samples were labeled with a unique identification number, date, and time, and placed in an ice-chilled cooler until delivered, under chain of custody, for analysis to the soil analytical laboratory.

Soil samples were screened in the field using a photo-ionization detector (PID) equipped with a 10.6-electron volt detector lamp and calibrated to a 100 parts per million by volume (ppmv) isobutylene standard. The PID had a detection limit of 0.1 ppmv. Some of the soil from each sample interval was placed in a new re-sealable plastic bag that was subsequently sealed. The bag remained sealed at ambient air temperature for approximately 10 minutes to allow potential VOC vapors to volatize into the bag headspace. Then the probe tip of the PID was placed into the bag by unsealing a small length of the seal, and the total VOC vapor reading was recorded on the field bore log.

Sub-samples intended for laboratory VOC analysis were collected and preserved in the field using EnCore™ samplers in accordance with United States Environmental Protection Agency (US EPA) Method 5035.

Kleinfelder field personnel logged the bores and classified the soils in general accordance with the Unified Soils Classification System (USCS), using visual-manual procedures as described in ASTM International Standard D 2488.

In addition, during each day of soil sampling, field quality control (QC) samples, consisting of one soil sampling equipment rinsate, one trip blank, and one field blank per day, were collected. Equipment rinsate samples were labeled "QCEB," trip blank samples were labeled "QCTB," and field blank samples were labeled "QCFB."

Equipment Decontamination Procedures

Reusable auger drilling and soil sampling equipment was cleaned prior to each use to reduce the potential for cross contamination. Core sample barrels, rods, and other downhole implements used during drilling were also cleaned prior to each use. Sampling equipment was cleaned prior to collecting each soil sample as follows:

- The equipment was first washed in a non-phosphate detergent (Liquinox®) and tap water solution, using a brush to dislodge soil, dirt, and other encrusted matter.
- Following the detergent wash, the sampling equipment was rinsed in tap water, followed by a final rinse using distilled water.

Investigation-Derived Waste

Investigation-derived waste (IDW), consisting of drill cuttings and rinsate water generated by the drilling and sampling activities, was temporarily stored on-Site in Department of Transportation (DOT)-approved, 55-gallon steel drums, pending profiling and off Site disposal. For waste profiling purposes, one composite soil sample (designated "Soil Drum Profile") was collected on May 20, 2013 from the soil drums.

On July 18, 2013, 16 drums containing soil cuttings, along with 2 drums containing rinsate water from drilling operations, were transported off Site for disposal at a Statelicensed disposal facility. The soil drums were sent to Soil Safe, located in Adelanto, California, and the rinsate water was sent to DeMenno Kerdoon, located in Compton, California, for treatment and recycling. Copies of the waste disposal manifests are attached.

Laboratory Analyses

Soil samples collected during sampling activities were submitted to LADWP's Environmental Laboratory, which is a California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP)-accredited laboratory located in Los Angeles, California.

In general, the soil samples were analyzed for GRO using US EPA Method 8015B; TEPH, DRO, and motor oil using modified US EPA Method 8015 (8015M); TRPH using US EPA Method 418.1; and VOCs using US EPA Methods 5035/8260B.

The trip blank samples and one field blank sample were analyzed for VOCs only, using US EPA Method 8260B. The remaining field blank sample and the equipment blank samples were analyzed for VOCs using US EPA Method 8260B; GRO using US EPA Method 8015B; oil and grease using US EPA Method 1664B (in lieu of US EPA Method 418.1); and TEPH, DRO and motor oil using US EPA Method 8015M.

The soil IDW composite sample was analyzed for GRO using US EPA Method 8015B; TEPH, DRO, and motor oil using US EPA Method 8015M; VOCs using US EPA Method 8260B; PCBs using US EPA Method 8082; and CCR Title 22 Metals using US EPA Methods 6010B and 7471.

FIELD OBSERVATIONS AND ANALYTICAL RESULTS

Information from Kleinfelder's field bore logs was entered using the computer program gINT™ to prepare the attached bore logs. In general, poorly graded sand containing varying amounts of silt was encountered in the upper 65 feet explored by Kleinfelder's bores. Consistent with the discussion in the reviewed historical reports, Bores KLF-1 through KLF-3 encountered slurry fill in the uppermost 10 feet penetrated by each bore. A clayey sand lens, approximately 5 feet thick, was also encountered in Bore KLF-1 at approximately 35 feet below grade. Finer-grained soil lenses (approximately 5 feet thick) consisting of a sandy lean clay and poorly graded sand with clay were encountered in Bores KLF-2, KLF-3, and KLF-4 at approximately 65 feet below grade. Coarser-grained soils and increased density occurred beginning at 70 feet below grade in Bore KLF-1. Kleinfelder has prepared cross sections illustrating the conditions encountered by Kleinfelder's soil bores. The cross-section locations are shown on Plate 4, and the cross-sections are provided on Plates 5 through 7.

As previously noted, VOC screening of the soil samples was performed in the field, and results are presented on the attached bore logs in the column labeled "PID/FID (ppm)." Most of the PID readings were below the 0.1-ppmv instrument detection limit, with a few samples yielding PID readings of 2.0 ppmv or lower. The exceptions were for shallow samples collected from Bores KLF-1 and KLF-2, from which samples from 10 feet bgs (near the interface of slurry fill and native soil within the former fuel reservoir excavation) yielded PID readings of 275 ppmv and 110 ppmv, respectively, and the Bore KLF-1 sample from 15 feet bgs yielded a reading of 850 ppmv.

The GRO, TRPH, TEPH, DRO, motor oil, and VOC analytical results for the soil samples collected during Kleinfelder's Phase II ESA are summarized in Table 4. TEPH concentrations in soil are also shown on the cross-sections (Plates 5 through 7). The laboratory analytical reports from the LADWP's Environmental Laboratory are attached. In summary, the results indicate the following:

 As indicated in Table 4, 97 soil samples were analyzed for GRO, which was not detected at concentrations at or above the laboratory's MDLs.

- As Table 4 also shows, 97 soil samples were analyzed for TRPH, which was detected at or above its MDLs in 38 samples, at concentrations ranging from 21 mg/kg to 13,093 mg/kg.
- As Table 4 also shows, 97 soil samples were analyzed for TEPH, DRO, and motor oil. TEPH was detected at or above its MDLs in 22 samples, at concentrations ranging from 4.3 J mg/kg to 5,540 mg/kg. DRO was detected at or above its MDLs in four samples, at concentrations ranging from 125 J mg/kg to 4,520 mg/kg. Motor oil was detected at or above its MDLs in five samples, at concentrations ranging from 217 mg/kg to 1,180 mg/kg.
- As Table 4 also indicates, 97 soil samples were analyzed for VOCs, which were not detected in 95 of the samples at concentrations at or above the laboratory's Twelve VOCs were detected above their respective MDLs in the MDLs. remaining two soil samples (KLF-1-10 and KLF-1-15). Butylbenzene. sec-butylbenzene, isopropylbenzene, 4-chlorotoluene. ethylbenzene, p-isopropyltoluene, naphthalene, propylbenzene 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, meta- and para-xylenes (m&p-xylene), and o-xylene were detected in either one or both Samples KLF-1-10 and KLF-1-15. The detected concentrations of VOCs ranged from 38 J micrograms per kilogram (μg/kg) of 4-chlorotoluene in Sample KLF-1-10 to 7,680 μg/kg of 1,2,4-trimethylbenzene in Sample KLF-1-15. The remaining analyzed VOCs were not detected in these two samples at concentrations at or above the laboratory's MDLs.

The analytical results for the QC samples collected during Kleinfelder's Phase II ESA are summarized in Table 5, which includes GRO, oil and grease, TEPH, DRO, motor oil, and VOC results. Analytical results for each QC sample are below the laboratory's MDLs, indicating that there was no detected cross contamination from sample collection and handling procedures.

DISCUSSION AND CONCLUSIONS

This assessment was performed to assess the potential presence, nature, and extent of petroleum hydrocarbons and associated VOCs in soil at the area of the removed fuel reservoir. To evaluate detected TPH concentrations, Kleinfelder compared the GRO, DRO, and motor oil concentrations of each soil sample to respective screening values of 500 mg/kg, 1,000 mg/kg, and 10,000 mg/kg. These values represent the Maximum Soil Screening Level (MSSL) values established by the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) for these respective carbon ranges and a depth to groundwater beneath a given sample that is in the range of 20 feet to 150 feet (LARWQCB, 2004). Because the California Environmental Protection Agency (Cal/EPA) has published no VOC California Human Health Screening Level (CHHSL) values for soil (Cal/EPA, 2005), the detected VOC concentrations were compared with the May 2014 Regional Screening Level (RSL) values for soil established by the US EPA's Region IX (US EPA, 2014). These comparisons indicated the following:

- The detected concentrations of DRO exceed its MSSL of 1,000 mg/kg in two soil samples, KLF-1-10 (3,240 mg/kg) and KLF-2-10 (4,520 mg/kg). These two samples were collected within the former fuel reservoir remedial excavation from approximately 15 feet below Site grade. The DRO concentration of each deeper soil sample analyzed from these bores was below the MSSL.
- The detected concentrations of motor oil were below its MSSL of 10,000 mg/kg.
- The detected concentrations of butylbenzene, 4-chlorotoluene, ethylbenzene, isopropylbenzene, p-isopropyltoluene, naphthalene, propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene in Sample KLF-1-10 were below their respective residential and industrial RSL values.
- The detected concentrations of butylbenzene, sec-butylbenzene, ethylbenzene, isopropylbenzene, p-isopropyltoluene, propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, m&p-xylene, and o-xylene in Sample KLF-1-15 were below their respective residential and industrial RSL values.
- In Sample KLF-1-15, the detected concentration of naphthalene (5,485 μg/kg) exceeded its residential RSL of 3,800 μg/kg. This sample was collected within the former fuel reservoir remedial excavation from approximately 15 feet below Site grade. In the deeper soil samples analyzed from this bore, naphthalene was not detected at concentrations at or above its MDL.

Based on the presence of widespread near-surface soil impacted by petroleum hydrocarbons and metals (principally lead) at various Site locations and residual petroleum hydrocarbon impact below the limits of the former fuel reservoir excavation, Kleinfelder recommends LADWP consider preparation of a removal action work plan for the excavation and removal of hydrocarbon- and metal-impacted soil to reduce long term environmental liability associated with the Site.

LIMITATIONS

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services were provided. Our conclusions, opinions, and recommendations are based on a limited number of observations and data. It is possible that conditions could vary between or beyond the points evaluated. Kleinfelder makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by LADWP and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than 2 years from the date of the report.

The work performed was based on project information provided by LADWP. If LADWP does not retain Kleinfelder to review any plans and specifications, including any revisions or modifications to the plans and specifications, Kleinfelder assumes no responsibility for the suitability of our recommendations. In addition, if there are any changes in the field to the plans and specifications, LADWP must obtain written approval from Kleinfelder's engineer that such changes do not affect our recommendations. Failure to do so will vitiate Kleinfelder's recommendations.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. It should be recognized that definition and evaluation of geologic and environmental conditions comprise a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with incomplete knowledge of the subsurface conditions present due to the limitations of data from field studies. Although risk can never be eliminated, more-detailed and extensive studies yield more information, which may help understand and manage the level of risk. Since detailed study and analysis involves greater expense, our clients participate in determining levels of service that provide adequate information for their purposes at acceptable levels of risk. More extensive studies, including subsurface studies or field tests, should be performed to reduce uncertainties. Acceptance of this report will indicate that LADWP has reviewed the document and determined that it does not need or want a greater level of service than provided.

During the course of the performance of Kleinfelder's services, hazardous materials may have been discovered. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the Site, or from the discovery of such hazardous materials. Nothing contained in this report should be construed or interpreted as requiring Kleinfelder to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage, or treatment of hazardous materials within the meaning of any governmental statute, regulation, or order. LADWP is solely responsible for directing notification of all governmental agencies, and the public at large, of the existence, release, treatment, or disposal of any hazardous materials observed at the Site, either before or during performance of Kleinfelder's services. LADWP is responsible for directing all arrangements to lawfully store, treat, recycle, dispose, or otherwise handle hazardous materials, including cuttings and samples resulting from Kleinfelder's services.

CLOSING REMARKS

We thank you for the opportunity to provide Kleinfelder's professional environmental services and look forward to future work with you on other projects. Please feel free to call George Johnson at (951) 801-3681 should you have questions.

Sincerely,

KLEINFELDER WEST, INC.

Travis Meier

Staff Professional II

George Johnson, PE Senior Engineer PROFESSIONAL PROFE

Attachments:

References

Plates

Plate 1 – Site Location Map

Plate 2 – Site Plan Showing Historical Soil Bore Locations

Plate 3 – Site Plan Showing 2013 Soil Bore Locations

Plate 4 – Site Plan Showing Cross-Section Locations

Plate 5 - Cross-Section A-A'

Plate 6 - Cross-Section B-B'

Plate 7 - Cross-Section C-C'

Tables

Table 1 – Historical Soil Analytical Data – Organic Compounds

Table 2 – Historical Soil Analytical Data – TTLC Metals

Table 3 – Historical Soil Analytical Data – STLC and TCLP Metals

Table 4 – 2013 Soil Analytical Data

Table 5 – 2013 Quality Control Sample Analytical Data

Bore Logs

Waste Disposal Manifests

Analytical Laboratory Reports

cc: Jeffrey Walker, PE, Kleinfelder



REFERENCES

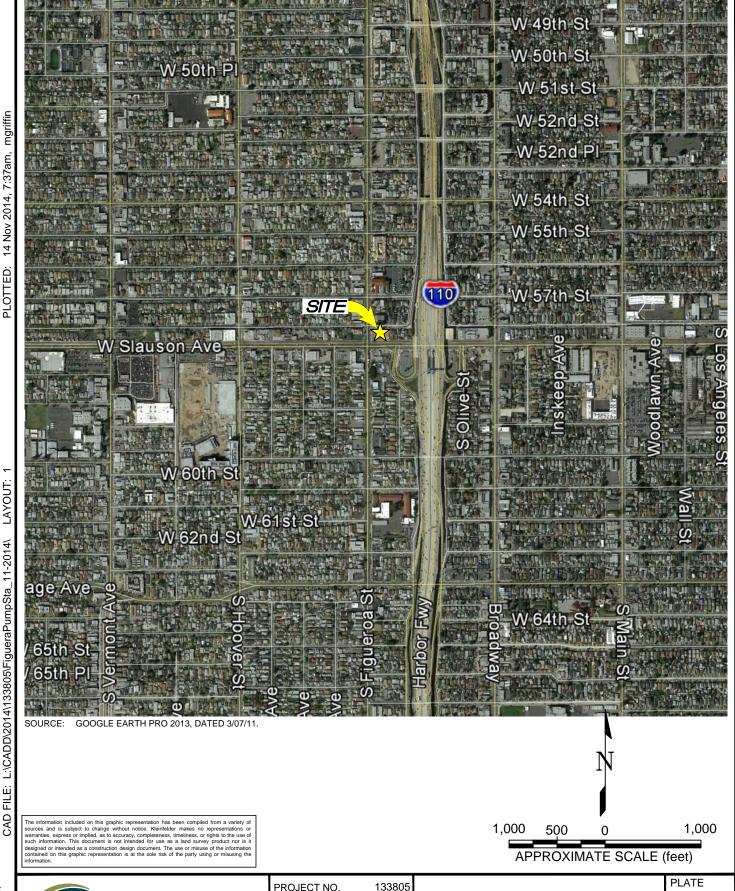


REFERENCES

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PLATES





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SITE LOCATION MAP

PHASE II ENVIRONMENTAL SITE ASSESSMENT FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

1

Images: Aerial_Image_Figueroa_201_3-7-11.jpg

ATTACHED IMAGES: ATTACHED XREFS: LONG BEACH, CA

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PROJECT NO.	133805
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SITE PLAN SHOWING HISTORICAL SOIL BORE LOCATIONS

PHASE II ENVIRONMENTAL SITE ASSESSMENT FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

PLATE

ATTACHED IMAGES: ATTACHED XREFS: LONG BEACH, CA

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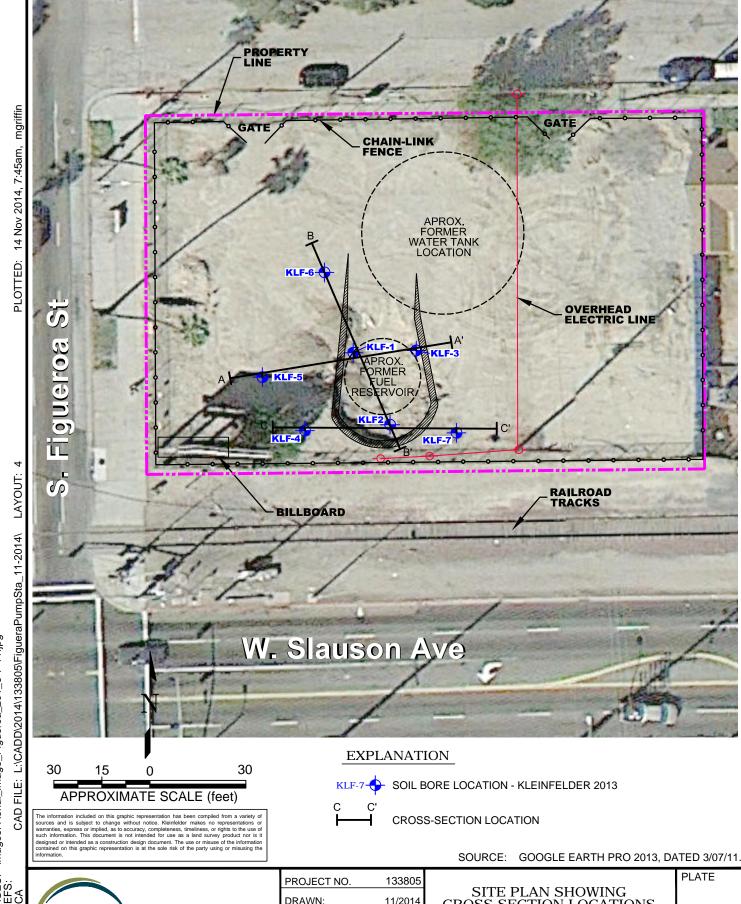
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SITE PLAN SHOWING 2013 SOIL BORE LOCATIONS

PHASE II ENVIRONMENTAL SITE ASSESSMENT FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

PLATE

3



Images: Aerial_Image_Figueroa_201_3-7-11.jpg

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SITE PLAN SHOWING CROSS-SECTION LOCATIONS

PHASE II ENVIRONMENTAL SITE ASSESSMENT FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

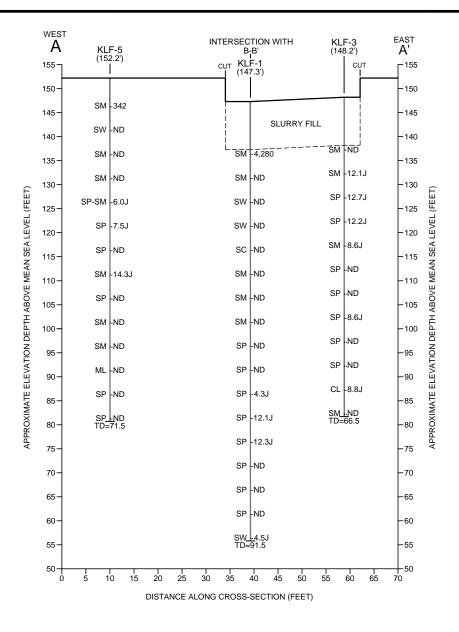
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LEGEND

SM SILTY SAND, SAND-GRAVEL-CLAY MIXTURES

POORLY GRADED SAND, SAND-GRAVEL MIXTURES SP-SM WITH LITTLE FINES

POORLY GRADED SAND, SAND-GRAVEL MIXTURES SP WITH LITTLE OR NO FINES

WELL-GRADED SAND, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES SW

SC CLAYEY SAND, SAND-GRAVEL-CLAY MIXTURES

INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CL GRAVELLY CLAY, SILTY CLAY, LEAN CLAY

INORGANIC SILT AND VERY FINE SAND, SILTY OR CLAYEY FINE SAND, SILT WITH SLIGHT PLASTICITY ML

BORE NUMBER

(152.2')**GROUND ELEVATION (FEET)**

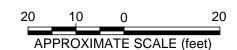
BORE WITH TEPH CONCENTRATION

TEPH TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

MILLIGRAMS PER KILOGRAM mg/kg

NOT DETECTED ABOVE THE ND METHOD DETECTION LIMIT

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PHAS

E II ENVIRONMENTAL SITE ASSESSMENT
FORMER FIGUEROA PUMP STATION
5800 S. FIGUEROA STREET

CROSS-SECTION A-A'

LOS ANGELES, CALIFORNIA

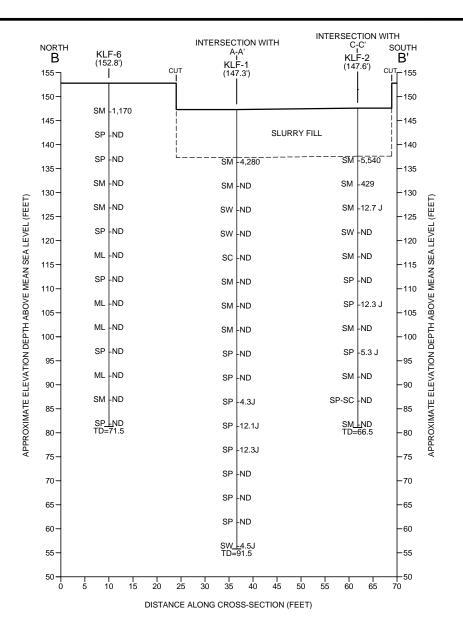
5

PLATE

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<u>9</u>d





LEGEND

SM SILTY SAND, SAND-GRAVEL-CLAY MIXTURES

POORLY GRADED SAND, SAND-GRAVEL MIXTURES WITH LITTLE FINES SP-SC

POORLY GRADED SAND, SAND-GRAVEL MIXTURES SP WITH LITTLE OR NO FINES

WELL-GRADED SAND, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES SW

SC CLAYEY SAND, SAND-GRAVEL-CLAY MIXTURES

INORGANIC SILT AND VERY FINE SAND, SILTY OR CLAYEY FINE SAND, SILT WITH SLIGHT PLASTICITY ML

BORE NUMBER KLF-6 (152.8')

GROUND ELEVATION (FEET)

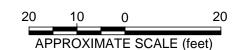
BORE WITH TEPH CONCENTRATION

TEPH TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

mg/kg MILLIGRAMS PER KILOGRAM

NOT DETECTED ABOVE THE ND METHOD DETECTION LIMIT

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PLATE

6

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A contract of the contract of	INFELDER Bright People. Right Solutions.
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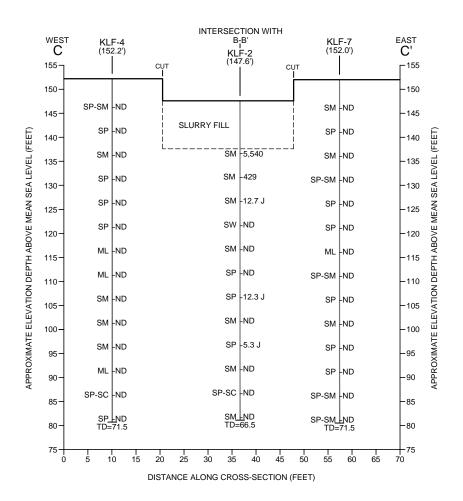
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	FILE NAME:	
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CROSS-SECTION B'-B PHASE II ENVIRONMENTAL SITE ASSESSMENT FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

┙

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<u>LEGEND</u>

SM SILTY SAND, SAND-GRAVEL-CLAY MIXTURES

POORLY GRADED SAND, SAND-GRAVEL MIXTURES SP-SM

WITH LITTLE FINES

POORLY GRADED SAND, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES SP

WELL-GRADED SAND. SAND-GRAVEL MIXTURES SW

WITH LITTLE OR NO FINES

POORLY GRADED SAND, SAND-GRAVEL MIXTURE WITH LITTLE CLAY FINES SP-SC

INORGANIC SILT AND VERY FINE SAND, SILTY OR CLAYEY FINE SAND, SILT WITH SLIGHT PLASTICITY ML

KLF-4 BORF NUMBER

GROUND ELEVATION (FEET) (152.2')

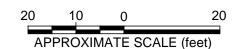
BORE WITH TEPH CONCENTRATION

TEPH TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

MILLIGRAMS PER KILOGRAM mg/kg

NOT DETECTED ABOVE THE ND METHOD DETECTION LIMIT

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PHASE II ENVIRONMENTAL SITE ASSESSMENT
FORMER FIGUEROA PUMP STATION
5800 S. FIGUEROA STREET
LOS ANGELES, CALIFORNIA

CROSS-SECTION C-C'



TABLES

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA - ORGANIC COMPOUNDS



FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

ber	Number	Date	Φ		36)		C28)	Oil C36)	12)	C22)	Oil C32)	Volatile Organic Compounds				
re Number	Sample Nu	Sample D	Sample Depth	ТКРН	TEPH (C9 - C36)	GRO	DRO (C10 -	Motor (C22 - (TPH-g (C4 - C12)	DRO (C12 - (Motor (C23 -	Benzene	Ethylbenzene	Toluene	m,p-Xylene	o-Xylene
B	Sam	ဖိ	(feet)	418.1 (mg/kg)	8015M (mg/kg)	8015B (mg/kg)	8015M (mg/kg)	8015M (mg/kg)	8015M (mg/kg)	8015M (mg/kg)	8015M (mg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)
	SB-1-0.5	8/5/2003	0.5	-	-	-	-	-	0.02J	80J	850	-	-		-	-
SB-1	SB-1-3	8/5/2003	3.0	-	-	-	-	-	0.03J	ND(12)	ND(12)	ND(7.3)	2J	1J	3J	1J
	SB-1-5	8/5/2003	5.0	-		-	-	-	0.02J	30	120	0.5J	0.3J	0.6J	1J	0.6J
	SB-2-0.5	8/5/2003	0.5	-	-	-	-	-	0.02J	230	760	-	-	-	-	-
SB-2	SB-2-3	8/5/2003	3.0	-		-	-	-	0.03J	51J	600	0.4J	2J	0.4J	6J	2J
	SB-2-5	8/5/2003	5.0		<u> </u>	-	-	-	ND(1.1)	ND(11)	23	ND(5.3)	0.6J	0.4J	0.8J	ND(5.3)
SB-3	SB-3-0.5	8/5/2003	0.5		<u> </u>	-	-	-	0.02J 0.02J	53 4J	450 82	0.7J	- 0.8J	- 0.4J	- 1J	- 0.6J
36-3	SB-3-3 SB-3-5	8/5/2003 8/5/2003	3.0 5.0	<u> </u>	H	-	-	-	0.02J	780	2,900	ND(6.6)	0.8J 1J	0.4J 0.5J	1J 1J	0.6J 0.5J
	SB-4-0.5	8/5/2003	0.5	-	H:-	-	-	-	0.02J	31J	300	ND(0.0)	10	0.53	-	0.55
SB-4	SB-4-3	8/5/2003	3.0		<u> </u>	-	-		0.02J	170	1,000	ND(6.7)	1J	0.5J	1J	0.5J
	SB-4-5	8/5/2003	5.0	-	-	-	-	-	ND(1.0)	240	2,500	ND(5.1)	0.8J	0.4J	1J	0.4J
	SB-5-0.5	8/5/2003	0.5		-	-	-	-	ND(1.1)	ND(11)	ND(11)	-	-	-	-	-
00.5	SB-5-3	8/5/2003	3.0	-	-	-	-	-	ND(1.3)	ND(11)	ND(11)	ND(6.3)	0.8J	0.5J	1J	0.4J
SB-5	SB-5-5	8/5/2003	5.0	-	-	-	-	-	0.02J	ND(11)	ND(11)	ND(6.0)	1J	0.4J	3J	2J
	SB-55-5	8/5/2003	5.0	-	-	-	-	-	ND(1.1)	ND(11)	ND(11)	ND(5.4)	0.7J	0.3J	1J	0.4J
	SB-6-0.5	8/5/2003	0.5	-		-	-	-	0.02J	13J	590	-	-	-	-	-
SB-6	SB-66-0.5	8/5/2003	0.5	-	-	-	-	-	ND(1.0)	65J	1,500	-	-	-	-	-
	SB-6-3	8/5/2003	3.0	-	-	-	-	-	0.02J	ND(11)	9J	0.5J	1J	0.6J	1J	0.6J
	SB-6-5	8/5/2003	5.0	-	-	-	-	-	ND(1.0)	ND(11)	ND(11)	ND(5.1)	1J	0.6J	1J	0.4J
SB-7	SB-7-0.5	8/5/2003	0.5	-		-	-	-	0.02J	830	1,900	-	-	-	-	-
SB-7	SB-7-3	8/5/2003	3.0		<u> </u>	-	-	-	ND(1.1)	11 2J	74 ND(13)	ND(5.7) ND(6.3)	1J 1J	0.5J 0.4J	1J	0.5J
-	SB-7-5 SB-8-0.5	8/5/2003 8/5/2003	5.0 0.5		H-:-	-	-	-	ND(1.3) 0.02J	7J	ND(13) 67	ND(6.3)	13	- -	1J -	0.7J -
	SB-8-3	8/5/2003	3.0	 	H:-	-	-	-	0.02J 0.05J	22J	220	7.0	- 2J	0.6J	- 4J	2J
SB-8	SB-8-5	8/5/2003	5.0	-	<u> </u>	-	-	-	0.033 0.1J	28J	180	5J	2J	1J	4J	2J
	SB-8-10	8/5/2003	10.0		<u> </u>	-	-	-	0.13 0.04J	560	1,300	0.5J	2J	0.8J	2J	1J
	SB-9-0.5	8/5/2003	0.5		-	-	-	-	0.02J	ND(11)	ND(11)	-	-	-	-	-
SB-9	SB-99-0.5	8/5/2003	0.5	-	-	-	-	-	ND(1.1)	25J	200	-	-	-	-	-
SB-9	SB-9-3	8/5/2003	3.0	-	-	-	-	-	ND(1.0)	ND(11)	6J	ND(5.2)	0.6J	0.4J	0.9J	ND(5.2)
	SB-9-5	8/5/2003	5.0	-	-	-	-	-	ND(1.0)	ND(11)	4J	ND(5.2)	0.7J	0.3J	0.9J	0.4J
	SB-10-0.5	8/5/2003	0.5	-		-	-	-	0.02J	23J	230	-	-	-	-	-
SB-10	SB-100-0.5	8/5/2003	0.5	-	-	-	-	-	ND(1.1)	28J	600		-	-	-	-
	SB-10-3	8/5/2003	3.0	-	-	-	-	-	ND(1.2)	ND(11)	ND(11)	ND(5.8)	1J	0.4J	1J	0.5J
	SB-10-5	8/5/2003	5.0	-		-	-	-	ND(1.2)	ND(11)	ND(11)	ND(6.0)	1J	0.4J	1J	0.4J
SB-11	SB-11-0.5	8/5/2003	0.5	-		-	-	-	0.02J	44 ND(44)	190	- ND(0.4)	-	- 0.01	-	- 0.51
SB-11	SB-11-3 SB-11-5	8/5/2003 8/5/2003	3.0 5.0	-	H	-	-	-	ND(1.2) ND(1.1)	ND(11) ND(11)	ND(11) ND(11)	ND(6.1) ND(5.3)	1J 0.5J	0.6J 0.3J	1J 0.8J	0.5J 0.4J
	SB-11-5 SB-12-0.5	8/5/2003	0.5	-	-	-	-	-	ND(1.1)	64	920	ND(5.3)	0.53	-	0.83	- 0.43
SB-12	SB-12-0.5 SB-12-4	8/5/2003	4.0	-	<u> </u>	-	-	-	0.02J	200J	1.500	0.4J	- 1J	0.6J	2J	0.8J
02 .2	SB-12-5	8/5/2003	5.0	· .	-	_	_	_	0.02J	14	190	ND(5.6)	0.9J	0.6J	1J	0.5J
	B13-1	8/11/2005	1.0	660	-	-	-	_	-	-	-	-	-	-	-	-
	B13-3	8/11/2005	3.0	260	-	-	-	-	-	-	-	-	-	-	-	-
B13	B13-5	8/11/2005	5.0	410	-	-	-	-	-	-	-	-	-	-	-	-
1	B13-9	8/11/2005	9.0	41,400	2,280	-	ND(20)	-						-		
	B13-10	8/11/2005	10.0	2,960	1,200	-	ND(20)	-	-	-	-	-	-	-	-	-
	B14-1	8/11/2005	1.0	1,090	-	-	-	-		-	-	-	-	-	-	-
B14	B14-3	8/11/2005	3.0	130	-	-	-	-	-	-	-	-	-	-	-	-
	B14-5	8/11/2005	5.0	40		-	-	-	-	-	-	-	-	-	-	-
	B15-1	8/11/2005	1.0	20,690		-	-	-		-	-		-	-	-	-
B15	B15-3	8/11/2005	3.0	54		-	-	-	<u> </u>	-		<u> </u>	-	-	-	-
	B15-5	8/11/2005	5.0	52	-	-	-	-		-	-		-	-	-	-

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA - ORGANIC COMPOUNDS



FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

Number	Number	Date	Φ.		(36)		C28)	Oil C36)	:12)	C22)	Oil C32)		Volatil	le Organic Comp	ounds	
Bore Nun	Sample Nu	Sample Date	Sample Depth	± 6 2 ⊢ 418.1	100 - C36)	O % 8015B	DRO 015W	Motor (C22 - 0	M5108 M5108 (C4 - C12)	0215 (C12 -	Motor (C23 -	Benzene 8260	Ethylbenzene 8260	Toluene 8260	m,p-Xylene 8260	o-Xylene 8260
ш	S	0,	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)	8260 (μg/kg)
	B16-1	8/11/2005	1.0	1,290	-	l -	-	- 1	-	- 1	-	-	- 1	-	-	-
B16	B16-3	8/11/2005	3.0	1,980	-	-	-	_	-	-	_	-	_	_	-	_
	B16-10	8/11/2005	10.0	580	-	-	-	-	-	-	-	-	-	-	-	-
	B17-1	8/11/2005	1.0	3,650	-	-	-	-	-	-	-	-	-	-	-	-
B17	B17-3	8/11/2005	3.0	1,540		-	-	-	-	-	-	-	-	-	-	-
517	B17-5	8/11/2005	5.0	1,180		-	-	-	-	-	-	-	-	-	-	-
	B17-10	8/11/2005	10.0	140	-	-	-	-	-	-	-	-	-	-	-	-
	B18-1	8/11/2005	1.0	380		-	-	-	-	-	-	-	-	-	-	-
B18	B18-3	8/11/2005	3.0	52		-	-	-	-	-	-	-	-	-	-	-
	B18-5	8/11/2005	5.0	90	-	-	-	-	-	-	-	-	-	-	-	-
B19	B19-1 B19-3	8/11/2005 8/11/2005	3.0	310 50		-	-	-	<u> </u>	-	-	-	-	-	-	-
D19	B19-3	8/11/2005	5.0	25J	H	-	-	-	<u> </u>	-	-	-	-	-	-	-
	B20-1	8/11/2005	1.0	27,000		-			<u> </u>	_					-	
	B20-3	8/11/2005	3.0	1.300	<u> </u>	-	-		<u> </u>	_	-		-	-	-	-
B20	B20-5	8/11/2005	5.0	8.660		-	-	_		_	-		_	-	_	-
	B20-10	8/11/2005	10.0	16,360	-	-	-	_	_	-	_	_	_	-	-	_
	B21-1	8/11/2005	1.0	104		-	-	-	-	-	-	-	-	-	-	-
B21	B21-5	8/11/2005	5.0	170	934	-	ND(4)	-	-	-	-	-	-	-	-	-
	B21-9	8/11/2005	9.0	448,000 / 11,300	9,980	-	9,980	-	-	-	-	-	-	-	-	-
	B22-1	8/11/2005	1.0	490	-	-	-	-	-	-	-	-	-	-	-	-
B22	B22-5	8/11/2005	5.0	11J	-	-	-	-	-	-	-	-	-	-	-	-
	B22-9	8/11/2005	9.0	34		-	-	-	-	-	-	-	-	-	-	-
	B23-1	8/11/2005	1.0	2,840		-	-	-	-	-	-	-	-	-	-	-
B23	B23-3	8/11/2005	3.0	29		-	-	-	-	-	-	-	-	-	-	-
	B23-5	8/11/2005	5.0	34		-	-	-	-	-	-	-	-	-	-	-
B24	B24-1	8/11/2005	1.0	420		-	-	-	-	-	-	-	-	-	-	-
	B24-3 B25-1	8/11/2005	3.0	27		-	-	-		-	-	-	-	-	-	-
B25	B25-1 B25-3	8/11/2005 8/11/2005	1.0 3.0	2,720		-	-	-	<u> </u>	-	-	-	-	-	-	-
	B25-3 B26-1	8/11/2005	1.0	940	- : -	-		-	- :	-		-	-	-	-	
B26	B26-3	8/11/2005	3.0	24	<u> </u>	-	-		<u> </u>	-		-	-		-	-
	B27-1	8/11/2005	1.0	1,700	<u> </u>		-		<u> </u>	-	-	-	-	-	-	-
B27	B27-3	8/11/2005	3.0	3,900		_	_	-	l .	_	-	-	-	-	-	_
1	B27-5	8/11/2005	5.0	100	-	-	-	_	-	-	_	-	_	_	-	_
Excavation 58th & Fig 7/8/2009 17.0		70,100	-	29.2	24,000	ND(16)	-	-	-	ND(0.7)	ND(0.6)	ND(0.6)	ND(1.1)	ND(0.6)		
Screening V												` ` `	, , ,	` '	` ′	` '
RSL - Reside				NV	NV	82	110	2,500	82	110	2,500	1,200*	5,800*	4,900,000*	550,000*	650,000*
RSL - Industr				NV	NV	420	600	33,000	420	600	33,000	5,100*	25,000*	47,000,000*	2,400,000*	2,800,000*

 Notes:
 TEPH
 Total extractable petroleum hydrocarbons

 TRPH
 Total recoverable petroleum hydrocarbons

 TPH-g
 Total petroleum hydrocarbons gasoline

(C9 - C36) Carbon chain range of analysis

DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

mg/kg Milligrams per kilogram μg/kg Micrograms per kilogram

ND Not detected above the practical quantitation limit, which is shown in parentheses

-- Analysis not performed on sample

J Estimated concentration between method detection limit and practical quantitation limit

NV No published value

US EPA May 2014 Regional Screening Level (in mg/kg); RSL values for TPH-g, TPH-d, and TPH-o are for Aromatic Low, Medium, and High, respectively

Yellow shading Indicates detected TPH concentration is higher than the residential RSL Screening Value

Screening value converted from mg/kg to µg/kg

TABLE 2 HISTORICAL SOIL ANALYTICAL DATA - TTLC METALS FORMER FIGUEROA PUMP STATION

FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA



Section Part										2007	GELES, CAL	01.1.1									
Section Sect	Bore Number	Sample Number	Sample Date	Sample	6010B	Arsen 8010B	6010B	6010B	ර 6010B	등 전 6010B	6010B	6010B	6010B	<u>₹</u> 7471A		6010B	ഗ് 6010B	<u>ගි</u> 6010B	6010B	6010B	6010B
Section Sect		1								1						1					
Section Sect																					
68-203 6	SB-1																				
\$8-24							-	-	-	-	-	-			-	-	-	-	-		-
\$9-28							-	-	-	-	-	-			-	-	-	-	-		-
Section Sect	SB-2	SB-2-3	8/5/2003	3		4.1	-	-	-	-	-	-	90.9	0.097J	-	-	-	-	-	-	-
Section Sect		SB-2-5	8/5/2003	5		1.9	-	-	-	-	-	-	3.5	0.13J	-	-	-	-	-	-	-
Section Sect					-		-	-	-	-	-	-			-	-	-	-	-	-	-
Section Sect	SB-3						-	-	-	-	-	-			-	-		-	-		-
Section Sect					-		-	-	-	-	-	-			-	-		-	-	-	-
Section Sect		SB-4-0.5	8/5/2003	0.5		5.7	-	-	-	-	-	-	181	0.13J	-	-	-	-	-	-	-
\$8 \$6 \$6 \$6 \$6 \$3 \$3 \$2 \$1 \$2 \$1 \$1 \$1 \$1 \$1	SB-4	SB-4-3	8/5/2003	3	-	3.9	-	-	-	-	-	-	98.6	0.10J	-	-	-	-	-	-	-
Section Sect							-	-	-	-	-	-			-	-	-	-	-	-	-
Sept. Sept			8/5/2003				-	-	-	-	-	-			-	-	-	-	-	-	-
SB-84 SB-2000 S	SR-5						-	-	-	-	-	-			-	-	-		-	-	-
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Sept		SB-55-5	8/5/2003	5	-	1.6		-		-	-		2.8	0.0097J		-	-		-		-
Sept			8/5/2003	0.5	-		-	-	-	-	-	-		0.061J	-	-		-	-	-	-
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Sept		SB-6-5	8/5/2003	5	-	0.71	-	-	-	-	-	-	2.9	0.11J	-	-	-	-	-	-	-
SB-76 SB-903 SB		SB-7-0.5	8/5/2003	0.5	-	4.2		-		-	-		126	0.39		-	-		-		-
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TABLE 2 HISTORICAL SOIL ANALYTICAL DATA - TTLC METALS

FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA



Bore Number	Sample Number	Sample Date	Sample Depth	Antimony	Arsenic BO109	Barium 80109	Beryllium	Cadmium B010B	Total Chromium	Copalt Copalt	Copper	Fead 6010B	Mercury 7471A	Molybdenum 6010B	Nickell	Seenium 8010B	>	Thallium	Vanadium 80	2 <u>117</u> 6010B
			(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	B19-1	8/11/2005	1	7.5	4.6J	115.9	0.4J	2.3J	15.9	16.0	26.6	96.4	-	1.3	12.8	7.6	ND(2.5)	ND(2.5)	37.2	156.7
B19	B19-3	8/11/2005	3	10.0	4.5J	135.4	0.5J	2.1J	18.2	20.1	18.6	26.4	-	0.6J	11.1	ND(0.7)	ND(2.5)	ND(2.5)	44.2	62.2
	B19-5	8/11/2005	5	8.1	3.4J	118.5	0.4J	1.8J	15.7	17.6	10.2	6.2	-	0.4J	9.6	ND(0.7)	ND(2.5)	ND(2.5)	37.6	42.7
	B20-1	8/11/2005	1	1.5J	4.5J	69.2	ND(0.3)	1.1J	8.7	10.4	24.8	30.1	-	ND(0.2)	9.5	10.4	ND(2.5)	ND(2.5)	26.7	40.1
B20	B20-3	8/11/2005	3	13.3	8.4	788.0	ND(0.3)	3.0J	20.6	15.2	50.0	257.4	-	1.1	12.1	32.6	ND(2.5)	ND(2.5)	28.6	863.0
520	B20-5	8/11/2005	5	8.2	7.9	92.9	0.3J	1.7J	19.2	13.8	47.9	33.6	-	1.6	18.3	ND(0.7)	ND(2.5)	ND(2.5)	27.9	59.1
	B20-10	8/11/2005	10	2.5J	1.2J	64.2	ND(0.3)	0.9J	6.3	7.3	4.8	6.1	-	0.5J	7.8	ND(0.7)	ND(2.5)	ND(2.5)	21.5	13.1
	B21-1	8/11/2005	1	9.4	5.1	96.3	0.4J	1.4J	13.9	15.3	10.9	14.6	-	2.3	8.6	ND(0.7)	ND(2.5)	ND(2.5)	34.4	42.7
B21	B21-5	8/11/2005	5	7.5	9.1	160.7	0.4J	1.8J	17.5	15.3	41.2	41.0	-	0.9J	13.2	ND(0.7)	ND(2.5)	ND(2.5)	34.5	79.9
	B21-9	8/11/2005	9	2.7J	5.9	74.4	ND(0.3)	1.2J	8.5	6.8	4.2	8.9	-	0.7J	6.0	ND(0.7)	ND(2.5)	ND(2.5)	17.1	126.3
	B21-9B	8/11/2005	9	5.9	6.4	99.4	0.3J	1.5J	16.2	11.6	35.1	80.4	-	2.3	22.6	0.9J	ND(2.5)	ND(2.5)	52.5	130.3
	B22-1	8/11/2005	1	10.4	10.6	122.4	0.4J	1.7J	14.3	14.3	13.0	19.5	-	0.8J	9.7	8.2	ND(2.5)	ND(2.5)	32.3	49.8
B22	B22-5	8/11/2005	5	8.8	2.8J	141.3	0.5J	1.9J	16.6	18.5	12.9	12.4	-	0.4J	9.9	ND(0.7)	ND(2.5)	ND(2.5)	40.2	50.2
	B22-9	8/11/2005	9	3.4J	3.8J	350.8	ND(0.3)	3.4	11.1	11.3	7.5	1,016	-	0.7J	5.9	25.2	ND(2.5)	ND(2.5)	25.5	620.4
	B23-1	8/11/2005	11	1.0J	ND(1.0)	84.9	ND(0.3)	1.2J	8.6	9.6	13.7	329.3	-	0.4J	6.6	1.3J	ND(2.5)	ND(2.5)	23.6	71.6
B23	B23-3	8/11/2005	3	8.2	3.4J	103.9	0.4J	1.8J	13.9	16.1	9.2	3.4J	-	0.4J	7.7	ND(0.7)	ND(2.5)	ND(2.5)	35.1	36.2
	B23-5	8/11/2005	5	7.8	2.3J	93.4	0.4J	1.4J	12.9	14.4	7.5	3.2J	-	0.3J	7.2	ND(0.7)	ND(2.5)	ND(2.5)	32.8	33.6
B24	B24-1	8/11/2005	1	3.0J	4.8J	101.8	0.4J	1.6J	8.1	10.9	13.2	208.8	-	0.4J	5.8	6.4	ND(2.5)	ND(2.5)	24.8	57.0
	B24-3	8/11/2005	3	8.3	4.5J	96.3	0.3J	1.4J	12.4	14.7	8.2	4.4J	-	0.3J	7.5	ND(0.7)	ND(2.5)	ND(2.5)	32.8	33.5
B25	B25-1	8/11/2005	1	2.1J	4.9J	88.2	ND(0.3)	1.4J	9.6	10.2	11.8	165.6	-	0.4J	9.0	ND(0.7)	ND(2.5)	ND(2.5)	27.5	53.5
	B25-3	8/11/2005	3	9.4	2.8J	113.6	0.4J	1.5J	15.4	16.8	9.2	5.5	-	0.6J	8.5	ND(0.7)	ND(2.5)	ND(2.5)	37.4	39.8
B26	B26-1	8/11/2005	1	6.8	3.0J	97.5	ND(0.3)	1.3J	10.4	12.1	10.9	147.1	-	0.4J	7.5	ND(0.7)	ND(2.5)	ND(2.5)	26.0	48.6
	B26-3	8/11/2005	3	6.5	5.4	157.2	0.6J	2.4J	21.3	22.9	19.4	18.3	-	0.6J	12.9	ND(0.7)	ND(2.5)	ND(2.5)	50.7	66.4
B27	B27-1 B27-3	8/11/2005 8/11/2005	3	8.1 8.3	5.9 5.1	129.1 190.9	ND(0.3) 0.5J	1.5J 2.7J	11.6 17.6	12.1 17.5	30.4 26.1	25.6 347.3	-	0.5J 0.3J	7.9 13.6	ND(0.7) 6.5	ND(2.5) ND(2.5)	ND(2.5) ND(2.5)	26.6 38.2	83.3 206.4
621	B27-3 B27-5			0.8J	5.1 3.1J		0.5J	1.3J			10.9	12.6	-	0.3J ND(0.2)	8.6	0.7J	ND(2.5) ND(2.5)	ND(2.5) ND(2.5)	22.2	206.4
Caraanina Val		8/11/2005	5	0.8J	3.1J	105.1	0.3J	1.3J	11.8	10.2	10.9	12.6	-	ND(0.2)	8.6	0.7J	ND(2.5)	ND(2.5)	22.2	20.5
Screening Value	ues																			
TTLC				500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
STLC (mg/L)				15	5	100	0.75	1	560/5	80	25	5	0.2	350	20	1	5	7	24	250
TCLP Value (m				NV	5	100	NV	1	5	NV	NV	5	0.2	NV	NV	11	5	NV	NV	NV
RSL - Resident				31	0.062	15,000*	15.2*	4.58*	120,000**	23	3,100	80*	9.4***	390	1,500****	390	390	0.78	390	23,000
RSL - Industrial	l (mg/kg)			470	0.25	220,000*	183*	6.37*	1,800,000**	350	47,000	320*	40***	5,800	22,000****	5,800	5,800	12	5,800	350,000
					1			1	, ,			1			1					
		10xSTL		150	50	1,000	7.5	10	50	800	250	50	2	3,500	200	10	50	70	240	2,500
		20xTCL	P	NV	100	2,000	NV	20	100	NV	NV	100	4	NV	NV	20	100	NV	NV	NV

Notes:	6010B	United States Environmental Protection Agency (US EPA) analytical method number	347	Result greater than 10 x STLC
	mg/kg	Milligrams per kilogram	1,016	Result greater than TTLC and 10 x STLC and residential RSL Screening Value
	mg/L	Milligrams per liter		Samples tested for STLC metals [except mercury]
	ND	Not detected above the practical quantitation limit, which is shown in parentheses		Samples tested for STLC metals [except mercury] and TCLP metals
	J	Estimated concentration between method detection limit and practical quantitation limit	4.77 J	Indicates detected concentration is higher than the residential RSL Screening Value
		Analysis not performed on sample		
	STLC	California Code of Regulations Title 22 Soluble Threshold Limit Concentration		

US EPA May 2014 Regional Screening Level (in mg/kg); note RSLs with an asterisk (*) are instead alternate soil screening levels provided in the California Office of Human and Ecological Risk's Human Health Risk Assesment

NV No value

** Trivalent chromium

*** Elemental mercury

**** Soluble nickel salts

TCLP

RSL

TTLC California Code of Regulations Title 22 Total Threshold Limit Concentration

Toxicity Characteristic Leaching Procedure

Note No. 3, dated July 14, 2014

TABLE 3 HISTORICAL SOIL ANALYTICAL DATA - STLC and TCLP METALS

FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA



Number	Number	Date	Depth	Á			Ε	Ε	ıromium				mnu		E			Ε	
Bore Nt	Sample !	Sample	Sample	Antimony	senic	Barium	eryllium	Sadmium	otal Ch	Cobalt	Copper	ead	Molybder	Nickel	leniur	Silver	Fhallium	anadium	ဥ
ă	Sar	Ø	Sa		€ 6010B	6010B	മ് 6010B	<u>පී</u> 6010B	<u>₽</u> 6010B	රි 6010B	<u>රි</u> 6010B	9 6010B	≦ 6010B	<u> </u>	တီ 6010B	ਲ 6010B	는 6010B	<u>Ş</u> 6010B	2
			(feet)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SOLUBL	E METALS BY W	ET																	
	B13-1	8/11/2005	1	0.138	0.102J	0.72	0.055	0.128	0.083	0.155	0.268	2.030	0.026	0.175	ND(0.014)	ND(0.05)	ND(0.05)	0.194	3.710
	B13-3	8/11/2005	3	0.062J	0.120	1.11	0.016J	0.046J	0.049	0.122	0.142	0.093J	0.059	0.146	ND(0.014)	ND(0.05)	ND(0.05)	0.181	0.332
B13	B13-5	8/11/2005	5	0.024J	0.092J	0.61	ND(0.006)	0.020J	0.076	0.126	0.324	1.164	0.050	0.114	ND(0.014)	ND(0.05)	ND(0.05)	0.265	0.979
	B13-9	8/11/2005	9	0.056J	0.065J	0.79	0.043	0.089	0.146	0.102	0.130	0.636	0.030	0.314	ND(0.014)	ND(0.05)	ND(0.05)	0.090	0.892
-	B13-10 B14-1	8/11/2005 8/11/2005	10	0.070J 0.056J	0.080J 0.072J	0.75 1.80	0.007J ND(0.006)	0.013J 0.018J	0.086	0.251 0.110	0.182 0.256	1.228 2.462	0.033 0.025	0.265 0.125	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05) ND(0.05)	0.377	1.239 0.794
B14	B14-1 B14-3	8/11/2005	3	ND(0.016)	0.0723	2.50	0.008J	0.018J	0.059	0.110	0.256	0.261	0.025 0.015J	0.125	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05)	0.190	0.794
514	B14-5	8/11/2005	5	0.056J	0.162 0.033J	1.25	ND(0.006)	ND(0.013)	0.211	0.050	0.104	0.261	0.013J	0.093	ND(0.014)	ND(0.05)	ND(0.05)	0.136	0.219
	B15-1	8/11/2005	1	0.098	0.113	1.11	ND(0.006)	0.020J	0.554	0.093	0.420	1.037	0.162	0.033	ND(0.014)	ND(0.05)	ND(0.05)	0.155	1.387
B15	B15-3	8/11/2005	3	0.216	0.262	1.83	0.206	0.847	0.657	0.579	0.257	0.363	ND(0.004)	0.716	0.458	ND(0.05)	ND(0.05)	0.320	3.767
	B15-5	8/11/2005	5	ND(0.016)	0.111	0.50	ND(0.006)	ND(0.013)	0.054	0.100	0.119	0.033J	ND(0.004)	0.098	ND(0.014)	ND(0.05)	ND(0.05)	0.180	0.321
	B16-1	8/11/2005	1	0.022J	0.114	0.62	ND(0.006)	ND(0.013)	0.066	0.078	0.340	1.329	0.019J	0.117	ND(0.014)	ND(0.05)	ND(0.05)	0.187	0.944
B16	B16-3	8/11/2005	3	0.053J	0.089J	0.49	ND(0.006)	ND(0.013)	0.064	0.099	0.110	0.339	ND(0.004)	0.086	ND(0.014)	ND(0.05)	ND(0.05)	0.161	1.129
	B16-10	8/11/2005	10	0.053J	0.078J	0.46	ND(0.006)	0.021J	0.067	0.205	0.368	1.616	0.014J	0.313	ND(0.014)	ND(0.05)	ND(0.05)	0.761	1.963
	B17-1	8/11/2005	1	0.375	0.385	1.71	ND(0.006)	ND(0.013)	0.346	0.122	0.119	1.319	ND(0.004)	0.259	0.303	ND(0.05)	ND(0.05)	0.080	3.037
B17	B17-3	8/11/2005	3	0.051J	0.065J	0.97	ND(0.006)	0.015J	0.084	0.258	0.250	1.197	0.032	0.257	ND(0.014)	ND(0.05)	ND(0.05)	0.448	1.302
J	B17-5	8/11/2005	5	0.072J	0.087J	0.65	ND(0.006)	0.022J	0.070	0.241	0.443	2.039	0.024	0.344	ND(0.014)	ND(0.05)	ND(0.05)	0.860	4.341
	B17-10	8/11/2005	10	0.032J	0.124	1.99	ND(0.006)	ND(0.013)	0.179	0.155	0.183	0.984	0.022	0.268	ND(0.014)	ND(0.05)	ND(0.05)	0.358	0.568
D40	B18-1	8/11/2005	1	0.030J	0.096J	0.63	ND(0.006)	0.028J	0.049	0.127	0.285	1.203	0.013J	0.133	ND(0.014)	ND(0.05)	ND(0.05)	0.178	4.860
B18	B18-3	8/11/2005	3	ND(0.016)	0.035J	0.53	ND(0.006)	ND(0.013)	0.063	0.155	0.186	0.319	0.014J	0.118	ND(0.014)	ND(0.05)	ND(0.05)	0.222	0.233
	B18-5	8/11/2005	5	0.030J	0.096J	1.85	ND(0.006)	ND(0.013)	0.046	0.124	0.080	0.046J	0.010J	0.088	ND(0.014)	ND(0.05)	ND(0.05)	0.170	0.076
B19	B19-1	8/11/2005	1	ND(0.016)	0.144	1.09	ND(0.006)	0.029J	0.198	0.126	0.948	13.47	0.052	0.363	ND(0.014)	ND(0.05)	ND(0.05)	0.288	4.431
БІЭ	B19-3 B19-5	8/11/2005 8/11/2005	3 5	0.022J ND(0.016)	0.024J ND(0.021)	1.52 0.53	ND(0.006) ND(0.006)	ND(0.013) ND(0.013)	0.072 0.043	0.169 0.136	0.282	1.350 0.244	0.020J 0.011J	0.127 0.108	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05) ND(0.05)	0.291 0.183	0.407
-	B20-1	8/11/2005	1	ND(0.016)	0.037J	0.57	ND(0.006)	ND(0.013)	0.043	0.130	0.336	0.380	0.0113	0.108	ND(0.014)	ND(0.05)	ND(0.05)	0.103	0.389
	B20-3	8/11/2005	3	0.129	0.127	0.74	ND(0.006)	0.036J	0.033	0.125	1.485	5.217	0.022	0.133	0.307	ND(0.05)	ND(0.05)	0.197	16.810
B20	B20-5	8/11/2005	5	0.045J	0.159	1.04	ND(0.006)	0.038J	0.412	0.123	1.576	1.540	0.058	0.500	ND(0.014)	ND(0.05)	ND(0.05)	0.456	1.985
	B20-10	8/11/2005	10	0.028J	0.061J	0.60	ND(0.006)	ND(0.013)	0.066	0.060	0.208	0.861	0.008J	0.151	ND(0.014)	ND(0.05)	ND(0.05)	0.092	0.444
	B21-1	8/11/2005	1	0.036J	0.070J	1.23	ND(0.006)	ND(0.013)	0.039	0.084	0.233	0.396	0.020J	0.120	ND(0.014)	ND(0.05)	ND(0.05)	0.205	0.209
B21	B21-5	8/11/2005	5	ND(0.016)	0.168	1.65	ND(0.006)	ND(0.013)	0.286	0.121	1.036	1.147	0.044	0.386	ND(0.014)	ND(0.05)	ND(0.05)	0.286	1.594
DZ I	B21-9	8/11/2005	9	0.079J	0.190	1.44	ND(0.006)	ND(0.013)	0.221	0.055	0.038	ND(0.019)	0.027	0.162	ND(0.014)	ND(0.05)	ND(0.05)	0.306	0.052
	B21-9B	8/11/2005	9	0.068J	0.170	1.22	ND(0.006)	0.027J	0.126	0.117	0.989	3.451	0.012J	0.384	ND(0.014)	ND(0.05)	ND(0.05)	0.851	3.930
	B22-1	8/11/2005	1	0.064J	0.251	1.75	ND(0.006)	0.016J	0.120	0.099	0.334	1.352	0.032	0.194	ND(0.014)	ND(0.05)	ND(0.05)	0.280	1.421
B22	B22-5	8/11/2005	5	ND(0.016)	0.070J	0.66	ND(0.006)	ND(0.013)	0.056	0.158	0.169	0.384	0.015J	0.123	ND(0.014)	ND(0.05)	ND(0.05)	0.233	0.245
	B22-9	8/11/2005	9	0.104	0.142	0.87	ND(0.006)	0.181	0.165	0.086	0.204	58.120	0.021	0.110	1.611	ND(0.05)	ND(0.05)	0.226	49.810
	B23-1	8/11/2005	1	0.022J	0.090J	0.93	ND(0.006)	0.016J	0.093	0.078	0.570	21.600	0.005J	0.114	ND(0.014)	ND(0.05)	ND(0.05)	0.103	2.621
B23	B23-3	8/11/2005	3	0.022J	0.037J	1.33	ND(0.006)	ND(0.013)	0.028J	0.071	0.126	1.617	0.008J	0.091	ND(0.014)	ND(0.05)	ND(0.05)	0.198	0.059
	B23-5	8/11/2005	5	0.024J	0.065J	1.52	ND(0.006)	ND(0.013)	0.047	0.067	0.074	0.308	0.012J	0.069	ND(0.014)	ND(0.05)	ND(0.05)	0.129	0.043
B24	B24-1	8/11/2005	1	0.039J	0.089J	0.81	ND(0.006)	ND(0.013)	0.074	0.078	0.277	9.058	ND(0.004)	0.095	ND(0.014)	ND(0.05)	ND(0.05)	0.070	1.437
-	B24-3 B25-1	8/11/2005 8/11/2005	3	0.032J 0.060J	0.056J 0.214	1.24 1.26	ND(0.006)	ND(0.013) 0.015J	0.037	0.093	0.118	1.086 7.135	0.012J 0.023	0.092	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05)	0.189	0.046 1.215
B25	B25-1 B25-3		_	0.060J 0.049J			ND(0.006)		0.149	0.088	0.311						ND(0.05)		
-	B25-3 B26-1	8/11/2005 8/11/2005	3	0.049J 0.058J	0.080J 0.124	1.10 1.49	ND(0.006) ND(0.006)	ND(0.013) ND(0.013)	0.046	0.119	0.172	0.041J 6.203	0.019J 0.006J	0.110	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05) ND(0.05)	0.207 0.152	0.081 0.916
B26	B26-3	8/11/2005	3	0.058J 0.072J	0.124 ND(0.021)	2.60	ND(0.006)	ND(0.013)	0.072 0.023J	0.075	0.297	0.808	0.006J 0.015J	0.107	ND(0.014) ND(0.014)	ND(0.05) ND(0.05)	ND(0.05) ND(0.05)	0.152	0.916
	D20-3	0/11/2005	J	U.U/2J	IND(U.UZT)	2.00	(מטטיט)מאו	IND(U.U13)	U.UZ3J	0.000	0.094	0.000	0.015J	0.004	ND(0.014)	(CO.U)	MD(0.03)	0.209	0.060

TABLE 3

HISTORICAL SOIL ANALYTICAL DATA - STLC and TCLP METALS

FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA



Bore Number	Sample Number	Sample Date	Sample Depth	Antimony 6010B	Ar senic	Barin Barin 6010B	Beryllium 6010B	Cadmin Cadmin Go10B	Bolo9	Cobalit Cobalit	Jaddo Golober	6010B	Molybdenum 6010B		Selenium 0010B	Silver 6010B	Thallium 0010B	Vanadium B0109	Zinc 6010B
			(feet)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
D07	B27-1	8/11/2005	1	ND(0.016)	0.201	2.38	ND(0.006)	0.020J	0.286	0.130	1.052	ND(0.019)	ND(0.004)	0.269	ND(0.014)	ND(0.05)	ND(0.05)	0.128	0.938
B27	B27-3	8/11/2005	3	ND(0.016)	0.085J	0.98	ND(0.006)	0.020J	0.082	0.122	0.319	1.969	0.025	0.184	ND(0.014)	ND(0.05)	ND(0.05)	0.168	3.914
201 1101	B27-5	8/11/2005	5	0.074J	0.179	1.87	ND(0.006)	ND(0.013)	0.279	0.146	0.285	0.184	0.036	0.373	ND(0.014)	ND(0.05)	ND(0.05)	0.261	0.643
	E METALS BY TO							115 (2.212)	115/2 222			115/2 212			115/2 21/1	115 (2.25)			
B13	B13-10	8/11/2005	10		0.024J	0.78J		ND(0.013)	ND(0.006)		-	ND(0.019)			ND(0.014)	ND (0.05)			
B20	B20-3	8/11/2005	3		ND(0.021)	0.49J		0.018J	0.021J			2.712			0.109	ND (0.05)			
B22	B22-9	8/11/2005	9		0.038J	0.56J		0.028J	0.028J			2.332			ND(0.014)	ND (0.05)			
B23	B23-1	8/11/2005	1		ND(0.021)	0.94J		0.015J	0.008J			0.856			ND(0.014)	ND (0.05)			
B24	B24-1	8/11/2005	1		ND(0.021)	0.92J		ND(0.013)	0.014J			0.347			ND(0.014)	ND (0.05)			
B25	B25-1	8/11/2005	1		0.046J	0.84J		ND(0.013)	0.011J	1	1	ND(0.019)			ND(0.014)	ND (0.05)			
B26	B26-1	8/11/2005	1		0.030J	0.94		ND(0.013)	ND(0.006)	1	-	0.100			ND(0.014)	ND (0.05)			
B27	B27-3	8/11/2005	3	-	0.031J	0.84	-	ND(0.013)	ND(0.006)			0.041J			ND(0.014)	ND (0.05)		-	
Screenin	g Values								•										
STLC (mg	1/L)			15	5	100	0.75	1	560/5	80	25	5	350	20	1	5	7	24	250
TCLP (mg	1/L)				5	100		1	5			5			1	5			

Notes:	6010B	United States Environmental Protection Agency (US EPA) analytical method number

Milligrams per liter mg/L

ND Not detected above the practical quantitation limit, which is shown in parentheses

J Estimated concentration between method detection limit and practical quantitation limit Analysis not performed on sample

California Code of Regulations Title 22 Soluble Threshold Limit Concentration Toxic Characteristic Leaching Procedure STLC

TCLP

Concentration exceeds the STLC threshold

KLEINFELDER
Bright People. Right Solutions.

5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

Bore Number	Sample Number	Sample Date	Sample Depth	0 25 8015B (mg/kg)	± ≟ ⊬ 418.1 (mg/kg)	(9E) - (32) 8015M (mg/kg)	MS/k68) M5/k69 (C10 - C28)	(mg/kg) Motor Oil (C22 - C36)	Butylbenzene	enezene 8260B (µg/kg)	(#g/kg)	Ethylbenzene (#8/kg)	8260B (Hg/kg)	Hollonene (1809/kg)	(#g/kg)	8260B Propylbenzene	(57) (2,4-Trimethylbenzene	(hg/kg) B 1,3,5-Trimethylbenzene	82608 82608 87, Xylene	euel/X/-0 8260B (µg/kg)
	KLF-1-10	5/13/2013	10	ND (22)	11,749	4,280	3.240	1.040	1,200	ND (27)	38 J	1.003	786	447	3,456	1,449	42 J	196	ND (75)	ND (28)
	KLF-1-15	5/13/2013	15	ND (22)	61 J	ND (4)	ND (29)	ND (35)	2,372	1,425	ND (28)	2,146	1,431	1,313	5,485	2,684	7,680	1,764	1,524	855
	KLF-1-20	5/13/2013	20	ND (1.1)	56 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-25	5/13/2013	25	ND (1.1)	38 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-30	5/13/2013	30	ND (1.1)	26 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-35	5/13/2013	35	ND (1.1)	37 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-40	5/13/2013	40	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-45	5/13/2013	45	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-1	KLF-1-50	5/13/2013	50	ND (1.1)	31 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-55	5/13/2013	55	ND (1.1)	26 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-60	5/13/2013	60	ND (1.1)	ND (18)	4.3 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-65	5/13/2013	65	ND (1.1)	ND (18)	12.1 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-70	5/13/2013	70	ND (1.1)	31 J	12.3 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-75	5/13/2013	75	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-80	5/13/2013	80	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-85	5/13/2013	85	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-1-90	5/13/2013	90	ND (1.1)	ND (18)	4.5 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-10	5/14/2013	10	ND (22)	13,093	5,540	4,520	1,020	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-15	5/14/2013	15	ND (1.1)	1,592	429	ND (29)	429	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-20	5/14/2013	20	ND (1.1)	ND (18)	12.7 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-25	5/14/2013	25	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-30	5/14/2013	30	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-2	KLF-2-35 KLF-2-40	5/14/2013 5/14/2013	35	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-40 KLF-2-45	5/14/2013	40 45	ND (1.1)	ND (18) ND (18)	12.3 J ND (4)	ND (29) ND (29)	ND (35) ND (35)	ND (29) ND (29)	ND (27) ND (27)	ND (28) ND (28)	ND (30) ND (30)	ND (33) ND (33)	ND (28) ND (28)	ND (30) ND (30)	ND (30) ND (30)	ND (25)	ND (28) ND (28)	ND (75) ND (75)	ND (28)
	KLF-2-45 KLF-2-50	5/14/2013	50	ND (1.1)									(/			ND (30)	ND (25)			ND (28)
	KLF-2-50 KLF-2-55	5/14/2013	55	ND (1.1) ND (1.1)	ND (18) ND (18)	5.3 J ND (4)	ND (29) ND (29)	ND (35) ND (35)	ND (29) ND (29)	ND (27) ND (27)	ND (28) ND (28)	ND (30) ND (30)	ND (33) ND (33)	ND (28) ND (28)	ND (30) ND (30)	ND (30)	ND (25) ND (25)	ND (28) ND (28)	ND (75) ND (75)	ND (28) ND (28)
	KLF-2-55 KLF-2-60	5/14/2013	60	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-2-65	5/14/2013	65	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	NLF-Z-00	3/14/2013	UU	ND (1.1)	ואט (וס)	IND (4)	ואט (צא)	ND (33)	IND (28)	ND (Z1)	ND (20)	ND (30)	ND (33)	ND (20)	ND (30)	(סט) שאו	ND (23)	ND (20)	(ניז) טאי	ND (20)

Notes: GRO Gasoline range organics (equivalent to total petroleum hydrocarbons as gasoline)

TEPH Total extractable petroleum hydrocarbons

(C9 - C36) Carbon chain range of analysis

DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

Milligrams per kilogram

 $\begin{array}{ll} \text{mg/kg} & \text{Milligrams per kilogram} \\ \mu\text{g/kg} & \text{Micrograms per kilogram} \end{array}$

ND Not detected, below the method detection limit, which is shown in parentheses

J Estimated concentration between method detection limit and practical quantitation limit

Peaks in the diesel range but chromatogram does not match that of diesel standard

CHHSL California Human Health Screening Level (January 2005)

NL Not listed

RSL US EPA Regional Screening Level (May 2013)

MSSL Los Angeles Regional Water Quality Control Board Maximum Soil Screening Level (2004); MSSL assumes depth to groundwater below sample is between 20 feet and 150 feet

Shading Indicates detected concentration is higher than the MSSL Screening Value or the residental RSL Screening Value

Screening value converted from mg/kg to µg/kg



5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

e Number	ple Number	nple Date	Sample Depth	O ස 8015B	Haur 418.1	00 TEPH (C9 - C36)	8 DRO W (C10 - C28)	Motor Oil (C22 - C36)	Butylbenzene	80-Butylbenzene	8809 4-Chlorotoluene	Ethylbenzene	80 Isopropylbenzene	B P-Isopropyltoluene	Napthalene	Propylbenzene	00 1,2,4-Trimethylbenzene	80 1,3,5-Trimethylbenzene	m&p-Xylene	euel XX o
Bor	San	San	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)	(μg/kg)
	KLF-3-10	5/15/2013	10	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-10 KLF-3-15	5/15/2013	15	ND (22)	51 J	12.1 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-20	5/15/2013	20	ND (1.1)	ND (18)	12.7 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-25	5/15/2013	25	ND (1.1)	ND (18)	12.2 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-30	5/15/2013	30	ND (1.1)	ND (18)	8.6 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-3	KLF-3-35	5/15/2013	35	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLI-5	KLF-3-40	5/15/2013	40	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-45	5/15/2013	45	ND (1.1)	ND (18)	8.6 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-50	5/15/2013	50	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-55	5/15/2013	55	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-60	5/15/2013	60	ND (1.1)	ND (18)	8.8 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-3-65	5/15/2013	65	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-5	5/16/2013	5	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-10	5/16/2013	10	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-15	5/16/2013	15	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-20	5/16/2013	20	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-25	5/16/2013	25	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-30 KLF-4-35	5/16/2013 5/16/2013	30 35	ND (1.1) ND (1.1)	22 J 27 J	ND (4) ND (4)	ND (29) ND (29)	ND (35) ND (35)	ND (29) ND (29)	ND (27) ND (27)	ND (28) ND (28)	ND (30) ND (30)	ND (33) ND (33)	ND (28) ND (28)	ND (30) ND (30)	ND (30) ND (30)	ND (25) ND (25)	ND (28) ND (28)	ND (75) ND (75)	ND (28) ND (28)
KLF-4	KLF-4-40	5/16/2013	40	ND (1.1) ND (1.1)	27 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-40 KLF-4-45	5/16/2013	45	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-45 KLF-4-50	5/16/2013	50	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-55	5/16/2013	55	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-60	5/16/2013	60	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-65	5/16/2013	65	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-4-70	5/16/2013	70	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)

Notes: GRO Gasoline range organics (equivalent to total petroleum hydrocarbons as gasoline)

TEPH Total extractable petroleum hydrocarbons

(C9 - C36) Carbon chain range of analysis

DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

mg/kg Milligrams per kilogram

μg/kg Micrograms per kilogram

ND Not detected, below the method detection limit, which is shown in parentheses

J Estimated concentration between method detection limit and practical quantitation limit
* Peaks in the diesel range but chromatogram does not match that of diesel standard

CHHSL California Human Health Screening Level (January 2005)

NL Not listed

RSL US EPA Regional Screening Level (May 2014)

MSSL Los Angeles Regional Water Quality Control Board Maximum Soil Screening Level (2004); MSSL assumes depth to groundwater below sample is between 20 feet and 150 feet

Shading Indicates detected concentration is higher than the MSSL Screening Value or the residental RSL Screening Value

Screening value converted from mg/kg to µg/kg



5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

Bore Number	Sample Number	Sample Date	Sample Depth	0 80 8015B (mg/kg)	######################################	8015M (mg/kg)	MS/kg)	(mg/kg)	Butylbenzene	eo-Butylbenzene 8260Β (μg/kg)	(hd/kd)	Ethylbenzene 8260B (µg/kg)	Reopropy/benzene	8260B B-Isopropyltoluene	Napthalene (#g/kg)	8260B (µg/kg)	(2) (2) (4-Trimethylbenzene	(mg/kg) 800 (mg/kg) 800 (mg/kg) 800 (mg/kg)	ече/XX - 4 ж в 8260В (µg/kg)	aua/X, do 8260B (µg/kg)
	KLF-5-5	5/16/2013	5	ND (1.1)	273	342	125 J	217	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-10	5/16/2013	10	ND (1.1)	ND (18)	12.4 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-15	5/16/2013	15	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-20	5/16/2013	20	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-25	5/16/2013	25	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-30	5/16/2013	30	ND (1.1)	ND (18)	6.0 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-5	KLF-5-35	5/16/2013	35	ND (1.1)	ND (18)	7.5 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLI-5	KLF-5-40	5/16/2013	40	ND (1.1)	ND (18)	14.3 J	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-45	5/16/2013	45	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-50	5/16/2013	50	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-55	5/16/2013	55	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-60	5/16/2013	60	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-65	5/16/2013	65	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-5-70	5/16/2013	70	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-5	5/20/2013	5	ND (1.1)	7,198	1,710	531	1,180	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-10	5/20/2013	10	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-15	5/20/2013	15	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-20	5/20/2013	20	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-25	5/20/2013	25	ND (1.1)	36 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-30	5/20/2013	30	ND (1.1)	37 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-6	KLF-6-35	5/20/2013	35	ND (1.1)	21 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-40	5/20/2013	40	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-45	5/20/2013	45	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-50	5/20/2013	50	ND (1.1)	43 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-55	5/20/2013	55	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-60	5/20/2013	60	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-65	5/20/2013	65	ND (1.1)	22 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-6-70	5/20/2013	70	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)

Notes:	GRO	Gasoline range organics (equivalent to total petroleum hydrocarbons as gasoline)
	TEPH	Total extractable petroleum hydrocarbons

TEPH Total extractable petroleum hydrocarbons

(C9 - C36) Carbon chain range of analysis
DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

mg/kg Milligrams per kilogram

μg/kg Micrograms per kilogram

ND Not detected, below the method detection limit, which is shown in parentheses

Estimated concentration between method detection limit and practical quantitation limit

Peaks in the diesel range but chromatogram does not match that of diesel standard

CHHSL California Human Health Screening Level (January 2005)

NL Not listed

J

RSL US EPA Regional Screening Level (May 2013)

MSSL Los Angeles Regional Water Quality Control Board Maximum Soil Screening Level (2004); MSSL assumes depth to groundwater below sample is between 20 feet and 150 feet

Shading Indicates detected concentration is higher than the MSSL Screening Value or the residental RSL Screening Value

** Screening value converted from mg/kg to µg/kg



5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

Bore Number	Sample Number	Sample Date	Sample Depth	0 ජ ජ 8015B (mg/kg)	표 윤 윤 418.1 (mg/kg)	(9EO - 62) 8015M (mg/kg)	(C10 - C28)	(mg/kg) Motor Oil (C22 - C36)	8260B (µg/kg)	(b) 880-Butylbenzene	(hd/kd)	(5) Ethylbenzene	B (sopropylbenzene	(#g/kg) B p-Isopropyltoluene	(mg/kg) Napthalene	(Hd/kd)	(S) (S) 1,2,4-Trimethylbenzene	6th 87800 87000 (A) 87000 (B) 87000 (B)	8260B 860B (µg/kg)	2008 8260B (µg/kg)
	KLF-7-5	5/20/2013	5	ND (1.1)	86 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-10	5/20/2013	10	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-15	5/20/2013	15	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-20	5/20/2013	20	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-25	5/20/2013	25	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-30	5/20/2013	30	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-7	KLF-7-35	5/20/2013	35	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
KLF-/	KLF-7-40	5/20/2013	40	ND (1.1)	28 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-45	5/20/2013	45	ND (1.1)	21 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-50	5/20/2013	50	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-55	5/20/2013	55	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-60	5/20/2013	60	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-65	5/20/2013	65	ND (1.1)	ND (18)	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
	KLF-7-70	5/20/2013	70	ND (1.1)	29 J	ND (4)	ND (29)	ND (35)	ND (29)	ND (27)	ND (28)	ND (30)	ND (33)	ND (28)	ND (30)	ND (30)	ND (25)	ND (28)	ND (75)	ND (28)
Screening Valu																				
CHHSL - Reside				NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
CHHSL - Industr				NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
RSL - Residentia				82	NL	NL	110	2,500	3,900,000	7,800,000	NL	5,800	1,900,000	NL	3,800	3,300,000	58,000	780,000	550,000	650,000
RSL - Industrial	(µg/kg)^^		_	420	NL NII	NL	600	33,000	58,000,000	120,000,000	NL	25,000	9,900,000	NL	17,000	22,000,000	240,000	12,000,000	2,400,000	2,800,000
MSSL (mg/kg)				500	NL	NL	1,000	10,000	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Notes: GRO Gasoline range organics (equivalent to total petroleum hydrocarbons as gasoline)

TEPH Total extractable petroleum hydrocarbons

(C9 - C36) Carbon chain range of analysis

DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

mg/kg Milligrams per kilogram

μg/kg Micrograms per kilogram

ND Not detected, below the method detection limit, which is shown in parentheses

J Estimated concentration between method detection limit and practical quantitation limit

Peaks in the diesel range but chromatogram does not match that of diesel standard

CHHSL California Human Health Screening Level (January 2005)

NL Not listed

RSL US EPA May 2014 Regional Screening Level (in mg/kg); RSL values for TPH-g, TPH-d, and TPH-o are for Aromatic Low, Medium, and High, respectively

MSSL Los Angeles Regional Water Quality Control Board Maximum Soil Screening Level (2004); MSSL assumes depth to groundwater below sample is between 20 feet and 150 feet

Shading Indicates detected concentration is higher than the MSSL Screening Value or the residental RSL Screening Value

** Screening value converted from mg/kg to μg/kg



TABLE 5 2013 QUALITY CONTROL SAMPLE ANALYTICAL DATA

FORMER FIGUEROA PUMP STATION 5800 S. FIGUEROA STREET LOS ANGELES, CALIFORNIA

Sample Number	Lab ID	Sample Date	GRO	Oil & Grease	TEPH (C9 - C36)	DRO (C10 - C28)	Motor Oil (C22 - C36)	Volatile Organic Compounds
Saı		S	8015B	1664B	8015M	8015M	8015M	8260B
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(μg/L)
								115 (5 55 5 5)
QCTB	LN05576	5/13/2013						ND (0.07 to 8.4)
QCFB	LN05595	5/13/2013						ND (0.07 to 8.4)
QCEB	LN05577	5/13/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCTB	LN05647	5/14/2013						ND (0.07 to 8.4)
QCFB	LN05660	5/14/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCEB	LN05646	5/14/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCTB	LN05738	5/15/2013						ND (0.07 to 8.4)
QCFB	LN05752	5/15/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCEB	LN05739	5/15/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
		_			_			
QCTB	LN05826	5/16/2013						ND (0.07 to 8.4)
QCFB	LN05824	5/16/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCEB	LN05825	5/16/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCTB	LN05903	5/20/2013						ND (0.07 to 8.4)
QCFB	LN05902	5/20/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)
QCEB	LN05901	5/20/2013	ND (0.04)	ND (0.5)	ND (0.1)	ND (0.5)	ND (0.3)	ND (0.07 to 8.4)

Notes: GRO Gasoline range organics (equivalent to total petroleum hydrocarbons as gasoline)

TEPH Total extractable petroleum hydrocarbons

(C9 - C36) Carbon chain range of analysis

DRO Diesel range organics (equivalent to total petroleum hydrocarbons as diesel)

8015B United States Environmental Protection Agency (US EPA) analytical method number

mg/L Milligrams per liter μg/L Micrograms per liter

ND Not detected above the method detection limit, which is shown in parentheses

- - Not analyzed



BORE LOGS

. FILE:

SAMPLE/SAMPLER TYPE GRAPHICS



STANDARD PENETRATION SPLIT SPOON SAMPLER (2 in. (50.8 mm.) outer diameter and 1-3/8 in. (34.9 mm.) inner diameter)

WELL MATERIAL GRAPHICS

WELL BACKFILL MATERIAL GRAPHICS

GROUND WATER GRAPHICS

- ∇ WATER LEVEL (level where first observed)
- ▼ WATER LEVEL (level after exploration completion)
- \mathbf{V} WATER LEVEL (additional levels after exploration)
- \sim **OBSERVED SEEPAGE**

NOTES

- 1. The report and log key are an integral part of these logs. All data and interpretations in this log are subject to the explanations and limitations stated in the report.
- 2. Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual or differ from those shown.
- 3. No warranty is provided as to the continuity of soil or rock conditions between individual sample locations.
- 4. Logs represent general soil or rock conditions observed at the point of exploration on the date indicated.
- 5. In general, Unified Soil Classification System designations presented on the logs were based on visual classification in the field and were modified where appropriate based on gradation and index property testing.
- 6. Fine grained soils that plot within the hatched area on the Plasticity Chart, and coarse grained soils with between 5% and 12% passing the No. 200 sieve require dual USCS symbols, ie., GW-GM, GP-GM, GW-GC, GP-GC, GC-GM, SW-SM, SP-SM, SW-SC, SP-SC, SC-SM.
- 7. If sampler is not able to be driven at least 6 inches, 50/X indicates number of blows required to drive the identified sampler X inches with a 140 pound hammer falling 30 inches.

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)						
	sieve)	CLEAN GRAVEL WITH	Cu≥4 and 1≤Cc≤3		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	larger than the #4	<5% FINES	Cu <4 and/ or 1>Cc >3		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		GRAVELS WITH 5% TO	Cu≥4 and 1≤Cc≤3		GW-GI	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
					GW-G	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
ieve)	coarse fraction is	12% FINES	Cu <4 and/		GP-GN	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES
ne #200 si	half of		or 1>Cc>3		GP-G0	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES
is larger than the #200 sieve)	(More than				GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
rial is larç	GRAVELS (GRAVELS WITH > 12% FINES			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
If of mate	GR				GC-GI	CLAYEY GRAVELS, GRAVEL-SAND-CLAY-SILT MIXTURES
COARSE GRAINED SOILS (More than half of material	SANDS (More than half of coarse fraction is smaller than the #4 sieve)	CLEAN SANDS WITH <5% FINES SANDS WITH 5% TO 12% FINES	Cu≥6 and 1≤Cc≤3		SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
OILS (Mo			Cu <6 and/ or 1>Cc >3		SP	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
AINED S			Cu≥6 and 1≤Cc≤3 Cu <6 and/ or 1>Cc <3	•••	SW-SI	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
ARSE GF					SW-S	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
000					SP-SN	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
					SP-SC	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES
					SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
	ANDS (M	SANDS WITH > 12% FINES			sc	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
	'S				SC-SN	CLAYEY SANDS, SAND-SILT-CLAY MIXTURES
<u>a</u> .				N	ML INORGANIC SILTS AND VERY FINE SANDS, SILTY (CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTIC	
FINE GRAINED SOILS More than half of material	e g	SILTS AND (Liquid L	imit ///	1 -	·L CI	ORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY LAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS IORGANIC CLAYS-SILTS OF LOW PLASTICITY, GRAVELLY
ED (is smaller than the #200 sieve)	less than		4	-IVIL CI	LAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS RGANIC SILTS & ORGANIC SILTY CLAYS
RAIN ha	small #200			1	<u>'L</u> 0	F LOW PLASTICITY IORGANIC SILTS, MICACEOUS OR
_ EG e th	is s the	SILTS AND		Ц	In D	IATOMACEOUS FINE SAND OR SILT IORGANIC CLAYS OF HIGH PLASTICITY,
		(Liquid L greater tha		1 —	CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS OH ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM TO HIGH PLASTICITY	



PROJECT NO.: 133805 DRAWN BY: JC CHECKED BY: HAV DATE: 5/30/2013

GRAPHICS KEY

MEDIUM-TO-HIGH PLASTICITY

PLATE

LADWP Figueroa Pump Station (FPS) Los Angeles, CA

B-1

8/6/2013

REVISED:

GRAIN SIZE

DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders		>12 in. (304.8 mm.)	>12 in. (304.8 mm.)	Larger than basketball-sized
Cobbles		3 - 12 in. (76.2 - 304.8 mm.)	3 - 12 in. (76.2 - 304.8 mm.)	Fist-sized to basketball-sized
Gravel	coarse	3/4 -3 in. (19 - 76.2 mm.)	3/4 -3 in. (19 - 76.2 mm.)	Thumb-sized to fist-sized
Graver	fine	#4 - 3/4 in. (#4 - 19 mm.)	0.19 - 0.75 in. (4.8 - 19 mm.)	Pea-sized to thumb-sized
	coarse	#10 - #4	0.079 - 0.19 in. (2 - 4.9 mm.)	Rock salt-sized to pea-sized
Sand	medium	#40 - #10	0.017 - 0.079 in. (0.43 - 2 mm.)	Sugar-sized to rock salt-sized
	fine	#200 - #10	0.0029 - 0.017 in. (0.07 - 0.43 mm.)	Flour-sized to sugar-sized
Fines		Passing #200	<0.0029 in. (<0.07 mm.)	Flour-sized and smaller



Munsell Color

NAME	ABBR
Red	R
Yellow Red	YR
Yellow	Υ
Green Yellow	GY
Green	G
Blue Green	BG
Blue	В
Purple Blue	PB
Purple	Р
Red Purple	RP

ANGULARITY

DESCRIPTION	CRITERIA				
Angular	Particles have sharp edges and relatively plane sides with unpolished surfaces				Dist.
Subangular	Particles are similar to angular description but have rounded edges			T)	
Subrounded	Particles have nearly plane sides but have well-rounded corners and edges		\bigcirc		
Rounded	Particles have smoothly curved sides and no edges	Rounded	Subrounded	Subangular	Angular

PLASTICITY

PLASTICITY			
DESCRIPTION	LL	FIELD TEST	
Non-plastic	NP	A 1/8-in. (3 mm.) thread cannot be rolled at any water content.	
Low (L)	< 30	The thread can barely be rolled and the lump or thread cannot be formed when drier than the plastic limit.	
Medium (M)	30 - 50	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump or thread crumbles when drier than the plastic limit	
High (H)	> 50	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump or thread can be formed without crumbling when drier than the plastic limit	

MOISTURE CONTENT

DESCRIPTION	FIELD TEST	
Dry	Absence of moisture, dusty, dry to the touch	
Moist	Damp but no visible water	
Wet	Visible free water, usually soil is below water table	

REACTION WITH HYDROCHLORIC ACID

DESCRIPTION	FIELD TEST	
None	No visible reaction	
Weak	Some reaction, with bubbles forming slowly	
Strong	Violent reaction, with bubbles forming immediately	
	•	

APPARENT / RELATIVE DENSITY - COARSE-GRAINED SOIL

APPARENT DENSITY	SPT-N ₆₀	MODIFIED CA SAMPLER	CALIFORNIA SAMPLER	RELATIVE DENSITY		
DENSITI	(# blows/ft)	(# blows/ft)	(# blows/ft)	(%)		
Very Loose	<4	<4	<5	0 - 15		
Loose	4 - 10	5 - 12	5 - 15	15 - 35		
Medium Dense	10 - 30	12- 35	15 - 40	35 - 65		
Dense	30 - 50	35 - 60	40 - 70	65 - 85		
Very Dense	>50	>60	>70	85 - 100		
NOTE AFTER TERTACULAND RECK 1010						

NOTE: AFTER TERZAGHI AND PECK, 1948

CONSISTENCY - FINE-GRAINED SOIL

CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (Qu)(psf)	CRITERIA
Very Soft	< 1000	Thumb will penetrate soil more than 1 in. (25 mm.)
Soft	1000 - 2000	Thumb will penetrate soil about 1 in. (25 mm.)
Firm	2000 < 4000	Thumb will indent soil about 1/4-in. (6 mm.)
Hard	4000 < 8000	Thumb will not indent soil but readily indented with thumbnail
Very Hard	> 8000	Thumbnail will not indent soil

STRUCTURE

gINT FILE:

DESCRIPTION	CRITERIA
Stratified	Alternating layers of varying material or color with layers at least 1/4-in. thick, note thickness
Laminated	Alternating layers of varying material or color with the layer less than 1/4-in. thick, note thickness
Fissured	Breaks along definite planes of fracture with little resistance to fracturing
Slickensided	Fracture planes appear polished or glossy, sometimes striated
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness
Homogeneous	Same color and appearance throughout

CEMENTATION

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or slight finger pressure
	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure



PROJECT NO.:	133805
DRAWN BY:	JC
CHECKED BY:	HAV
DATE:	5/30/2013

REVISED:

SOIL DESCRIPTION KEY

LADWP Figueroa Pump Station (FPS)
Los Angeles, CA

PLATE

B-2

8/6/2013

Plung Weath	ge: her:	Datum:	-90 Cle	D83 - degreear, ve	ees	288						
Meath (feet)	her:	ed	Cle					Drilling Equipment:	CME-75	<u> </u>	Hammer Type - Drop: 140	lb. Auto - 30 in.
Elevation (feet)		ed 2		ear, ve				Drilling Method:		Stem Auger		
	oth (feet)	be	_ [ry hot			Bit Type - Auger Dia.:				
	oth (feet)	be g	_		ا خ			FIL	ELD EXPLO	RATION		
	oth (fe			Recovery (NR=No Recovery)	Uncorr. blows/6 in.	(mdd)	l Log			Northing: 1, Easting: 6, Surveyed Surface E	476,096.2	
		Sample Type		Recovery NR=No F	Jncorr. t	PID / FID (ppm)	Graphical Log			Surface Conditio		
145		0) 0	,	ш 🗸		_		Slurry fill material from pre	vious reserv	oir excavation		
	- - - 5-											
140	-											
	10-		_	10	0	075		Silty SAND (SM): fine-grai	ined sand, o	live gray (5Y-4/2), st	rong hydrocarbon odor, moist, loos	e to medium dense
	_			18 in.	2 4 6	275						
135	- - 15	KLF-	1-15	18 in.	6 11 13	850		-Becomes medium dense				
	20-	KLF-	1-20	18 in.	7 15 22	2.0		Well-Graded SAND (SW):	: fine-grained	d sand, olive brown (2.5Y-4/3), no odor, moist, dense	
125 120	- 25 - -	KLF-	1-25	18 in.	6 8 9	1.9		-Becomes olive yellow (2.5	5Y-6/6), med	lium dense		
	-							Clayey SAND (SC): fine-gr	rained sand,	, olive brown (2.5Y-4	/3), moist, medium dense	
									133805	BORIN	NG LOG KLF-1	PLATE
	K	LE.	∖ /					<u>. </u>	JC HAV 0/2013		eroa Pump Station (FPS) s Angeles, CA	B-3

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/13/2013 - 5/13/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-1 Drill Crew:** Logged By: TWM Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, very hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) PID / FID (ppm) Northing: 1,818,663.3 Graphical Log Sample Type Easting: 6,476,096.2 Depth (feet) Surveyed Surface Elevation (ft.): 147.3 Surface Condition: Slurry Backfill 18 in. KLF-1-30 Clayey SAND (SC): fine-grained sand, olive brown (2.5Y-4/3), moist, medium dense \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT_ -115 35 KLF-1-35 6 1.0 Silty SAND (SM): fine-grained sand, olive brown (2.5Y-4/3), moist, medium dense 10 12 -110 40 KLF-1-40 18 in. 0.0 5 -Becomes rounded sand 16 -105 rev6_10112013.gpj 45 KLF-1-45 18 in. 0.0 10 -100 //riverside\riverside-Data\users\projects\133805 - Ladwp Figueroa Pump Station\133805 Boring Logs. 50 KLF-1-50 18 in 9 0.6 Poorly-Graded SAND (SP): fine-grained, subrounded sand, olive yellow (2.5Y-6/6), moist, dense 18 25 -95 55 KLF-1-55 0.0 -Becomes rounded sand, olive gray (5Y-4/2), medium dense 11 8 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-1** DRAWN BY: JC KLEINFELDER CHECKED BY: B-3 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA - FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 4

Date Begin - End: 5/13/2013 - 5/13/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-1** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, very hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) PID / FID (ppm) Northing: 1,818,663.3 Graphical Log Sample Type Easting: 6,476,096.2 Depth (feet) Surveyed Surface Elevation (ft.): 147.3 Surface Condition: Slurry Backfill 18 in. KLF-1-60 6 0.0 Poorly-Graded SAND (SP): fine-grained, subrounded sand, olive yellow (2.5Y-6/6), moist, dense 26 -Becomes subrounded sand, olive brown (2.5Y-4/3), very dense 26 -85 65 KLF-1-65 10 0.0 -Becomes dense 15 17 -80 -Hard drilling probably due to coarse gravel or rock 70 KLF-1-70 Poorly-Graded SAND with Gravel (SP): coarse-grained, subrounded sand, olive yellow (2.5Y-6/6), moist, very 0.0 34 50/6" dense -75 75 KLF-1-75 17 in. 37 0.0 -Becomes granitic gravel, olive brown (2.5Y-4/3) 38 50/5" -70 80 KLF-1-80 18 0.0 10 √50/4" -65 85 KLF-1-85 16 0.0 -Becomes olive yellow (2.5Y-6/5) 35 47 -60 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-1** DRAWN BY: JC KLEINFELDER B-3 CHECKED BY: HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 4

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1

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rev6_10112013.gpj

Station\133805 Boring Logs_

\\riverside\riverside-Data\users\projects\133805 - Ladwp Figueroa Pump

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/13/2013 - 5/13/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-1** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, very hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery Sample Number Uncorr. blows/6 Surveyed Elevation (feet) PID / FID (ppm) Northing: 1,818,663.3 Graphical Log Easting: 6,476,096.2 Depth (feet) Surveyed Surface Elevation (ft.): 147.3 Sample Surface Condition: Slurry Backfill KLF-1-90 14 Well-Graded SAND (SW): fine- to medium-grained, subrounded sand, moist, very dense 40 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT_ GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion.
GENERAL NOTES: -55 The exploration was terminated approximately 91.5 feet below ground TD = 91.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 145 gallons). The exploration location and elevation were surveyed by LADWP. 95 -50 100 -45 Wriverside\riverside-Data\users\projects\133805 - Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj 105 40 110 -35 115 -30 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-1** DRAWN BY: JC KLEINFELDER B-3 CHECKED BY: HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA - FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 4 of 4

Date Begin - End: 5/14/2013 - 5/14/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-2** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot, slight breeze Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,640.2 Graphical Log Sample Type Easting: 6,476,107.9 Depth (feet) Surveyed Surface Elevation (ft.): 147.6 Surface Condition: Slurry Backfill Slurry fill material from previous reservoir excavation -145 140 10 KLF-2-10 18 in. Silty SAND (SM): subrounded sand, very dark grayish brown (10YR-3/2), strong hydrocarbon odor and staining, 110 3 moist, loose 6 -135 KLF-2-15 0.5 -Becomes dark yellowish brown (10YR-3/4), no odor or staining, medium dense 18 in. 5 10 -130 20 KLF-2-20 18 in. 6 0.1 -Becomes fine-grained, brown (10YR-4/3), medium dense to dense 13 17 125 25 KLF-2-25 Well-Graded SAND (SW): subrounded sand, brown (10YR-4/3), moist, medium dense 0.1 9 120 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-2** DRAWN BY: JC KLEINFELDER CHECKED BY: B-4 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 1 of 3

KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1

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Date Begin - End: 5/14/2013 - 5/14/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-2** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot, slight breeze Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,640.2 Graphical Log Sample Type Easting: 6,476,107.9 Depth (feet) Surveyed Surface Elevation (ft.): 147.6 Surface Condition: Slurry Backfill 18 in. KLF-2-30 Silty SAND (SM): brown (10YR-5/3), moist, loose to medium dense, non-plastic to low plasticity fines -115 35 KLF-2-35 0.0 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (10YR-5/3), moist, medium dense 8 -110 40 KLF-2-40 18 in. 0.0 -Becomes brown (7.5YR-4/3) 12 -105 45 KLF-2-45 Silty SAND (SM): fine-grained, subrounded sand, brown (7.5YR-4/3), moist, medium dense 18 in. 5 0.1 10 9 -100 50 KLF-2-50 18 in 9 0.1 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (7.5YR-4/2), moist, dense 16 20 95 55 KLF-2-55 Silty SAND (SM): fine-grained sand, brown (10YR-4/3), moist, medium dense 5 0.1 11 14 -90 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-2** DRAWN BY: JC KLEINFELDER CHECKED BY: B-4 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 3

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1

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KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/14/2013 - 5/14/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-2** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot, slight breeze Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,640.2 Log Easting: 6,476,107.9 Depth (feet) Surveyed Surface Elevation (ft.): 147.6 Graphical Sample Surface Condition: Slurry Backfill 18 in. KLF-2-60 4 0.2 Poorly-Graded SAND with Clay (SP-SC): fine-grained, dark grayish brown (10YR-3/2), moist, medium dense 10 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ -85 65 KLF-2-65 18 in. 6 0.0 Silty SAND (SM): fine-grained sand, dark brown (10YR-3/3), moist, medium dense 11 18 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. -80 The exploration was terminated approximately 66.5 feet below ground **GENERAL NOTES:** surface. TD = 66.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 90 gallons). The exploration location and elevation were surveyed by LADWP. 70 -75 rev6_10112013.gpj 75 Ladwp Figueroa Pump Station\133805 Boring Logs_ 70 80 -65 85 \\riverside\riverside-Data\users\projects\133805 --60 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-2** DRAWN BY: JC KLEINFELDER CHECKED BY: B-4 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA r FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3

Date Begin - End: 5/15/2013 - 5/15/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-3 Drill Crew:** Logged By: TWM Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly cloudy, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,664.2 Graphical Log Sample Type Easting: 6,476,116.1 Depth (feet) Surveyed Surface Elevation (ft.): 148.2 Surface Condition: Slurry Backfill Slurry fill material from previous reservoir excavation 145 140 10 KLF-3-10 Silty SAND (SM): very dark grayish brown (10YR-3/2), moist, loose 18 in. 0.0 2 3 -135 KLF-3-15 0.0 -Becomes fine-grained, subrounded sand, dark yellowish brown (10YR-3/4), moist, medium dense 18 in. 11 130 20 KLF-3-20 18 in. 6 0.0 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (10YR-4/3), moist, dense 14 17 125 25 KLF-3-25 0.0 -Becomes brown (7.5YR-5/2), medium dense 8 120 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-3** DRAWN BY: JC KLEINFELDER CHECKED BY: B-5 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 1 of 3

KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1

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KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1 Date Begin - End: 5/15/2013 - 5/15/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-3 Drill Crew:** Logged By: TWM Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly cloudy, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,664.2 Graphical Log Sample Type Easting: 6,476,116.1 Depth (feet) Surveyed Surface Elevation (ft.): 148.2 Surface Condition: Slurry Backfill 18 in. KLF-3-30 Silty SAND (SM): fine-grained, brown (7.5YR-4/3), moist, loose to medium dense, low plasticity, trace clay \\\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT_ 115 35 KLF-3-35 Poorly-Graded SAND (SP): subrounded sand, brown (7.5YR-4/3), moist, medium dense 8 0.0 8 -110 40 KLF-3-40 18 in. 0.0 -Becomes fine-grained sand 11 -105 Wriverside\riverside-Data\users\projects\133805 - Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj 45 KLF-3-45 18 in. 0.2 5 100 50 KLF-3-50 18 in. 0.2 10 11 -95 55 KLF-3-55 18 in. 0.3 8 90 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-3** DRAWN BY: JC KLEINFELDER CHECKED BY: B-5 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA - FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 3

KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1 Date Begin - End: 5/15/2013 - 5/15/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-3** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly cloudy, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,664.2 Graphical Log Easting: 6,476,116.1 Depth (feet) Surveyed Surface Elevation (ft.): 148.2 Sample Surface Condition: Slurry Backfill 18 in. KLF-3-60 6 Sandy Lean CLAY (CL): brown (7.5YR-4/3), moist, firm, medium plasticity fines 16 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ -85 65 KLF-3-65 18 in. 8 0.1 Silty SAND (SM): fine-grained sand, brown (7.5YR-4/3), medium dense 10 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. The exploration was terminated approximately 66.5 feet below ground -80 **GENERAL NOTES:** TD = 66.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 120 gallons). The exploration location and elevation were surveyed by LADWP. 70 75 Wriverside\riverside-Data\users\projects\133805 - Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj 75 80 -65 85 -60 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-3** DRAWN BY: JC KLEINFELDER CHECKED BY: B-5 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA - FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3

1		_	End:	5/16/20	13 - 5/	16/20	13_	Drilling Company:	Martini Drilling	В	ORING LOG KLF-4
1 -	ged	-	_	TWM		D00		Drill Crew:	OME 75	T B 440	
			atum:	NAD83		D88	_	Drilling Equipment:	CME-75	Hammer Type - Drop: 140	b. Auto - 30 in.
1	nge: ather		-	-90 deg		warm		Drilling Method:	Hollow Stem Auger Hollow Stem - 6 in. O.D		
vvec	atiriei	Ť		raitiy	uriry,	waiiii			ELD EXPLORATION	·	
				5	<u>:</u>						
Surveyed Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Recovery (NR=No Recovery)	Uncorr. blows/6 in	PID / FID (ppmv)	Graphical Log		Easting: Surveyed Surface	1,818,638.7 6,476,080.8 Elevation (ft.): 152.2 Condition: Soil	
- - -150		_						Fill: Poorly-Graded SAND wit	th Silt (SP-SM): fine-grained sa	and, brown (7.5YR-5/3), dry, loose, wit	n construction debris
- - - - -145	5-		KLF-4-5	5 18 in.	2 3 5	0.0		-No construction debris at Poorly-Graded SAND wit		and, brown (7.5YR-5/3), dry, loose	
- - - - -140	10-	-	KLF-4-1	0 18 in.	4 6 7	0.0		Poorly-Graded SAND (SI	P) : fine-grained sand, light redo	lish brown (7.5YR-6/3), dry, medium de	ense
- - - -135	15-	_	KLF-4-1	5 18 in.	1 3 4	0.0		Silty SAND (SM): fine-gra	iined, subrounded sand, brown	(7.5YR-4/3), moist, loose	
- - -130	20-	-	KLF-4-2	0 18 in.	4 9 12	0.0		Poorly-Graded SAND (SI	P) : fine-grained sand, brown (7	.5YR-4/3), moist, medium dense	
- - -125 -	25-	-	KLF-4-2	5 18 in.	8 14 19	0.0		-Becomes dense			
				\		_	[223/222]	DRAWN BY:	JC	ING LOG KLF-4	PLATE
	K		.EII Brig	V /- , iht Peop				<i>ns.</i> DATE: 5/3		ueroa Pump Station (FPS) os Angeles, CA	B-6

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Date Begin - End: 5/16/2013 - 5/16/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-4** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly sunny, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,638.7 Graphical Log Sample Type Easting: 6,476,080.8 Depth (feet) Surveyed Surface Elevation (ft.): 152.2 Surface Condition: Soil 18 in. KLF-4-30 0.0 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-4/3), moist, medium dense -Becomes medium dense -120 35 KLF-4-35 Sandy SILT (ML): brown (7.5YR-5/3), moist, firm, low plasticity 3 0.0 3 115 40 KLF-4-40 18 in. 0.0 SILT with Sand (ML): brown (7.5YR-4/3), moist, firm, low plasticity 12 -110 45 KLF-4-45 0.0 Silty SAND (SM): fine-grained sand, brown (7.5YR-5/3), moist, medium dense 18 in. 11 14 105 50 KLF-4-50 18 in. 0.0 -Becomes brown (7.5YR-4/3) 9 11 100 55 KLF-4-55 0.0 8 in. 8 -Slight decrease in moisture 12 13 -95 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-4** DRAWN BY: JC KLEINFELDER CHECKED BY: B-6 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 3

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1

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KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/16/2013 - 5/16/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-4** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly sunny, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,638.7 Graphical Log Easting: 6,476,080.8 Depth (feet) Surveyed Surface Elevation (ft.): 152.2 Sample Surface Condition: Soil 18 in. KLF-4-60 SILT (ML): dark gray (7.5YR-4/1), firm, trace sand, low plasticity fines \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ -90 65 KLF-4-65 Poorly-Graded SAND with Clay (SP-SC): fine-grained sand, brown (7.5YR-4/2), moist, medium dense 5 0.0 13 16 -85 70 KLF-4-70 18 in. Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-5/3), moist, medium dense 8 0.0 13 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. -80 The exploration was terminated approximately 71.5 feet below ground **GENERAL NOTES** Hand augered to 5 feet below ground surface before switching to hollow Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj TD = 71.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 120 gallons). The exploration location and elevation were surveyed by LADWP. 75 -75 80 85 \\riverside\riverside-Data\users\projects\133805 --65 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-4** DRAWN BY: JC KLEINFELDER CHECKED BY: B-6 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA r FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3

Log	e Beg ged l Ver	Ву:	_	TWM	013 - 5/ B - NAV		13_	Drilling Company: Drill Crew:	Marti ————————————————————————————————————	ni Drilling		ORING LOG KLF
		t. Da	_			D88	_	Drilling Equipment:			Hammer Type - Drop: 140	ib. Auto - 30 in.
	nge:	_	_	-90 deg			_	Drilling Method:		w Stem Auger		
wea	ather	: 	_	Partity	sunny,	wariii		Bit Type - Auger Dia.		PLORATION		
		Н			_ <u>_</u>			1 11	LLD LXI	LONATION		
Surveyed Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Recovery	Uncorr. blows/6 in.	PID / FID (ppmv)	Graphical Log			Northing: 1, Easting: 6, Surveyed Surface E Surface Cor	476,067.3 Elevation (ft.): 152.2	
Sun	Dep	San	San	Rec	S S	PID	Gra					
-150	-	-						Fill: Silty SAND (SM): brown (10YR-4/3	3), moist, loose, with cor	nstruction debris (brick, etc.) related	to former building
	5-	H	KLF-5-5	18	1	0.0						
-	-	A		in.	2							
-145	-	П			3	1						
	-											
	10-											
			KLF-5-10	18 in.	2	0.0		Well-Graded SAND (SW)	: subrour	nded sand, brown (7.5Yf	R-4/3), moist, medium dense	
					7_	4						
-140	- 15-		KLF-5-15			0.0		Silty SAND with Gravel (SM) : fine	e-grained, reddish brown	(5YR-4/4), moist, loose, possible so	sil fill
-135 -	- - -	-		in.	3 5	,						
	20-	Н	KLF-5-20	18	4	0.0		Silty SAND (SM): fine gra	inod sub	prounded sand brown (7	7.5YR-4/4), moist, medium dense	
_	-		NEI 3-20	in.	8	0.0		Sitty CARD (SWI). IIIIe-gra	iou, sul	oroanaca sana, biowii (7	.o , moist, medium dense	
-130	-				14	<i>,</i>						
	25-	\forall	KLF-5-25	18 in.		0.0		Poorly-Graded SAND wit	th Silt (S	P-SM): fine-grained, sub	prounded sand, moist, dense	
	-				15							
-125	-	$\mid \mid$										
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								PROJECT NO.:	133805	BORIN	NG LOG KLF-5	PLATE
								DRAWN BY:	JC			
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Date Begin - End: 5/16/2013 - 5/16/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-5** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly sunny, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,655.7 Graphical Log Sample Type Easting: 6,476,067.3 Depth (feet) Surveyed Surface Elevation (ft.): 152.2 Surface Condition: Soil 18 in. KLF-5-30 0.0 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (10YR-5/3), moist, medium dense 10 -120 35 KLF-5-35 2 0.0 -Becomes brown (7.5YR-5/3), decreased moisture, loose to medium dense 115 40 KLF-5-40 Silty SAND (SM): fine-grained sand, brown (7.5YR-4/3), moist, medium dense 18 in. 0.0 6 9 -110 45 KLF-5-45 0.0 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-5/3), moist, medium dense 18 in. 13 105 50 KLF-5-50 18 in 0.0 Silty SAND (SM): fine-grained, subrounded sand, brown (7.5YR-4/3), moist, medium dense 11 13 100 55 KLF-5-55 0.0 -Becomes brown (7.5YR-4/2), decreased moisture 14 16 -95 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-5** DRAWN BY: JC KLEINFELDER CHECKED BY: B-7 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 3

KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1

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KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/16/2013 - 5/16/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-5** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Partly sunny, warm Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,655.7 Graphical Log Easting: 6,476,067.3 Depth (feet) Surveyed Surface Elevation (ft.): 152.2 Sample Surface Condition: Soil 18 in. KLF-5-60 6 0.0 SILT with Sand (ML): dark gray (7.5YR-4/1), moist, firm 12 14 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ -90 65 KLF-5-65 3 0.0 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-4/3), moist, medium dense 6 -85 70 KLF-5-70 18 in. 0.0 6 -Becomes subrounded sand 12 16 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. -80 The exploration was terminated approximately 71.5 feet below ground **GENERAL NOTES** Hand augered to 5 feet below ground surface before switching to hollow Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj TD = 71.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 120 gallons). The exploration location and elevation were surveyed by LADWP. 75 -75 80 85 \\riverside\riverside-Data\users\projects\133805 --65 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-5** DRAWN BY: JC KLEINFELDER CHECKED BY: B-7 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA r FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3

Date Begin - End: 5/20/2013 - 5/20/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-6** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,689.2 Graphical Log Sample Type Easting: 6,476,087.2 Depth (feet) Surveyed Surface Elevation (ft.): 152.8 Surface Condition: Soil Asphalt (12 inches) Fill: Silty SAND (SM): with construction debris 150 KLF-6-5 Silty SAND with Gravel (SM): dark yellowish brown (10YR-4/4), dry, loose, possible fill material 0.1 2 3 -145 10 KLF-6-10 18 in. 0.1 Poorly-Graded SAND (SP): fine- to medium-grained, subrounded sand, yellowish brown (10YR-5/4), dry, medium 5 dense 10 140 KLF-6-15 0.2 18 in. -Becomes loose 2 4 135 20 KLF-6-20 18 in 0.1 Silty SAND (SM): subrounded sand, brown (7.5YR-4/3), moist, medium dense 10 130 25 KLF-6-25 0.2 -Becomes brown (7.5YR-5/3), dense 17 21 125 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-6** DRAWN BY: JC KLEINFELDER CHECKED BY: B-8 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 1 of 3

KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1

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Date Begin - End: 5/20/2013 - 5/20/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-6** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,689.2 Graphical Log Sample Type Easting: 6,476,087.2 Depth (feet) Surveyed Surface Elevation (ft.): 152.8 Surface Condition: Soil 18 in. KLF-6-30 0.2 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (7.5YR-5/3), moist, medium dense 10 120 35 KLF-6-35 Sandy SILT (ML): brown (7.5YR-5/4), moist, firm, trace clay, low plasticity fines 2 0.2 3 -115 40 KLF-6-40 18 in. 0.1 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-5/3), moist, medium dense 12 9 110 45 KLF-6-45 0.2 SILT with Sand (ML): fine-grained sand, brown (7.5YR-4/3), moist, firm, slightly micaceous 18 in. 8 105 50 KLF-6-50 18 in. 0.1 -Becomes firm 9 100 55 KLF-6-55 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-5/3), moist, dense 0.1 15 18 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-6** DRAWN BY: JC KLEINFELDER CHECKED BY: B-8 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 2 of 3

KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1

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KLEINFELDER\BENTLEY\GINT\ARCHIVED FILES\KLF GINT STANDARD R1 Date Begin - End: 5/20/2013 - 5/20/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-6** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,689.2 Graphical Log Easting: 6,476,087.2 Depth (feet) Surveyed Surface Elevation (ft.): 152.8 Sample Surface Condition: Soil 18 in. KLF-6-60 4 SILT with Sand (ML): dark grayish brown (10YR-4/2), moist, hard, micaceous 18 13 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ 90 65 KLF-6-65 Silty SAND (SM): fine- to medium-grained sand, brown (10YR-4/3), moist, medium dense, micaceous 0.5 11 -85 70 KLF-6-70 18 in. 0.5 Poorly-Graded SAND (SP): fine- to medium-grained sand, brown (7.5YR-5/3), moist, medium dense 6 11 16 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. The exploration was terminated approximately 71.5 feet below ground -80 **GENERAL NOTES** Hand augered to 5 feet below ground surface before switching to hollow Ladwp Figueroa Pump Station\133805 Boring Logs_rev6_10112013.gpj TD = 71.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 120 gallons). The exploration location and elevation were surveyed by LADWP. 75 75 80 85 \\riverside\riverside-Data\users\projects\133805 -65 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-6** DRAWN BY: JC KLEINFELDER CHECKED BY: B-8 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA r FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3

Date Begin - End: 5/20/2013 - 5/20/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-7** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery) PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,637.8 Graphical Log Sample Type Easting: 6,476,128.9 Depth (feet) Surveyed Surface Elevation (ft.): 152.0 Surface Condition: Asphalt Silty SAND (SM): brown (7.5YR-4/3), dry, very loose, trace gravel 150 KLF-7-5 0.0 145 10 KLF-7-10 18 in. 0.0 Poorly-Graded SAND (SP): fine-grained, subrounded sand, brown (7.5YR-5/3), moist, medium dense 10 140 15 KLF-7-15 2 0.0 Silty SAND (SM): fine-grained sand, brown (7.5YR-4/3), moist, loose, micaceous 18 in. 2 5 135 20 KLF-7-20 18 in. 0.0 Poorly-Graded SAND with Silt (SP-SM): fine-grained sand, brown (7.5YR-4/3), moist, medium dense 9 130 25 KLF-7-25 0.0 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-4/3), moist, dense 17 19 125 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-7** DRAWN BY: JC KLEINFELDER CHECKED BY: B-9 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 1 of 3

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KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1

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Station\133805 Boring Logs_rev6_10112013.gpj

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KLEINFELDER/BENTLEY/GINT/ARCHIVED FILES/KLF GINT STANDARD R1 Date Begin - End: 5/20/2013 - 5/20/2013 **Drilling Company:** Martini Drilling **BORING LOG KLF-7** Logged By: TWM **Drill Crew:** Hor.-Vert. Datum: NAD83 - NAVD88 **Drilling Equipment:** CME-75 Hammer Type - Drop: 140 lb. Auto - 30 in. Plunge: -90 degrees **Drilling Method:** Hollow Stem Auger Weather: Clear, hot Bit Type - Auger Dia.: Hollow Stem - 6 in. O.D FIELD EXPLORATION Recovery (NR=No Recovery PID / FID (ppmv) Sample Number Uncorr. blows/6 Surveyed Elevation (feet) Northing: 1,818,637.8 Graphical Log Easting: 6,476,128.9 Depth (feet) Surveyed Surface Elevation (ft.): 152.0 Sample Surface Condition: Asphalt 18 in. KLF-7-60 4 0.0 Poorly-Graded SAND (SP): fine-grained sand, brown (7.5YR-5/3), moist, medium dense -Becomes brown (7.5YR-4/3), decreased moisture 10 -90 \\KLEINFELDER.COM\SHARES\SANDIEGO-DATA\SYS\CADSUPPORT\ KLF-7-65 Poorly-Graded SAND with Silt (SP-SM): fine-grained sand, brown (7.5YR-4/3), moist, medium dense 5 0.0 9 9 -85 70 KLF-7-70 18 in. -Increased moisture (SP-SM) 5 0.0 15 -80 GROUNDWATER LEVEL INFORMATION:
Groundwater was not encountered during drilling or after completion. The exploration was terminated approximately 71.5 feet below ground **GENERAL NOTES** Hand augered to 5 feet below ground surface before switching to hollow Station\133805 Boring Logs_rev6_10112013.gpj TD = 71.5'. No apparent groundwater encountered. Boring backfilled with grout/portland mix (approx. 120 gallons). The exploration location and elevation were surveyed by LADWP. 75 75 80 Ladwp Figueroa Pump 85 \\riverside\riverside-Data\users\projects\133805 -65 **PLATE** PROJECT NO.: 133805 **BORING LOG KLF-7** DRAWN BY: JC KLEINFELDER CHECKED BY: B-9 HAV LADWP Figueroa Pump Station (FPS) Bright People. Right Solutions. Los Angeles, CA r FILE: DATE: 5/30/2013 REVISED: 7/19/2013 PAGE: 3 of 3



WASTE DISPOSAL MANIFESTS

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	LOS ANGELES, CA			**************************************		775 W. C.						
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NON-HAZARDOUS WASTE DATA FORM

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SILITY	Designated Facility Name and Site Address DEMENNO KERDOON 2000 N. ALAMEDA ST.		by fle coff american		Phone# 310-637-7100		
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낊	Developmented Facility Name and Site Address DEMENNO KERDOON 2000 N. ALAMEDA ST. COMPTON, CA 90222 Printed/Typod Name SOPHAD A SVAJ	MIN	Marine September 19		310-637-7100	Month	Day Yes
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RECEIVING FACILITY	Developmented Facility Name and Site Address DEMENNO KERDOON 2000 N. ALAMEDA ST. COMPTON, CA 90222 Printed/Typod Name SOPHAD A SVAJ	MIN	May Summer		310-637-7100		Day Yes



ANALYTICAL LABORATORY REPORTS

DEPARTMENT OF WATER & POWER OF THE CITY OF LOS ANGELES

Power System Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

CLIENT: GEORGE FAEUSTLE

PROJECT: Figueroa Pumping Station

REPORT NO.: C12071

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	EPA METHOD 8015M	030001 - 030042
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	EPA METHOD 418.1, 1664B	040001 - 040010
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DEPARTMENT OF WATER & POWER

OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

Report No. C12071 updated Pate 1 of 1 with attachment COC13-1161, 13-1171, 13-1192, COC13-1202, 1231, 1232, 1233, 1234

ENVIRONMENTAL LABORATORY DATA REPORT

Figueroa Pumping Station Soil and Water Samples

Soil and water samples taken from Figueroa Pumping Station between May 13, 2013 and May 20, 2013 were submitted to the Environmental Laboratory for determination of their Volatile Organic Compounds (VOCs), Total Extractable Petroleum Hydrocarbons (TEPH) including Motor Oil (MO) and Diesel Range Organic (DRO), Total Recoverable Petroleum Hydrocarbons (TRPH), Gasoline Range Organics (GRO), Polychlorinated Biphenyls (PCBs), and metals including mercury contents.

These samples were analyzed by Environmental Laboratory of the Integrated Support Services Business Unit. The analyses and their corresponding methodologies were as follows:

Analyte	Method of Analysis
Volatile Organic Compounds (VOCs)	EPA 8260B
Total Extractable Petroleum Hydrocarbons (TEPH,	
Motor oil (MO), Diesel Range Organics (DRO)	EPA 8015M
Total Recoverable Petroleum Hydrocarbons (TRPH)	EPA 418.1, 1664B
Gasoline Range Organics (GRO)	EPA 8015B
Polychlorinated Biphenyls (PCBs)	EPA 8082
Metals/Mercury	EPA 6010B/7471

The quality assurance data validates that the accompanying data for these samples are of acceptable quality. If you have any questions or if further information is required, please contact Mr. Kevin Han at (213) 367-7267.

Date Completed: 6/24/2013 Work Order No. AGM82 Job Card No.: J95508 Copies to: G. R. Faeustle

> J. A. Gonzales N. Liu

K. Han T. Nguyen FileNet Test Performed by: Env. Laboratory
Report by: TN Date: 7/25/13
Checked by: Date: 8///13

APPROVED BY: Kevin Han Date
Interim Manager of

Interim Manager of Environmental Laboratory

Environmental Laboratory

Los Angeles, CA. 90012 (213) 367-7248/7399 1630 N. Main Street, Bldg. 7, 3rd Flr. (213) 367-7285 FAX

CHEMISTRY LOG NUMBERS

Sample Location:

(For sample duplicates use 1 or x)

7LS50 NJ

Department of Water and Power

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1255021 Chem Lab use only Chem Lab use only Chem 12 (213) 367-7285 FAX Los Angeles, CA. 90012 (213) 367-7248/7399 1630 N. Main Street, Bldg. 7, 3rd Flr. >> COC# Label Here << Environmental Laboratory Sample Location: 2525051 **LADWP** 45550 \$ 5550 2013 MAY 13 Paris RECD BY: ENV. CHEM Them Lab COC Form #1 Revision: 08/01/02 Sample Date 5/13/13 Requester LADIMP Priority Address Specify 2-4 Hrs 2 Wks † Day 4Wks (24 Hr) Sample Time 5111 1130 1120 1300 Figueroa Pump Station (FPS **Chain of Custody Record** Sample Location and Description KLE-1-90 KUF-1-80 Department of Water and Power KLF-1-85 23.20 Sampled by: Relinquished have Received by Lyavis Meier City of Los Angeles ravis Mejer NALY **Printed Name** Organization/Div. ンゴイトラン Fax Refrig# 625 2 Shelf .⊮Container :: initial of Field Personnel: COC#:13-116) No. Type Size Matrix Received by ١ Sample Ş. Signature VOC ONLY VOC=(1-115cm) 5035/82802 TRPH 680 Analyst: Approved: TRH CCID BOISB ξ Analysis Required No. of Field Test: 25108 Page 2 of 2 7400 · Result 1345 Test Date Date Time

Analyst(s) Assigned

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Date

Los Ange [213] 367 [213] 367 Environmental Laboratory 1630 N. Main Street, Bldg. 7, 3rd F

Department of Water and Power

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Environmental Laboratory

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os Angeles, CA. 90012	3rd Flr.	City of Los Angeles	co	coc#: 13-1192	5-11g		Page of	
(213) 367-7285 FAX		Chain of Custody Record	Repo	Report C# JC#		1 - 0	mAGM87	2
Sample Location:	LADWP	Figueroa Pump Station (FPS)	Refr	Refrig#. K) 55 SI Initial of Field Personnel:	Shelf onnel	R8511 Bin# R952 R854	K834	
Chem Lab use only (177) Chem L	imple Date Sample Time	Sample Location and Description	Preservatives Title	ontainer	Sample	Analysis Required	Test A	Analyst(s)
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Albert Ogunnub)	Received by Law 15 15 16 16 16	Thy: Meiev	ne	1044 Tel. 74708 Fax
	Required by	Relinquished by	Signature	73582 Approved:
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Environmental Laboratory

(213) 367-7248/7399 (213) 367-7285 FAX Los Angeles, CA. 90012 1630 N. Main Street, Bldg. 7, 3rd Flr.

Department of Water and Power City of Los Angeles

CHEMISTRY LOG NUMBERS Chem Lab use only (25) (For sample duplicates use 1 or x) Sample Location: LADWP Date 2: 45
Y 16mp CHEN LAB 20850 40850 05803 10850 00820 55750 10050 05806 50850 3972 C 05796 75797 60850 80850 316/13 Sample Date Sample **一次数据结婚** Requester Address LADNA 0830 SIBO 0910 0000 5580 0840 2530 0930 0935 0920 0350 Carlo 1000 1005 George) F13 1 044 Chain of Custody Record Sample Location and Description Figueron Pump Station KLE-5-5 KLE-5-15 KLE-5-20 KLE-5-10 KLE-5-30 KLE-5-25 KUF-5-55 KLE-5-50 スパーのしよい KCE-5-40 KLE-5-35 KLE-5-65 KLF-5-60 KLF-5-70 Faeustla Ţel. Organization/Div. 74708 (FPS Fax Refrig#. Rus q પ્યુ⊱Container initial of Field Personnel: COC#: /3-1202 前に 情感に No. Type Size 78587 1/4 1/4 Soil Sample Matrix _ Shelf **R9**5牛 TM-CLID, GRO, TRPH Approved: Analyst: 1C# 595568 WO# #GM &Z Analysis Required No. of Field Test: Page Lof 3 Result Date Test Date Analyst(s) Assigned

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- T.ADWP >> 000# Label Here << HEMISTRY LOG NUMBERS (213) 367-7285 FAX (213) 367-7248/7399 Los Angeles, CA. 90012 1630 N. Main Street, Bldg. 7, 3rd Flr. Environmental Laboratory Chem Lab use only Sample Location: 02850 850 2850 850 2013 MAY 1 6 SEP 2: 45 RECD BY: ENV. CHIN LAB 1850 1850 41850 05813 05812 1850 Chen Lub COC Form to 05823 2: 45 15/16/13 Requester Priority 2-4 Hrs Address 2 Wks Specify 4Wks 1Day LADWP (24 Hr) Sample Time 5 1205 1269 230 70 1300 1255 220 1280 1240 1235 5 1320 28 Chain of Custody Record Department of Water and Power KLE-4-45 KLF-4-35 KLF-4-30 ドレドーターで KLE-4-50 KLE-4-40 KLF-4-25 KLE-4-10 KLF-4-20 KLF-4-70 KLF-4-15 MF-4-60 KLF-4-55 Sampled by: Travis Meier Relinquished by: Sample Location and Description Figueron Pump Station (FFS) City of Los Angeles Ogunnus. Travis Meier Tel. **Printed Name** X/Con A CO Organization/Div. Fax No. Type Initial of Field Personnel: Refrig#. Report C# COC#: 13-1202 \leftarrow Sampled by 1/A A/A 4 8 Matrix Sample Signature TRH-CCID, GROJRPH Analyst: Approved: Ğ# Analysis Required No. of Field Test: ₩0# Page 2 of 3 1410 8441 1400 9071 Result Date Test Date Time Analyst(s) Assigned 5/4/3 18W13 5-16-13 くろくろ Date

HEMISTRY LOG NUMBERS: Sample Date Sample (24 Hr) (For sample duplicates use 1 or 2) (213) 367-7285 FAX (213) 367-7248/7399 Los Angeles, CA. 90012 Environmental Laboratory 1630 N. Main Street, Bldg. 7, 3rd Flr. Chem Leb use only >> COC# Label Here << N 05824 W05825 Sample Location: 92850M LADWP 2013 MAY 1 6 PROPERTY AB Chen Lab COC Form #1 45 Requester Priority 2-4 Hrs Address 1Day 2 Wks Specify 4Wks LADWP 0800 1345 1400 Chain of Custody Record Sample Location and Description Department of Water and Power QCEB 87 TV Made of CFR Relinquished by: Sampled by: Figueroa Rump Station Jemp 18,2 & City of Los Angeles 09000000 Yavis Mejer XAVIS Mejer Tel. **Printed Name** MOW A CO Organization/Div. Refrig#._ Report C# Siz Container Initial of Field Personnel: COC#: 13-1202 Sampled by: 6 Size Sample Matrix Meter Marky Signature TPH-CID, CHOTEPH temp 3.760 VOCs only (full son Analyst: Approved: JC# B 5-17-13 Required Analysis No. of Field Test: Page 3 of 3 5/6/13 5/6/13 6-16-13 Test Result 8441 Date Date Time Analyst(s) Assigned 0,7 100 5-16-13 Date

COC13- 1231 Chem Lab use only TANK Los Angeles, CA. 90012 (213) 367-7248/7399 (213) 367-7285 FAX 1630 N. Main Street, Bldg. 7, 3rd Flr. Environmental Laboratory 1N05901 Sample Location: 4 0650N7 1205007 LADWI 2013 MAY 25 & TIME A Chem Lub COC Form #1 Revision: 08/01/02 1: 32 LAB Sample Date SHED 51/02/5 9/20/13 1230 OCFB 5/20/13 10000 Requester Priority 2-4 Hrs Address 2 Wks Specify 1Day 4Wks LADWA (24 Hr) Sample Time 35 邻 **Chain of Custody Record** Sample Location and Description Department of Water and Power OCT B QCEB Figueroa Permo Station Relinquished by: ravis Mejer Sampled by: City of Los Angeles Travis Meier NEWEN Tel. **Printed Name** Organization/Div. Fax » Container Refrig# (352,53Shelf Voc 698 Pain#. Report C# coc#: |3-123 initial of Fleld Personnel: Sampled by: Relinquished 背崎 Type Size Sample Matrix TPH-CCID, GRO, TRPH ggnature YOCs only Analyst: Approved: Analysis Required No. of Field Test: ₩O# Page __of_ Result 1832 5/20/13 Test 1300 1300 1360 Date Date Time Tex 145°C Analyst(s) Assigned 5/20/13 5/20/13 5.2018 Date

Los , (213) Environmental Laboratory

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Requester Address Priority 2-4 Hrs 1Day 2 Wks 4Wks Specify		<						0	000		Sample Date Sam	LADWP	atory 7, 3rd Fir.
# MS/MSD samples included Organization/Div. Tel. Tel. Printed Name Sampled by: Received by: Re		155 KLF-7-70*	50 KLE-7-65	150 KLE-7-55	130 KLE-7-50	1120 KIE-7-40	115 KLF-7-35	として	1050 KLF-7-20	1-F-7-1	Sample Location and Description Preserval 1035 KLFーナーら	Figueroa Pump Statics	Department of Water and Power City of Los Angeles Chain of Custody Record
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(213) 367-7285 FAX Los Angeles, CA. 90012 (213) 367-7248/7399 1630 N. Main Street, Bldg. 7, 3rd Flr. Environmental Laboratory

CHEMISTRY LOG NUMBERS

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HEMISTRY LOG NUMBERS (213) 367-7285 FAX (213) 367-7248/7399 Los Angeles, CA. 90012 1630 N. Main Street, Bldg. 7, 3rd Flr. Environmer tal Laboratory (For sample duplicates use 1 or X) Sample Location: N05932 LADWP 2013 MAY 2億 計 1: 32 RECD BY: ENV. CHEM LAB Chan Lub COC Form #1 1: 32 5/20/13 Requester Priority 2-4 Hrs Address Specify 2 Wks 1Day 1245 (24 Hr) Sample Time 17 37 H Chain of Custody Record Department of Water and Power Sample Location and Description Soil Drum Profile Sampled by: Travis Mejer Relinquished by: Received City of Los Angeles とうとかりかり ravis Tel. **Printed Name** Organization/Div. BNACO No. Type Size Matrix Sample Sample Refrig#. \$157_ Shelf Initial of Field Personnel: coc#: |3-1234 Rece Sampled by: 17PH - PCBs VIENE GOIDS HAMMEN Title22 metals including -VOX'S WITHE CHARZO Sighature Rand Approved: Analyst: 1C# 142508 WOH 4CM 8 5 Analysis Required EPA8015 No. of Field Test: 8082 Page ___of_ 1300 Date Result 1300 Test 132 5/20/13 Date 1300 Time Analyst(s) Assigned 18/0/13 1/20/13 Date

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ATTACHMENT #1

Volatile Organic Compounds (VOCs) EPA Method 8260B Soil & Water

CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

CASE NARRATIVE

PROJECT: FIGUEROA PUMPING STATION

METHOD 8260B VOLATILE ORGANICS BY GC/MS

1. Holding Time

Soil and water samples were analyzed within holding time.

2. Tuning and Calibration

Tuning and calibration met QC requirements.

3. Method Blank

There was no contamination detected at reporting level.

4. Lab Control Sample

Recoveries met QC criteria.

5 Surrogate Recovery

Recoveries met QC criteria.

6. Matrix Spike/Matrix Spike Duplicate

Samples LN05580, LN05649, LN05740, LN05797, LN05810, LN05818, LN05906, LN05922, LN05646, and LN05754 were analyzed for MS/MSD. Recoveries met QC criteria.

7. Calibration

Initial calibration was performed at five different concentrations. The percent relative standard deviation (% RSD) was within 15%. Recoveries for the continuing calibration check standards met QC requirements.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. Volatile organic compounds were detected on samples LN05578 and LN05579.

Sample Description

KLF-1-10

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

Date

Analyzed

5/13/2013 5/17/2013

Date

Received

Date Sampled

5/13/2013

21

38

27

26

29

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PROJECT: FIGUEROA PUMPING STATION

Chemistry Log No.

LN05578

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

Ethylbenzene

cis-1,3-Dichloropropene

trans-1,3-Dichloropropene

Diisopropyl ether (DIPE)

Hexachlorobutadiene

Page 1 of 2 Sample Matrix: Soil

L1403370	1 3/13/2013	3/13/2013	3/11/2013		INCI TITIO				
LN05579	5/13/2013	5/13/2013	5/17/2013		KLF-1-15				
LN05580	5/13/2013	5/13/2013	5/17/2013		KLF-1-20			-	
LN05581	5/13/2013	5/13/2013	5/17/2013		KLF-1-25				
LN05582	5/13/2013	5/13/2013	5/17/2013		KLF-1-30				
LN05583	5/13/2013	5/13/2013			KLF-1-35				
LN05584	5/13/2013	5/13/2013	5/17/2013		KLF-1-40				
			LN05578	LN05579	LN05580	LN05581	LN05582	LN05583	LN0558
Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount	Amount	Amour
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
3romodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
/lethyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
ert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
utylbenzene	29	145.0	1200	2372	nd	nd	nd	nd	nd
ec-Butylbenzene	27	135.0	nd	1425	nd	nd	nd	nd	nd
ert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
ert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	n d	nd	nd	nd
-Chiorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
-Chlorotoluene	28	140.0	38J	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
ichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
is-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
rans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
i,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date		
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description	
LN05578	5/13/2013	5/13/2013	5/17/2013	KLF-1-10	
LN05579	5/13/2013	5/13/2013	5/17/2013	KLF-1-15	
LN05580	5/13/2013	5/13/2013	5/17/2013	KLF-1-20	
LN05581	5/13/2013	5/13/2013	5/17/2013	KLF-1-25	
LN05582	5/13/2013	5/13/2013	5/17/2013	KLF-1-30	
LN05583	5/13/2013	5/13/2013	5/17/2013	KLF-1-35	
LN05584	5/13/2013	5/13/2013	5/17/2013	KLF-1-40	

			LN05578	LN05579	LN05580	LN05581	LN05582	LN05583	LN05584
Compounds	MDL	PQL	Amount						
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nď	nd
Isopropylbenzene	33	165.0	786	1431	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	447	1313	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
Iodomethane	20	100.0	nd						
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	3456	5485	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	1449	2684	nd	nd	nd	nd	nd
Styrene	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nď	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nď	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nď	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nď
Trichloroethylene	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	42J	7680	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	196	1764	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd						
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd	1524	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	855	nd	nd	nd	nd	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Contr	rol Data					
Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	117.0%	117.0%	105.0%	95.3%	95.0%	95.7%	93.7%
SURR: Dibromofluoromethane	80 - 120	103.3%	99.0%	102.7%	102.3%	101.3%	101.0%	100.0%
SURR: Toluene-d8	81 - 117	109.3%	102.3%	96.7%	94.7%	95.0%	94.0%	95.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics FPA SW-846 Method 8260

EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05585	5/13/2013	5/13/2013	5/17/2013	KLF-1-45
LN05586	5/13/2013	5/13/2013	5/17/2013	KLF-1-50
LN05587	5/13/2013	5/13/2013	5/17/2013	KLF-1-55
LN05588	5/13/2013	5/13/2013	5/17/2013	KLF-1-60
LN05589	5/13/2013	5/13/2013	5/17/2013	KLF-1-65
LN05590	5/13/2013	5/13/2013	5/17/2013	KLF-1-70
LN05591	5/13/2013	5/13/2013	5/17/2013	KLF-1-75

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05585 Amount (ug/kg)	LN05586 Amount (ug/kg)	LN05587 Amount (ug/kg)	LN05588 Amount (ug/kg)	LN05589 Amount (ug/kg)	LN05590 Amount (ug/kg)	LN05591 Amount (ug/kg)
Acetone	32	160.0	nd						
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
2-Butanone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
n-Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane (EDB)	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd						
1,4-Dichlorobenzene	33	165.0	nd	nd	nđ	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd						
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date		
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description	
LN05585	5/13/2013	5/13/2013	5/17/2013	KLF-1-45	
LN05586	5/13/2013	5/13/2013	5/17/2013	KLF-1-50	
LN05587	5/13/2013	5/13/2013	5/17/2013	KLF-1-55	
LN05588	5/13/2013	5/13/2013	5/17/2013	KLF-1-60	
LN05589	5/13/2013	5/13/2013	5/17/2013	KLF-1-65	
LN05590	5/13/2013	5/13/2013	5/17/2013	KLF-1-70	
LN05591	5/13/2013	5/13/2013	5/17/2013	KLF-1-75	

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05585 Amount (ug/kg)	LN05586 Amount (ug/kg)	LN05587 Amount (ug/kg)	LN05588 Amount (ug/kg)	LN05589 Amount (ug/kg)	LN05590 Amount (ug/kg)	LN05591 Amount (ug/kg)
2-Hexanone	21	105.0	nd						
lsopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
Methyl iodide (Iodomethane)	20	100.0	nd						
4-Methyl-2-pentanone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene (Phenylethylene)	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene (PCE)	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene (TCE)	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL) nd - Not Detected; below detection limit

		Quality Contr	rol Data					
Surragaton	QC Limits							
Surrogates	% Recovery							
30 (ug/L each)	Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	91.0%	92.3%	91.0%	92.3%	89.0%	92.7%	91.7%
SURR: Dibromofluoromethane	80 - 120	101.0%	100.0%	100.3%	100.3%	101.0%	99.7%	100.0%
SURR: Toluene-d8	81 - 117	95.7%	95.0%	94.0%	94.3%	92.7%	91.7%	92.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/13/2013	5/13/2013	5/17/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochioromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/13/2013	5/13/2013	5/17/2013	Method Blank
		·· P P L L L L L L		
2	MOI	DOI	Blank	
Compounds	MDL	PQL	Amount	
	ug/kg	ug/kg	ug/kg	
Hexachlorobutadiene	44	220.0	nd	
nexactiorodutadiene 2-Hexanone	21	105.0	nd	
sopropylbenzene	33	165.0	nd	
p-Isopropyltoluene	28	140.0	nd	
Methyl-t-butyl ether (MTBE)	23	115.0	nd	
Methylene chloride	31	155.0	nd	
lodomethane	20	100.0	nd	
Methyl isobutyl ketone (MIBK)	19	95.0	nd	
Naphthalene	30	150.0	nd	
Propylbenzene	30	150.0	nd	
Styrene	33	165.0	nd	
1,1,1,2-Tetrachloroethane	23	115.0	nd	
1,1,2,2-Tetrachloroethane	40	200.0	nd	
Tetrachloroethylene	27	135.0	nd	
Toluene	25	125.0	nd	
1,2,3-Trichlorobenzene	29	145.0	nd	
1,2,4-Trichlorobenzene	31	155.0	nd	
1,1,1-Trichloroethane	26	130.0	nd	
1,1,2-Trichloroethane	23	115.0	nd	
Trichloroethylene	24	120.0	nd	
Trichlorofluoromethane	35	175.0	nd	
1,2,3-Trichloropropane	22	110.0	nd	
1,2,4-Trimethylbenzene	25	125.0	nd	
1,3,5-Trimethylbenzene	28	140.0	nd	
Vinyl acetate	52	260.0	nd	
Vinyl Chloride (Chloroethene)	36	180.0	nd	
m & p-Xylene	75	375.0	nd	
o-Xylene	28	140.0	nd	
MDL - Method Detection Limit			J - Concentration	n above MDL below PQL
PQL - Practical Quantitation Lim	nit (5xMDL)			d; below detection limit
			Quality Control f	
	QC Limits		Quality Control [<u>vata</u>
Surrogatos				
Surrogates	% Recovery			

93.7%

103.3%

93.3%

SURR: Toluene-d8
Comment:

30 (ug/L each)

Lower-Upper

74 - 121

80 - 120

81 - 117

Analyst: Bryan Tiu

SURR: Bromofluorobenzene

SURR: Dibromofluoromethane

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/17/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN05578 LN LN05578 LN05579 LN05580 LN05581 LN05582 LN05583 LN05584 LN05585 LN05586 LN05587 LN05588 LN05

LAB SAMPLE I.D.: LN05580 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	25.9	86.3	30.0	25.7	85.7	0.70 %	59-172	22%
Benzene	ND	30.0	30.9	103	30.0	31.3	104	0.97 %	66-142	21%
Trichloroethylene	ND	30.0	29.3	97.7	30.0	29.8	99.3	1.6 %	62-137	24%
Toluene	ND	30.0	29.6	98.7	30.0	29.8	99.3	0.61 %	59-139	21%
Chlorobenzene	ND	30.0	35.2	117	30.0	36.0	120	2.5 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5/17/13 ANALYTICAL METHOD: <u>USEPA 8260</u>

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

<u> </u>		T	<u> </u>
LCS RESULT	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
31.5	30	105.0	70 - 130
31.1	30	103.7	70 - 130
31.1	30	103.7	70 - 130
29	30	96.7	70 - 130
25.4	30	84.7	70 - 130
21.1	30	70.3	70 - 130
27.4	30	91.3	70 - 130
27	30	90.0	70 - 130
	ug/kg 31.5 31.1 31.1 29 25.4 21.1 27.4	ug/kg ug/kg 31.5 30 31.1 30 31.1 30 29 30 25.4 30 21.1 30 27.4 30	ug/kg ug/kg % RECOVERY 31.5 30 105.0 31.1 30 103.7 31.1 30 103.7 29 30 96.7 25.4 30 84.7 21.1 30 70.3 27.4 30 91.3

Analyst: B. Tiu

Reviewed by: R. Gentallen / 3

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 1 of 2 Sample Matrix: Soil

	·	Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05648	5/14/2013	5/14/2013	5/17/2013	KLF-2-10
LN05649	5/14/2013	5/14/2013	5/17/2013	KLF-2-15
LN05650	5/14/2013	5/14/2013	5/17/2013	KLF-2-20
LN05651	5/14/2013	5/14/2013	5/17/2013	KLF-2-25
LN05652	5/14/2013	5/14/2013	5/17/2013	KLF-2-30
LN05653	5/14/2013	5/14/2013	5/18/2013	KLF-2-35
LN05654	5/14/2013	5/14/2013	5/18/2013	KLF-2-40

Compounds	MDL	PQL	LN05648 Amount	LN05649 Amount	LN05650 Amount	LN05651 Amount	LN05652 Amount	LN05653 Amount	LN05654 Amount
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd	nd	nd	nď	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
Methyl ethyl ketone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane	23	115.0	nd	nd	nď	nd	nd	nd	nd
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd						
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1.1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd						
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						
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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN05648	5/14/2013	5/14/2013	5/17/2013	KLF-2-10
LN05649			5/17/2013	KLF-2-15
LN05650	5/14/2013	5/14/2013	5/17/2013	KLF-2-20
LN05651	5/14/2013	5/14/2013	5/17/2013	KLF-2-25
LN05652			5/17/2013	KLF-2-30
LN05653			5/18/2013	KLF-2-35
LN05654			5/18/2013	KLF-2-40

Compounds	MDL ug/kg	PQL ug/kg	LN05648 Amount ug/kg	LN05649 Amount ug/kg	LN05650 Amount ug/kg	LN05651 Amount ug/kg	LN05652 Amount ug/kg	LN05653 Amount ug/kg	LN05654 Amount ug/kg
2-Hexanone	21	105.0	nď	nd	nd	nd			
Isopropylbenzene	33	165.0	nd	nd	nd	nd	uq	nd d	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nď	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd	nd	nd		nd t	nd	nd
lodomethane	20	100.0	nd						
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd	nd		nd 1	nd	nd	nd
Propylbenzene	30	150.0	nd						
Styrene	33	165.0	nd	nd	nd 	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd - d	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd		nd	nd	nd	nd	nd
Tetrachioroethylene	27	135.0	nd	nd 	nd	nd	nd	nd	nd
Toluene	25	125.0		nd t	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd 	nď	nd	nď	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd 	nd	nď	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	23 24	120.0	nd	nd	nd	nd	nd	nd	nď
Trichlorofluoromethane	35	175.0	nd 1	nd	nd	nd	nd	nď	nd
1,2,3-Trichloropropane	22		nd	nd	nd	nd	nd	nd	nď
1,2,4-Trimethylbenzene	25 25	110.0	nď	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	25 28	125.0	nd						
Vinyl acetate		140.0	nd	nd	nd	nd	nd ·	nd	nd
Vinyl Chloride (Chloroethene)	52	260.0	nd	nd	nd	nď	nd	nd	nd
m & p-Xylene	36	180.0	nd						
o-Xylene	75	375.0	nd	nd	nd	nď	nd	nd	nd
O-Aylelie	28	140.0	nd						

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	Quality Cont	rol Data					
SURR: Bromofluorobenzene	74 - 121	114.0%	100.0%	87.3%	85.0%	82.7%	87.7%	85.7%
SURR: Dibromofluoromethane	80 - 120	100.0%	100.7%	99.0%	99.7%	99.3%	99.3%	100.3%
SURR: Toluene-d8	81 - 117	102.0%	95.0%	94.7%	91.7%	89.0%	88.7%	86.7%

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05655	5/14/2013	5/14/2013	5/18/2013	KLF-2-45
LN05656	5/14/2013	5/14/2013	5/18/2013	KLF-2-50
LN05657	5/14/2013	5/14/2013	5/18/2013	KLF-2-55
LN05658	5/14/2013	5/14/2013	5/18/2013	KLF-2-60
LN05659	5/14/2013	5/14/2013	5/18/2013	KLF-2-65

Compounds	MDL	PQL	LN05655 Amount	LN05656 Amount	LN05657 Amount	LN05658 Amount	LN05659 Amount
	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Acetone	32	160.0	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd
2-Butanone (MEK)	26	130.0	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd
n-Butylbenzene	29	145.0	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	23	115.0	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nď
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics
FPA SW-846 Method 8260

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05655	5/14/2013	5/14/2013	5/18/2013	KLF-2-45
LN05656	5/14/2013	5/14/2013	5/18/2013	KLF-2-50
LN05657	5/14/2013	5/14/2013	5/18/2013	KLF-2-55
LN05658	5/14/2013	5/14/2013	5/18/2013	KLF-2-60
LN05659	5/14/2013	5/14/2013	5/18/2013	KLF-2-65
				

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05655 Amount (ug/kg)	LN05656 Amount	LN05657 Amount	LN05658 Amount	LN05659 Amount
	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
2-Hexanone	21	105.0	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd
Methyl iodide (lodomethane)	20	100.0	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd
Styrene (Phenylethylene)	33	165.0	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd
Tetrachloroethylene (PCE)	27	135.0	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd
Trichloroethylene (TCE)	24	120.0	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd
Vinyl Chloride	36	180.0	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Contro	ol Data			
	QC Limits					
Surrogates	% Recovery					
30 (ug/L each)	Lower-Upper					
SURR: Bromofluorobenzene	74 - 121	89.3%	88.0%	88.7%	84.3%	89.0%
SURR: Dibromofluoromethane	80 - 120	99.7%	98.0%	97.7%	98.0%	97.0%
SURR: Toluene-d8	81 - 117	88.7%	88.7%	89.3%	88.3%	90.7%

Comment:

Analyst: Bryan Tiu Reviewed by: Rose Gentallan

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	144 400.
Chemistry Log No.	Date Sampled			Sample Description
Blank	5/14/2013	5/14/2013	5/17/2013	Method Blank
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			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nđ
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloròpropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

	Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
	Blank	5/14/2013	5/14/2013	5/17/2013	Method Blank
\Vdash	<u></u>				
\vdash					

Soil

			Blank
Compounds	MDL	PQL	Amount
•	ug/kg	ug/kg	ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyitoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
lodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits	. .	
<u>Surrogates</u>	% Recovery		
30 (ug/L each)	Lower-Upper		
URR: Bromofluorobenzene	74 - 121	88.3%	
SURR: Dibromofluoromethane	80 - 120	102.0%	
SURR: Toluene-d8	81 - 117	93.0%	

Comment:

Analyst: Bryan Tiu

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/17/13 ANALYTICAL METHOD: <u>USEPA 8260</u>

BATCH #: LN05648 LN LN05648 LN05649 LN05650 LN05651 LN05652 LN05653 LN05654 LN05655 LN05656 LN05657 LN05658 LN056

LAB SAMPLE I.D.: LN05649 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	28.3	94.3	30.0	29.6	98.7	4.6 %	59-172	22%
Benzene	ND	30.0	30.1	100	30.0	30.8	103	3.0 %	66-142	21%
Trichloroethylene	ND	30.0	29.0	96.7	30.0	30.5	102	5.3 %	62-137	24%
Toluene	ND	30.0	29.1	97.0	30.0	29.6	98.7	1.7 %	59-139	21%
Chlorobenzene	ND	30.0	34.5	115	30.0	35.4	118	2.6 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5117/2013 ANALYTICAL METHOD: <u>USEPA 8260</u>

SUPPLY SOURCE: LAB LCS I.D.: Q5057

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

	1		1	T i
ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.9	30	109.7	70 - 130
1,2-Dichloroethane	33.1	30	110.3	70 - 130
1,4-Dichlorobenzene	32	30	106.7	70 - 130
Benzene	30.8	30	102.7	70 - 130
Bromoform	22.7	30	75.7	70 - 130
Carbon Tetrachloride	21.1	30	70.3	70 - 130
Tetrachloroethylene	30	30	100.0	70 - 130
Trichloroethylene	29.3	30	97.7	70 - 130

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date					*··**	***
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description					
LN05740	5/15/2013	5/15/2013	5/20/2013		KLF-3-10				
LN05741	5/15/2013	5/15/2013	5/20/2013		KLF-3-15				
LN05742	5/15/2013	5/15/2013	5/21/2013		KLF-3-20				
LN05743	5/15/2013	5/15/2013	5/21/2013		KLF-3-25			•	
LN05744	5/15/2013	5/15/2013	5/21/2013		KLF-3-30		·		
LN05745	5/15/2013	5/15/2013	5/21/2013		KLF-3-35			-	
LN05746	5/15/2013	5/15/2013	5/21/2013		KLF-3-40				
			LN05740	LN05741	LN05742	LN05743	LN05744	LN05745	LN05746
Compounds	MDL ug/kg	PQL ug/kg	Amount ug/kg	Amount ug/kg	Amount ug/kg	Amount ug/kg	Amount ug/kg	Amount ug/kg	Amount ug/kg

Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount	Amount	Amount
•	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
A . 45 .		400.0		,					
Acetone	32	160.0	nd	nd	nd nd	nd	nd nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26 26	130.0	nd	nd	nd	nd	nd 	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd 	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22 23	110.0 115.0	nd	nd	nd	nd	nd =-d	nd	nd
Bromoform	23 20	100.0	nd • d	nd	nd nd	nd	nd	nd	nd
Bromomethane	20 26		nd ad	nd nd	nd nd	nd ad	nd	nd ad	nd
Methyl ethyl ketone (MEK) tert-Butyl alcohol (TBA)	26 373	130.0 1865.0	nd	nd	nd	nd	nd	nd	nd
, , ,	29	145.0	nd	nd nd	nd nd	nd nd	nd nd	nd	nd
Butylbenzene	29 27	135.0	nd nd	nd	nd		nd ad	nd nd	nd nd
sec-Butylbenzene tert-Butylbenzene	27 29	145.0	nd	nd nd	nd nd	nd nd	nd nd	nd nd	nd od
tert-Butyloenzene tert-Butyl ethyl ether (ETBE)	29 20	145.0	nd	nd	nd	nd	nd	nd nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd nd	nd nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	nd
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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

	Date	Date	
Date Sampled	Received	Analyzed	Sample Description
5/15/2013	5/15/2013	5/20/2013	KLF-3-10
5/15/2013	5/15/2013	5/20/2013	KLF-3-15
5/15/2013	5/15/2013	5/21/2013	KLF-3-20
5/15/2013	5/15/2013	5/21/2013	KLF-3-25
5/15/2013	5/15/2013	5/21/2013	KLF-3-30
5/15/2013	5/15/2013	5/21/2013	KLF-3-35
5/15/2013	5/15/2013	5/21/2013	KLF-3-40
	5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013	Date Sampled Received 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013 5/15/2013	Date Sampled Received Analyzed 5/15/2013 5/15/2013 5/20/2013 5/15/2013 5/15/2013 5/20/2013 5/15/2013 5/15/2013 5/21/2013 5/15/2013 5/15/2013 5/21/2013 5/15/2013 5/15/2013 5/21/2013 5/15/2013 5/15/2013 5/21/2013 5/15/2013 5/15/2013 5/21/2013

Compounds	MDL ug/kg	PQL ug/kg	LN05740 Amount ug/kg	LN05741 Amount ug/kg	LN05742 Amount ug/kg	LN05743 Amount ug/kg	LN05744 Amount ug/kg	LN05745 Amount ug/kg	LN05746 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nď	nd	nd	nd
Isopropylbenzene	33	165.0	nd						
p-isopropyitoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
lodomethane	20	100.0	nd						
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nđ
Styrene	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachioroethylene	27	135.0	nd -	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	24	120.0	nd	nd	nd	nď	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nđ	nd
Vinyl acetate	52	260.0	nd						
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contr	ol Data					
	QC Limits							
Surrogates	% Recovery							
30 (ug/L each)	Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	101.3%	103.3%	100.7%	100.7%	101.0%	100.3%	100.3%
SURR: Dibromofluoromethane	80 - 120	98.0%	97.0%	96.3%	97.0%	96.7%	96.0%	96.0%
SURR: Toluene-d8	81 - 117	94.0%	93.0%	93.3%	93.3%	94.0%	92.7%	92.7%

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05747	5/15/2013	5/15/2013	5/21/2013	KLF-3-45
LN05748	5/15/2013	5/15/2013	5/21/2013	KLF-3-50
LN05749	5/15/2013	5/15/2013	5/21/2013	KLF-3-55
LN05750	5/15/2013	5/15/2013	5/21/2013	KLF-3-60
LN05751	5/15/2013	5/15/2013	5/21/2013	KLF-3-65
***				· · · · · · · · · · · · · · · · · · ·

			LN05747	LN05748	LN05749	LN05750	LN05751
Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount
	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Agatana	32	160.0	امد		امما	لمم	امما
Acetone	32 23	160.0	nd	nd	nd nd	nd	nd nd
tert-Amyl methyl ether (TAME)	23 26		nd nd	nd		nd	nd nd
Benzene Bromobenzene	26 26	130.0	nd 	nd	nd	nd	nd
Bromochloromethane	26 24	130.0 120.0	nd nd	nd	nd nd	nd	nd nd
Bromodichloromethane	24	110.0		nd		nd ad	
Bromoform	23	115.0	nd ad	nd	nd	nd	nd nd
Bromomethane	20	100.0	nd nd	nd nd	nd	nd	nd nd
	26			nd nd	nd	nd	
2-Butanone (MEK)	26 373	130.0	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373 29	1865.0	nd	nd	nd	nd	nd nd
n-Butylbenzene	2 9 27	145.0	nd nd	nd	nd	nd	
sec-Butylbenzene	21 29	135.0 145.0	nd	nd nd	nd	nd nd	nd nd
tert-Butylbenzene	29	100.0	nd nd	nd nd	nd	nd	nd nd
tert-Butyl ethyl ether (ETBE) Carbon disulfide	20 116	580.0	nd nd	nd nd	nd	nd nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd ad	nd
Chlorobenzene	28		nd nd	nd	nd	nd	nd
Chloroethane	20 4 2	140.0	nd nd	nd nd	nd md	nd	nd nd
•	23	210.0	nd	nd 	nd 	nd	nd
2-Chloroethyl vinyl ether Chloroform	23 30	115.0 150.0	nd nd	nd nd	nd nd	nd nd	nd nd
Chloromethane	70	350.0	nd nd	nd nd	nd	nd	nd nd
2-Chlorotoluene	70 27	135.0	nd nd		nd	nd =d	
	28		nd	nd ad	nd	nd	nd ==d
4-Chlorotoluene	∠o 25	140.0	nd 	nd	nd 	nd	nd
Dibromochloromethane	25 31	125.0 155.0	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	23	115.0	nd	nd	nd	nd ad	nd
1,2-Dibromoethane (EDB)	23 33		nd	nd	nd	nd nd	nd
Dibromomethane 1,2-Dichlorobenzene	33 27	165.0 135.0	nd ad	nd	nd nd	nd ad	nd nd
,	27 27	135.0	nd	nd nd		nd nd	
1,3-Dichlorobenzene	33	165.0	nd ad	nd	nd nd	nd	nd
1,4-Dichlorobenzene			nd ad	nd	nd nd	nd ad	nd
Dichlorodifluoromethane 1.1-Dichloroethane	37 29	185.0	nd	nd	nd d	nd	nd
'	29	145.0	nd nd	nd nd	nd nd	nd nd	nd nd
1,2-Dichloroethane	28	110.0	nd	nd	nd	nd	nd
1,1-Dichloroethene		140.0	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene trans-1,2-Dichloroethene	26 32	130.0	nd	nd	nd	nd	nd
	32 22	160.0	nd -d	nd	nd	nd	nd
1,2-Dichloropropane		110.0	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd
1,1-Dichloropropene	27 26	135.0	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26 20	130.0	nd	nd	nd nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd 	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

LN05747 5/15 LN05748 5/15		1 Analyzed 3 5/21/2013	Sample Description KLF-3-45	
LN05748 5/15		3 5/21/2013	KLF-3-45	
	10040 545004			
	/2013 5/15/201	3 5/21/2013	KLF-3-50	
LN05749 5/15	/2013 5/15/201	3 5/21/2013	KLF-3-55	
LN05750 5/15	/2013 5/15/201	3 5/21/2013	KLF-3-60	
LN05751 5/15	/2013 5/15/201	3 5/21/2013	KLF-3-65	

Compounds	MDL	PQL	LN05747 Amount	LN05748 Amount	LN05749 Amount	LN05750 Amount	LN05751 Amount
osin,pounus	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
2-Hexanone	21	105.0	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd
Methyl iodide (lodomethane)	20	100.0	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd
Styrene (Phenylethylene)	33	165.0	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd
Tetrachloroethylene (PCE)	27	135.0	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd
Trichloroethylene (TCE)	24	120.0	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd
Vinyl Chloride	36	180.0	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contr	ol Data			
	QC Limits					
<u>surrogates</u>	% Recovery					
0 (ug/L each)	Lower-Upper					
RR: Bromofluorobenzene	74 - 121	101.3%	101.0%	100.3%	101.0%	100.7%
JRR: Dibromofluoromethane	80 - 120	98.0%	97.3%	96.7%	96.7%	97.3%
URR: Toluene-d8	81 - 117	94.0%	93.3%	94.0%	94.0%	94.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

, , , , , , , , , , , , , , , , , , , ,		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/15/2013	5/15/2013	5/20/2013	Method Blank

			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description	
Blank	5/15/2013	5/15/2013	5/20/2013	Method Blank	".
· · · · · · · ·					· · · · · · · · · · · · · · · · · · ·
				· · · · · · · · · · · · · · · · · · ·	
			Blank		
Compounds	MDL	PQL	Amount		
ompounds	ug/kg	ug/kg	ug/kg		
	agring	ug/kg	agring		
lexachlorobutadiene	44	220.0	nd		
-Hexanone	21	105.0	nd		
sopropylbenzene	33	165.0	nd		
-Isopropyltoluene	28	140.0	nd		
Methyl-t-butyl ether (MTBE)	23	115.0	nd		
flethylene chloride	31	155.0	nd		
odomethane	20	100.0	nd		
Methyl isobutyl ketone (MIBK)	19	95.0	nd		
laphthalene	30	150.0	nd		
ropylbenzene	30	150.0	nd		
Styrene	33	165.0	nd		
,1,1,2-Tetrachloroethane	23	115.0	nd		
,1,2,2-Tetrachloroethane	40	200.0	nd		
etrachloroethylene	27	135.0	nd		
oluene	25	125.0	nd		
,2,3-Trichlorobenzene	29	145.0	nd		
,2,4-Trichlorobenzene	31	155.0	nd		
,1,1-Trichloroethane	26 22	130.0	nd		
,1,2-Trichloroethane	23	115.0	nd		
richloroethylene richlorofluoromethane	24 35	120.0 175.0	nd nd		
,2,3-Trichloropropane	22	175.0	nd		
,2,4-Trimethylbenzene	25	125.0	nd		
,3,5-Trimethylbenzene	28	140.0	nd		
inyl acetate	52	260.0	nd		
/inyl Chloride (Chloroethene)	36	180.0	nd		
n & p-Xylene	75	375.0	nd		
-Xylene	28	140.0	nd		
IDL - Method Detection Limit			J - Concentration	n above MDL below PQL	.,,
QL - Practical Quantitation Limi	it (5xMDL)			ed; below detection limit	
		·····	Quality Control	<u>Data</u>	
Surrogates 0 (ug/L each)	QC Limits % Recovery Lower-Upper				

100.3%

99.0%

94.3%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

SURR: Bromofluorobenzene

SURR: Dibromofluoromethane

74 - 121

80 - 120

81 - 117

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED:

5/20/13

ANALYTICAL METHOD:

USEPA 8260

BATCH #: LN05740 LN/LN05740 LN05741 LN05742 LN05743 LN05744 LN05745 LN05746 LN05747 LN05748 LN05749 LN05750 LN057

LAB SAMPLE I.D.:

LN05740

UNIT:

Γ: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	31.5	105	30.0	32.3	108	2.8 %	59-172	22%
Benzene	ND	30.0	29.1	97.0	30.0	30.6	102	5.0 %	66-142	21%
Trichloroethylene	ND	30.0	30.2	101	30.0	31.0	103	2.0 %	62-137	24%
Toluene	ND	30.0	30.4	101	30.0	31.2	104	2.9 %	59-139	21%
Chlorobenzene	ND	30.0	35.4	118	30.0	36.7	122	3.3 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/20/13

ANALYTICAL METHOD:

USEPA 8260

SUPPLY SOURCE:

LAB LCS I.D.: UNIT:

ug/kg

Q8087

LOT NUMBER: DATE OF SOURCE:

	LCS RESULT	TRUE VALUE		
ANALYTE	ug/kg	ug/kg	% RECOVERY	Advisory Range
,1,2-Trichloroethane	32.2	30	107.3	70 - 130
,2-Dichloroethane	29.8	30	99.3	70 - 130
,4-Dichlorobenzene	31.6	30	105.3	70 - 130
Benzene	26.6	30	88.7	70 - 130
Bromoform	31.9	30	106.3	70 - 130
Carbon Tetrachloride	23.6	30	78.7	70 - 130
etrachloroethylene	27.5	30	91.7	70 - 130
Frichloroethylene	27.7	30	92.3	70 - 130
				<u> </u>
	<u> </u>			
				<u> </u>

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05796	5/16/2013	5/17/2013	5/22/2013	KLF-5-5
LN05797	5/16/2013	5/17/2013	5/22/2013	KLF-5-10
LN05798	5/16/2013	5/17/2013	5/22/2013	KLF-5-15
LN05799	5/16/2013	5/17/2013	5/22/2013	KLF-5-20
LN05800	5/16/2013	5/17/2013	5/23/2013	KLF-5-25
LN05801	5/16/2013	5/17/2013	5/23/2013	KLF-5-30
LN05802	5/16/2013	5/17/2013	5/23/2013	KLF-5-35

Compounds	MDL ug/kg	PQL ug/kg	LN05796 Amount ug/kg	LN05797 Amount ug/kg	LN05798 Amount ug/kg	LN05799 Amount ug/kg	LN05800 Amount ug/kg	LN05801 Amount ug/kg	LN05802 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nď	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
Methyl ethyl ketone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	лd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd						
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd						
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05796	5/16/2013	5/17/2013	5/22/2013	KLF-5-5
LN05797	5/16/2013	5/17/2013	5/22/2013	KLF-5-10
LN05798	5/16/2013	5/17/2013	5/22/2013	KLF-5-15
LN05799	5/16/2013	5/17/2013	5/22/2013	KLF-5-20
LN05800	5/16/2013	5/17/2013	5/23/2013	KLF-5-25
LN05801	5/16/2013	5/17/2013	5/23/2013	KLF-5-30
LN05802	5/16/2013	5/17/2013	5/23/2013	KLF-5-35

Compounds	MDL	PQL	LN05796 Amount	LN05797 Amount	LN05798 Amount	LN05799 Amount	LN05800 Amount	LN05801 Amount	LN05802 Amount
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
lodomethane	20	100.0	nd						
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nď	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd	nď	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Cont	rol Data					
<u>Surrogates</u> 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	100.7%	100.0%	99.3%	96.3%	98.7%	98.3%	98.3%
SURR: Dibromofluoromethane	80 - 120	98.7%	98.3%	100.3%	99.0%	98.0%	97.7%	98.0%
SURR: Toluene-d8	81 - 117	95.3%	95.0%	93.3%	93.7%	94.3%	93.7%	93.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
NG STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05803 Amount (ug/kg)	LN05804 Amount (ug/kg)	LN05805 Amount (ug/kg)	LN05806 Amount (ug/kg)	LN05807 Amount (ug/kg)	LN05808 Amount (ug/kg)	LN05809 Amount (ug/kg)
LN05809	5/16/2013	5/17/2013	5/23/2013		KLF-5-70				
LN05808	5/16/2013	5/17/2013	5/23/2013		KLF-5-65			<u>-</u>	
LN05807	5/16/2013	5/17/2013	5/23/2013		KLF-5-60				
LN05806	5/16/2013	5/17/2013	5/23/2013		KLF-5-55				
LN05805	5/16/2013	5/17/2013	5/23/2013		KLF-5-50				
LN05804	5/16/2013	5/17/2013	5/23/2013		KLF-5-45				
LN05803	5/16/2013	5/17/2013	5/23/2013		KLF-5-40				-
Chemistry Log No.	Date Sampled		Analyzed			Sample De	scription		
 	·	Date	Date						

Compounds	MDL	PQL	Amount						
	(ug/kg)								
Acetone	32	160.0	nd	nď	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd	nd	nd	nd	nď	nd	nd
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
2-Butanone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
n-Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nď	nd
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane (EDB)	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nď
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nď	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						
									0 52.5

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05803	5/16/2013	5/17/2013	5/23/2013	KLF-5-40
LN05804	5/16/2013	5/17/2013	5/23/2013	KLF-5-45
LN05805	5/16/2013	5/17/2013	5/23/2013	KLF-5-50
LN05806	5/16/2013	5/17/2013	5/23/2013	KLF-5-55
LN05807	5/16/2013	5/17/2013	5/23/2013	KLF-5-60
LN05808	5/16/2013	5/17/2013	5/23/2013	KLF-5-65
LN05809	5/16/2013	5/17/2013	5/23/2013	KLF-5-70

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05803 Amount (ug/kg)	LN05804 Amount (ug/kg)	LN05805 Amount (ug/kg)	LN05806 Amount (ug/kg)	LN05807 Amount (ug/kg)	LN05808 Amount (ug/kg)	LN05809 Amount (ug/kg)
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd	nď
Methylene chloride	31	155.0	nd						
Methyl iodide (lodomethane)	20	100.0	nd						
4-Methyl-2-pentanone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene (Phenylethylene)	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene (PCE)	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene (TCE)	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contro	ol Data					
<u>Surrogates</u> 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	99.7%	99.3%	98.7%	96.3%	99.0%	96.0%	100.0%
SURR: Dibromofluoromethane	80 - 120	99.0%	98.3%	97.7%	96.7%	97.3%	97.7%	97.3%
SURR: Toluene-d8	81 - 117	94.0%	93.3%	92.0%	93.0%	94.0%	95.0%	87.0%
Comment:				······				-

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/16/2013	5/17/2013	5/22/2013	Method Blank
				-

			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nď
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
÷			

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/16/2013	5/17/2013	5/22/2013	Method Blank
-				
· · · · · · · · · · · · · · · · · · ·				

			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
lodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nď
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits		
<u>Surrogates</u>	% Recovery		
30 (ug/L each)	Lower-Upper		
URR: Bromofluorobenzene	74 - 121	100.3%	
SURR: Dibromofluoromethane	80 - 120	100.0%	
SURR: Toluene-d8	81 - 117	94.0%	

Comment:

Analyst: Bryan Tiu

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/22/13

ANALYTICAL METHOD:

USEPA 8260

BATCH #: LN05796 LN LN05796 LN05797 LN05798 LN05799 LN05800 LN05801 LN05802 LN05803 LN05804 LN05805 LN05806 LN058

LAB SAMPLE I.D.: LN05797 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	30.7	102	30.0	32.1	107	4.8 %	59-172	22%
Benzene	ND	30.0	30.1	100	30.0	31.7	106	5.8 %	66-142	21%
Trichloroethylene	ND	30.0	31.1	104	30.0	32.5	108	3.8 %	62-137	24%
Toluene	ND	30.0	31.0	103	30.0	32.4	108	4.7 %	59-139	21%
Chlorobenzene	ND	30.0	34.0	113	30.0	35.7	119	5.2 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/22/13

ANALYTICAL METHOD:

USEPA 8260

SUPPLY SOURCE:

LAB LCS I.D.: UNIT:

Q8087 ug/kg

LOT NUMBER:

DATE OF SOURCE:

LCS RESULT	TRUE VALUE		
ug/kg	ug/kg	% RECOVERY	Advisory Range
32.3	30	107.7	70 - 130
30.5	30	101.7	70 - 130
31.1	30	103.7	70 - 130
27.4	30	91.3	70 - 130
35	30	116.7	70 - 130
24.2	30	80.7	70 - 130
29.4	30	98.0	70 - 130
28.7	30	95.7	70 - 130
			<u>"</u>
			1
	32.3 30.5 31.1 27.4 35 24.2 29.4	ug/kg ug/kg 32.3 30 30.5 30 31.1 30 27.4 30 35 30 24.2 30 29.4 30	ug/kg ug/kg % RECOVERY 32.3 30 107.7 30.5 30 101.7 31.1 30 103.7 27.4 30 91.3 35 30 116.7 24.2 30 80.7 29.4 30 98.0

Analyst: B. Tiu

Reviewed by: R. Gentallen/2/13

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Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

	·	Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05810	5/16/2013	5/17/2013	5/23/2013	KLF-4-5
LN05811	5/16/2013	5/17/2013	5/23/2013	KLF-4-10
LN05812	5/16/2013	5/17/2013	5/23/2013	KLF-4-15
LN05813	5/16/2013	5/17/2013	5/23/2013	KLF-4-20
LN05814	5/16/2013	5/17/2013	5/23/2013	KLF-4-25
LN05815	5/16/2013	5/17/2013	5/23/2013	KLF-4-30
LN05816	5/16/2013	5/17/2013	5/23/2013	KLF-4-35

Compounds	MDL ug/kg	PQL ug/kg	LN05810 Amount ug/kg	LN05811 Amount ug/kg	LN05812 Amount ug/kg	LN05813 Amount ug/kg	LN05814 Amount ug/kg	LN05815 Amount ug/kg	LN05816 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nď	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
Methyl ethyl ketone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd						
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	ηd
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	<u> </u>
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05810	5/16/2013	5/17/2013	5/23/2013	KLF-4-5
LN05811	5/16/2013	5/17/2013	5/23/2013	KLF-4-10
LN05812	5/16/2013	5/17/2013	5/23/2013	KLF-4-15
LN05813	5/16/2013	5/17/2013	5/23/2013	KLF-4-20
LN05814	5/16/2013	5/17/2013	5/23/2013	KLF-4-25
LN05815	5/16/2013	5/17/2013	5/23/2013	KLF-4-30
LN05816	5/16/2013	5/17/2013	5/23/2013	KLF-4-35

Compounds	MDL ug/kg	PQL ug/kg	LN05810 Amount ug/kg	LN05811 Amount ug/kg	LN05812 Amount ug/kg	LN05813 Amount ug/kg	LN05814 Amount ug/kg	LN05815 Amount ug/kg	LN05816 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nd	nď
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MT8E)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
Iodomethane	20	100.0	nd	nd	nď	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene	27	135.0	nđ	nd	nd	nd	nd	nd	nd
Toluene	2 5	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd	nđ	nd	nd	nd	กd	nd
Vinyl acetate	52	260.0	nd						
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contr	ol Data					
Surrogates	QC Limits % Recovery							
30 (ug/L each)	Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	98.0%	105.3%	111.0%	83.0%	96.7%	97.0%	84.0%
SURR: Dibromofluoromethane	80 - 120	98.0%	99.3%	100.0%	96.7%	97.0%	98.7%	99.3%
SURR: Toluene-d8	81 - 117	89.0%	83.7%	85.0%	83.7%	88.3%	86.7%	98.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled			Sample Description
LN05817	5/16/2013	5/17/2013	5/23/2013	KLF-4-40
	<u> </u>			

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05817 Amount (ug/kg)
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nď
Bromodichloromethane	22	110.0	nď
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
2-Butanone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
n-Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane (EDB)	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN05817			5/23/2013	·
	<u> </u>			

			LN05817
Compounds	MDL	PQL	Amount
	(ug/kg)	(ug/kg)	(ug/kg)
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	n d
Methyl iodide (lodomethane)	20	100.0	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene (Phenylethylene)	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene (PCE)	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene (TCE)	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits		
<u>Surrogates</u>	% Recovery		
30 (ug/L each)	Lower-Upper		
SURR: Bromofluorobenzene	74 - 121	109.7%	
SURR: Dibromofluoromethane	80 - 120	99.7%	
SURR: Toluene-d8	81 - 117	85.3%	

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/16/2013	5/17/2013	5/23/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nď
1,4-Dichlorobenzene	33	165.0	nđ
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/16/2013	5/17/2013	5/23/2013	Method Blank
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····			<u> </u>	
			Diant	
Compounds	MDL	PQL	Blank Amount	
Sompounds	ug/kg	ug/kg	ug/kg	
	ug/kg	ug/kg	ug/kg	
Hexachlorobutadiene	44	220.0	nd	
2-Hexanone	21	105.0	nd	
sopropylbenzene	33	165.0	nd	
o-Isopropyltoluene	28	140.0	nd	
Methyl-t-butyl ether (MTBE)	23	115.0	nd	
Methylene chloride	31	155.0	nd	
odomethane	20	100.0	nd	
Methyl isobutyl ketone (MIBK)	19	95.0	nd	
Naphthalene	30	150.0	nd	
Propylbenzene	30	150.0	nd	
Styrene	33	165.0	nd	
1,1,1,2-Tetrachloroethane	23	115.0	nd	
1,1,2,2-Tetrachloroethane	40	200.0	nd	
Tetrachloroethylene	27	135.0	nd	
Toluene	25	125.0	nd	
1,2,3-Trichlorobenzene	29	145.0	nd	
1,2,4-Trichlorobenzene	31	155.0	nd	
1,1,1-Trichloroethane	26	130.0	nd	
1,1,2-Trichloroethane	23	115.0	nd	
Frichloroethylene	24	120.0	nd	
Frichlorofluoromethane	35	175.0	nd	
1,2,3-Trichloropropane	22	110.0	nd	
1,2,4-Trimethylbenzene	25	125.0	nd	
1,3,5-Trimethylbenzene	28	140.0	nd	
Vinyl acetate	52	260.0	nd	
Vinyl Chloride (Chloroethene)	36	180.0	nd	
n & p-Xylene	75	375.0	nd	
o-Xylene	28	140.0	nd	
MDL - Method Detection Limit		· · · · · · · · · · · · · · · · · · ·	J - Concentration	above MDL below PQL
PQL - Practical Quantitation Lim	it (5xMDL)			d; below detection limit
			Quality Control [<u>Pata</u>
_	QC Limits			
<u>Surrogates</u>	% Recovery			
30 (ug/L each)	Lower-Upper			

100.3%

100.0%

94.0%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

SURR: Bromofluorobenzene

SURR: Dibromofluoromethane

74 - 121

80 - 120

81 - 117

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/23/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN05810 LN LN05810 LN05811 LN05812 LN05813 LN05814 LN05815 LN05816 LN05817

LAB SAMPLE I.D.: LN05810 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	32.6	109	30.0	32.3	108	0.92 %	59-172	22%
Benzene	ND	30.0	30.6	102	30.0	30.0	100	2.0 %	66-142	21%
Trichloroethylene	ND	30.0	32.4	108	30.0	34.4	115	6.3 %	62-137	24%
Toluene	ND	30.0	28.1	93.7	30.0	28.7	95.7	2.1 %	59-139	21%
Chlorobenzene	ND	30.0	35.1	117	30.0	33.7	112	4.4 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5/23/13 ANALYTICAL METHOD: USEPA 8260

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

	LCS RESULT	TRUE VALUE		
ANALYTE	ug/kg	ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.9	30	109.7	70 - 130
1,2-Dichloroethane	29.8	30	99.3	70 - 130
1,4-Dichlorobenzene	29.8	30	99.3	70 - 130
Benzene	26.2	30	87.3	70 - 130
Bromoform	30.5	30	101.7	70 - 130
Carbon Tetrachloride	21.4	30	71.3	70 - 130
Tetrachloroethylene	26.6	30	88.7	70 - 130
Trichloroethylene	28.2	30	94.0	70 - 130
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Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05818	5/16/2013	5/17/2013	5/24/2013	KLF-4-45
LN05819	5/16/2013	5/17/2013	5/24/2013	KLF-4-50
LN05820	5/16/2013	5/17/2013	5/24/2013	KLF-4-55
LN05821	5/16/2013	5/17/2013	5/24/2013	KLF-4-60
LN05822	5/16/2013	5/17/2013	5/24/2013	KLF-4-65
LN05823	5/16/2013	5/17/2013	5/24/2013	KLF-4-70
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			LN05818	LN05819	LN05820	LN05821	LN05822	LN05823	
Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount	Amount	
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	
Bromochloromethane	24	120.0	nd	nd	nd	nđ	nd	nd	
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	
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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05818	5/16/2013	5/17/2013	5/24/2013	KLF-4-45
LN05819	5/16/2013	5/17/2013	5/24/2013	KLF-4-50
LN05820	5/16/2013	5/17/2013	5/24/2013	KLF-4-55
LN05821	5/16/2013	5/17/2013	5/24/2013	KLF-4-60
LN05822	5/16/2013	5/17/2013	5/24/2013	KLF-4-65
LN05823	5/16/2013	5/17/2013	5/24/2013	KLF-4-70

Compounds	MDL ug/kg	PQL ug/kg	LN05818 Amount ug/kg	LN05819 Amount ug/kg	LN05820 Amount ug/kg	LN05821 Amount ug/kg	LN05822 Amount ug/kg	LN05823 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nđ
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd	nd
lodomethane	20	100.0	nd	nd	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nď	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd
Trichloroethylene	24	120.0	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contr	ol Data					
	QC Limits							
Surrogates	% Recovery							
30 (ug/L each)	Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	106.0%	105.3%	104.3%	104.7%	103.3%	103.7%	
SURR: Dibromofluoromethane	80 - 120	96.0%	93.7%	94.3%	94.7%	92.7%	93.7%	
SURR: Toluene-d8	81 - 117	96.3%	96.0%	96.0%	95.3%	95.0%	93.7%	

Comment.

Analyst: Bryan Tiu Reviewed by: Rose Gentallan

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description	
Blank	5/16/2013	5/17/2013	5/24/2013	Method Blank	
					
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					_

Compounds	MDL	PQL	Blank Amount
2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	· · · · · · · · · · · · · · · · · · ·
Chemistry Log No.	Date Sampled			Sample Description
Blank	5/16/2013	5/17/2013	5/24/2013	Method Blank
	<u> </u>		<u> </u>	

			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Iodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nď
Propylbenzene	30	150.0	nđ
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits		
urrogates	% Recovery		
0 (ug/L each)	Lower-Upper		
RR: Bromofluorobenzene	74 - 121	104.7%	
JRR: Dibromofluoromethane	80 - 120	97.3%	
URR: Toluene-d8	81 - 117	96.3%	

Comment:

Analyst: Bryan Tiu

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/24/13 ANALYTICAL METHOD: **USEPA 8260**

BATCH #: LN05818 LN LN05818 LN05819 LN05820 LN05821 LN05822 LN05823

LAB SAMPLE I.D.: LN05818 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	23.5	78.3	30.0	24.4	81.3	3.8 %	59-172	22%
Benzene	ND	30.0	29.4	98.0	30.0	30.1	100	2.0 %	66-142	21%
Trichloroethylene	ND	30.0	31.9	106	30.0	32.3	108	1.9 %	62-137	24%
Toluene	ND	30.0	31.6	105	30.0	32.0	107	1.9 %	59-139	21%
Chlorobenzene	ND	30.0	34.7	116	30.0	35.0	117	0.86 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/24/13

ANALYTICAL METHOD:

USEPA 8260

SUPPLY SOURCE:

LAB LCS I.D.: UNIT:

Q8087 ug/kg

LOT NUMBER: DATE OF SOURCE:

			1	· · · · · · · · · · · · · · · · · · ·
	LCS RESULT	TRUE VALUE		
ANALYTE	ug/kg	ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	33.5	30	111.7	70 - 130
1,2-Dichloroethane	32	30	106.7	70 - 130
1,4-Dichlorobenzene	32.2	30	107.3	70 - 130
Benzene	28.5	30	95.0	70 - 130
Bromoform	34.7	30	115.7	70 - 130
Carbon Tetrachloride	27.9	30	93.0	70 - 130
Tetrachloroethylene	32.3	30	107.7	70 - 130
Trichloroethylene	31.2	30	104.0	70 - 130
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Analyst: B. Tiu

Reviewed by: R. Gentallen, /19/13

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Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05904	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-5
LN05905	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-10
LN05906	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-15
LN05907	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-20
LN05908	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-25
LN05909	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-30
LN05910	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-35

			LN05904	LN05905	LN05906	LN05907	LN05908	LN05909	LN05910
Compounds	MDL	PQL	Amount						
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd						
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
Methyl ethyl ketone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd						
1,3-Dichlorobenzene	27	135.0	nd						
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd						
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nď	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd						
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						

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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05904	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-5
LN05905	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-10
LN05906	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-15
LN05907	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-20
LN05908	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-25
LN05909	5/20/2013	5/20/2013	5/24/2013	FIGUEROA PS, KLF-7-30
LN05910	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-35

Compounds	MDL ug/kg	PQL ug/kg	LN05904 Amount ug/kg	LN05905 Amount ug/kg	LN05906 Amount ug/kg	LN05907 Amount ug/kg	LN05908 Amount ug/kg	LN05909 Amount ug/kg	LN05910 Amount ug/kg
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
lodomethane	20	100.0	nd						
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene	33	165.0	nd	nd	nd	nd	nd	nd	nď
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	24	120.0	nď	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contr	ol Data					
Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	- 						
SURR: Bromofluorobenzene	74 - 121	105.3%	104.7%	104.0%	104.7%	104.0%	103.3%	105.0%
SURR: Dibromofluoromethane	80 - 120	93.3%	94.3%	94.0%	93.3%	93.7%	94.7%	93.7%
SURR: Toluene-d8	81 - 117	97.3%	96.7%	96.0%	97.3%	96.0%	95.3%	95.7%

Comment:

Analyst: Bryan Tiu

Sample Description

FIGUEROA PS, KLF-7-40

FIGUEROA PS, KLF-7-45

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

Date

Received

5/20/2013

Date Sampled

5/20/2013

5/20/2013

PROJECT: FIGUEROA PUMPING STATION

Chemistry Log No.

LN05911

LN05912

Hexachlorobutadiene

44

220.0

nd

nd

nd

nd

nd

nd

Page 1 of 2 Sample Matrix: Soil

Date

Analyzed

5/25/2013

5/20/2013 5/25/2013

LN03312	0/20/2013	3/20/2013	3/23/2013			1 F3, KLF-7-			
LN05913	5/20/2013	5/20/2013	5/25/2013		FIGUEROA	PS, KLF-7-	-50		
LN05914	5/20/2013	5/20/2013	5/25/2013		FIGUEROA	PS, KLF-7-	-55		
LN05915	5/20/2013	5/20/2013	5/25/2013		FIGUEROA	PS, KLF-7-	-60		
LN05916	5/20/2013	5/20/2013	5/25/2013		FIGUEROA	PS, KLF-7-	-65		
LN05917	5/20/2013	5/20/2013	5/25/2013		FIGUEROA	PS, KLF-7-	-70	**	<u> </u>

_			LN05911	LN05912	LN05913	LN05914	LN05915	LN05916	LN05917
Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount	Amount	Amount
	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nď	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nď
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nď
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nď
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nď	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nď
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	23	115.0	nd	nd	nd	nd	nd	nd	
Dibromomethane	33	165.0	nd	nd	nd	nd			nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd nd	nd	nď
1,3-Dichlorobenzene	27 27	135.0	nd	nd	nd		nd nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd		nd nd	nd nd	nd	nd
Dichlorodifluoromethane	33 37	185.0			nd nd		nd	nd nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd nd	nd	nd	nd	nd d
1,2-Dichloroethane			nd	nd	nd	nd	nd	nd	nd
•	22	110.0	nd	nd	nd 	nd	nd	nd 	nd !
1,1-Dichloroethene	28	140.0	nd	nd	nd 1	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nď	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05911	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-40
LN05912	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-45
LN05913	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-50
LN05914	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-55
LN05915	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-60
LN05916	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-65
LN05917	5/20/2013	5/20/2013	5/25/2013	FIGUEROA PS, KLF-7-70

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05911 Amount (ug/kg)	LN05912 Amount (ug/kg)	LN05913 Amount (ug/kg)	LN05914 Amount (ug/kg)	LN05915 Amount (ug/kg)	LN05916 Amount (ug/kg)	LN05917 Amount (ug/kg)
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
Methyl iodide (lodomethaле)	20	100.0	nď	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene (Phenylethylene)	33	165.0	nd	nd	nd	πd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene (PCE)	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene (TCE)	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd	nd	nd	nd	nď	nd	nd

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Contr	ol Data					
<u>Surrogates</u> 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	104.7%	103.7%	104.0%	104.7%	104.3%	105.0%	106.0%
SURR: Dibromofluoromethane	80 - 120	93.3%	93.7%	93.7%	93.3%	92.3%	95.0%	94.7%
SURR: Toluene-d8	81 - 117	96.3%	94.7%	94.3%	94.3%	96.0%	95.3%	96.7%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/20/2013	5/20/2013	5/24/2013	Method Blank
	·			

			Blank
Compounds	MDL	PQL	Amount
	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	20 29	145.0	
Diisopropyl ether (DIPE)	29 26		nd
		130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/20/2013	5/20/2013	5/24/2013	Method Blank
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				*
				*-
				*_ ·· · · · · ·
				· · · · · · · · · · · · · · · · · · ·
			Blank	
Compounds	MDL	PQL	Amount	
	ug/kg	ug/kg	ug/kg	
Hexachlorobutadiene	44	220.0	nd	
2-Hexanone	21	105.0	nd	
sopropylbenzene	33	165.0	nd	
o-Isopropyltoluene	28	140.0	nd	
Methyl-t-butyl ether (MTBE)	23	115.0	nd	•
Methylene chloride	31	155.0	nd	
odomethane	20	100.0	nd	
Methyl isobutyl ketone (MIBK)	19	95.0	nd	
Naphthalene	30	150.0	nd	
Propylbenzene	30	150.0	nd	
Styrene	33	165.0	nd	
1,1,1,2-Tetrachloroethane	23	115.0	nd	
1,1,2,2-Tetrachloroethane	40	200.0	nd	
Tetrachloroethylene	27	135.0	nd	
Toluene	25	125.0	nd	
1,2,3-Trichlorobenzene	29	145.0	nd	
1,2,4-Trichlorobenzene	31	155.0	nd	
1,1,1-Trichloroethane	26	130.0	nd	
1,1,2-Trichloroethane	23	115.0	nd	
Trichloroethylene	24	120.0	nd	
Trichlorofluoromethane	35	175.0	nd	
1,2,3-Trichloropropane	22	110.0	nd	
1,2,4-Trimethylbenzene	25	125.0	nd	
1,3,5-Trimethylbenzene	28	140.0	nd	
Vinyl acetate	52	260.0	nd	
Vinyl Chloride (Chloroethene)	36	180.0	nd	
m & p-Xylene	75	375.0	nd	
o-Xylene	28	140.0	nd	
MDL - Method Detection Limit	· · · · · · · · · · · · · · · · · · ·		J - Concentr	ation above MDL below PQL
PQL - Practical Quantitation Lim	it (5xMDL)			ected; below detection limit
			Quality Cont	rol Data
	QC Limits		Quanty Coll	TOT DUILU
<u>Surrogates</u>	% Recovery			
30 (ug/L each)	10 Recovery Lower-Upper			
SO (UGIL CACII)	rower-opper			
SURR: Bromofluorobenzene	74 - 121		104.0%	

95.0%

95.7%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

SURR: Dibromofluoromethane

80 - 120

81 - 117

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/24/13

ANALYTICAL METHOD:

USEPA 8260

BATCH #: LN05904 LN LN05904 LN05905 LN05906 LN05907 LN05908 LN05909 LN05910 LN05911 LN05912 LN05913 LN05914 LN059

LAB SAMPLE I.D.:

LN05906

UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	23.8	79.3	30.0	24.5	81.7	3.0 %	59-172	22%
Benzene	ND	30.0	29.5	98.3	30.0	30.0	100	1.7 %	66-142	21%
Trichloroethylene	ND	30.0	31.8	106	30.0	32.4	108	1.9 %	62-137	24%
Toluene	ND	30.0	32.1	107	30.0	32.0	107	0.0%	59-139	21%
Chlorobenzene	ND	30.0	35.1	117	30.0	34.5	115	1.7 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/24/13

ANALYTICAL METHOD:

USEPA 8260

SUPPLY SOURCE:

LAB LCS I.D.:

Q8087

ug/kg

LOT NUMBER:

UNIT:

DATE OF SOURCE:

		I	1	
	LCS RESULT	TRUE VALUE		
ANALYTE	ug/kg	ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	34.3	30	114.3	70 - 130
1,2-Dichloroethane	32.5	30	108.3	70 - 130
1,4-Dichlorobenzene	32	30	106.7	70 - 130
Benzene	27.4	30	91.3	70 - 130
Bromoform	35.2	30	117.3	70 - 130
Carbon Tetrachloride	26.8	30	89.3	70 - 130
Tetrachloroethylene	30.6	30	102.0	70 - 130
Trichloroethylene	31.2	30	104.0	70 - 130
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Sample Description

KLF-6-5

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

Page 1 of 2

PROJECT: FIGUEROA PUMPING STATION

Chemistry Log No.

LN05918

trans-1,2-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

cis-1,3-Dichloropropene

Diisopropyl ether (DIPE)

Hexachlorobutadiene

Ethylbenzene

trans-1,3-Dichloropropene

Sample Matrix: Soil

Date

Analyzed

Date

Received

5/20/2013 5/20/2013 5/28/2013

Date Sampled

32

22

21

38

27

26

29

26

30

44

160.0

110.0

105.0

190.0

135.0

130.0

145.0

130.0

150.0

220.0

nđ

nd

FI402910	3/20/2013	5/20/2013	3/20/2013		VEL-0-0				
LN05919	5/20/2013	5/20/2013	5/28/2013		KLF-6-10				
LN05920	5/20/2013	5/20/2013	5/28/2013		KLF-6-15				
LN05921	5/20/2013	5/20/2013	5/28/2013		KLF-6-20				
LN05922	5/20/2013	5/20/2013	5/28/2013		KLF-6-25				
LN05923	5/20/2013	5/20/2013	5/28/2013		KLF-6-30				
LN05924	5/20/2013	5/20/2013	5/28/2013		KLF-6-35				
			LN05918	LN05919	LN05920	LN05921	LN05922	LN05923	LN05924
Compounds	MDL	PQL	Amount	Amount	Amount	Amount	Amount	Amount	Amount
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
	29 22								
1,2-Dichloroethane	22 28	110.0	nd	nd	nd nd	nd	nd	nd	nd
1,1-Dichloroethene		140.0	nd ad	nd	nd	nd ad	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd

nd

nd

nd

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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05918	5/20/2013	5/20/2013	5/28/2013	KLF-6-5
LN05919	5/20/2013	5/20/2013	5/28/2013	KLF-6-10
LN05920	5/20/2013	5/20/2013	5/28/2013	KLF-6-15
LN05921	5/20/2013	5/20/2013	5/28/2013	KLF-6-20
LN05922	5/20/2013	5/20/2013	5/28/2013	KLF-6-25
LN05923	5/20/2013	5/20/2013	5/28/2013	KLF-6-30
LN05924	5/20/2013	5/20/2013	5/28/2013	KLF-6-35

Oceanovado	MDI	DOL	LN05918	LN05919	LN05920	LN05921	LN05922	LN05923	LN05924
Compounds	MDL	PQL	Amount						
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyitoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
lodomethane	20	100.0	nd	nd	nd	nd	nd	πd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd	nd	nd	nd	nd	лd	nd
Propylbenzene	30	150.0	nd						
Styrene	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride (Chloroethene)	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Conti	ol Data					
Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper		· · · · ·					
SURR: Bromofluorobenzene	74 - 121	102.7%	103.7%	102.7%	103.0%	103.3%	103.3%	104.0%
SURR: Dibromofluoromethane	80 - 120	96.3%	96.0%	93.7%	96.0%	95.0%	93.7%	93.3%
SURR: Toluene-d8	81 - 117	92.7%	93.3%	91.7%	92.7%	93.0%	93.0%	92.3%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05925	5/20/2013	5/20/2013	5/28/2013	KLF-6-40
LN05926	5/20/2013	5/20/2013	5/28/2013	KLF-6-45
LN05927	5/20/2013	5/20/2013	5/28/2013	KLF-6-50
LN05928	5/20/2013	5/20/2013	5/28/2013	KLF-6-55
LN05929	5/20/2013	5/20/2013	5/28/2013	KLF-6-60
LN05930	5/20/2013	5/20/2013	5/28/2013	KLF-6-65
LN05931	5/20/2013	5/20/2013	5/28/2013	KLF-6-70

			LN05925	LN05926	LN05927	LN05928	LN05929	LN05930	LN05931
Compounds	MDL	PQL	Amount						
	(ug/kg)								
Acetone	32	160.0	nd						
tert-Amyl methyl ether (TAME)	23	115.0	nd						
Benzene	26	130.0	nd						
Bromobenzene	26	130.0	nd						
Bromochloromethane	24	120.0	nd						
Bromodichloromethane	22	110.0	nd						
Bromoform	23	115.0	nd						
Bromomethane	20	100.0	nd						
2-Butanone (MEK)	26	130.0	nd						
tert-Butyl alcohol (TBA)	373	1865.0	nd						
n-Butylbenzene	29	145.0	nd						
sec-Butylbenzene	27	135.0	nd						
tert-Butylbenzene	29	145.0	nd						
tert-Butyl ethyl ether (ETBE)	20	100.0	nd						
Carbon disulfide	116	580.0	nd						
Carbon Tetrachloride	32	160.0	nd						
Chlorobenzene	28	140.0	nd						
Chloroethane	42	210.0	nd						
2-Chloroethyl vinyl ether	23	115.0	nd						
Chloroform	30	150.0	nd						
Chloromethane	70	350.0	nd						
2-Chlorotoluene	27	135.0	nd						
4-Chlorotoluene	28	140.0	nd						
Dibromochloromethane	25	125.0	nd						
1,2-Dibromo-3-chloropropane	31	155.0	nd						
1,2-Dibromoethane (EDB)	23	115.0	nd						
Dibromomethane	33	165.0	nd						
1,2-Dichlorobenzene	27	135.0	nd	nd	nđ	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nđ	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd						
Dichlorodifluoromethane	37	185.0	nd						
1,1-Dichloroethane	29	145.0	nd						
1,2-Dichloroethane	22	110.0	nd						
1,1-Dichloroethene	28	140.0	nd						
cis-1,2-Dichloroethene	26	130.0	nd						
trans-1,2-Dichloroethene	32	160.0	nd						
1,2-Dichloropropane	22	110.0	nd						
1,3-Dichloropropane	21	105.0	nd						
2,2-Dichloropropane	38	190.0	nd						
1,1-Dichloropropene	27	135.0	nd						
cis-1,3-Dichloropropene	26	130.0	nd						
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nď	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd						
Ethylbenzene	30	150.0	nd						
Hexachlorobutadiene	44	220.0	nd						

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05925	5/20/2013	5/20/2013	5/28/2013	KLF-6-40
LN05926	5/20/2013	5/20/2013	5/28/2013	KLF-6-45
LN05927	5/20/2013	5/20/2013	5/28/2013	KLF-6-50
LN05928	5/20/2013	5/20/2013	5/28/2013	KLF-6-55
LN05929	5/20/2013	5/20/2013	5/28/2013	KLF-6-60
LN05930	5/20/2013	5/20/2013	5/28/2013	KLF-6-65
LN05931	5/20/2013	5/20/2013	5/28/2013	KLF-6-70

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN05925 Amount (ug/kg)	LN05926 Amount (ug/kg)	LN05927 Amount (ug/kg)	LN05928 Amount (ug/kg)	LN05929 Amount (ug/kg)	LN05930 Amount (ug/kg)	LN05931 Amount (ug/kg)
2-Hexanone	21	105.0	nd						
Isopropylbenzene	33	165.0	nd						
p-Isopropyltoluene	28	140.0	nd						
Methyl-t-butyl ether (MTBE)	23	115.0	nd						
Methylene chloride	31	155.0	nd						
Methyl iodide (Iodomethane)	20	100.0	nd						
4-Methyl-2-pentanone (MIBK)	19	95.0	nd						
Naphthalene	30	150.0	nd						
Propylbenzene	30	150.0	nd						
Styrene (Phenylethylene)	33	165.0	nd						
1,1,1,2-Tetrachloroethane	23	115.0	nd						
1,1,2,2-Tetrachloroethane	40	200.0	nd						
Tetrachloroethylene (PCE)	27	135.0	nd						
Toluene	25	125.0	nd						
1,2,3-Trichlorobenzene	29	145.0	nd						
1,2,4-Trichlorobenzene	31	155.0	nd						
1,1,1-Trichloroethane	26	130.0	nd						
1,1,2-Trichloroethane	23	115.0	nd						
Trichloroethylene (TCE)	24	120.0	nd						
Trichlorofluoromethane	35	175.0	nd						
1,2,3-Trichloropropane	22	110.0	nd						
1,2,4-Trimethylbenzene	25	125.0	nd						
1,3,5-Trimethylbenzene	28	140.0	nd						
Vinyl acetate	52	260.0	nd						
Vinyl Chloride	36	180.0	nd						
m & p-Xylene	75	375.0	nd						
o-Xylene	28	140.0	nd						

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Contr	ol Data					
<u>Surrogates</u> 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	103.0%	102.7%	103.3%	102.0%	102.3%	101.7%	102.3%
SURR: Dibromofluoromethane	80 - 120	93.3%	94.3%	93.3%	93.0%	93.7%	93.0%	91.7%
SURR: Toluene-d8	81 - 117	92.0%	91.0%	92.3%	90.7%	92.0%	90.3%	90.0%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

			Date	Date	1000
l	Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
	Blank	5/20/2013	5/20/2013	5/28/2013	Method Blank
		Î			
l					

Compounds	MDL	PQL	Blank Amount
Compounds	ug/kg	ug/kg	ug/kg
	-55	-55	-33
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

······································		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/20/2013	5/20/2013	5/28/2013	Method Blank
•				
			<u> </u>	
			DII-	
Compounds	MDL	PQL	Blank	
Compounds	ug/kg		Amount	
	ug/kg	ug/kg	ug/kg	
Hexachlorobutadiene	44	220.0	nd	
?-Hexanone	21	105.0	nd	
sopropylbenzene	33	165.0	nd	
o-Isopropyltoluene	28	140.0	nd	
Methyl-t-butyl ether (MTBE)	23	115.0	nd	
Methylene chloride	31	155.0	nd	
odomethane	20	100.0	nd	
Methyl isobutyl ketone (MIBK)	19	95.0	nd	
Naphthalene	30	150.0	nd	
Propylbenzene	30	150.0	nd	
Styrene	33	165.0	nd	
,1,1,2-Tetrachloroethane	23	115.0	nd	
,1,2,2-Tetrachloroethane	40	200.0	nd	
Tetrachloroethylene	27	135.0	nd	
Toluene	25	125.0	nd	
,2,3-Trichlorobenzene	29	145.0	nd	
,2,4-Trichlorobenzene	31	155.0	nd	
1,1,1-Trichloroethane	26	130.0	nd	
1,1,2-Trichloroethane	23	115.0	nd	
frichloroethylene	24	120.0	nd	
Frichlorofluoromethane	35	175.0	nd	
1,2,3-Trichloropropane	22	110.0	nd	
,2,4-Trimethylbenzene	25	125.0	nd	
,3,5-Trimethylbenzene	28	140.0	nd	
/inyl acetate	52	260.0	nd	
/inyl Chloride (Chloroethene)	36	180.0	nd	
n & p-Xylene	75	375.0	nd	
-Xylene	28	140.0	nd	
MDL - Method Detection Limit				ion above MDL below PQL
PQL - Practical Quantitation Lim	it (5xMDL)		nd - Not Detec	ted; below detection limit
			Quality Contro	l Data
_	QC Limits			
Surrogates	% Recovery			
30 (ug/L each)	Lower-Upper			

102.3%

96.0%

91.3%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

SURR: Bromofluorobenzene

SURR: Dibromofluoromethane

74 - 121

80 - 120

81 - 117

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/28/13 ANALYTICAL METHOD: <u>USEPA 8260</u>

BATCH #: LN05918 LN/LN05918 LN05919 LN05920 LN05921 LN05922 LN05923 LN05924 LN05925 LN05926 LN05927 LN05928 LN059

LAB SAMPLE I.D.: LN05922 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	23.0	76.7	30.0	23.5	78.3	2.1 %	59-172	22%
Benzene	ND	30.0	28.1	93.7	30.0	28.7	95.7	2.1 %	66-142	21%
Trichloroethylene	ND	30.0	29.7	99.0	30.0	29.9	99.7	0.70 %	62-137	24%
Toluene	ND	30.0	29.4	98.0	30.0	30.2	101	3.0 %	59-139	21%
Chlorobenzene	ND	30.0	35.2	117	30.0	35.7	119	1.7 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5/2

SUPPLY SOURCE:

LOT NUMBER:

5/28/13

ANALYTICAL METHOD:

LAB LCS I.D.: Q8087

UNIT: ug/kg

DATE OF SOURCE:

		<u> </u>	1	T
ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	30.8	30	102.7	70 - 130
1,2-Dichloroethane	33.3	30	111.0	70 - 130
1,4-Dichlorobenzene	31.2	30	104.0	70 - 130
Benzene	28.7	30	95.7	70 - 130
Bromoform	35.3	30	117.7	70 - 130
Carbon Tetrachloride	27.9	30	93.0	70 - 130
Tetrachloroethylene	28	30	93.3	70 - 130
Trichloroethylene	27.6	30	92.0	70 - 130
			<u> </u>	

USEPA 8260

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Soil

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05932	5/20/2013	5/20/2013	5/29/2013	SOIL DRUM PROFILE

Compounds	MDL ug/kg	PQL ug/kg	LN05932 Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chiorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Soil

PROJECT: FIGUEROA PUMPII	NG STATION	Samp	ile Matrix:	Soil
		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05932	5/20/2013	5/20/2013	5/29/2013	SOIL DRUM PROFILE

y				· ************************************
				
			LN05932	
ompounds	MDL	PQL	Amount	
	ug/kg	ug/kg	ug/kg	
-Hexanone	21	105.0	nd	
sopropylbenzene	33	165.0	nd	
-Isopropyltoluene	28	140.0	nd	
fethyl-t-butyl ether (MTBE)	23	115.0	nd	
Methylene chloride	31	155.0	nd	
odomethane	20	100.0	nd	
lethyl isobutyl ketone (MIBK)	19	95.0	nd	
aphthalene	30	150.0	nd	
ropylbenzene	30	150.0	nd	
tyrene	33	165.0	nd	
,1,1,2-Tetrachloroethane	23	115.0	nd	
1,2,2-Tetrachloroethane	40	200.0	nd	
etrachloroethylene	27	135.0	nd	
oluene	25	125.0	nd	
2,3-Trichlorobenzene	29	145.0	nd	
,2,4-Trichlorobenzene	31	155.0	nd	
,1,1-Trichloroethane	26	130.0	nd	
,1,2-Trichloroethane	23	115.0	nd	
richloroethylene	24	120.0	nd	

MDL - Method Detection Limit

Vinyl Chloride (Chloroethene)

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Vinyl acetate

m & p-Xylene

o-Xylene

PQL - Practical Quantitation Limit (5xMDL)

35

22

25

28

52

36

75

28

175.0

110.0

125.0

140.0

260.0

180.0

375.0

140.0

nd

nd

nd

nd

nd

nd

nd

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits		
<u>Surrogates</u>	% Recovery		
30 (ug/L each)	Lower-Upper		
SURR: Bromofluorobenzene	74 - 121	101.0%	
SURR: Dibromofluoromethane	80 - 120	95.7%	
SURR: Toluene-d8	81 - 117	93.3%	

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

Soil

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/20/2013	5/20/2013	5/28/2013	Method Blank
-,,,				

Compounds	MDL	PQL	Blank Amount
	ug/kg	ug/kg	ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nď
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd 1
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26 20	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26 30	130.0	nd
Ethylbenzene	30	150.0	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix:

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		Date	Date	<del>-                                    </del>
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/20/2013	5/20/2013	5/28/2013	Method Blank
		,		
_			Blank	
Compounds	MDL	PQL	Amount	
	ug/kg	ug/kg	ug/kg	
H	4.4	000.0		
Hexachlorobutadiene	44	220.0	nd	
2-Hexanone	21	105.0	nd 	
Isopropylbenzene	33	165.0	nd	
p-Isopropyltoluene	28	140.0	nd	
Methyl-t-butyl ether (MTBE)	23	115.0	nd 	
Methylene chloride	31	155.0	nd 	
lodomethane	20	100.0	nd	
Methyl isobutyl ketone (MIBK)	19	95.0	nd	
Naphthalene	30	150.0	nd	
Propylbenzene	30	150.0	nd	
Styrene	33	165.0	nd	
1,1,1,2-Tetrachloroethane	23	115.0	nd	
1,1,2,2-Tetrachloroethane	40	200.0	nd	
Tetrachloroethylene	27	135.0	nd	
Toluene	25	125.0	nd	
1,2,3-Trichlorobenzene	29	145.0	nd	
1,2,4-Trichlorobenzene	31	155.0	nd	
1,1,1-Trichloroethane	26	130.0	nd	
1,1,2-Trichloroethane	23	115.0	nd	
Trichloroethylene	24	120.0	nd	
Trichlorofluoromethane	35	175.0	nd	
1,2,3-Trichloropropane	22	110.0	n <b>d</b>	
1,2,4-Trimethylbenzene	25	125.0	nd	
1,3,5-Trimethylbenzene	28	140.0	nd	
Vinyl acetate	52	260.0	nd	
Vinyl Chloride (Chloroethene)	36	180.0	nd	
m & p-Xylene	75	375.0	nd	
o-Xylene	28	140.0	nd	NO. L. DOL
MDL - Method Detection Limit	% (F. A (F) )			ation above MDL below PQL
PQL - Practical Quantitation Lim	it (5xMDL)		nd - Not Dete	cted; below detection limit
<u>.</u>			Ouglib: Cart	ol Deto
	OC Limita		Quality Contr	<u>oi Data</u>
Surrogaton	QC Limits			
Surrogates	% Recovery			

102.3%

96.0%

91.3%

SURR: Toluene-d8
Comment:

30 (ug/L each)

Lower-Upper

74 - 121

80 - 120

81 - 117

Analyst: Bryan Tiu

SURR: Bromofluorobenzene

SURR: Dibromofluoromethane

### **Quality Assurance Report**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/28/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN05932 LN05932

LAB SAMPLE I.D.: LN05922 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	23.0	76.7	30.0	23.5	78.3	2.1 %	59-172	22%
Benzene	ND	30.0	28.1	93.7	30.0	28.7	95.7	2.1 %	66-142	21%
Trichloroethylene	ND	30.0	29.7	99.0	30.0	29.9	99.7	0.70 %	62-137	24%
Toluene	ND	30.0	29.4	98.0	30.0	30.2	101	3.0 %	59-139	21%
Chlorobenzene	ND	30.0	35.2	117	30.0	35.7	119	1.7 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 5/28/13 ANALYTICAL METHOD: USEPA 8260

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

			T	1
ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	30.8	30	102.7	70 - 130
1,2-Dichloroethane	33.3	30	111.0	70 - 130
1,4-Dichlorobenzene	31.2	30	104.0	70 - 130
Benzene	28.7	30	95.7	70 - 130
Bromoform	35.3	30	117.7	70 - 130
Carbon Tetrachloride	27.9	30	93.0	70 - 130
Tetrachloroethylene	28	30	93.3	70 - 130
Trichloroethylene	27.6	30	92.0	70 - 130

Reviewed by: R. Gentallen /14/13

Analyst: B. Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260
Page 1 of 2
ING STATION Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05576	5/13/2013	5/13/2013	5/21/2013	QCTB
LN05577	5/13/2013	5/13/2013	5/21/2013	QCEB
LN05595	5/13/2013	5/13/2013	5/21/2013	QCFB
		:		

Compounds	MDL (ug/L)	PQL (ug/L)	LN05576 Amount (ug/L)	LN05577 Amount (ug/L)	LN05595 Amount (ug/L)
Acetone	0.58	2.9	nd	nd	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd	nd	nd
Benzene	0.12	0.6	nd	nd	nd
Bromobenzene	0.10	0.5	nd	nd	nd
Bromochloromethane	0.09	0.5	nd	nd	nd
Bromodichloromethane	0.10	0.5	nd	nd	nd
Bromoform	0.10	0.5	nď	nd	nd
Bromomethane	0.41	2.1	nď	nd	nd
Methyl ethyl ketone (MEK)	0.17	0.9	nd	nd	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd	nd	nd
Butylbenzene	0.21	1.1	nd	nd	nd
sec-Butylbenzene	0.21	1.1	nd	nd	nd
tert-Butylbenzene	0.18	0.9	nď	nd	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd	nd	nd
Carbon disulfide	0.30	1.5	nd	nd	nd
Carbon Tetrachloride	0.09	0.5	nd	nd	nd
Chlorobenzene	0.18	0.9	nd	nd	nd
Chloroethane	0.17	0.9	nd	nd	nd
2-Chloroethyl vinyl ether	0.25	1.3	nď	nd	nd
Chloroform	0.10	0.5	nd	nd	nd
Chloromethane	0.13	0.7	nđ	nd	nd
2-Chlorotoluene	0.23	1.2	nd	nd	nd
4-Chlorotoluene	0.25	1.3	nd	nd	nd
Dibromochloromethane	0.11	0.6	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	n <b>d</b>	nd	nd
1,2-Dibromoethane	0.10	0.5	nd	nd	nd
Dibromomethane	0.10	0.5	nd	nd	nd
1,2-Dichlorobenzene	0.11	0.6	nd	nd	nd
1,3-Dichlorobenzene	0.10	0.5	nd	nd	nd
1,4-Dichlorobenzene	0.15	0.8	nd	nd	nd
Dichlorodifluoromethane	0.46	2.3	nd	nd	nd
1,1-Dichloroethane	0.10	0.5	nd	nd	nd
1,2-Dichloroethane	0.13	0.7	nd	nd	nd
1,1-Dichloroethene	0.11	0.6	nd	nd	nd
cis-1,2-Dichloroethene	0.09	0.5	nd	nd	nd
trans-1,2-Dichloroethene	0.10	0.5	nd	nd	nd
1,2-Dichloropropane	0.11	0.6	nd	nd	nd
1,3-Dichloropropane	0.10	0.5	nd	nd	nd
2,2-Dichloropropane	0.12	0.6	nd	nd	nd
1,1-Dichloropropene	0.20	1.0	nd	nd	nd
cis-1,3-Dichloropropene	0.12	0.6	nd	nd	nd
trans-1,3-Dichloropropene	0.08	0.4	nd	nd	nd
Diisopropyl ether (DIPE)	0.15	8.0	nd	nd	nd
Ethylbenzene	0.27	1.4	nd	nd	nd
Hexachlorobutadiene	0.13	0.7	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

OL CALL DE ME	Data Carratad	Date	Date	Consolo Donosistico
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05576	5/13/2013	5/13/2013	5/21/2013	QCTB
LN05577	5/13/2013	5/13/2013	5/21/2013	QCEB
LN05595	5/13/2013	5/13/2013	5/21/2013	QCFB
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A 1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-		LN05576	LN05577 LN05595

Compounds	MDL (ug/L)	PQL (ug/L)	LN05576 Amount (ug/L)	LN05577 Amount (ug/L)	LN05595 Amount (ug/L)
2-Hexanone	0.07	0.4	nd	nd	nd
Isopropylbenzene	0.20	1.0	nd	nd	nd
p-Isopropyltoluene	0.25	1.3	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	nd	nd
Methylene chloride	0.18	0.9	nd	nd	nd
Iodomethane	0.11	0.6	nd	nd	nd
Methyl isobutyl ketone (MIBK)	0.09	0.5	nd	nd	nď
Naphthalene	0.38	1.9	nd	nd	nd
Propylbenzene	0.25	1.3	nd	nd	nd
Styrene	0.24	1.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
Tetrachloroethylene	0.10	0.5	nd	nd	nd
Toluene	0.29	1.5	nd	nd	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd	nd	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd	nd	nd
1,1,1-Trichloroethane	0.09	0.5	nd	nd	nd
1,1,2-Trichloroethane	0.09	0.5	nd	nd	nd
Trichloroethylene	0.16	0.8	nd	nd	nd
Trichlorofluoromethane	0.10	0.5	nd	nd	nd
1,2,3-Trichloropropane	0.14	0.7	nd	nd	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd	nd	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd	nd	nd
Vinyl acetate	0.11	0.6	nd	nd	nd
Vinyl Chloride (Chloroethene)	0.11	0.6	nd	nd	nd
m & p-Xylene	0.60	3.0	nd	nd	nd
o-Xylene	0.29	1.5	nd	nd	nd
MDL - Method Detection Limit			J - Concen	tration abov	e MDL belov

MDL - Method Detection Limit

J - Concentration above MDL below PQL

PQL - Practical Quantitation Limit (5xMDL)

nd - Not Detected; below detection limit

		Quality Contr	ol Data		
	QC Limits				
<u>Surrogates</u>	% Recovery				
30 (ug/L each)	Lower-Upper				
SURR: Bromofluorobenzene	80 - 130	100.0%	100.0%	99.0%	
SURR: Dibromofluoromethane	80 - 120	98.0%	97.0%	97.0%	
SURR: Toluene-d8	80 - 130	96.0%	96.3%	96.0%	

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank
				14, 14, 14 14 <b>9</b>
		****		
				-

Compounds	MDL (ug/L)	PQL (ug/L)	Blank Amount ug/L
	(-3:-7	(- <b>3</b> /	-3-
Acetone	0.58	2.9	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd
Benzene	0.12	0.6	nd
Bromobenzene	0.10	0.5	nd
Bromochloromethane	0.09	0.5	nd
Bromodichloromethane	0.10	0.5	nd
Bromoform	0.10	0.5	nd
Bromomethane	0.41	2.1	nd
2-Butanone (MEK)	0.17	0.9	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd
n-Butylbenzene	0.21	1.1	nd
sec-Butylbenzene	0.21	1.1	nd
tert-Butylbenzene	0.18	0.9	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd
Carbon disulfide	0.30	1.5	nd
Carbon Tetrachloride	0.09	0.5	nd
Chlorobenzene	0.18	0.9	nd
Chloroethane	0.17	0.9	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd
Chloroform	0.10	0.5	nd
Chloromethane	0.13	0.7	nd
2-Chlorotoluene	0.23	1.2	nd
4-Chlorotoluene	0.25	1.3	nd
Dibromochloromethane	0.11	0.6	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd
1,2-Dibromoethane (EDB)	0.10	0.5	nd
Dibromomethane	0.10	0.5	nd
1,2-Dichlorobenzene	0.11	0.6	nd
1,3-Dichlorobenzene	0.10	0.5	nd
1,4-Dichlorobenzene	0.15	0.8	nd
Dichlorodifluoromethane	0.46	2.3	nd
1,1-Dichloroethane	0.10	0.5	nd
1,2-Dichloroethane	0.13	0.7	nd
1,1-Dichloroethene	0.11	0.6	nd
cis-1,2-Dichloroethene	0.09	0.5	nd
trans-1,2-Dichloroethene	0.10	0.5	nd
1,2-Dichloropropane	0.11	0.6	nd
1,3-Dichloropropane	0.10	0.5	nd
2,2-Dichloropropane	0.12	0.6	nd
1,1-Dichloropropene	0.20	1.0	nd
cis-1,3-Dichloropropene	0.12	0.6	nd
trans-1,3-Dichloropropene	0.08	0.4	nd
Diisopropyl ether (DIPE)	0.15	8.0	nd
Ethylbenzene	0.27	1.4	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

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		Date	Date	0 1 5 1 "
Chemistry Log No.	Date Sampled		Analyzed	Sample Description
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank
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	-		<del>                                     </del>	
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<del></del>	!		<u> </u>	
			Blank	
Compounds	MDL	PQL	Amount	
•	(ug/L)	(ug/L)	ug/L	
	. • /	. • /	J	
Hexachlorobutadiene	0.13	0.7	nd	
2-Hexanone	0.07	0.4	nd	
sopropylbenzene	0.20	1.0	nd	
o-Isopropyltoluene	0.25	1.3	nd	
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	
Methylene chloride	0.18	0.9	nd	
Methyl iodide (lodomethane)	0.11	0.6	nd	
4-Methyl-2-pentanone (MIBK)	0.09	0.5	nd	
Naphthalene	0.38	1.9	nd	
Propylbenzene	0.25	1.3	nd	
Styrene (Phenylethylene)	0.24	1.2	nd	
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	
Tetrachloroethylene	0.10	0.5	nd	
Toluene	0.29	1.5	nd	
1,2,3-Trichlorobenzene	0.17	0.9	nd	
1,2,4-Trichlorobenzene	0.12	0.6	nd	
1,1,1-Trichloroethane	0.09	0.5	nd	
1,1,2-Trichloroethane	0.09	0.5	nd	
Trichloroethylene	0.16	8.0	nd	
Trichlorofluoromethane	0.10	0.5	nd	
1,2,3-Trichloropropane	0.14	0.7	nd	
1,2,4-Trimethylbenzene	0.17	0.9	nd	
1,3,5-Trimethylbenzene	0.26	1.3	nd	
Vinyl acetate	0.11	0.6	nd	
Vinyl Chloride (chloroethene)	0.11	0.6	nd	
m & p-Xylene	0.60	3.0	nd	
o-Xylene	0.29	1.5	nd	
MDL - Method Detection Limit			J - Concent	ration above MDL below PQL
PQL - Practical Quantitation Limi	t (5xMDL)		nd - Not De	tected; below detection limit
		<del></del>		
			0 11 0	4.104
			Quality Con	itrol Data
	QC Limits			
Surrogates	% Recovery			
30 (ug/L each)	Lower-Upper			
ours s. d. ;	00 100		400.000	
SURR: Bromofluorobenzene	80 -130		100.3%	
SURR: Dibromofluoromethane	80 - 120		99.0%	

94.3%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

80 - 130

**USEPA 8260** 

### **Quality Assurance Report**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/21/13

BATCH #: \$VOC-W-77! LN05576 LN05577 LN05595

LAB SAMPLE I.D.: LN05646 UNIT: ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	32.8	109	30.0	32.6	109	0.0%	61-145	14%
Benzene	ND	30.0	30.3	101	30.0	30.0	100	1.0 %	76-127	11%
Trichloroethylene	ND	30.0	31.5	105	30.0	31.2	104	0.96 %	71-120	14%
Toluene	ND	30.0	32.5	108	30.0	32.3	108	0.0%	76-125	13%
Chlorobenzene	ND	30.0	36.3	121	30.0	36.0	120	0.83 %	75-130	13%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/21/13

ANALYTICAL METHOD:

**USEPA 8260** 

SUPPLY SOURCE:

LOT NUMBER:

LAB LCS I.D.: UNIT:

Q5057 ug/L

ANALYTICAL METHOD:

DATE OF SOURCE:

	LCS RESULT	TRUE VALUE		
ANALYTE	ug/L	ug/L	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.2	30	107.3	70 - 130
1,2-Dichloroethane	29.8	30	99.3	70 - 130
1,4-Dichlorobenzene	31.6	30	105.3	70 - 130
Benzene	26.6	30	88.7	70 - 130
Bromoform	31.9	30	106.3	70 - 130
Carbon Tetrachloride	23.6	30	78.7	70 - 130
Tetrachloroethylene	27.5	30	91.7	70 - 130
Trichloroethylene	27.7	30	92.3	70 - 130
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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

Page 1 of 2

ING STATION Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05646	5/14/2013	5/14/2013	5/21/2013	QCEB
LN05647	5/14/2013	5/14/2013	5/21/2013	QCTB
LN05660	5/14/2013	5/14/2013	5/21/2013	QCFB

Compounds	MDL (ug/L)	PQL (ug/L)	LN05646 Amount (ug/L)	LN05647 Amount (ug/L)	LN05660 Amount (ug/L)
Acetone	0.58	2.9	nd	nd	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd	nd	nd
Benzene	0.12	0.6	nd	nd	nd
Bromobenzene	0.10	0.5	nd	nd	nd
Bromochloromethane	0.09	0.5	nd	nd	nd
Bromodichloromethane	0.10	0.5	nd	nd	nd
Bromoform	0.10	0.5	nd	nd	nd
Bromomethane	0.41	2.1	nd	nd	nd
Methyl ethyl ketone (MEK)	0.17	0.9	nd	nd	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd	nd	nd
Butylbenzene	0.21	1.1	nd	nd	nd
sec-Butylbenzene	0.21	1.1	nd	nd	nd
tert-Butylbenzene	0.18	0.9	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd	nd	nd
Carbon disulfide	0.30	1.5	nd	nd	nd
Carbon Tetrachloride	0.09	0.5	nd	nd	nd
Chlorobenzene	0.18	0.9	nd	nd	nd
Chloroethane	0.17	0.9	nd	nd	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd	nd	nd
Chloroform	0.10	0.5	nd	nd	nd
Chloromethane	0.13	0.7	nd	nd	nd
2-Chlorotoluene	0.23	1.2	nd	nd	nd
4-Chlorotoluene	0.25	1.3	nd	nd	nd
Dibromochloromethane	0.11	0.6	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd	nd	nd
1,2-Dibromoethane	0.10	0.5	nd	nd	nd
Dibromomethane	0.10	0.5	nd	nd	nd
1,2-Dichlorobenzene	0.11	0.6	nd	nd	nd
1,3-Dichlorobenzene	0.10	0.5	nd	nd	nd
1,4-Dichlorobenzene	0.15	0.8	nd	nd	nd
Dichlorodifluoromethane	0.46	2.3	nd	nd	nd
1,1-Dichloroethane	0.10	0.5	nd	nd	nd
1,2-Dichloroethane	0.13	0.7	nd	nd	nd
1,1-Dichloroethene	0.11	0.6	nd	nd	nd
cis-1,2-Dichloroethene	0.09	0.5	nd	nd	nd
trans-1,2-Dichloroethene	0.10	0.5	nd	nd	nd
1,2-Dichloropropane	0.11	0.6	nd	nd	nd
1,3-Dichloropropane	0.10	0.5	nd	nd	nd
2,2-Dichloropropane	0.12	0.6	nd	nd	nd
1,1-Dichloropropene	0.20	1.0	nd	nd	nd
cis-1,3-Dichloropropene	0.12	0.6	nd	nd	nd
trans-1,3-Dichloropropene	0.08	0.4	nd	nd	nd
Diisopropyl ether (DIPE)	0.15	0.8	nd	nd	nd
Ethylbenzene	0.27	1.4	nd	nd	nd
Hexachlorobutadiene	0.13	0.7	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 2 of 2 Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05646	5/14/2013	5/14/2013	5/21/2013	QCEB
LN05647	5/14/2013	5/14/2013	5/21/2013	QCTB
LN05660	5/14/2013	5/14/2013	5/21/2013	QCFB
"				

			LN05646	LN05647	LN05660
Compounds	MDL	PQL	Amount	Amount	Amount
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
2-Hexanone	0.07	0.4	nd	nd	nd
Isopropyibenzene	0.20	1.0	nd	nd	nd
p-Isopropyltoluene	0.25	1.3	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	nd	nd
Methylene chloride	0.18	0.9	nd	nd	nd
Iodomethane	0.11	0.6	nd	nd	nd
Methyl isobutyl ketone (MIBK)	0.09	0.5	nd	nd	nd
Naphthalene	0.38	1.9	nd	nd	nd
Propylbenzene	0.25	1.3	nd	nd	nd
Styrene	0.24	1.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
Tetrachloroethylene	0.10	0.5	nd	nd	nd
Toluene	0.29	1.5	nd	nd	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd	nd	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd	nd	nd
1,1,1-Trichloroethane	0.09	0.5	nd	nd	nd
1,1,2-Trichloroethane	0.09	0.5	nd	nd	nd
Trichloroethylene	0.16	0.8	nd	nd	nd
Trichlorofluoromethane	0.10	0.5	nd	nd	nd
1,2,3-Trichloropropane	0.14	0.7	nd	nd	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd	nd	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd	nd	nd
Vinyl acetate	0.11	0.6	nd	nd	nd
Vinyl Chloride (Chloroethene)	0.11	0.6	nd	nd	nd
m & p-Xylene	0.60	3.0	nd	nd	nd
o-Xylene	0.29	1.5	nd	nd	nd
TOTAL TOTAL CONTRACTOR			1 0		

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contro	ol Data		
	QC Limits				
<u>Surrogates</u>	% Recovery				
30 (ug/L each)	Lower-Upper				
SURR: Bromofluorobenzene	80 - 130	99.3%	99.7%	100.0%	
SURR: Dibromofluoromethane	80 - 120	97.7%	98.0%	96.7%	
SURR: Toluene-d8	80 - 130	95.3%	95.0%	95.7%	

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank
				14.

Compounds	MDL (ug/L)	PQL (ug/L)	Blank Amount ug/L
Acetone	0.58	2.9	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd
Benzene	0.12	0.6	nd
Bromobenzene	0.10	0.5	nd
Bromochloromethane	0.09	0.5	nd
Bromodichloromethane	0.10	0.5	nd
Bromoform	0.10	0.5	nd
Bromomethane	0.41	2.1	nd
2-Butanone (MEK)	0.17	0.9	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd
n-Butylbenzene	0.21	1.1	nd
sec-Butylbenzene	0.21	1.1	nd
tert-Butylbenzene	0.18	0.9	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd
Carbon disulfide	0.30	1.5	nd
Carbon Tetrachloride	0.09	0.5	nd
Chlorobenzene	0.18	0.9	nd
Chloroethane	0.17	0.9	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd
Chloroform	0.10	0.5	nd
Chloromethane	0.13	0.7	nd
2-Chlorotoluene	0.23	1.2	nd
4-Chlorotoluene	0.25	1.3	nd
Dibromochloromethane	0.11	0.6	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd
1,2-Dibromoethane (EDB)	0.10	0.5	nd
Dibromomethane	0.10	0.5	nd
1,2-Dichlorobenzene	0.11	0.6	nd
1,3-Dichlorobenzene	0.10	0.5	nd
1,4-Dichlorobenzene	0.15	0.8	nd
Dichlorodifluoromethane	0.46	2.3	nd
1,1-Dichloroethane	0.10	0.5	nd
1,2-Dichloroethane	0.13	0.7	nd
1,1-Dichloroethene	0.11	0.6	nd
cis-1,2-Dichloroethene	0.09	0.5	nd
trans-1,2-Dichloroethene	0.10	0.5	nd
1,2-Dichloropropane	0.11	0.6	nd
1,3-Dichloropropane	0.10	0.5	nd
2,2-Dichloropropane	0.12	0.6	nd
1,1-Dichloropropene	0.20	1.0	nd
cis-1,3-Dichloropropene	0.12	0.6	nd
trans-1,3-Dichloropropene	0.08	0.4	nd
Diisopropyl ether (DIPE)	0.15	0.8	nd
Ethylbenzene	0.27	1.4	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

		Date	Date	-	
Chemistry Log No.	Date Sampled			Sample Description	
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank	
				==	

			Blank
Compounds	MDL	PQL	Amount
	(ug/L)	(ug/L)	ug/L
Hexachlorobutadiene	0.13	0.7	nd
2-Hexanone	0.07	0.4	nd
Isopropylbenzene	0.20	1.0	nd
p-Isopropyltoluene	0.25	1.3	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd
Methylene chloride	0.18	0.9	nd
Methyl iodide (lodomethane)	0.11	0.6	nd
4-Methyl-2-pentanone (MIBK)	0.09	0.5	nd
Naphthalene	0.38	1.9	nd
Propylbenzene	0.25	1.3	nd
Styrene (Phenylethylene)	0.24	1.2	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd
Tetrachloroethylene	0.10	0.5	nd
Toluene	0.29	1.5	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd
1,1,1-Trichloroethane	0.09	0.5	nd
1,1,2-Trichloroethane	0.09	0.5	nd
Trichloroethylene	0.16	0.8	nd
Trichlorofluoromethane	0.10	0.5	nd
1,2,3-Trichloropropane	0.14	0.7	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd
Vinyl acetate	0.11	0.6	nd
Vinyl Chloride (chloroethene)	0.11	0.6	nd
m & p-Xylene	0.60	3.0	nd
o-Xvlene	0.29	1.5	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

	Quality Control Data	
QC Limits		
% Recovery		
Lower-Upper		
80 -130	100.3%	
80 - 120	99.0%	
80 - 130	94.3%	
	% Recovery Lower-Upper 80 -130 80 - 120	QC Limits % Recovery Lower-Upper  80 -130 100.3% 80 - 120 99.0%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

**USEPA 8260** 

### **Quality Assurance Report**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/21/13

BATCH #: \$VOC-W-77! LN05646 LN05647 LN05660

LAB SAMPLE I.D.: LN05646 UNIT: ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	32.8	109	30.0	32.6	109	0.0%	61-145	14%
Benzene	ND	30.0	30.3	101	30.0	30.0	100	1.0 %	76-127	11%
Trichloroethylene	ND	30.0	31.5	105	30.0	31.2	104	0.96 %	71-120	14%
Toluene	ND	30.0	32.5	108	30.0	32.3	108	0.0%	76-125	13%
Chlorobenzene	ND	30.0	36.3	121	30.0	36.0	120	0.83 %	75-130	13%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/21/13

**ANALYTICAL METHOD:** 

**USEPA 8260** 

SUPPLY SOURCE:

DATE OF SOURCE:

LAB LCS I.D.:

Q8087

**ANALYTICAL METHOD:** 

LOT NUMBER:

UNIT:

ug/L

	1	T		
ANALYTE	LCS RESULT	TRUE VALUE ug/L	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.2	30	107.3	70 - 130
1,2-Dichloroethane	29.8	30	99.3	70 - 130
1,4-Dichlorobenzene	31.6	30	105.3	70 - 130
Benzene	26.6	30	88.7	70 - 130
Bromoform	31.9	30	106.3	70 - 130
Carbon Tetrachloride	23.6	30	78.7	70 - 130
Tetrachloroethylene	27.5	30	91.7	70 - 130
Trichloroethylene	27.7	30	92.3	70 - 130
		<u></u>		

Report of GC/MS Analysis for Purgeable Volatile Organics FPA SW-846 Method 8260

EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05738	5/15/2013	5/15/2013	5/21/2013	QCTB
LN05739	5/15/2013	5/15/2013	5/21/2013	QCEB
LN05752	5/15/2013	5/15/2013	5/21/2013	QCFB
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Compounds	MDL	PQL	LN05738 Amount	LN05739 Amount	LN05752 Amount
Compoundo	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Acetone	0.58	2.9	nd	nd	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd	nd	nd
Benzene	0.12	0.6	nd	nd	nd
Bromobenzene	0.10	0.5	nd	nd	nd
Bromochloromethane	0.09	0.5	nd	nd	nd
Bromodichloromethane	0.10	0.5	nd	nd	nd
Bromoform	0.10	0.5	nd	nd	nd
Bromomethane	0.41	2.1	nd	nd	nd
Methyl ethyl ketone (MEK)	0.17	0.9	nd	nd	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd	nd	nd
Butylbenzene	0.21	1.1	nd	nd	nd
sec-Butylbenzene	0.21	1.1	nd	nd	nd
tert-Butylbenzene	0.18	0.9	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd	nd	nd
Carbon disulfide	0.30	1.5	nd	nd	nd
Carbon Tetrachloride	0.09	0.5	nd	nd	nd
Chlorobenzene	0.18	0.9	nd	nd	nd
Chloroethane	0.17	0.9	nd	nd	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd	nd	nd
Chloroform	0.10	0.5	nd	nd	nd
Chloromethane	0.13	0.7	nd	nd	nd
2-Chlorotoluene	0.23	1.2	nd	nd	nd
4-Chlorotoluene	0.25	1.3	nd	nd	nd
Dibromochloromethane	0.11	0.6	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd	nd	nd
1,2-Dibromoethane	0.10	0.5	nd	nd	nd
Dibromomethane	0.10	0.5	nd	nd	nd
1,2-Dichlorobenzene	0.11	0.6	nd	nd	nd
1,3-Dichlorobenzene	0.10	0.5	nd	nd	nd
1,4-Dichlorobenzene	0.15	0.8	nd	nd	nd
Dichlorodifluoromethane	0.46	2.3	nd	nd	nd
1,1-Dichloroethane	0.10	0.5	nd	nd	nd
1,2-Dichloroethane	0.13	0.7	nd	nd	nd
1,1-Dichloroethene	0.13	0.6	nd	nd	nd
cis-1,2-Dichloroethene	0.09	0.5	nd	nd	nd
trans-1,2-Dichloroethene	0.10	0.5	nd	nd	nd
1,2-Dichloropropane	0.11	0.6	nd	nd	nd
	0.10	0.5	nd	nd	nd
1,3-Dichloropropane	0.10	0.6	nd	nd	nd
2,2-Dichloropropane 1,1-Dichloropropene	0.12	1.0	nd	nd	nd
	0.20 0.12	0.6	nd	nd	nd
cis-1,3-Dichloropropene	0.12	0.6	nd nd	nd nd	nd
trans-1,3-Dichloropropene					
Diisopropyl ether (DIPE)	0.15	0.8	nd nd	nd nd	nd
Ethylbenzene	0.27	1.4	nd	nd nd	nd nd
Hexachlorobutadiene	0.13	0.7	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05738	5/15/2013	5/15/2013	5/21/2013	QCTB
LN05739	5/15/2013	5/15/2013	5/21/2013	QCEB
LN05752	5/15/2013	5/15/2013	5/21/2013	QCFB

Compounds	MDL (ug/L)	PQL	LN05738 Amount	LN05739 Amount	LN05752 Amount
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
2-Hexanone	0.07	0.4	nd	nd	nd
Isopropylbenzene	0.20	1.0	nd	nd	nd
p-Isopropyltoluene	0.25	1.3	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	nd	nd
Methylene chloride	0.18	0.9	nd	nd	nd
lodomethane	0.11	0.6	nd	nd	nd
Methyl isobutyl ketone (MIBK)	0.09	0.5	nd	nd	nd
Naphthalene	0.38	1.9	nd	nd	nd
Propylbenzene	0.25	1.3	nd	nd	nd
Styrene	0.24	1.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
Tetrachloroethylene	0.10	0.5	nd	nd	nd
Toluene	0.29	1.5	nd	nd	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd	nd	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd	nd	nd
1,1,1-Trichloroethane	0.09	0.5	nd	nd	nd
1,1,2-Trichloroethane	0.09	0.5	nd	nd	nd
Trichloroethylene	0.16	0.8	nd	nd	nd
Trichlorofluoromethane	0.10	0.5	nd	nd	nd
1,2,3-Trichloropropane	0.14	0.7	nd	nd	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd	nd	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd	nd	nd
Vinyl acetate	0.11	0.6	nd	nd	nd
Vinyl Chloride (Chloroethene)	0.11	0.6	nd	nd	nd
m & p-Xylene	0.60	3.0	nd	nd	nd
o-Xylene	0.29	1.5	nd	nd	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Contr	rol Data	
Surrogates	QC Limits % Recovery			
30 (ug/L each)	Lower-Upper			
SURR: Bromofluorobenzene	80 - 130	100.0%	100.3%	100.0%
SURR: Dibromofluoromethane	80 - 120	98.0%	97.3%	97.7%
SURR: Toluene-d8	80 - 130	97.0%	97.0%	97.0%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank
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			Blank
Compounds	MDL	PQL	Amount
·	(ug/L)	(ug/L)	ug/L
Acetone	0.58	2.9	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd
Benzene	0.12	0.6	nd
Bromobenzene	0.10	0.5	nd
Bromochloromethane	0.09	0.5	nd
Bromodichloromethane	0.10	0.5	nd
Bromoform	0.10	0.5	nd
Bromomethane	0.41	2.1	nd
2-Butanone (MEK)	0.17	0.9	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd
n-Butylbenzene	0.21	1.1	nd
sec-Butylbenzene	0.21	1.1	nd
tert-Butylbenzene	0.18	0.9	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd
Carbon disulfide	0.30	1.5	nd
Carbon Tetrachloride	0.09	0.5	nd
Chlorobenzene	0.18	0.9	nd
Chloroethane	0.17	0.9	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd
Chloroform	0.10	0.5	nd
Chloromethane	0.13	0.7	nd
2-Chiorotoluene	0.23	1.2	nd
4-Chlorotoluene	0.25	1.3	nd
Dibromochloromethane	0.11	0.6	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd
1,2-Dibromoethane (EDB)	0.10	0.5	nd
Dibromomethane	0.10	0.5	nd
1,2-Dichlorobenzene	0.11	0.6	nd
1,3-Dichlorobenzene	0.10	0.5	nd
1,4-Dichlorobenzene	0.15	0.8	nd
Dichlorodifluoromethane	0.46	2.3	nd
1,1-Dichloroethane	0.10	0.5	nd
1,2-Dichloroethane	0.13	0.7	nd
1,1-Dichloroethene	0.11	0.6	nd
cis-1,2-Dichloroethene	0.09	0.5	nd
trans-1,2-Dichloroethene	0.10	0.5	nd
1,2-Dichloropropane	0.11	0.6	nd
1,3-Dichloropropane	0.10	0.5	nd
2,2-Dichloropropane	0.12	0.6	nd
1,1-Dichloropropene	0.20	1.0	nd
cis-1,3-Dichloropropene	0.12	0.6	nd
trans-1,3-Dichloropropene	0.08	0.4	nd
Diisopropyl ether (DIPE)	0.15	0.8	nd
Ethylbenzene	0.27	1.4	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled		Analyzed	Sample Description
Blank	5/14/2013	5/14/2013	5/21/2013	Method Blank
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			Blank	
Compounds	MDL	PQL	Amount	
	(ug/L)	(ug/L)	ug/L	
Hexachlorobutadiene	0.13	0.7	nd	
2-Hexanone	0.07	0.4	nd	
sopropylbenzene	0.20	1.0	nd	
sopropyltoluene o-Isopropyltoluene	0.20	1.3	nd	
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	
Methylene chloride	0.14	0.7	nd	
Methyl iodide (lodomethane)	0.11	0.6	nd	
4-Methyl-2-pentanone (MIBK)	0.09	0.5	nd	
Naphthalene	0.38	1.9	nd	
Propylbenzene	0.25	1.3	nd	
Styrene (Phenylethylene)	0.24	1.2	nd	
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	
Tetrachloroethylene	0.10	0.5	nd	
Toluene	0.10	1.5	nd	
	0.23	0.9	nd	
1,2,3-Trichlorobenzene	0.17	0.6	nd	
1,2,4-Trichlorobenzene	0.12	0.5	nd	
1,1,1-Trichloroethane	0.09	0.5	nd	
1,1,2-Trichloroethane				
Trichloroethylene Trichlorofluoromethane	0.16	0.8	nd nd	
	0.10	0.5	nd = d	
1,2,3-Trichloropropane	0.14	0.7	nd nd	
1,2,4-Trimethylbenzene	0.17	0.9		
1,3,5-Trimethylbenzene	0.26 0.11	1.3 0.6	nd nd	
Vinyl acetate				
Vinyl Chloride (chloroethene)	0.11 0.60	0.6 3.0	nd nd	
m & p-Xylene o-Xylene	0.60	3.0 1.5	nd nd	
MDL - Method Detection Limit	3.20			ration above MDL below PQL
PQL - Practical Quantitation Limi	it (5xMDL)			tected; below detection limit
	,			
			0 11 0	
	QC Limits		Quality Cor	IIIOI DĂĬĀ
<u>Surrogates</u>	% Recovery			
30 (ug/L each)	Lower-Upper			
SURR: Bromofluorobenzene	80 -130		100.3%	
SURR: Dibromofluoromethane	80 - 120		99.0%	
SURR: Toluene-d8	80 - 130		94.3%	

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

**USEPA 8260** 

### **Quality Assurance Report**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/21/13

BATCH #: \$VOC-W-77! LN05738 LN05739 LN05752

LAB SAMPLE I.D.: UNIT: ug/L LN05646

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	32.8	109	30.0	32.6	109	0.0%	61-145	14%
Benzene	ND	30.0	30.3	101	30.0	30.0	100	1.0 %	76-127	11%
Trichloroethylene	ND	30.0	31.5	105	30.0	31.2	104	0.96 %	71-120	14%
Toluene	ND	30.0	32.5	108	30.0	32.3	108	0.0%	76-125	13%
Chlorobenzene	ND	30.0	36.3	121	30.0	36.0	120	0.83 %	75-130	13%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/21/13

ANALYTICAL METHOD:

**USEPA 8260** 

SUPPLY SOURCE:

LOT NUMBER:

LAB LCS I.D.: UNIT:

Q8087 ug/L

ANALYTICAL METHOD:

DATE OF SOURCE:

	1	r	T	T
ANALYTE	LCS RESULT	TRUE VALUE	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.2	30	107.3	70 - 130
1,2-Dichloroethane	29.8	30	99.3	70 - 130
1,4-Dichlorobenzene	31.6	30	105.3	70 - 130
Benzene	26.6	30	88.7	70 - 130
Bromoform	31.9	30	106.3	70 - 130
Carbon Tetrachloride	23.6	30	78.7	70 - 130
Tetrachloroethylene	27.5	30	91.7	70 - 130
Trichloroethylene	27.7	30	92.3	70 - 130
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Reviewed by: R. Gentallen. //9/13

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05824	5/16/2013	5/17/2013	5/22/2013	QCFB
LN05825	5/16/2013	5/17/2013	5/22/2013	QCEB
LN05826	5/16/2013	5/17/2013	5/22/2013	QCTB
,				

Compounds	MDL (ug/L)	PQL (ug/L)	LN05824 Amount (ug/L)	LN05825 Amount (ug/L)	LN05826 Amount (ug/L)
Acetone	0.58	2.9	nd	nd	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd	nd	nd
Benzene	0.12	0.6	nd	nd	nd
Bromobenzene	0.10	0.5	nd	nd	nd
Bromochloromethane	0.09	0.5	nd	nd	nd
Bromodichloromethane	0.10	0.5	nd	nd	nd
Bromoform	0.10	0.5	nd	nd	nd
Bromomethane	0.41	2.1	nd	nd	nd
Methyl ethyl ketone (MEK)	0.17	0.9	nd	nd	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd	nd	nd
Butylbenzene	0.21	1.1	nd	nd	nd
sec-Butylbenzene	0.21	1.1	nd	nd	nd
tert-Butylbenzene	0.18	0.9	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd	nd	nd
Carbon disulfide	0.30	1.5	nd	nd	nd
Carbon Tetrachloride	0.09	0.5	nd	nd	nd
Chlorobenzene	0.18	0.9	nd	nd	nd
Chloroethane	0.17	0.9	nd	nd	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd	nd	nd
Chloroform	0.10	0.5	nd	nd	nd
Chloromethane	0.13	0.7	nd	nd	nd
2-Chlorotoluene	0.23	1.2	nd	nd	nd
4-Chlorotoluene	0.25	1.3	nd	nd	nd
Dibromochloromethane	0.11	0.6	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd	nd	nd
1,2-Dibromoethane	0.10	0.5	nd	nd	nd
Dibromomethane	0.10	0.5	nd	nd	nd
1,2-Dichlorobenzene	0.11	0.6	nd	nd	nd
1,3-Dichlorobenzene	0.10	0.5	nd	nd	nd
1,4-Dichlorobenzene	0.15	0.8	nd	nd	nd
Dichlorodifluoromethane	0.46	2.3	nd	nd	nd
1,1-Dichloroethane	0.10	0.5	nd	nd	nd
1,2-Dichloroethane	0.13	0.7	nd	nd	nd
1,1-Dichloroethene	0.11	0.6	nđ	nd	nd
cis-1,2-Dichloroethene	0.09	0.5	nd	nd	nd
trans-1,2-Dichloroethene	0.10	0.5	nd	nd	nd
1,2-Dichloropropane	0.11	0.6	nd	nd	nd
1,3-Dichloropropane	0.10	0.5	nd	nd	nd
2,2-Dichloropropane	0.12	0.6	nd	nd	nd
1,1-Dichloropropene	0.20	1.0	nd	nd	nd
cis-1,3-Dichloropropene	0.12	0.6	nd	nd	nd
trans-1,3-Dichloropropene	0.08	0.4	nd	nd	nd
Diisopropyl ether (DIPE)	0.15	0.8	nd	nd	nd
Ethylbenzene	0.27	1.4	nd	nd	nd
Hexachlorobutadiene	0.13	0.7	nd	nd	nd

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Page 2 of 2 Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05824	5/16/2013	5/17/2013	5/22/2013	QCFB
LN05825	5/16/2013	5/17/2013	5/22/2013	QCEB
LN05826	5/16/2013	5/17/2013	5/22/2013	QCTB

			LN05824	LN05825	LN05826
Compounds	MDL	PQL	Amount	Amount	Amount
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
- 44					
2-Hexanone	0.07	0.4	nd	nd	nd
Isopropylbenzene	0.20	1.0	nd	nd	nd
p-Isopropyltoluene	0.25	1.3	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	nd	nd
Methylene chloride	0.18	0.9	nd	nd	nd
Iodomethane	0.11	0.6	nd	nd	nd
Methyl isobutyl ketone (MIBK)	0.09	0.5	nđ	nd	nd
Naphthalene	0.38	1.9	nď	nd	nd
Propylbenzene	0.25	1.3	nd	nd	nd
Styrene	0.24	1.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
Tetrachloroethylene	0.10	0.5	nd	nd	nd
Toluene	0.29	1.5	nd	nd	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd	nd	nđ
1,2,4-Trichlorobenzene	0.12	0.6	nd	nd	nd
1,1,1-Trichloroethane	0.09	0.5	nd	nd	nd
1,1,2-Trichloroethane	0.09	0.5	nd	nd	nd
Trichloroethylene	0.16	0.8	nd	nd	nd
Trichlorofluoromethane	0.10	0.5	nd	nd	nd
1,2,3-Trichloropropane	0.14	0.7	nd	nd	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd	nd	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd	nd	nd
Vinyl acetate	0.11	0.6	nd	nd	nd
Vinyl Chloride (Chloroethene)	0.11	0.6	nd	nd	nd
m & p-Xylene	0.60	3.0	nd	nd	nd
o-Xylene	0.29	1.5	nd	nd	nd
o rigitality	0.20	1.0	110	110	110

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

		Quality Contro	ol Data		
0	QC Limits				
Surrogates	% Recovery				
30 (ug/L each)	Lower-Upper				
SURR: Bromofluorobenzene	80 - 130	100.3%	97.7%	100.3%	
SURR: Dibromofluoromethane	80 - 120	99.3%	99.7%	100.3%	
SURR: Toluene-d8	80 - 130	96.7%	96.0%	95.0%	
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Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

*****		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/10/2013	5/14/2013	5/22/2013	Method Blank

Compounds	MDL (ug/L)	PQL (ug/L)	Blank Amount ug/L
Acetone	0.58	2.9	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd
Benzene	0.12	0.6	nd
Bromobenzene	0.10	0.5	nd
Bromochloromethane	0.09	0.5	nd
Bromodichloromethane	0.10	0.5	nd
Bromoform	0.10	0.5	nd
Bromomethane	0.41	2.1	nd
2-Butanone (MEK)	0.17	0.9	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd
n-Butylbenzene	0.21	1.1	nd
sec-Butylbenzene	0.21	1.1	nd
tert-Butylbenzene	0.18	0.9	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd
Carbon disulfide	0.30	1.5	nd
Carbon Tetrachloride	0.09	0.5	nd
Chlorobenzene	0.18	0.9	nd
Chloroethane	0.17	0.9	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd
Chloroform	0.10	0.5	nd
Chloromethane	0.13	0.7	nd
2-Chlorotoluene	0.23	1.2	nd
4-Chlorotoluene	0.25	1.3	nd
Dibromochloromethane	0.11	0.6	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd
1,2-Dibromoethane (EDB)	0.10	0.5	nd
Dibromomethane	0.10	0.5	nd
1,2-Dichlorobenzene	0.11	0.6	nd
1,3-Dichlorobenzene	0.10	0.5	nd
1,4-Dichlorobenzene	0.15	0.8	nd
Dichlorodifluoromethane	0.46	2.3	nd
1,1-Dichloroethane	0.10	0.5	nd
1,2-Dichloroethane	0.13	0.7	nd
1,1-Dichloroethene	0.11	0.6	nd
cis-1,2-Dichloroethene	0.09	0.5	nd
trans-1,2-Dichloroethene	0.10	0.5	nd
1,2-Dichloropropane	0.11	0.6	nd
1,3-Dichloropropane	0.10	0.5	nd
2,2-Dichloropropane	0.12	0.6	nd
1,1-Dichloropropene	0.20	1.0	nd
cis-1,3-Dichloropropene	0.12	0.6	nd
trans-1,3-Dichloropropene	0.08	0.4	nd
Diisopropyl ether (DIPE)	0.15	0.8	nd
Ethylbenzene	0.27	1.4	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

Chamista: Las Na	Date Sampled	Date Received	Date Analyzed	Sample Description
Chemistry Log No.				Sample Description
Blank	5/10/2013	5/14/2013	5/22/2013	Method Blank
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			Blank	
Compounds	MDL	PQL	Amount	
	(ug/L)	(ug/L)	ug/L	
lexachlorobutadiene	0.13	0.7	nd	
?-Hexanone	0.07	0.4	nd	
sopropylbenzene	0.20	1.0	nd	
o-Isopropyltoluene	0.25	1.3	nd	
/lethyl-t-butyl ether (MTBE)	0.14	0.7	nd	
Methylene chloride	0.18	0.9	nd	
Methyl iodide (Iodomethane)	0.11	0.6	nd	
l-Methyl-2-pentanone (MIBK)	0.09	0.5	nd	
Naphthalene	0.38	1.9	nd	
Propylbenzene	0.25	1.3	nd	
Styrene (Phenylethylene)	0.24	1.2	nd	
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	
「etrachloroethylene	0.10	0.5	nd	
Foluene Foluene	0.29	1.5	nd	
1,2,3-Trichlorobenzene	0.17	0.9	nd	
1,2,4-Trichlorobenzene	0.12	0.6	nd	
I,1,1-Trichloroethane	0.09	0.5	nd	
,1,2-Trichloroethane	0.09	0.5	nd	
Frichloroethylene	0.16	8.0	nd	
Frichlorofluoromethane	0.10	0.5	nd	
,2,3-Trichloropropane	0.14	0.7	nd	
1,2,4-Trimethylbenzene	0.17	0.9	nd	
I,3,5-Trimethylbenzene	0.26	1.3	nd	
/inyl acetate	0.11	0.6	nd	
/inyl Chloride (chloroethene)	0.11	0.6	nd	
n & p-Xylene	0.60	3.0	nd	
o-Xylené	0.29	1.5	nd	
MDL - Method Detection Limit	,	·	J - Concentration	on above MDL below PQL
QL - Practical Quantitation Limi	t (5xMDL)			ed; below detection limit
			Ouglity Control	Data
	QC Limits		Quality Control	<u>Data</u>
Surrogatee				
Surrogates	% Recovery			
30 (ug/L each)	Lower-Upper			
CLIDD: Bromefluershares	on 400		104 79/	
SURR: Bromofluorobenzene	80 -130		104.7%	
SURR: Dibromofluoromethane	80 - 120		101.0%	

96.0%

Comment:

Analyst: Bryan Tiu

SURR: Toluene-d8

80 - 130

Reviewed by: Rose Gentallan

**USEPA 8260** 

### **Quality Assurance Report**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/22/13

BATCH #: \$VOC-W-77! LN05824 LN05825 LN05826

LAB SAMPLE I.D.: LN05754 UNIT: ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	28.5	95.0	30.0	31.4	105	10 %	61-145	14%
Benzene	0.714	30.0	30.1	98.0	30.0	32.0	104	5.9 %	76-127	11%
Trichloroethylene	ND	30.0	30.7	102	30.0	32.0	107	4.8 %	71-120	14%
Toluene	ND	30.0	30.8	103	30.0	31.9	106	2.9 %	76-125	13%
Chlorobenzene	ND	30.0	32.9	110	30.0	33.2	111	0.90 %	75-130	13%

ANALYTICAL METHOD:

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/22/13

ANALYTICAL METHOD:

Q8087

**USEPA 8260** 

SUPPLY SOURCE:

LOT NUMBER:

LAB LCS I.D.: UNIT: ug/L

DATE OF SOURCE:

				T
ANALYTE	LCS RESULT ug/L	TRUE VALUE ug/L	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	32.3	30	107.7	70 - 130
1,2-Dichloroethane	30.3	30	101.0	70 - 130
1,4-Dichlorobenzene	30.6	30	102.0	70 - 130
Benzene	27.6	30	92.0	70 - 130
Bromoform	35.3	30	117.7	70 - 130
Carbon Tetrachloride	24.8	30	82.7	70 - 130
Tetrachloroethylene	29.9	30	99.7	70 - 130
Trichloroethylene	29	30	96.7	70 - 130
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Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260 Page 1 of 2 Sample Matrix: Water

PROJECT: FIGUEROA PUMPING STATION

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05901	5/20/2013	5/20/2013	5/22/2013	QCEB
LN05902	5/20/2013	5/20/2013	5/22/2013	QCFB
LN05903	5/20/2013	5/20/2013	5/22/2013	QCTB

Compounds	MDL (ug/L)	PQL (ug/L)	LN05901 Amount (ug/L)	LN05902 Amount (ug/L)	LN05903 Amount (ug/L)
Acetone	0.58	2.9	nd	nd	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd	nd	nd
Benzene	0.12	0.6	nd	nd	nd
Bromobenzene	0.10	0.5	nd	nd	nd
Bromochloromethane	0.09	0.5	nd	nd	nd
Bromodichloromethane	0.10	0.5	nd	nd	nd
Bromoform	0.10	0.5	nd	nd	nd
Bromomethane	0.41	2.1	nd	nd	nd
Methyl ethyl ketone (MEK)	0.17	0.9	nd	nd	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd	nd	nd
Butylbenzene	0.21	1.1	nd	nd	nd
sec-Butylbenzene	0.21	1.1	nd	nd	nd
tert-Butylbenzene	0.18	0.9	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd	nd	nd
Carbon disulfide	0.30	1.5	nd	nd	nd
Carbon Tetrachloride	0.09	0.5	nd	nd	nd
Chlorobenzene	0.18	0.9	nd	nd	nd
Chloroethane	0.17	0.9	nd	nd	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd	nd	nd
Chloroform	0.10	0.5	nd	nd	nd
Chloromethane	0.13	0.7	nd	nd	nd
2-Chlorotoluene	0.23	1.2	nd	nd	nd
4-Chlorotoluene	0.25	1.3	nd	nd	nd
Dibromochloromethane	0.11	0.6	nd	nd	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nď	nd	nd
1,2-Dibromoethane	0.10	0.5	nd	nd	nd
Dibromomethane	0.10	0.5	nd	nd	nd
1,2-Dichlorobenzene	0.11	0.6	nd	nd	nd
1,3-Dichlorobenzene	0.10	0.5	nd	nd	nd
1,4-Dichlorobenzene	0.15	0.8	nd	nd	nd
Dichlorodifluoromethane	0.46	2.3	nd	nd	nd
1,1-Dichloroethane	0.10	0.5	nd	nd	nd
1,2-Dichloroethane	0.13	0.7	nd	nd	nd
1,1-Dichloroethene	0.11	0.6	nd	nd	nd
cis-1,2-Dichloroethene	0.09	0.5	nd	nd	nd
trans-1,2-Dichloroethene	0.10	0.5	nd	nd	nd
1,2-Dichloropropane	0.11	0.6	nd	nd	nd
1,3-Dichloropropane	0.10	0.5	nd	nd	nd
2,2-Dichloropropane	0.12	0.6	nd	nd	nd
1,1-Dichloropropene	0.20	1.0	nd	nd	nd
cis-1,3-Dichloropropene	0.12	0.6	nd	nd	nd
trans-1,3-Dichloropropene	0.08	0.4	nd	nd	nd
Diisopropyl ether (DIPE)	0.15	8.0	nd	nd	nd
Ethylbenzene	0.27	1.4	nd	nd	nd
Hexachlorobutadiene	0.13	0.7	nd	nd	nď

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

**PROJECT: FIGUEROA PUMPING STATION** 

Page 2 of 2 Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
LN05901	5/20/2013	5/20/2013	5/22/2013	QCEB
LN05902	5/20/2013	5/20/2013	5/22/2013	QCFB
LN05903	5/20/2013	5/20/2013	5/22/2013	QCTB
<u> </u>				

Compounds	MDL	PQL	LN05901 Amount	LN05902 Amount	LN05903 Amount
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
2-Hexanone	0.07	0.4	nď	nd	nd
Isopropylbenzene	0.20	1.0	nd	nd	nd
p-Isopropyltoluene	0.25	1.3	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd	nd	nd
Methylene chloride	0.18	0.9	nd	nd	nd
Iodomethane	0.11	0.6	nd	nd	nd
Methyl isobutyl ketone (MIBK)	0.09	0.5	nd	nd	nd
Naphthalene	0.38	1.9	nd	nd	nd
Propylbenzene	0.25	1.3	nd	nd	nd
Styrene	0.24	1.2	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd	nd	nd
Tetrachloroethylene	0.10	0.5	nd	nd	nd
Toluene	0.29	1.5	nd	nd	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd	nd	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd	nd	nd
1,1,1-Trichloroethane	0.09	0.5	nd	nd	nd
1,1,2-Trichloroethane	0.09	0.5	nd	nd	nd
Trichloroethylene	0.16	0.8	nd	nd	nd
Trichlorofluoromethane	0.10	0.5	nd	nd	nd
1,2,3-Trichloropropane	0.14	0.7	nd	nd	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd	nd	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd	nd	nd
Vinyl acetate	0.11	0.6	nd	nd	nd
Vinyl Chloride (Chloroethene)	0.11	0.6	nd	nd	nd
m & p-Xylene	0.60	3.0	nd	nd	nd
o-Xylene	0.29	1.5	nd	nd	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL nd - Not Detected; below detection limit

Reviewed by: Rose Gentallan

		Quality Contro	ol Data	
Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper			
SURR: Bromofluorobenzene	80 - 130	100.7%	99.0%	100.3%
SURR: Dibromofluoromethane	80 - 120	100.3%	99.3%	99.7%
SURR: Toluene-d8	80 - 130	95.3%	95.0%	96.3%

Comment:

Analyst: Bryan Tiu

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled	Received	Analyzed	Sample Description
Blank	5/10/2013	5/14/2013	5/22/2013	Method Blank

Compounds	MDL (ug/L)	PQL (ug/L)	Blank Amount ug/L
Acetone	0.58	2.9	nd
tert-Amyl methyl ether (TAME)	0.08	0.4	nd
Benzene	0.12	0.6	nd
Bromobenzene	0.10	0.5	nd
Bromochloromethane	0.09	0.5	nd
Bromodichloromethane	0.10	0.5	nd
Bromoform	0.10	0.5	nđ
Bromomethane	0.41	2.1	nd
2-Butanone (MEK)	0.17	0.9	nd
tert-Butyl alcohol (TBA)	8.4	42.0	nd
n-Butylbenzene	0.21	1.1	nd
sec-Butylbenzene	0.21	1.1	nd
tert-Butylbenzene	0.18	0.9	nd
tert-Butyl ethyl ether (ETBE)	0.14	0.7	nd
Carbon disulfide	0.30	1.5	nd
Carbon Tetrachloride	0.09	0.5	nd
Chlorobenzene	0.18	0.9	nd
Chloroethane	0.17	0.9	nd
2-Chloroethyl vinyl ether	0.25	1.3	nd
Chloroform	0.10	0.5	nd
Chloromethane	0.13	0.7	nd
2-Chlorotoluene	0.23	1.2	nd
4-Chlorotoluene	0.25	1.3	nd
Dibromochloromethane	0.11	0.6	nd
1,2-Dibromo-3-chloropropane	0.13	0.7	nd
1,2-Dibromoethane (EDB)	0.10	0.5	nd
Dibromomethane	0.10	0.5	nd
1,2-Dichlorobenzene	0.11	0.6	nd
1,3-Dichlorobenzene	0.10	0.5	nd
1,4-Dichlorobenzene	0.15	8.0	nd
Dichlorodifluoromethane	0.46	2.3	nd
1,1-Dichloroethane	0.10	0.5	nd
1,2-Dichloroethane	0.13	0.7	nd
1,1-Dichloroethene	0.11	0.6	nd
cis-1,2-Dichloroethene	0.09	0.5	nd
trans-1,2-Dichloroethene	0.10	0.5	nd
1,2-Dichloropropane	0.11	0.6	nd
1,3-Dichloropropane	0.10	0.5	nd
2,2-Dichloropropane	0.12	0.6	nd
1,1-Dichloropropene	0.20	1.0	nd
cis-1,3-Dichloropropene	0.12	0.6	nd
trans-1,3-Dichloropropene	0.08	0.4	nd
Diisopropyl ether (DIPE)	0.15	8.0	nd
Ethylbenzene	0.27	1.4	nd

Report of GC/MS Analysis for Purgeable Volatile Organics EPA SW-846 Method 8260

PROJECT: FIGUEROA PUMPING STATION

Sample Matrix: Water

		Date	Date	
Chemistry Log No.	Date Sampled			
Blank	5/10/2013	5/14/2013	5/22/2013	Method Blank

			Blank
Compounds	MDL	PQL	Amount
	(ug/L)	(ug/L)	ug/L
Hexachlorobutadiene	0.13	0.7	nd
2-Hexanone	0.13	0.7	nd
=			
Isopropylbenzene	0.20	1.0	nd 
p-isopropyltoluene	0.25	1.3	nd
Methyl-t-butyl ether (MTBE)	0.14	0.7	nd
Methylene chloride	0.18	0.9	nd
Methyl iodide (lodomethane)	0.11	0.6	nd
4-Methyl-2-pentanone (MIBK)	0.09	0.5	nd
Naphthalene	0.38	1.9	nd
Propylbenzene	0.25	1.3	nd
Styrene (Phenylethylene)	0.24	1.2	nd
1,1,1,2-Tetrachloroethane	0.10	0.5	nd
1,1,2,2-Tetrachloroethane	0.10	0.5	nd
Tetrachloroethylene	0.10	0.5	nd
Toluene	0.29	1.5	nd
1,2,3-Trichlorobenzene	0.17	0.9	nd
1,2,4-Trichlorobenzene	0.12	0.6	nd
1,1,1-Trichloroethane	0.09	0.5	nd
1,1,2-Trichloroethane	0.09	0.5	nd
Trichloroethylene	0.16	0.8	nd
Trichlorofluoromethane	0.10	0.5	nd
1,2,3-Trichloropropane	0.14	0.7	nd
1,2,4-Trimethylbenzene	0.17	0.9	nd
1,3,5-Trimethylbenzene	0.26	1.3	nd
Vinyl acetate	0.11	0.6	nd
Vinyl Chloride (chloroethene)	0.11	0.6	nd
m & p-Xylene	0.60	3.0	nd
o-Xylene	0.29	1.5	nd

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL

nd - Not Detected; below detection limit

		Quality Control Data	
	QC Limits		
Surrogates	% Recovery		
30 (ug/L each)	Lower-Upper		
SURR: Bromofluorobenzene	80 -130	104.7%	
SURR: Dibromofluoromethane	80 - 120	101.0%	
SURR: Toluene-d8	80 - 130	96.0%	

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

**USEPA 8260** 

### Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 5/22/13

BATCH #: \$VOC-W-77! LN05901 LN05902 LN05903

LAB SAMPLE I.D.: LN05754 UNIT: ug/L

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	28.5	95.0	30.0	31.4	105	10 %	61-145	14%
Benzene	0.714	30.0	30.1	98.0	30.0	32.0	104	5.9 %	76-127	11%
Trichloroethylene	ND	30.0	30.7	102	30.0	32.0	107	4.8 %	71-120	14%
Toluene	ND	30.0	30.8	103	30.0	31.9	106	2.9 %	76-125	13%
Chlorobenzene	NĐ	30.0	32.9	110	30.0	33.2	111	0.90 %	75-130	13%

ANALYTICAL METHOD:

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED:

5/22/13

ANALYTICAL METHOD:

**USEPA 8260** 

SUPPLY SOURCE:

LAB LCS I.D.: Q8087

LOT NUMBER:

UNIT: ug/L

DATE OF SOURCE:

T		<u> </u>	<del></del>
LCS RESULT	TRUE VALUE		
ug/L	ug/L	% RECOVERY	Advisory Range
32.3	30	107.7	70 - 130
30.3	30	101.0	70 - 130
30.6	30	102.0	70 - 130
27.6	30	92.0	70 - 130
35.3	30	117.7	70 - 130
24.8	30	82.7	70 - 130
29.9	30	99.7	70 - 130
29	30	96.7	70 - 130
_			
			<u> </u>
	ug/L 32.3 30.3 30.6 27.6 35.3 24.8 29.9	ug/L         ug/L           32.3         30           30.3         30           30.6         30           27.6         30           35.3         30           24.8         30           29.9         30	ug/L         ug/L         % RECOVERY           32.3         30         107.7           30.3         30         101.0           30.6         30         102.0           27.6         30         92.0           35.3         30         117.7           24.8         30         82.7           29.9         30         99.7

# ATTACHMENT # 2

Total Extractable Petroleum Hydrocarbons (TEPH, MO and DRO)
EPA Method 8015M
Soil & Water

# CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

#### CASE NARRATIVE

PROJECT: FIGUEROA PUMPING STATION

## METHOD 8015M TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS (TEPH, DRO, MO)

### 1. Holding Time

Analytical holding time was met.

### 2. Method Blank

There was no contamination detected at reporting level.

### 3. Lab Control Sample

Laboratory control samples for TEPH (C9-C36), diesel range organics (DRO), and motor oil (MO) were analyzed each in a batch. Recoveries were within QC limits.

### 4. Surrogate Recovery

Recoveries met QC criteria.

### 5. Sample Duplicate

Sample duplicates were analyzed for every batch of fourteen samples or less

### 6. Calibration

Initial calibration was performed at five different concentrations. The percent relative standard deviation (% RSD) was within 15%. Continuing calibration check standards were within QC limits.

### 7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. Reportable amount of TEPH were detected on sample number LN05578, LN05648, LN05649, LN05796, LN05918, and LN05932. Since TEPH range includes petroleum products such as diesel, motor oil, and transformer oil; detection of any or all of these products is reported as TEPH concentration. The presence of diesel, motor oil, and transformer oil in the sample is reported separately and also as TEPH concentration. Trace amount (<PQL) of TEPH concentrations were detected in a few samples.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	CANADI	E DECOR	IDTION	INST.	D.O.	
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN	BATCH
LN05578#	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-10		GC Agilent	05	1713
LN05579	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-15		GC Agilent	05	1713
LN05580	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-20		GC Agilent	05	1713
LN05581	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-25		GC Agilent	05	1713
LN05582	05/13/13	05/13/13	05/16/13	05/17/13	! !	KLF-1-30		GC Agilent	05	1713
LN05583	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-35		GC Agilent	05	1713
LN05584	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-40		GC Agilent	05	1713
		MDL / PQL	MB	LN05578#	LN05579	LN05580	LN05581	LN05582	LN05583	LN05584
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution 1	Factor		1	5	1	1	1	1	1	1
ТЕРН (С9	- C36)	4/20	ND	4280	ND	ND	ND	ND	ND	ND
DRO (C10	- C28)	29 / 145	ND	3240	ND	ND	ND	ND	ND	ND
MOTOR	OIL	35 / 175	ND	1040	ND	ND	ND	ND	ND	ND
									 	İ
Quality	Control D	ata_								
			MB							<u> </u>
Surrogate/In	ternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)	82.5%	107%	87.0%	68.0%	94.0%	82.5%	79.0%	89.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

 $ACP \ensuremath{\,\%} = Acceptable \ensuremath{\,Range} \ensuremath{\,arge} \ensuremath{\,arge} \ensuremath{\,arge} \ensuremath{\,arge}$ 

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN	ВАТСН
LN05585	05/13/13	05/13/13	05/16/13	05/17/13	KLF-1-45			GC Agilent	05	1713
LN05586	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-50		GC Agilent	05	1713
LN05587	05/13/13	05/13/13	05/16/13	05/17/13		KLF-1-55		GC Agilent	05	1713
LN05588	05/13/13	05/13/13	05/20/13	05/20/13	}	KLF-1-60		GC Agilent	. 05:	2013
LN05589	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-65		GC Agilent	05:	2013
LN05590	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-70		GC Agilent	05:	2013
LN05591	05/13/13	05/13/13	05/20/13	05/20/13	<u> </u>	KLF-1-75		GC Agilent	052	2013
										<del></del>
		MDL / PQL	MB	LN05585	LN05586	LN05587	LN05588	LN05589	LN05590	LN05591
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution I	actor	·	1	1	1	1	1	1	1	1
ТЕРН (С9	- C36)	4 / 20	ND	ND	ND	ND	4.3 J	12.1 J	12.3 Ј	ND
DRO (C10	- C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOR	OIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
		1						 		
Quality	Control D	ata_					! !		 	
			MB				1	<u> </u>		!
Surrogate/In	ternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
	···						!	i   	<u>.</u>	!
1-Chloroocta	decane	(60 - 140)	80.5%	96.0%	85.0%	82.0%	83.0%	75.0%	83.0%	82.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% *RC* = % *Recovery* 

^{*}High recovery caused by overlap with TEPH peaks.

[#]True MDL/PQL = listed MDL/PQL X dilution factor.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIP	rion	INST. ID	RUN BATCH	ſ
LN05592	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-80		GC Agilent	052013	
LN05593	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-85		GC Agilent	052013	
LN05594	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-90		GC Agilent	052013	
								: :	<del> </del>	
		<u> </u>			İ					
		MDL / PQL		LN05592	I NO5503	LN05594		T		
		mg/kg		mg/kg	mg/kg	mg/kg				
Dilution Fac	etor			1	1	1		:		
ТЕРН (С9	- C36)	4 / 20		ND	ND	4.5 J				
DRO (C10	- C28)	29 / 145		ND	ND	ND		; ;		
MOTOR	ROIL	35 / 175		ND	ND	ND				
Quality	v Control D	ata_								
Surrogate/In	iternal Std.	% ACP		% RC	% RC	% RC				
1-Chlorooct	adecane	(60 - 140)		70.5%	68.5%	60.0%				

,ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

 $ACP \ \% = Acceptable \ Range \ of \ Percent$ 

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

# I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIPTION	INST.	RUN BATCH
LN05584 DUP	05/13/13	05/13/13	05/16/13	05/17/13	KLF-1-40		GC Agilent	051713
LN05588 DUP	05/13/13	05/13/13	05/20/13	05/20/13		KLF-1-60	GC Agilent	052013
 !	····							
							:	
							<del> </del>	
		<u> </u>	·					
			- ··-·	LN05584	LN05588	,		
		MDL / PQL		DUP	DUP	: !		
		mg/kg		mg/kg	mg/kg	· · · · · · · · · · · · · · · · · · ·		
Dilution	Factor			1	1		<u> </u>	
ТЕРН (С	) - C36)	4 / 20		ND	ND	:		ļ
DRO (C10	) - C28)	29 / 145		ND	ND	: 		
MOTOR	ROIL	35 / 175		ND	ND			
Quality	y Control D	lata						
Quanty	y Control L	·414		 	[ i ·			!
Surrogate/In	nternal Std.	% ACP	:	% RC	% RC			, :
1-Chlorooc	tadecane	(60 - 140)		89.5%	105%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	052013	5/20/2013	280	200	71.4	70 - 130
DRO	052013	5/20/2013	500	350	70.0	70 - 130
МО	052013	5/20/2013	500	457	91.4	70 - 130
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				i		

Analysts

J. Yi

Reviewed by

R. Gentallan

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN B	ATCH
LN05648#	05/14/13	05/14/13	05/20/13	05/20/13	KLF-2-10			GC Agilent	052013	
LN05649	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-15		GC Agilent	052	013
LN05650	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-20		GC Agilent	052	013
LN05651	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-25		GC Agilent	052	013
LN05652	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-30		GC Agilent	052	013
LN05653	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-35		GC Agilent	052	013
LN05654	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-40		GC Agilent	052	013
		MDL / PQL	MB	LN05648#	LN05649	LN05650	LN05651	LN05652	LN05653	LN05654
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	5	1	1	1	1	11	1
ТЕРН (С9	9 - C36)	4/20	ND	5540	429	12.7 J	ND	ND	ND	12.3 J
DRO (C10	) - C28)	29 / 145	ND	4520	ND	ND	ND	ND	ND	ND
МОТОІ	ROIL	35 / 175	ND	1020	429	ND	ND	ND	ND	ND
···				į į						
Quality	Control D	ata_								
			MB							
Surrogate/Ir	nternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)	80.5%	111%	79.5%	79.0%	69.5%	76.5%	85.5%	91.0%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPI	E DESCR	IPTION	INST.	RUN BATCH
LN05655	05/14/13	05/14/13	05/20/13	05/20/13	KLF-2-45			GC Agilent	052013
LN05656	05/14/13	05/14/13	05/20/13	05/20/13	KLF-2-50			GC Agilent	052013
LN05657	05/14/13	05/14/13	05/20/13	05/20/13		KLF-2-55	****	GC Agilent	052013
LN05658	05/14/13	05/14/13	05/20/13	05/28/13		KLF-2-60		GC Agilent	052013
LN05659	05/14/13	05/14/13	05/20/13	05/28/13		KLF-2-65		GC Agilent	052013
								,	
		MDL / PQL		LN05655	LN05656		1	LN05659	
		mg/kg	· · · · • · · · · · · · · · · · · · · ·	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Dilution	Factor			11	1	1	1	1	
TEPH (CS	9 - C36)	4 / 20		ND	5.3 J	ND	ND	ND	
DRO (C10	0 - C28)	29 / 145		ND	ND	ND	ND	ND	1
мотоі	R OIL	35 / 175		ND	ND	ND	ND	ND	
Quality	y Control D	ata_							
Surrogate/I1	nternal Std.	% ACP		% RC	% RC	% RC	% RC	% RC	
1-Chlorooct	tadecane	(60 - 140)		73.0%	65.5%	70.0%	79.0%	83.5%	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks. #True MDL/PQL = listed MDL/PQL X dilution factor.

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

# I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05659 DUP	05/14/13	05/14/13	05/20/13	05/28/13	KLF-2-65	GC Agilent	052813
l							
				LN05659		· ; ,	
		MDL / PQL		DUP			
		mg/kg		mg/kg			
Dilution	Factor			11			
ТЕРН (С9	9 - C36)	4/20		ND			
DRO (C10	) - C28)	29 / 145		ND			
МОТОІ	ROIL	35 / 175		ND			
Quality	Control D	ata					
<u> </u>		A Palit A America					
Surrogate/Ir	nternal Std.	% ACP		% RC			
1-Chlorooct	adecane	(60 - 140)		88.0%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

# QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	052013	5/20/2013	280	200	71.4	70 - 130
DRO	052013	5/20/2013	500	350	70.0	70 - 130
МО	052013	5/20/2013	500	457	91.4	70 - 130
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Analysts

J. Yi

Reviewed by

R. Gentallan

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN B	ATCH
LN05740	05/15/13	05/15/13	05/21/13	05/28/13	KLF-3-10			GC Agilent	0528	313
LN05741	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-15		GC Agilent	0528	813
LN05742	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-20		GC Agilent	0528	813
LN05743	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-25		GC Agilent	0528	813
LN05744	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-30		GC Agilent	0528	813
LN05745	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-35		GC Agilent	0528	813
LN05746	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-40		GC Agilent	0528	813
		MDL / PQL	MB	LN05740	LN05741	LN05742	LN05743	LN05744	LN05745	LN0574
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	1	1	1	1	1	1	1
ТЕРН (С	9 - C36)	4 / 20	ND	ND	12.1 J	12.7 J	12.2 J	8.6 J	ND	ND_
DRO (C10	) - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
МОТОІ	R OIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
Quality	Control D	ata_								
			MB							
Surrogate/Ir	nternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)	102%	99.5%	109%	88.0%	81.0%	111%	114%	113%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPI	E DESCR	IPTION	INST.	RUN BATCH
LN05747	05/15/13	05/15/13	05/21/13	05/28/13	SAMPLE DESCRIPTION KLF-3-45		GC Agilent	052813	
LN05747	05/15/13	05/15/13	05/21/13	05/28/13	KLF-3-45			GC Agilent	052813
LN05749	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-55		GC Agilent	052813
LN05750	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-60		GC Agilent	052813
LN05751	05/15/13	05/15/13	05/21/13	05/28/13		KLF-3-65		GC Agilent	052813
		MDL / PQL		LN05747	LN05748	LN05749	LN05750	LN05751	
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Dilution	Factor			1	1	1	11	1	
ТЕРН (С	9 - C36)	4 / 20		8.6 J	ND	ND	8.8 J	ND	
DRO (C10	0 - C28)	29 / 145		ND	ND	ND	ND	ND	
МОТОІ	ROIL	35 / 175		ND	ND	ND	ND	ND	
Quality	y Control D	ata_							
Surrogate/Ii	nternal Std.	% ACP	!	% RC	% RC	% RC	% RC	% RC	
1-Chlorooct	tadecane	(60 - 140)		105%	109%	117%	106%	97.0%	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL -  $Practical\ Quantitation\ Limit\ (5\ x\ MDL)$ 

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks. #True MDL/PQL = listed MDL/PQL X dilution factor.

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

# I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
·							
LN05742 DUP	05/15/13	05/15/13	05/21/13	06/04/13	KLF-3-20	GC Agilent	060413
						-	
				:			
				LN05742			
		MDL / PQL		DUP			
		mg/kg		mg/kg			
Dilution 1	Factor			1			
ТЕРН (С9	- C36)	4 / 20		5.8 J			
DRO (C10	- C28)	29 / 145		ND			
MOTOR	ROIL	35 / 175		ND			_
Quality	Control D	<u>ata</u>					
Surrogate/In	ternal Std.	% ACP		% RC			
1-Chlorooct	adecane	(60 - 140)		82.5%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060413	6/4/2013	280	343	123	70 - 130
DRO	060413	6/4/2013	500	419	83.8	70 - 130
МО	060413	6/4/2013	500	374	74.8	70 - 130
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Analysts

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Reviewed by

R. Gentallan

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN BATCH	
LN05796	05/16/13	05/17/13	05/21/13	05/28/13	KLF-5-5		GC Agilent	052803		
LN05797	05/16/13	05/17/13	05/21/13	05/28/13		KLF-5-10		GC Agilent	052	2803
LN05798	05/16/13	05/17/13	05/21/13	05/28/13		KLF-5-15		GC Agilent	052	2803
LN05799	05/16/13	05/17/13	05/21/13	05/28/13		KLF-5-20		GC Agilent	052	2803
LN05800	05/16/13	05/17/13	05/21/13	05/28/13		KLF-5-25		GC Agilent	052	2803
LN05801	05/16/13	05/17/13	05/21/13	06/04/13		KLF-5-30		GC Agilent	060	)413
LN05802	05/16/13	05/17/13	05/21/13	06/04/13		KLF-5-35		GC Agilent	060413	
		MDL / PQL	MB	LN05796	LN05797	LN05798	LN05799	LN05800	LN05801	LN05802
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	1	1	1	1	1	1	1
ТЕРН (С	9 - C36)	4/20	ND	342	12.4 J	ND	ND	ND	6.0 J	7.5 J
DRO (C1	0 - C28)	29 / 145	ND	125 J	ND	ND	ND	ND	ND	ND
MOTO	R OIL	35 / 175	ND	217	ND	ND	ND	ND	ND	ND
Qualit	Quality Control Data						:			
		MB								
Surrogate/In	Surrogate/Internal Std.		% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooc	tadecane	(60 - 140)	102%	130%	92.5%	81.0%	130%	67.0%	114%	113%

'ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

^{*}High recovery caused by overlap with TEPH peaks.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION		INST. ID	RUN I	ВАТСН	
LN05803	05/16/13	05/17/13	05/21/13	06/04/13	KLF-5-40		GC Agilent	060413		
LN05804	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-45		GC Agilent	060	0413
LN05805	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-50		GC Agilent	060	0413
LN05806	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-55		GC Agilent	060	0413
LN05807	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-60		GC Agilent	060	0413
LN05808	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-65		GC Agilent	060	)413
LN05809	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-70		GC Agilent	060	0413
		r						ı		
		MDL / PQL	MB	LN05803	LN05804	LN05805	LN05806	LN05807	LN05808	LN05809
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	1	1	1	1	1	1	1
ТЕРН (С	9 - C36)	4/20	ND	14.3 J	ND	ND	ND	ND	ND	ND
DRO (C1	0 - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTO)	R OIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data		MD								
Surrogate/Internal Std. % ACP			MB	24.75	01775			01.00	04.70.5	
Surrogate/In	Surrogate/Internal Std.		% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
							04.70:	00.00		
1-Chlorooc	tadecane	(60 - 140)	68.0%	105%	90.5%	94.5%	81.5%	83.0%	76.0%	76.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks. #True MDL/PQL = listed MDL/PQL X dilution factor.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	· <u>-</u> •····					
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION			ID	RUN BATCH	
LN05810	05/16/13	05/17/13	05/30/13	06/04/13	KLF-4-5		GC Agilent	060413		
LN05811	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-10		GC Agilent	060	)413
LN05812	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-15		GC Agilent	060	)413
LN05813	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-20		GC Agilent	060	0413
LN05814	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-25		GC Agilent	060	0413
LN05815	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-30		GC Agilent	060	0413
LN05816	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-35		GC Agilent	060	0413
						4000777			r	
		MDL / PQL		LN05810	LN05811	LN05812	LN05813	LN05814	LN05815	LN05816
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Fac	tor			11	1	1	1	1	1	1
ТЕРН (С9	- C36)	4 / 20		ND	ND	ND	ND	ND	ND	ND
DRO (C10	- C28)	29 / 145		ND	ND	ND	ND	ND	ND	ND
MOTOR	OIL	35 / 175		ND	NĐ	ND	ND	ND	ND	ND
Quality Control Data										
Surrogate/Internal Std.		% ACP		% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)		94.5%	87.5%	76.5%	78.0%	85.0%	93.0%	83.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks.

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION		ID	RUN BATCH		
LN05817	05/16/13	05/17/13	05/30/13	06/04/13	KLF-4-40		GC Agilent	060413		
LN05818	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-45		GC Agilent	060	413
LN05819	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-50		GC Agilent	060	413
LN05820	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-55	; 	GC Agilent	060	413
LN05821	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-60		GC Agilent	060	413
LN05822	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-65		GC Agilent	060	413
LN05823	05/16/13	05/17/13	05/30/13	06/04/13		KLF-4-70		GC Agilent	060413	
		MDL / PQL		LN05817	LN05818	LN05819	LN05820	LN05821	LN05822	LN05823
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Fac	ctor			1	1	1	1	1	1	1
ТЕРН (С9	) - C36)	4 / 20		ND	ND	ND	ND	ND	ND	ND
DRO (C10	) - C28)	29 / 145		ND	ND	ND	ND	ND	ND	ND
МОТОБ	R OIL	35 / 175		ND	ND	ND	ND	ND	ND	ND
Quality	/ Control D	ata_						j 		
Surrogate/In	nternal Std.	% ACP		% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)		81.5%	85.0%	91.0%	92.0%	83.5%	92.0%	95.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

#### I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIPTION	INST.	RUN BATCH
LN05796 DUP	05/16/13	05/17/13	05/21/13	06/04/13		KLF-5-5	GC Agilent	060403
LN05805 DUP	05/16/13	05/17/13	05/30/13	06/04/13		KLF-5-50	GC Agilent	060413
							<u> </u>	
				LN05796	LN05805		1	
		MDL / PQL mg/kg		DUP mg/kg	DUP mg/kg			
Dilution	Factor	mg xg	·	1	1			
TEPH (C9		4 / 20	<del>,</del>	412	ND			
DRO (C10		29 / 145		130 J	ND			
МОТОН	R OIL	35 / 175		282	ND			
Quality	Control D	ata_						
Surrogate/Ir	nternal Std.	% ACP		% RC	% RC			
1 Chlans4		(60 140)		104%	92.0%	,		
1-Chlorooct	adecane	(60 - 140)		10470	92.0%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	 060413	6/4/2013	280	343	123	70 - 130
DRO	060413	6/4/2013	500	419	83.8	70 - 130
МО	 060413	6/4/2013	500	374	74.8	70 - 130
			·			

Analysts

J. Yi

Reviewed by

R. Gentallan / 12/13

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPL	E DESCRI	IPTION	ID	RUN E	BATCH
LN05904	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-5		GC Agilent	060	313
LN05905	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-10		GC Agilent	060	313
LN05906	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-15		GC Agilent	060	313
LN05907	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-20		GC Agilent	060	313
LN05908	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-25		GC Agilent	060	313
LN05909	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-30		GC Agilent	060	313
LN05910	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-35		GC Agilent	060	313
									T	
		MDL / PQL	MB	LN05904	LN05905	LN05906	LN05907	LN05908	LN05909	LN05910
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	1	1	1	11	1	1	1
ТЕРН (С9	9 - C36)	4 / 20	ND	ND	ND	ND	ND	ND	ND	ND
DRO (C10	O - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOI	ROIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
Quality	y Control D	<u>ata</u>								
			MB							.,_
Surrogate/Ir	nternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooct	adecane	(60 - 140)	103%	91.0%	94.0%	81.0%	112%	89.5%	115%	82.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

 $ACP \ \% = Acceptable \ Range \ of \ Percent$ 

% RC = % Recovery

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	CAMPI	P DECCD	IDTION	INST.	DIBL	
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPL	E DESCR	IPTION	ID	RUN	ВАТСН
LN05911	05/20/13	05/20/13	06/03/13	06/03/13	KLF-7-40			GC Agilent	060	)313
LN05912	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-45		GC Agilent	060	0313
LN05913	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-50		GC Agilent	060	)313
LN05914	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-55		GC Agilent	060	0313
LN05915	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-60		GC Agilent	060	0313
LN05916	05/20/13	05/20/13	06/03/13	06/03/13	<del>,</del>	KLF-7-65		GC Agilent	060	0313
LN05917	05/20/13	05/20/13	06/03/13	06/03/13		KLF-7-70		GC Agilent	066	0313
								ı		
		MDL / PQL		LN05911	LN05912	LN05913	LN05914	LN05915	LN05916	LN05917
		mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution 1	Factor			1	1	11	1	1	1	1
ТЕРН (С9	- C36)	4 / 20		ND	ND	ND	ND	ND	ND	ND
DRO (C10	- C28)	29 / 145		ND	ND	ND	ND	ND	ND	ND
MOTOR	OIL	35 / 175		ND	ND	ND	ND	NĐ	ND	ND
Quality	Control D	ata_								
Surrogate/In	ternal Std.	% ACP		% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chloroocta	adecane	(60 - 140)		110%	78.0%	91.0%	117%	111%	131%	109%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks. #True MDL/PQL = listed MDL/PQL X dilution factor.

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

## I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05905 DUP	05/20/13	05/20/13	06/03/13	06/03/13	KLF-7-10	GC Agilent	060313
,						tration	
				LN05905			
		MDL / PQL		DUP			
		mg/kg		mg/kg			
Dilution	Factor			1			
ТЕРН (С9	9 - C36)	4 / 20		ND			
DRO (C10	) - C28)	29 / 145		ND			
МОТОР	ROIL	35 / 175		ND			
Quality	/ Control D	ata_					
Surrogate/In	nternal Std.	% ACP		% RC			
1-Chlorooct	adecane	(60 - 140)		113%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060313	6/3/2013	280	211	75.4	70 - 130
DRO	060313	6/3/2013	500	364	72.8	70 - 130
МО	060313	6/3/2013	500	386	77.2	70 - 130
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Analysts

J. Yi

Reviewed by

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	-			INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPL	E DESCR	IPTION	ID	RUN E	BATCH
LN05918#	05/20/13	05/20/13	06/03/13	06/03/13		KLF-6-5		GC Agilent	060	313
LN05919	05/20/13	05/20/13	06/03/13	06/03/13		KLF-6-10		GC Agilent	060	313
LN05920	05/20/13	05/20/13	06/03/13	06/03/13		KLF-6-15		GC Agilent	060	313
LN05921	05/20/13	05/20/13	06/03/13	06/03/13	<u></u>	KLF-6-20		GC Agilent	060	313
LN05922	05/20/13	05/20/13	06/03/13	06/03/13		KLF-6-25		GC Agilent	060	313
LN05923	05/20/13	05/20/13	06/03/13	06/03/13		KLF-6-30		GC Agilent	060	313
LN05924	05/20/13	05/20/13	06/03/13	06/05/13		KLF-6-35		GC Agilent	060	0513
		,						,		,
		MDL / PQL	MB	LN05918#	LN05919	LN05920	LN05921	LN05922	LN05923	LN05924
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution F	Factor		1	3	1	1	1	1	1	1
ТЕРН (С9	- C36)	4/20	ND	1710	ND	ND _	ND	ND	ND	ND
DRO (C10	- C28)	29 / 145	ND	531	ND	ND	ND	ND	ND	ND
MOTOR	OIL	35 / 175	ND	1180	ND	ND	ND	ND	ND	ND
					,					!
Quality	Control D	ata								
			MB	! :				<u> </u>		
Surrogate/In	ternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chloroocta	adecane	(60 - 140)	103%	108%	110%	67.0%	94.0%	131%	128%	94.0%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INST.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPL	E DESCR	IPTION	ID	RUN E	ВАТСН
LN05925	05/20/13	05/20/13	06/03/13	06/05/13		KLF-6-40		GC Agilent	060	513
LN05926	05/20/13	05/20/13	06/03/13	06/05/13		KLF-6-45		GC Agilent	060	513
LN05927	05/20/13	05/20/13	06/03/13	06/05/13		KLF-6-50		GC Agilent	060	513
LN05928	05/20/13	05/20/13	06/03/13	06/05/13	·	KLF-6-55		GC Agilent	060	513
LN05929	05/20/13	05/20/13	06/03/13	06/05/13		KLF-6-60		GC Agilent	060	513
LN05930	05/20/13	05/20/13	06/03/13	06/05/13	 	KLF-6-65		GC Agilent	060	513
LN05931	05/20/13	05/20/13	06/03/13	06/05/13	·	KLF-6-70		GC Agilent	060	513
								, <u>-</u>		
		MDL / PQL	MB	LN05925	LN05926	LN05927	LN05928	LN05929	LN05930	LN05931
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution	Factor		1	1	1	1	1	1	1	1
ТЕРН (С	9 - C36)	4 / 20	ND	ND	ND	ND	ND	ND	ND	ND
DRO (C10	) - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOI	ROIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
						: 				:
<u>Qualit</u>	<u>y Control D</u>	ata_					!	1	1	
		· · · · · · · · · · · · · · · · · · ·	MB		·					
Surrogate/I	nternal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
							! 	:		<u> </u>
1-Chlorooc	tadecane	(60 - 140)	93.0%	109%	84.0%	91.0%	95.0%	78.5%	105%	112%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{*}High recovery caused by overlap with TEPH peaks. #True MDL/PQL = listed MDL/PQL X dilution factor.

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

#### I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05924 DUP	05/20/13	05/20/13	06/03/13	06/05/13	KLF-6-35	GC Agilent	060513
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			: <u></u>			· · · · · · · · · · · · · · · · · · ·	
		i		LN05924			
		MDL / PQL		DUP			
		mg/kg	- · <del></del>	mg/kg		ļ	
Dilution I	Factor			1			
ТЕРН (С9	- C36)	4 / 20		ND		:	
DRO (C10	- C28)	29 / 145		ND	· · · · · · · · · · · · · · · · · · ·	·····	·
MOTOR	OIL	35 / 175		ND			
Quality	Control D	Oata_					; ; ; ;
Surrogate/In	ternal Std.	% ACP		% RC			
							· 
1-Chlorooct	adecane	(60 - 140)	: !	105%			<u> </u>

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE		RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	:	060513	6/5/2013	280	215	76.8	70 - 130
DRO		060513	6/5/2013	500	409	81.8	70 - 130
МО		060513	6/5/2013	500	383	76.6	70 - 130
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Analysts

J. Yi

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## ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05932	05/20/13	05/20/13	06/03/13	06/05/13	SOIL DRUM PROFILE	GC Agilent	060513
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				L		<u></u>	
		MDL / PQL	MB	LN05932			
		mg/kg	mg/kg	mg/kg			
Dilution	Factor		1	. 1			l l
TEPH (C9	9 - C36)	4/20	ND	1370			
DRO (C10	0 - C28)	29 / 145	ND	890			
МОТОІ	R OIL	35 / 175	ND	477			
							-
Quality	<u>y Control D</u>	ata_					
		,	MB				
Surrogate/Ir	nternal Std.	% ACP	% RC	% RC			
1-Chlorooct	adecane	(60 - 140)	93.0%	104%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

 $\% \, RC = \% \, Recovery$ 

MB - Method Blank

#True MDL/PQL = listed MDL/PQL X dilution factor.

^{*}High recovery caused by overlap with TEPH peaks.

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/kg

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060513	6/5/2013	280	215	76.8	70 - 130 .
DRO	060513	6/5/2013	500	409	81.8	70 - 130
МО	060513	6/5/2013	500	383	76.6	70 - 130
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Analysts

J. Yi

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# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05577	05/13/13	05/13/13	05/17/13	06/05/13	QCEB	GC Agilent	060513
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		: ! !					
		!				· · · · · · · · · · · · · · · · · · ·	
						· · · · · · · · · · · · · · · · ·	
		MDL / PQL	MB	LN05577			
		mg/L	mg/L	mg/L		ļ l	
Dilution I	actor	:	1	1			!
ТЕРН (С9	- C36)	0.1 / 0.5	ND	ND			· · · · · · · · · · · · · · · · · · ·
DRO (C10	- C28)	0.5 / 2.5	ND	ND		<u> </u>	<u> </u>
MOTOR	OIL	0.3 / 1.5	ND	ND			-
Quality	Control D	ata_					
			MB	!			
Surrogate/In	ternal Std.	% ACP	% RC	% RC	<u> </u>	+	<u> </u>
						.	
1-Chloroocta	adecane	(60 - 140)	86.5%	81.5%			····

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8165 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/L

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060513	6/5/2013	2.8	2.01	71.8	70 - 130
DRO	060513	6/5/2013	5	4.54	90.8	70 - 130
МО	060513	6/5/2013	5	5.25	105	70 - 130
			-164117-			
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Analysts

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Reviewed by

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIPTION	INST.	RUN BATCH
LN05646	05/14/13	05/14/13	05/17/13	06/05/13		QCEB	GC Agilent	060513
LN05660	05/14/13	05/14/13	05/17/13	06/05/13	:	QCFB	GC Agilent	060513
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							l i	
:								
·								
	!	MDL / PQL	MB	LN05646	LN05660			
		mg/L	mg/L	mg/L	mg/L	<u>'</u>		
Dilution F	actor	!	1	1	1			
ТЕРН (С9	- C36)	0.1 / 0.5	ND	ND	ND		· 	
DRO (C10	- C28)	0.5 / 2.5	ND	ND	ND			
MOTOR	OIL	0.3 / 1.5	ND	ND	ND			
		:				•		
Quality	Control D	ata_			! !			
			MB				<u>i</u> <u>l</u>	
Surrogate/Int	ernal Std.	% ACP	% RC	% RC	% RC			j 
1-Chloroocta	decane	(60 - 140)	86.5%	92.5%	88.0%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8165 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/L

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	 060513	6/5/2013	2.8	2.01	71.8	70 - 130
DRO	 060513	6/5/2013	5	4.54	90.8	70 - 130
МО	 060513	6/5/2013	55	5.25	105	70 - 130
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Analysts

J. Yi

Reviewed by

# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	SAMPLE DESCRIPTION	INST.	RUN BATCH
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED			
LN05739	05/15/13	05/15/13	05/17/13	06/05/13	QCEB_	GC Agilent	060513
LN05752	05/15/13	05/15/13	05/17/13	06/05/13	QCFB	GC Agilent	060513
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						<u> </u>	
				, <del> </del>		·,	
		MDL / PQL	MB	LN05739	LN05752		
		mg/L	mg/L	mg/L	mg/L		: 
Dilution	Factor	!	1	1	1		
ТЕРН (С9	9 - C36)	0.1 / 0.5	ND	ND	ND	;	
DRO (C10	0 - C28)	0.5 / 2.5	ND	ND	ND		
MOTOI	ROIL	0.3 / 1.5	ND	ND	ND		ı
Quality	y Control D	oata_					
		:	MB				
Surrogate/In	nternal Std.	% ACP	% RC	% RC	% RC		
						<u> </u>	: !
1-Chlorooc	tadecane	(60 - 140)	86.5%	84.5%	86.5%		!

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

## I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05739 DUP	05/15/13	05/15/13	05/17/13	06/05/13	QCEB	GC Agilent	060513
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i i							
						<u> </u>	,
		Ţ		LN05739		<u> </u>	
		MDL / PQL		DUP			
		mg/kg		mg/kg		<u> </u>	
Dilution	Factor			11			<u> </u>
ТЕРН (С9	) - C36)	0.1 / 0.5		ND			
DRO (C10	) - C28)	0.5 / 2.5		ND			
MOTOF	ROIL	0.3 / 1.5		ND		ļ	_
Quality	y Control <u>D</u>	<u>)ata</u>					
Surrogate/Ii	nternal Std.	% ACP		% RC			
1-Chlorooct	adecane	(60 - 140)	<u></u>	95.5%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8165 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/L

,,						
ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060513	6/5/2013	2.8	2.01	71.8	70 - 130
DRO	060513	6/5/2013	5	4.54	90.8	70 - 130
MO	060513	6/5/2013	5	5.25	105	70 - 130
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Analysts

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# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIPTION	INST.	RUN BATCH
LN05824	05/16/13	05/16/13	05/17/13	06/05/13		QCFB	GC Agilent	060513
LN05825	05/16/13	05/16/13	05/17/13	06/05/13		QCEB	GC Agilent	060513
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					:		<u> </u>	
		MDL / PQL	MB	LN05824	LN05825			
		mg/L	mg/L	mg/L	mg/L	;		
Dilution	Factor		1	1	1			
ТЕРН (С9	9 - C36)	0.1 / 0.5	ND	ND	ND			
DRO (C10	0 - C28)	0.5 / 2.5	ND	ND	ND			
MOTOR	ROIL	0.3 / 1.5	ND	ND	ND			
Quality	y Control D	ata_						
			MB		:	ļ	!	
Surrogate/Ii	nternal Std.	% ACP	% RC	% RC	% RC			
1-Chlorooct	tadecane	(60 - 140)	86.5%	86.5%	98.5%	!		

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8165 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/L

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060513	6/5/2013	2.8	2.01	71.8	70 - 130
DRO	060513	6/5/2013	5	4.54	90.8	70 - 130
МО	060513	6/5/2013	5	5.25	105	70 - 130
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# ANALYTICAL TEST RESULT FOR EPA 8015M TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPL	E DESCRIP	TION	INST.	RUN BATCH
LN05901	05/20/13	05/20/13	05/24/13	06/05/13		QCEB		GC Agilent	060513
LN05902	05/20/13	05/20/13	05/24/13	06/05/13		QCFB		GC Agilent	060513
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								<u> </u>	
<u> </u>									
				•					
		MDL / PQL	MB	LN05901	LN05902				
		mg/L	mg/L	mg/L	mg/L				
Dilution F	actor		1	1	1			<u> </u>	
ТЕРН (С9	- C36)	0.1 / 0.5	ND	ND	ND				
DRO (C10	- C28)	0.5 / 2.5	ND	ND	ND				
MOTOR	OIL	0.3 / 1.5	ND	ND	ND				
					:				
Quality	Control D	ata_							
			MB						
Surrogate/Int	ernal Std.	% ACP	% RC	% RC	% RC				
1-Chloroocta	decane	(60 - 140 <u>)</u>	89.5%	85.5%	85.0%				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

# QA/QC REPORT TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

#### I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST.	RUN BATCH
LN05902 DUP	05/20/13	05/20/13	05/24/13	06/05/13	QCFB	GC Agilent	060513
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į							
		,, <del></del>	· · · · · · · · · · · · · · · · · · ·	LN05902			[
		MDL / PQL		DUP			
· · · · · ·		mg/kg		mg/kg	<u> </u>		
Dilution 1	Factor			1			
ТЕРН (С9	- C36)	0.1 / 0.5		ND	<u> </u>		
DRO (C10	) - C28)	0.5 / 2.5	<u>;</u>	ND :			
MOTOR	OIL	0.3 / 1.5	:	ND ;		-	
Quality	Control D	ata_	:				
Surrogate/In	iternal Std.	% ACP	:	% RC			
1-Chlorooct	adecane	(60 - 140)		85.5%			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

 $\% \, RC = \% \, Recovery$ 

## QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.:

Q8165 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit:

mg/L

ANALYTE	RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
ТЕРН	060513	6/5/2013	2.8	2.25	80.4	70 - 130
DRO	060513	6/5/2013	5	4.63	92.6	70 - 130
мо	060513	6/5/2013	5	5.14	103	70 - 130
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						\ <u>\</u>

Analysts

J. Yi

Reviewed by

## ATTACHMENT #3

Total Recoverable Petroleum Hydrocarbons
(TRPH)
EPA METHOD 418.1
&
EPA METHOD 1664B
Soil & Water

## CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

#### CASE NARRATIVE

PROJECT: FIGUEROA PUMPING STATION

#### METHODS 418.1 TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH)

#### 1. Holding Time

Analytical holding time was met.

#### 2. Method Blank

There was no contamination detected at reporting level.

#### 3. Lab Control Sample

Recoveries were within QC limits.

#### 4. Matrix Spike/Matrix Spike Duplicate

Samples LN05588, LN05658, LN05748, LN05658, LN05812, LN05822, LN05910, and LN05930 were analyzed for MS/MSD. Recoveries were within QC limits.

#### 5. Calibration

Initial calibration was performed at five different concentrations. The percent relative standard deviation (% RSD) was within 15%. Continuing calibration check standards were within QC limits.

#### 6. Sample Analysis

The soil samples were analyzed according to the prescribed QC procedures. Samples were extracted with solvent and analyzed by infrared spectrophotometry. Petroleum hydrocarbons were detected on samples LN05578, LN05648, LN05649, LN05796, and LN05918. Trace amounts of petroleum hydrocarbons detected some samples were below reporting level..

The water samples were not analyzed by EPA Method 418.1 as requested in the Chain-of-Custody in reference to the Method Update Rule of March 12, 2007. However, the samples were analyzed using an alternate method EPA 1664B (HEM; Oil and Grease) without silica gel treatment. All sample results were free of contamination.

Matrix: Soil

Page 1 of 1 COC No.: 13-1161

Foxboro Miran 1FF

Project: FIGUEROA PUMPING STATION Instrument I.D.:

Collection Date: 5/13/2013 Unit: mg/kg

Sample ID	Sample Description	Batch QC	Date Analyzed	MDL mg/kg	R.L mg/kg	TRPH mg/kg
LN05578	KLF-1-10	20130520	05/20/13	18	90	11749
LN05579	KLF-1-15	20130520	05/20/13	18	90	61 J
LN05580	KLF-1-20	20130520	05/20/13	18	90	56 J
LN05581	KLF-1-25	20130520	05/20/13	18	90	38 J
LN05582	KLF-1-30	20130520	05/20/13	18	90	26 J
LN05583	KLF-1-35	20130520	05/20/13	18	90	37 J
LN05584	KLF-1-40	20130520	05/20/13	18	90	ND
LN05585	KLF-1-45	20130520	05/20/13	18	90	ND
LN05586	KLF-1-50	20130520	05/20/13	18	90	31 J
LN05587	KLF-1-55	20130520	05/20/13	18	90	26 J
LN05588	KLF-1-60	20130520	05/20/13	18	90	ND
LN05589	KLF-1-65	20130520	05/20/13	18	90	ND
LN05590	KLF-1-70	20130520	05/20/13	18	90	31 J
LN05591	KLF-1-75	20130520	05/20/13	18	90	ND
LN05592	KLF-1-80	20130520	05/20/13	18	90	ND
LN05593	KLF-1-85	20130520	05/20/13	18	90	ND
LN05594	KLF-1-90	20130520	05/20/13	18	90	ND

		Quali	ty Control l	<u>Data</u>		·		
COC- 13-1161				<del> </del>				
Initial Calibration	1:04-22-13				Corr. Coeffici	ient:0.997		
Analysis Date 05-	20-2013							
		QC B	atch	Result				
Blank		20130	)520	ND				
CC		QC B	atch	Result	Assigned Value	% Rec.	QC	Limits
CC-3		20130	)520	217	218	100%	70%	6 - 130%
CC-3		20130	520	224	218	103%	70%	6 - 130%
LCS		QC B	atch	Result	Assigned Value	% Rec.	Accep	ted Range
Q8739		20130	)520	2369	2320	102%	35	7-3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05588	20130520	ND	1386	1464	1460	105%	1490	102%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L - Reporting Limit (5 x MDL)

Analyst: Reviewed by: A. Ogunnubi R. Gentallan LL (14113 J - above MDL but below RL

% Rec. - percent recovery

LCS - Lab Control Sample

CC - Calibration Check Standard

Matrix: Soil

Page 1 of 1 COC No.: 13-1171

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/14/2013

Unit: mg/kg

Sample ID	Sample Description	Batch QC	Date Analyzed	MDL mg/kg	R.L mg/kg	TRPH mg/kg
LN05648	KLF-2-10	20130521	05/21/13	18	90	13093
LN05649	KLF-2-15	20130521	05/21/13	18	90	1592
LN05650	KLF-2-20	20130521	05/21/13	18	90	ND
LN05651	KLF-2-25	20130521	05/21/13	18	90	ND
LN05652	KLF-2-30	20130521	05/21/13	18	90	ND
LN05653	KLF-2-35	20130521	05/21/13	18	90	ND
LN05654	KLF-2-40	20130521	05/21/13	18	90	ND
LN05655	KLF-2-45	20130521	05/21/13	18	90	ND
LN05656	KLF-2-50	20130521	05/21/13	18	90	ND
LN05657	KLF-2-55	20130521	05/21/13	18	90	ND
LN05658	KLF-2-60	20130521	05/21/13	18	90	ND
LN05659	KLF-2-65	20130521	05/21/13	18	90	ND

		<u>Quali</u>	ty Control	<u>Data</u>				
COC- 13-1171								
Initial Calibratio	n:04-22-13				Corr. Coeffici	ient:0.997		
Analysis Date 05-	21-2013							
		QC B	atch	Result				
Blank		20130	521	ND			•	
<u>CC</u>		QC B	atch	Result	Assigned Value	% Rec.	QC	Limits
CC-3		20130	521	114	112	102%	70% - 130%	
CC-3		20130	521	113	112	101%	70%	5 - 130%
LCS		QC B	atch	Result	Assigned Value	% Rec.	Accep	ted Range
Q8739		20130	521	1844	2320	79%	35	7-3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05658	20130521	ND	1512	1602	1500	99%	1530	96%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L - Reporting Limit (5 x MDL)

J - above MDL but below RL

% Rec. - percent recovery

LCS - Lab Control Sample

CC - Calibration Check Standard

Analyst: Reviewed by: A. Ogunnubi R. Gentallan El 6/4/13

Matrix: Soil

Page 1 of 1 COC No.: 13-1192

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/15/2013

Unit: mg/kg

Sample ID	Sample Description	Batch QC	Date Analyzed	MDL mg/kg	R.L mg/kg	TRPH mg/kg
LN05740	KLF-3-10	20130521	05/21/13	18	90	ND
LN05741	KLF-3-15	20130521	05/21/13	18	90	51 J
LN05742	KLF-3-20	20130521	05/21/13	18	90	ND
LN05743	KLF-3-25	20130521	05/21/13	18	90	ND
LN05744	KLF-3-30	20130521	05/21/13	18	90	ND
LN05745	KLF-3-35	20130521	05/21/13	18	90	ND
LN05746	KLF-3-40	20130521	05/21/13	18	90	ND
LN05747	KLF-3-45	20130521	05/21/13	18	90	ND
LN05748	KLF-3-50	20130521	05/21/13	18	90	ND
LN05749	KLF-3-55	20130521	05/21/13	18	90	ND
LN05750	KLF-3-60	20130521	05/21/13	18	90	ND
LN05751	KLF-3-65	20130521	05/21/13	18	90	ND

		Quali	ity Control	<u>Data</u>				
COC- 13-1192								
Initial Calibration	n:04-22-13				Corr. Coeffici	ient:0.997		
Analysis Date 05-2	21-2013							
		QC B	atch	Result				
Blank		20130	0521	ND				
<u>CC</u>		QC B	atch	Result	Assigned Value	% Rec.	QC	Limits
CC-3		20130	0521	114	112	102%	70%	- 130%
CC-3		20130	0521	113	112	101%	70%	- 130%
<u>LCS</u>		QC B	atch	Result	Assigned Value	% Rec.	Accept	ted Range
Q8739		20130	0521	1844	2320	79%	35	7-3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05748	20130521	ND	1454	1350	1563	107%	1564	116%
		<u> </u>		<u> </u>				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Reporting Limit (5 x MDL)

J - above MDL but below RL

% Rec. - percent recovery

LCS - Lab Control Sample

CC - Calibration Check Standard

Analyst: Reviewed by: A. Ogunnubi R. Gentallan 125 6/4/13

040004

Matrix: Soil

Page 1 of 1 COC No.: 13-1202

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/16/2013

Unit:

mg/kg

	Sample			MDL	R.L	TRPH
Sample ID	Description	Batch QC	Date Analyzed	mg/kg	mg/kg	mg/kg
LN05796	KLF-5-5	20130521	05/21/13	18	90	273
LN05797	KLF-5-10	20130521	05/21/13	18	90	ND
LN05798	KLF-5-15	20130521	05/21/13	18	90	ND
LN05799	KLF-5-20	20130521	05/21/13	18	90	ND
LN05800	KLF-5-25	20130521	05/21/13	18	90	ND
LN05801	KLF-5-30	20130521	05/21/13	18	90	ND
LN05802	KLF-5-35	20130521	05/21/13	18	90	ND
LN05803	KLF-5-40	20130521	05/21/13	18	90	ND
LN05804	KLF-5-45	20130521	05/21/13	18	90	ND
LN05805	KLF-5-50	20130521	05/21/13	18	90	ND
LN05806	KLF-5-55	20130521	05/21/13	18	90	ND
LN05807	KLF-5-60	20130521	05/21/13	18	90	ND
LN05808	KLF-5-65	20130521	05/21/13	18	90	ND
LN05809	KLF-5-70	20130521	05/21/13	18	90	ND
LN05810	KLF-4-5	20130521	05/21/13	18	90	ND
LN05811	KLF-4-10	20130521	05/21/13	18	90	ND
				1		

		<u>Quali</u>	ty Control l	<u>Data</u>				
COC- 13-1202								
Initial Calibration	1:04-22-13				Corr. Coeffici	ient:0.997		
Analysis Date 05-	21-2013							
		QC B	atch	Result				
Blank		20130	521	ND		•		
<u>cc</u>		QC B	atch	Result	Assigned Value	% Rec.	QC	C Limits
CC-3		20130	521	114	112	102%	70%	6 - 130%
CC-3		20130	521	113	112	101%	70%	6 - 130%
LCS		QC B	atch	Result	Assigned Value	% Rec.	Accep	ted Range
Q8739		20130	521	1844	2320	79%	35	7-3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05658	20130521	ND	1512	1602	1500	99%	1530	96%

ND - Not Detected; below method detection limit

J - above MDL but below RL

LCS - Lab Control Sample CC - Calibration Check Standard

MDL - Method Detection Limit

% Rec. - percent recovery

R.L - Reporting Limit (5 x MDL)

Analyst: Reviewed by: A. Ogunnubi R. Gentallan Physiology

Matrix: Soil

Page 1 of 1 COC No.: 13-1202

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/16/2013

Unit:

mg/kg

Sample ID	Sample Description	Batch QC	Date Analyzed	MDL mg/kg	R.L mg/kg	TRPH mg/kg
LN05812	KLF-4-15	20130529	05/29/13	18	90	ND
LN05813	KLF-4-20	20130529	05/29/13	18	90	ND
LN05814	KLF-4-25	20130529	05/29/13	18	90	29 J
LN05815	KLF-4-30	20130529	05/29/13	18	90	22 J
LN05816	KLF-4-35	20130529	05/29/13	18	90	27 J
LN05817	KLF-4-40	20130529	05/29/13	18	90	27 J
LN05818	KLF-4-45	20130529	05/29/13	18	90	ND
LN05819	KLF-4-50	20130529	05/29/13	18	90	29 J
LN05820	KLF-4-55	20130529	05/29/13	18	90	ND
LN05821	KLF-4-60	20130529	05/29/13	18	90	ND
LN05822	KLF-4-65	20130529	05/29/13	18	90	29 J
LN05823	KLF-4-70	20130529	05/29/13	18	90	28 J

		Quali	ity Control	<u>Data</u>				
COC- 13-1202								
Initial Calibratio	n:05-28-13				Corr. Coeffic	ient:0.999		
Analysis Date 05-	29-2013							
		QC B	atch	Result				
Blank		20130	)529	ND				
<u>CC</u>		QC B	atch	Result	Assigned Value	% Rec.	QC	Limits
CC-3		20130	)529	80	82	98%	70% - 130%	
CC-3		20130	)529	78	82	95%	70%	6 - 130%
LCS		QC B	atch	Result	Assigned Value	% Rec.	Accep	ted Range
Q8739		20130	)529	3226	2320	139%	35	7-3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc, 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05812	20130529	ND	1507	1445	1430	94%	1460	100%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit R.L - Reporting Limit (5 x MDL) J - above MDL but below RL

% Rec. - percent recovery

LCS - Lab Control Sample

CC - Calibration Check Standard

Analyst: Reviewed by: A. Ogunnubi R. Gentallan Oglo (4/13

Matrix: Soil

Page 1 of 1 COC No.: 13-1232

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/20/2013

Unit:

mg/kg

Sample ID	Sample Description	Batch QC	Date Analyzed	MDL mg/kg	R.L mg/kg	TRPH mg/kg
LN05904	KLF-7-5	20130529	05/29/13	18	90	86 J
LN05905	KLF-7-10	20130522	05/29/13	18	90	ND
LN05906	KLF-7-15	20130522	05/29/13	18	90	ND
LN05907	KLF-7-20	20130522	05/29/13	18	90	ND
LN05908	KLF-7-25	20130522	05/29/13	18	90	ND
LN05909	KLF-7-30	20130522	05/29/13	18	90	29 J

		<u>Quali</u>	ity Control 1	<u>Data</u>				
COC- 13-1232								
Initial Calibration	1:05-29-2013				Corr. Coeffic	ient:0.999		
Analysis Date 05-2	29-2013							
		QC B	atch	Result				
Blank		20130	)529	ND				
<u>CC</u>		QC B	atch	Result	Assigned Value	% Rec.	QC I	Limits
CC-3		20130	)529	80	82	98%	70% -	130%
CC-3		20130	)529	78	80	94%	70% -	130%
LCS		QC B	atch	Result	Assigned Value	% Rec.	Accepte	d Range
Q8739		20130	)529	3226	2320	139%	357-	3650
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2
LN05822	20130529	29 J	1427	1423	1466	100%	1435	99%

ND - Not Detected; below method detection limit

J - above MDL but below RL

LCS - Lab Control Sample

MDL - Method Detection Limit R.L - Reporting Limit (5 x MDL)

% Rec. - percent recovery

CC - Calibration Check Standard

Analyst:

A. Ogunnubi

Reviewed by:

Matrix: Soil

Page 1 of 1 COC No.: 13-1232

Project:

FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/20/2013

mg/kg Unit:

Sample ID	Description	Batch QC	Date Analyzed	mg/kg	mg/kg	mg/kg
LN05910	KLF-7-35	20130530	05/30/13	18	90	28 J
LN05911	KLF-7-40	20130530	05/30/13	18	90	28 J
LN05912	KLF-7-45	20130530	05/30/13	18	90	21 J
LN05913	KLF-7-50	20130530	05/30/13	18	90	ND
LN05914	KLF-7-55	20130530	05/30/13	18	90	ND
LN05915	KLF-7-60	20130530	05/30/13	18	90	ND
LN05916	KLF-7-65	20130530	05/30/13	18	90	ND
LN05917	KLF-7-70	20130530	05/30/13	18	90	29 J

Quality Control Data									
COC- 13-1232						<u></u>			
Initial Calibration:05-28-13 Corr. Coefficient:0.999									
Analysis Date 05-	30-2013								
		QC B	atch	Result					
Blank		20130530		ND					
CC		QC Batch		Result	Assigned Value	% Rec.	QC Limits		
CC-3		20130530		78	82	95%	70% - 130%		
CC-3		20130530		78	82	95%	70% - 130%		
LCS		QC Batch Result Assigned Value % Rec.		Accepted Range					
Q8739		20130530		2643	2320	114% 357-365		-3650	
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.	
Sample ID	QC Batch	Conc.	Conc. 1	Conc. 2	2 Spike 1	Spike 1	Spike 2	Spike 2	
LN05910	20130530	28 J	1390	1377	1330	94%	1370	97%	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Reporting Limit (5 x MDL)

J - above MDL but below RL

% Rec. - percent recovery

LCS - Lab Control Sample

CC - Calibration Check Standard

Analyst:

A. Ogunnubi

Reviewed by:

Matrix: Soil

Page 1 of 1 COC No.: 13-1233

Project: FIGUEROA PUMPING STATION

Instrument I.D.:

Foxboro Miran 1FF

Collection Date: 5/20/2013

Unit:

mg/kg

	Sample			MDL	R.L	TRPH
Sample ID	Description	Batch QC	Date Analyzed	mg/kg	mg/kg	mg/kg
LN05918	KLF-6-5	20130530	05/30/13	18	90	7198
LN05919	KLF-6-10	20130530	05/30/13	18	90	28 J
LN05920	KLF-6-15	20130530	05/30/13	18	90	29 J
LN05921	KLF-6-20	20130530	05/30/13	18	90	ND
LN05922	KLF-6-25	20130530	05/30/13	18	90	36 J
LN05923	KLF-6-30	20130530	05/30/13	18	90	37 J
LN05924	KLF-6-35	20130530	05/30/13	18	90	21 J
LN05925	KLF-6-40	20130530	05/30/13	18	90	ND
LN05926	KLF-6-45	20130530	05/30/13	18	90	28 J
LN05927	KLF-6-50	20130530	05/30/13	18	90	43 J
LN05928	KLF-6-55	20130530	05/30/13	18	90	28 J
LN05929	KLF-6-60	20130530	05/30/13	18	90	29 J
LN05930	KLF-6-65	20130530	05/30/13	18	90	22 J
LN05931	KLF-6-70	20130530	05/30/13	18	90	29 J
					. <u>.</u> .	

Quality Control Data													
COC- 13-1233													
Initial Calibration	:05-28-13		Corr. Coefficient: 0.999										
Analysis Date 05-3	30-2013												
		QC B	atch	Result	·								
Blank			20130530										
<u>cc</u>		QC B	atch	Result Assigned Value		% Rec.	QC Limits						
CC-3		20130	130530 78		82	95%	70% - 130%						
CC-3		20130	)530	78 82		95%	70% - 130%						
LCS		QC B	atch	Result Assigned Value		% Rec.	Accepted Range						
Q8739		20130	)530	2643 2320		114%	357-3	3650					
Matrix Spike		Sample	Spike	Spike	Result	% Rec.	Result	% Rec.					
Sample ID	QC Batch	Conc.	Conc. I	Conc. 2	Spike 1	Spike 1	Spike 2	Spike 2					
LN05930	20130530	22	1432	1416	1420	98%	1410	98%					
						1		1					

ND - Not Detected; below method detection limit

J - above MDL but below RL

LCS - Lab Control Sample

MDL - Method Detection Limit

% Rec. - percent recovery

CC - Calibration Check Standard

R.L - Reporting Limit (5 x MDL)

Analyst:

A. Ogunnubi

Reviewed by:

R. Gentallan RLL 6/4/13

# Department of Water & Power Environmental Laboratory Data Report on Oil & Grease USEPA Method 1664B Matrix: Water

Page 1 of 1

COC No.:13-1161, 13-1171,

Project Name: FIGUEROA PUMPING STATION 13-1192, 13-1202, 13-1231

Date Sampled 5/13/13 TO 5/20/2013

Unit: mg/L

Date Sumpled	3/13/13 10 3/20/20	Omi. mgr									
	Sample		Sample		MDL	RL	Oil & Grease				
Sample ID	Description	D	ate	Date	mg/L	mg/L	mg/L				
LN05577	QCEB	5/13/2013		5/24/2013	0.5	2.5	2.5				
LN05646	QCEB	5/14/2013		5/24/2013	0.5	2.5	N	D			
LN05660	QCFB	5/14/2013		5/29/2013	0.5	2.5	N	D			
LN05739	QCEB	5/15	5/15/2013		0.5	2.5	N	D			
LN05752	QCFB	5/15	/2013	5/29/2013	0.5	2.5	ND				
LN05824	QCFB	5/16	/2013	5/29/2013	0.5	2.5	ND				
LN05825	QCEB	5/16	5/16/2013		0.5	2.5	ND				
LN05901	QCEB	5/20/2013		5/29/2013	0.5	2.5	ND				
LN05902	QCFB	5/20/2013		5/29/2013	0.5	2.5	N	D			
Quality Control Data											
	Analysis Date	Result									
Blank	5/24/2013	<0.5									
	5/29/2013 <0.5										
:		Spike	Spike	Blank		Blank					
······································		Conc. 1	Conc. 2	Spike 1	% Rec.	Spike 2	% Rec.	QC			
Blank Spike	Analysis Date	ug/L	ug/L	ug/L	Spike 1	ug/L	Spike 2	Limits			
	5/24/2013	24	24	22.3	93%	21.7	90%_	83-101%			
	5/29/2013	24	24	24.0	100%	23.8	99%	83-101%			

ND - Not Detected; below method detection limit

J - above MDL and below RL

% Rec. - percent recovery

MDL - Method Detection Limit

R.L - Reporting Limit (5 x MDL)

Analyst: N. Perez

Reviewed by: 1/25/13

# ATTACHMENT # 4

## Gasoline Range Organics (GRO) EPA Method 8015B Soil & Water

## CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

#### CASE NARRATIVE

PROJECT: FIGUEROA PUMPING STATION

### METHOD 8015B GRO (GASOLINE RANGE ORGANICS)

1. Holding Time

Analytical holding time was met.

2. Method Blank

There was no contamination detected at reporting level.

3. Lab Control Sample

Recoveries were within QC limits

4. Surrogate Recovery

Recoveries were within QC limits

5. Matrix Spike/Matrix Spike Duplicate

Samples LN05588, LN05659, LN05749, LN05823, LN05922, and LN05577 were analyzed for MS/MSD. Recoveries were within QC limits.

6. Calibration

Initial calibration was performed at five different concentrations. The percent relative standard deviation (% RSD) was within 15%. Continuing calibration check standards were within QC limits.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. There was no contamination from gasoline range organics at reporting level.

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMP	LE DESCRIP	TION	ID	RUN LOG/I	ватсн
LN05578	05/13/13	05/13/13	05/14/13	05/22/13	]	KLF - 1 - 10		AG gas	2013	0521
LN05579	05/13/13	05/13/13	05/14/13	05/22/13	]	KLF - 1 - 15		AG gas	2013	0521
LN05580	05/13/13	05/13/13	05/14/13	05/22/13	]	KLF - 1 - 20		AG gas	2013	0521
LN05581	05/13/13	05/13/13	05/14/13	05/22/13	]	KLF - 1 - 25		AG gas	20130521	
LN05582	05/13/13	05/13/13	05/14/13	05/22/13	KLF - 1 - 30		AG gas	20130521		
LN05583	05/13/13	05/13/13	05/14/13	05/22/13	,	KLF - 1 - 35		AG gas	2013	0521
LN05584	05/13/13	05/13/13	05/14/13	05/22/13	,	KLF - 1 - 40		AG gas	2013	0521
		MDL/PQL	MB	LN05578	LN05579	LN05580	LN05581	LN05582	LN05583	LN05584
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	20 **	20**	1	1	1	1	11
Gasoline (GRO	)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Co	ontrol Data									
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC_
1, 2 Dichlorobe	enzene-d4	(70 - 130)	104%	122%	104%	103%	106%	105%	107%	106%
							,			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{**} Sample was analyzed at higher dilution; Sample extract was either highly colored or exhibiting high turbidity

MDL / PQL for samples analyzed at higher dilutions computed as MDL/PQL (dilution x1) multiplied by the dilution factor

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMI	PLE DESCRIE	TION	INSTR. ID	RUN LOG/	ВАТСН
LN05585	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 45	i	AG gas	2013	30521
LN05586	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 50	)	AG gas	2013	30521
LN05587	05/13/13	05/13/13	05/14/13	05/22/13	KLF - 1 - 55			AG gas	2013	30521
LN05588	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 60	)	AG gas	20130521	
LN05589	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 65	i	AG gas	2013	30521
LN05590	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 70	)	AG gas	2013	30521
LN05591	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 75	i	AG gas	2013	0521
		MDL / PQL	MB	LN05585	LN05586	LN05587	LN05588	LN05589	LN05590	LN05591
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Facto	r	1	1	1	1	1	1	1	1	11
Gasoline (GRO	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	ontrol Data									
Surrogate/Inter	rnal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	104%	105%	107%	107%	106%	107%	104%	103%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAM	PLE DESCRIPTION	INSTR.	RUN LOG/BATCH
LN05592	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 80	AG gas	20130521
LN05593	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 85	AG gas	20130521
LN05594	05/13/13	05/13/13	05/14/13	05/22/13		KLF - 1 - 90	AG gas	20130521
		:					:	
		!						
		MDL / PQL	МВ	LN05592	LN05593	LN05594		:
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Dilution Factor	Γ	1	1	1	1	1		
Gasoline (GRC	))	1.1 / 5.5	ND	ND	ND	ND .		
Quality C	ontrol Data							
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC	%RC		
1, 2 Dichlorobe	enzene-d4	(70 - 130)	104%	109%	117%	106%		
	·						<u> </u>	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05588	20130521	ND	22.0	18.3	83.2%	18.9	85.9%	3.2%	70-130	30

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130521	5/22/2013	22.0	27.5	125.0	70 - 130

Analyzed by

B. Estrada

Reviewed by

R. Gentallan

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	r			INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMP	LE DESCRIP	TION	ID	RUN LOG/	ВАТСН
LN05648	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-10		AG gas	2013	30521
LN05649	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-15		AG gas	2013	30521
LN05650	05/14/13	05/14/13	05/15/13	05/22/13	·	KLF-2-20		AG gas	2013	30521
LN05651	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-25		AG gas	2013	30521
LN05652	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-30		AG gas	2013	30521
LN05653	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-35		AG gas	2013	30521
LN05654	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-40	·	AG gas	2013	30521
		MDL/PQL	MB	LN05648	LN05649	LN05650	LN05651	LN05652	LN05653	LN05654
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	r	1	1	20**	1	11	1	1	1	1
Gasoline (GRO	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	ontrol Data									
Surrogate/Inter	mal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	104%	127%	102%	105%	104%	105%	104%	97.3%
								!	<u> </u>	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{**} Sample was analyzed at higher dilution; Sample extract was either highly colored or exhibiting high turbidity

MDL / PQL for samples analyzed at higher dilutions computed as MDL/PQL (dilution x1) multiplied by the dilution factor

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMI	LE DESCRIE	TION	INSTR. ID	RUN LOG/BATCI	H
LN05655	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-45		AG gas	20130521	
LN05656	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-50		AG gas	20130521	
LN05657	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-55		AG gas	20130521	
LN05658	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-60		AG gas	20130521	
LN05659	05/14/13	05/14/13	05/15/13	05/22/13		KLF-2-65		AG gas	20130521	
		MDL / PQL mg/kg	MB mg/kg	LN05655 mg/kg	LN05656 mg/kg	LN05657 mg/kg	LN05658 mg/kg	LN05659 mg/kg		
Dilution Factor	r	1	1	1	1	1	1	1		
Gasoline (GRC	))	1.1 / 5.5	ND	ND ND	ND	ND	ND	ND		
Quality C	ontrol Data				:	·				
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC		
1, 2 Dichlorob	enzene-d4	(70 - 130)	104%	106%	103%	104%	105%	104%		

ND - Not Detected; below method detection limit

 $MDL - Method\ Detection\ Limit$ 

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### **QA/QC REPORT**

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg

LOG NO. OC CO	1							RPD
Econo: Qo co	NC   CON	IC MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05588 20130521 N	D 22.	0 18.3	83.2%	18.9	85.9%	3.2%	70-130	30
LN05659 20130521 N	D 22.	0 23.1	105%	18.0	81.8%	24.8%	70-130	30

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130521	5/22/2013	22.0	27.5	125	70 - 130
Gasoline	20130521	5/22/2013	22.0	18.7	85.0	70 - 130

Analyzed by

B. Estrada

Reviewed by

R. Gentallan Ph 4/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	· · · · · · · · · · · · · · · · · · ·			INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	PLE DESCRIF	TION	ID	RUN LOG/I	ВАТСН
LN05740	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-10		AG gas	2013	0522
LN05741	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-15		AG gas	2013	0522
LN05742	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-20		AG gas	2013	0522
LN05743	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-25		AG gas	2013	0522
LN05744	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-30		AG gas	2013	0522
LN05745	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-35		AG gas	2013	0522
LN05746	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-40		AG gas	2013	0522
		MDL/PQL	MB	LN05740	LN05741	LN05742	LN05743	LN05744	LN05745	LN05746
,		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	r	11	1	1	20**	1	1	11	1	1
Gasoline (GRC	0)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	ontrol Data									
Surrogate/Inter	mal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC_
1, 2 Dichlorob	enzene-d4	(70 - 130)	105%	105%	103%	103%	105%	103%	102%	102%
								-	·	<u> </u>

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

^{**} Sample was analyzed at higher dilution; Sample extract was either highly colored or exhibiting high turbidity

MDL / PQL for samples analyzed at higher dilutions computed as MDL/PQL (dilution x1) multiplied by the dilution factor

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR.	
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	PLE DESCRIF	TION	D	RUN LOG/BATCH
LN05747	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-45		AG gas	20130522
LN05748	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-50		AG gas	20130522
LN05749	05/15/13	05/15/13	05/16/13	05/22/13	,	KLF-3-55		AG gas	20130522
LN05750	05/15/13	05/15/13	05/16/13	05/22/13		KLF-3-60		AG gas	20130522
LN05751	05/15/13	05/15/13	05/16/13	05/22/13	: :	KLF-3-65		AG gas	20130522
		MDL/PQL	МВ	LN05747	LN05748	LN05749	LN05750	LN05751	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Dilution Factor	r	1	1	1	1	1	1	1	
Gasoline (GRC	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	
Quality C	ontrol Data								<u>.</u>
Surrogate/Inter	rnal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC_	
1, 2 Dichlorob	enzene-d4	(70 - 130)	105%	102%	100%	103%	104%	103%	
<u>-</u> .						:			!

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## **QA/QC REPORT**

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE	<del></del>	<del></del>				<del></del>	
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	n n n	MS/MSD	RPD
LN05749	20130522	ND	22.0	28.4	129%	26.6	121%	RPD 6.5%	% ACP 70-130	ACP 30
<u></u>		<u> </u>		i					, 0 130	

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	DEGY H. T.	101 ===	<del></del>
Gasoline	20130522	5/22/2013	22.00	RESULT 27.9	% REC.	Acceptable Range
<u></u>				21.9	127	70 - 130

Analyzed by

B. Estrada

Reviewed by

R. Gentallan

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE		1000		INSTR.	33.00	
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	PLE DESCRI	TION	ID	RUN LOG/	BATCH
LN05796	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-5		AG gas	2013	30523
LN05797	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-10		AG gas	2013	30523
LN05798	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-15		AG gas	2013	30523
LN05799	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-20		AG gas	2013	30523
LN05800	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-25		AG gas	2013	30523
LN05801	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-30		AG gas	2013	30523
LN05802	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-35		AG gas	2013	30523
		MDL / PQL	MB	LN05796	LN05797	LN05798	LN05799	LN05800	LN05801	LN05802
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Facto	r	1	1	1	1	1	1	1	1	1
Gasoline (GRO	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	ontrol Data									
Surrogate/Inter	rnal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	108%	107%	104%	104%	101%	112%	112%	108%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

# ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	PLE DESCRI	PTION	ID .	RUN LOG/	BATCH
LN05803	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-40		AG gas	2013	30523
LN05804	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-45		AG gas	2013	30523
LN05805	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-50		AG gas	2013	30523
LN05806	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-55		AG gas	2013	30523
LN05807	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-60		AG gas	2013	30523
LN05808	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-65		AG gas	2013	30523
LN05809	05/16/13	05/17/13	05/17/13	05/23/13		KLF-5-70		AG gas	2013	30523
		MDL/PQL	MB	LN05803	LN05804	LN05805	LN05806	LN05807	LN05808	LN05809
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	r	1	1	1	1	1	1	1	1	1
Gasoline (GRO	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	ontrol Data									
Surrogate/Inter	mal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	108%	110%	111%	111%	109%	106%	104%	104%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE	on enclosic vil			INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	PLE DESCRII	TION	ID.	RUN LOG/	BATCH
LN05810	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-5		AG gas	2013	30523
LN05811	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-10		AG gas	2013	30523
LN05812	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-15		AG gas	2013	30523
LN05813	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-20		AG gas	2013	30523
LN05814	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-25		AG gas	2013	30523
LN05815	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-30		AG gas	2013	30523
LN05816	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-35		AG gas	2013	30523
		MDL/PQL	MB	LN05810	LN05811	LN05812	LN05813	LN05814	LN05815	LN05816
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Facto	r	1	1	11	1	1	1	1	1	1
Gasoline (GR	O)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	Control Data							:		
Surrogate/Inte	rnal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	108%	103%	104%	107%	102%	106%	103%	106%
				<u>-</u>		!	:			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

# ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

**Project: FIGUEROA PUMPING STATION** 

SAMPLE	DATE	DATE	DATE	DATE				INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAM	PLE DESCRI	PTION	1D	RUN LOG/	ВАТСН
LN05817	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-40	1	AG gas	201:	30523
LN05818	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-45		AG gas	2013	30523
LN05819	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-50	***	AG gas	2013	30523
LN05820	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-55		AG gas	2013	30523
LN05821	05/16/13	05/17/13	05/17/13	05/23/13	_	KLF-4-60		AG gas	2013	30523
LN05822	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-65		AG gas	2013	30523
LN05823	05/16/13	05/17/13	05/17/13	05/23/13		KLF-4-70		AG gas	2013	30523
		MDL/PQL	MB	LN05817	LN05818	LN05819	LN05820	LN05821	LN05822	LN05823
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	_ 1	1	1	1	1	1	1
Gasoline (GRO	))	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Co	ontrol Data									
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobe	enzene-d4	(70 - 130)	108%	105%	107%	104%	105%	106%	105%	105%
	<u></u>							-		

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### **QA/QC REPORT**

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg

SAMPLE	ВАТСН	SAMPLE	SPIKE	ļ					MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05823	20130523	ND	22.0	27.5	125%	27.5	125%	0.0%	70-130	30
									,	

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130523	5/23/2013	22.0	27.5	125	70 - 130

Analyzed by

B. Estrada

Reviewed by

R. Gentallan Ph 6/4/13

# ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR,		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAM	PLE DESCRI	PTION	ID	RUN LOG	/BATCU
LN05904	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 5		AG gas	i	30523
LN05905	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 10	)	AG gas	†	30523
LN05906	05/20/13	05/20/13	05/20/13	05/23/13	i	KLF - 7 - 1.		AG gas	-	30523
LN05907	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 20		AG gas		30523
LN05908	05/20/13	05/20/13	05/20/13	05/23/13	<u>-</u>	KLF - 7 - 2:	5	AG gas	T	30523
LN05909	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 30	)	AG gas	_	30523
LN05910	05/20/13	05/20/13	05/20/13	05/23/13	<u>-</u>	KLF - 7 - 35		AG gas		30523
	— <del> </del>							110 840	2013	50323
		MDL / PQL	MB	LN05904	LN05905	LN05906	LN05907	LN05908	LN05909	7 NO5010
<u> </u>		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	<u></u>	1	1	1	1	1	1	1	1	1
Gasoline (GRO	)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Co	ontrol Data	ļ		   						
Surrogate/Interr	nal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC		%RC
1, 2 Dichlorobe	nzene-d4	(70 - 130)	108%	106%	106%	107%	106%	105%	107%	107%
	<u> </u>									

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMI	LE DESCRIE	TION	INSTR. ID	RUN LOG/	ВАТСН
LN05911	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 40	)	AG gas	2013	30523
LN05912	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 45	;	AG gas	2013	30523
LN05913	05/20/13	05/20/13	05/20/13	05/23/13		KLF - 7 - 50	1	AG gas	2013	30523
LN05914	05/20/13	05/20/13	05/21/13	05/28/13		KLF - 7 - 55		AG gas	2013	30528
LN05915	05/20/13	05/20/13	05/21/13	05/28/13		KLF - 7 - 60		AG gas	2013	30528
LN05916	05/20/13	05/20/13	05/21/13	05/28/13	KLF - 7 - 65			AG gas	2013	30528
LN05917	05/20/13	05/20/13	05/21/13	05/28/13	KLF - 7 - 70			AG gas	2013	30528
		MDL/PQL	MB	LN05911	LN05912	LN05913	LN05914	LN05915	LN05916	LN05917
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	1	1	1	1	1	1	1
Gasoline (GRO)		1.1 / 5.5	ND ND	ND	ND	ND	ND	ND	ND	ND
Quality Cor	ntrol Data_									
Surrogate/Interna	al Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichloroben	zene-d4	(70 - 130)	108%	106%	107%	108%	110%	110%	110%	110%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## **QA/QC REPORT**

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg

SAMPLE	ВАТСН	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05922	20130528	ND	22.0	21.3	96.8%	16.3	74.1%	26.6%	70-130	30
LN05823	20130523	ND	22.0	27.5	125%	27.5	125%	0.0%	70-130	30

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

## II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130528	5/28/2013	22.0	26.2	119	70 - 130
Gasoline	20130523	5/23/2013	22.0	27.5	125	70 - 130
				_	_	

Analyzed by

Reviewed by

B. Estrada

R. Gentallan
Res 6/12/13

# ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAM	PLE DESCRI	PTION	ID	RUN LOG	/ВАТСН
LN05918	05/20/13	05/20/13	05/21/13	05/28/13	  - 	KLF- 6 - 5		AG gas		30528
LN05919	05/20/13	05/20/13	05/21/13	05/28/13	-	KLF- 6 - 10	)	AG gas		30528
LN05920	05/20/13	05/20/13	05/21/13	05/28/13	,,,,	KLF- 6 - 15	;	AG gas	·	30528
LN05921	05/20/13	05/20/13	05/21/13	05/28/13		KLF- 6 - 20		AG gas	<del>                                     </del>	30528
LN05922	05/20/13	05/20/13	05/21/13	05/28/13		KLF- 6 - 25		AG gas	1	30528
LN05923	05/20/13	05/20/13	05/21/13	05/28/13		KLF- 6 - 30		AG gas		30528
LN05924	05/20/13	05/20/13	05/21/13	05/28/13	<u>.</u>	KLF- 6 - 35		AG gas	<del>-</del>	30528
				· · · · · ·				: NO gas	201.	
		MDL / PQL	МВ	LN05918	LN05919	LN05920	LN05921	LN05922	LN05923	LN05924
ļ		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor		1	1	1	1	1	1	1	1	1
Gasoline (GRO	)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Co	ontrol Data		!							
Surrogate/Intern	nal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobe	nzene-d4	(70 - 130)	112%	111%	111%	110%	109%	110%	110%	109%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE				INSTR.		
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMI	LE DESCRIE	MOITY	ID.	RUN LOG/	BATCH
LN05925	05/20/13	05/20/13	05/21/13	05/28/13		KLF- 6 - 40		AG gas	2013	30528
LN05926	05/20/13	05/20/13	05/21/13	05/28/13			AG gas	2013	30528	
LN05927	05/20/13	05/20/13	05/21/13	05/28/13	KLF- 6 - 50		AG gas	2013	30528	
LN05928	05/20/13	05/20/13	05/21/13	05/28/13	KLF- 6 - 55		AG gas	2013	30528	
LN05929	05/20/13	05/20/13	05/21/13	05/28/13	KLF- 6 - 60		AG gas	2013	30528	
LN05930	05/20/13	05/20/13	05/21/13	05/28/13		KLF- 6 - 65		AG gas	2013	30528
LN05931	05/20/13	05/20/13	05/21/13	05/28/13	KLF- 6 - 70		AG gas	2013	30528	
		MDL/PQL	MB	LN05925	LN05926	LN05927	LN05928	LN05929	LN05930	LN05931
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Facto	r	1	1	11	1	1	1	1	1	1
Gasoline (GRO	D)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality C	Control Data							! ! 		:
Surrogate/Inter	mal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorob	enzene-d4	(70 - 130)	112%	110%	110%	110%	110%	111%	109%	111%
			: 				<u> </u>		<u>l_</u>	!

ND - Not Detected; below method detection limit

 $MDL - Method\ Detection\ Limit$ 

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/kg
-------

SAMPLE			SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05922	20130528	ND	22.0	21.3	96.8%	16.3	74.1%	26.6%	70-130	30
				i						

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE Gasoline	ВАТСН QС	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130528	5/28/2013	22.0	26.2	119	70 - 130
				i		

Analyzed by

B. Estrada

Reviewed by

R. Gentallan
As 6/12/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE	DATE		INSTR.	
LOG NO.	SAMPLED	RECEIVED	EXTRACTED	ANALYZED	SAMPLE DESCRIPTION	ID	RUN LOG/BATCH
LN05932	05/20/13	05/20/13	05/21/13	05/28/13	SOIL DRUM PROFILE	AG gas	20130528
							7/2
		1	<u> </u>				<u> </u>
		MDL / PQL	MB	LN05932			
		mg/kg	mg/kg	mg/kg			
Dilution Facto	<u>r</u>	1	1	1			
Gasoline (GRO	D)	1.1 / 5.5	ND	ND			
Quality C	ontrol Data						
		<u> </u>					
Surrogate/Inter	rnal Std.	% ACP	% RC	%RC			
1, 2 Dichlorob	enzene-d4	(70 - 130)	112%	130%			
		<u> </u>					<u> </u>

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## **QA/QC REPORT**

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit: mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE			<u></u>		······	MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05922	20130528	ND	22.0	21.3	96.8%	16.3	74.1%	26.6%	70-130	30
<u> </u>										

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

## II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8637

ANALYTE	ВАТСН QС	DATE ANALYZED	SPIKE CONC.	RESULT	∣% REC.	Acceptable Range
Gasoline	20130528	5/28/2013	22.0	26,2	119	70 - 130
						<u> </u>

Analyzed by

B. Estrada

Reviewed by

R. Gentallan, LL 6/12/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE				INSTR.	
LOG NO.	SAMPLED	RECEIVED	ANALYZED		SAMPLE DESCRIPTION	)N	ID	RUN LOG/BATCH
LN05577	05/13/13	05/13/13	05/17/13		QCEB		AG gas	20130517
	,							
								<u> </u>
	•							
	·	1		W. W			·	
		MDL / PQL	MB	LN05577				
		mg/L	mg/L	mg/L	<u> </u>	<del>_</del>		
Dilution Factor		1	1	1		,		
Gasoline (GRO	)	0.04 / 0.2	ND	ND				
Quality Co	ontrol Data							
Surrogate/Inter	nal Std.	% ACP	% RC	%RC			<u> </u>	
1, 2 Dichlorobe	enzene-d4	(70 - 130)	123%	110%			:	
		-					!	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit: mg/L

SAMPLE	ВАТСН	SAMPLE	SPIKE	İ					MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05577	20130517	ND	1.00	1.28	128%	1.30	130%	1.6%	70-130	30
									-	

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130517	5/17/2013	1.00	0.72	72.0	70 - 130

Analyzed by

Reviewed by

B. Estrada

R. Gentallan Ph/E/4/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE					INSTR.	
LOG NO.	SAMPLED	RECEIVED	ANALYZED		SAMPLE DESC	CRIPTION		ID	RUN LOG/BATCH
LN05646	05/14/13	05/14/13	05/17/13		QCEI	3		AG gas	20130517
LN05660	05/14/13	05/14/13	05/17/13	QCFB				AG gas	20130517
								:	
							<b></b>		:
						<del>"-</del> "			
			<del>,,</del> .		7**	<del></del>	<del></del>	-	
		<u>:</u> :		v. <u></u>				ļ	<u> </u>
		MDL / PQL	МВ	LN05646	LN05660		i	:	
		mg/L	mg/L	mg/L	mg/L			į	
Dilution Factor	г	1	1	1	1				
Gasoline (GRC	))	0.04 /0.2	ND	ND	ND				
Quality C	ontrol Data								
Surrogate/Inter	rnal Std	% ACP	% RC	%RC	%RC		i		
1, 2 Dichlorob	<del></del>	(70 - 130)	123%	111%	109%		<u>:                                    </u>	<u> </u>	
1,2 5 6 110 100		(70 - 130)	12370	11170	10770				ļ
<u> </u>							<u> </u>	·	:

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

## QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/L

SAMPLE	SAMPLE BATCH SAMPLE SPIKE							MS/MSD	RPD	
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05577	20130517	ND	1.00	1.28	128%	1.30	130%	1.6%	70-130	30
		i								-

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130517	5/17/2013 1.00		0.72	72.0	70 - 130

Analyzed by

B. Estrada

Reviewed by

R. Gentallan

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE					INSTR.	180
LOG NO.	SAMPLED	RECEIVED	ANALYZED	1 No. 1 No. 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SAMPLE DE:	ID	RUN LOG/BATCH		
LN05739	05/15/13	05/15/13	05/17/13		QCI	AG gas	20130517		
LN05752	05/15/13	05/15/13	05/17/13		QCI	FB		AG gas	20130517
				<u> </u>					
	<u></u>								
								I	
		MDL / PQL	MB	LN05739	LN05752				
		mg/L	mg/L	mg/L	mg/L		<del></del>		
Dilution Factor	r	1	1	1	1				:
Gasoline (GRC	))	0.04 / 0.2	ND	ND	ND				!
									:
Quality C	ontrol Data								:
					·	:			<u>                                     </u>
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC				
1, 2 Dichlorob	enzene-d4	(70 - 130)	123%	110%	111%				i ·
					<u> </u>				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/L

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN05577	20130517	ND	1.00	1.28	128%	1.30	130%	1.6%	70-130	30

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

 $RPD = Relative\ Percent\ Difference$ 

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	İ	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	į	20150517	5/17/2013	1.00	0.72	72.0	70 - 130
	1						

Analyzed by Reviewed by B. Estrada

R. Gentallan Bb 6/19/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE					INSTR.	
LOG NO.	SAMPLED	RECEIVED	ANALYZED		SAMPLE DE	SCRIPTION		ID	RUN LOG/BATCH
LN05824	05/16/13	05/17/13	05/28/13		QC	FB		AG gas	20130528
LN05825	05/16/13	05/17/13	05/28/13		QC	EB		AG gas	20130528
			N-1-1-1-1						
			:						
									····
·								<u></u>	
·			<del></del>			1			
		MDL / PQL	MB	LN05824	LN05825	 			
		mg/L	mg/L	mg/L	mg/L		ļ		
Dilution Factor		1	1	1	1				
Gasoline (GRC	))	0.04 / 0.2	ND	ND	ND				
								! ! !	
Quality C	ontrol Data	; [							
		<u> </u>							
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC				
1, 2 Dichlorobe	enzene-d4	(70 - 130)	110%	110%	112%				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

mg/L

Reporting Unit:

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06129	20130528	ND	1.0	0.99	99.0%	0.92	92.0%	7.3%	70-130	30
								-		

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130528	5/28/2013	1.00	0.79	79.0	70 - 130
						-

Analyzed by

B. Estrada

Reviewed by

R. Gentallan [L] 6/19/13

## ANALYTICAL TEST RESULT FOR EPA 8015B GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

SAMPLE	DATE	DATE	DATE					INSTR.	
LOG NO.	SAMPLED	RECEIVED	ANALYZED		SAMPLE DE	SCRIPTION		Œ	RUN LOG/BATCH
LN05901	05/20/13	05/20/13	05/28/13		QC	EB		AG gas	20130528
LN05902	05/20/13	05/20/13	05/28/13		QCFB			AG gas	20130528
		!							
								:	
					<u> </u>				
					T				
		MDL/PQL	MB	LN05901	LN05902				:
		mg/L	mg/L	mg/L	mg/L				
Dilution Factor	•	1	1	1	1				
Gasoline (GRC	))	0.04 /0.2	ND	ND	ND	<u> </u>			
Quality Co	ontrol Data								
Surrogate/Inter	nal Std.	% ACP	% RC	%RC	%RC				· · · · · · · · · · · · · · · · · · ·
1, 2 Dichlorobe	enzene-d4	(70 - 130)	110%	110%	110%				
								! 	

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

### QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: WATER

Project: FIGUEROA PUMPING STATION

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit:

mg/L

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06129	20130528	ND	1.0	0.99	99.0%	0.92	92.0%	7.3%	70-130	30

SPIKE CONC = Spiking Concentration;

MS = Matrix Spike

MSD = Matrix Spike Duplicate

% MS = Percent Recovery of MS

% MSD = Percent Recovery of MSD

RPD = Relative Percent Difference

ACP = Acceptable Range of Percent

### II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.

Q8646

ANALYTE	BATCH QC	DATE ANALYZED				Acceptable Range
Gasoline	20130528	5/28/2013	1.00	0.79	79.0	70 - 130
		!		İ	:	

Analyzed by

B. Estrada

Reviewed by

R. Gentallan DL 6/19/13

## ATTACHMENT #5

Polychlorinated Biphenyls (PCBs) EPA Method 8082 Soil

## CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

#### CASE NARRATIVE

#### PROJECT: FIGUEROA PUMPING STATION

### METHOD 8082 PBCs (Polychlorinated Biphenyls)

#### 1. Holding Time

Analysis met holding time criteria.

#### 2. Method Blank

Laboratory blank soil was used as method blank. There was no contamination detected at reporting level.

#### 3. Lab Control Sample

Recoveries were within QC limits

#### 4 Surrogate Recovery

Recoveries were within QC limits.

#### 5. Matrix Spike/Matrix Spike Duplicate

Sample LN05932 was spiked with PCB-1242 and PCB-1260 for MS/MSD. Recoveries met QC criteria.

#### 7. Calibration

Initial calibration was performed at five different concentrations for PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1260. The percent Relative Standard Deviation (% RSD) were all within 15%. Continuing calibration standards were analyzed at 10 samples interval for PCB-1242 and PCB-1260, and at 30 samples interval for PCB-1016, PCB-1221, PCB-1232, PCB-1248, and PCB-1254.

#### 7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. There was no PCB detected on this sample.

#### ENVIRONMENTAL LABORATORY DATA REPORT

# ANALYTICAL RESULT FOR PCBs by EPA600/SR-94/112/8082 (Polychlorinated Biphenyls)

Sample Matrix: Soil (Low Level)

LABORATORY	DATE	DATE	DATE	DATE	
LOG NO.	SAMPLED	RECEIVED	EXTRACTECD	ANALYZED	SAMPLE DESCRIPTION
LN05932	5/20/2013	5/20/2013	5/21/2013	5/22/2013	SOIL DRUM PROFILE
			·		
					_
			1		
<del></del>		MDL/PQL	LN05932		
PARAMETERS		(mg/kg)	(mg/kg)		
PCB - 1016		0.07/0.1	ND		
PCB - 1221		0.07/0.2	ND		
PCB - 1232		0.07/0.2	ND		
PCB - 1242		0.07/0.2	ND		
PCB - 1248		0.07/0.2	ND		
PCB - 1254		0.07/0.2	ND		
PCB - 1260		0.07/0.2	ND		
SURROGATE PARA	METERS	QC LIMIT	% Recovery		
		%			
DECACHLOROBIPH	IENYL	70 - 130	118		

MDL - Method Detection Limit

ND - Not Detected; below method detection limit

Analyst: D. Wong

Reviewed by: 16 6/4/13

COC: 13-1234 Page 2 of 3

Project Name:

LADWP Figueroa PS

### QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ANALYTICAL METHOD:

USEPA 600/SR-94/112

USEPA 8082

DATE ANALYZED: 05/22/13 BATCH #: 52113 LAB SAMPLE I.D.: LN05932

UNIT: mg/kg

	PARAMETERS	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC. LIMIT	% RPD LIMIT
Γ	PCB-1242	0.0	25.0	21.6	86	25.0	22.7	91	5%	70 - 130	30
	PCB-1260	0.0	25.0	24.7	99	25.0	28.0	112	13%	70 - 130	30

MS - Matrix Spike MSD - Matrix Spike Dupllicate %MS - Percent Recovery of Matrix Spike RPD - Relative Percent Difference
%MSD - Percent Recovery of Matrix Spike Duplicate

Reviewed by: A 6/4/13

COC: 13-1234 Page 3 of 3

Project Name: LADWP Figueroa PS

### II. Laboratory Control Check Sample (LCS)

DATE ANALYZED: 05/22/13 ANALYTICAL METHOD: USEPA 600/SR-94/112

BATCH No. 052113 UNIT: mg/kg USEPA 8082

	4081		LCS1		LCS2		
		TRUE	alitak dalah Karl	%		%	ACCEPTANCE
PARAMETERS		CONC	RESULT	RC.	RESULT	RC.	LIMITS (%)
PCB - 1242		25.0	22.4	90	NA	NA	80 - 120
PCB - 1260		25.0	25.2	101	NA	NA	80 - 120

%RC - Percent Recovery NA - Not Analyzed Batch - ten samples per batch

Reviewed by: Al 6/4/13

## **ATTACHMENT #6**

Metals/Mercury EPA Method 6010B/7471 Soil

### CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER ENVIRONMENTAL LABORATORY

#### CASE NARRATIVE

PROJECT: FIGUEROA PUMPING STATION

### METHOD 6010B/7471 **METALS**

#### 1. Holding Time

Analysis met holding time criteria.

#### 2. Blank Spike/Blank Spike Duplicate

Spiked blank soil was analyzed in duplicate. Recoveries were within QC limits.

#### Lab Control Sample 3.

Laboratory control sample (certified QC soil sample) was analyzed in every batch. Recoveries were within QC acceptable limits.

#### Calibration 4.

Initial calibration was performed at five different concentrations. The percent relative standard and the continuing calibration check standards met QC criteria..

#### 5. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. Sample results were below TTLC limits.

#### ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1234

#### ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B Sample Matrix: SOIL

#### PROJECT: FIGUEROA PUMPING STATION

LABORATORY	DATE	DATE	DATE							
LOG NO.	SAMPLED	RECEIVED	ANALYZED	SAMPLE DESCRIPTION						
LN05932	5/20/13	5/20/13	5/28/13	SOIL DRUM PROFILE						
							-			
		1	1							
	LIMIT	LIMIT				T		T		
METAL	TTLC	STLC	METHOD	MDL	RL	D. F.	LN05932			
	(mg/kg)	(mg/l)	METHOD				mg/kg			
Antimony	500	15	6010B	1.0	5.0	1	2.04J			
Arsenic	500	5	6010B	2.6	13.0	1	ND			
Barium	10000	100	6010B	3.7	18.5	1	76.0			
Beryllium	75	0.75	6010B	0.7	3.50	1	ND			
Cadmium	100	1	6010B	0.6	3.0	1	1. <b>29</b> J			
Chromium (T)	500	5	6010B	1.4	7.0	l	9.74			
Cobalt	8000	80	6010B	1.0	5.0	1	7.01			
Copper	2500	25	6010B	1.6	8.0	l	6.66J			
Lead	1000	5	6010B	0.9	4.5	1	7.78			
Molybdenum	3500	350	6010B	0.3	1.5	1	ND			
Nickel	2000	20	6010B	0.6	3.0	1	11.1			
Selenium	100	1	6010B	1.6	8.0	1	ND			
Silver	500	5	6010 <b>B</b>	1.5	7.5	1	ND			
Thallium	700	7	6010B	1.0	5.0	1	ND			
Vanadium	2400	24	6010B	1.8	9.00	1	26.6			
Zinc	5000	250	6010B	1.9	9.50	1	34.3			
Mercury	20	0.2	7471	0.00002	0.0001	t	0.0320			

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: KC/YC

## II. Calibration and Laboratory Quality Control Check Sample (LCS)

DATE ANALYZED: 05/28/13

ANALYTICAL

USEPA 6010B

SUPPLY SOURCE: VHG

LAB LCS I.D.:

Q8732

LOT NUMBER:

201-0040

UNIT: (Circle One) (mg/kg)

mg/L

	LCS RESULTS	TRUE VALUE	%	Acceptable Range
METAL	mg/kg	mg/kg	Recovery	% Recovery
Antimony	39.9	80.0	50	48 - 84
Arsenic	291	400	73	70 - 130
Barium	289	400	72	70 - 130
Beryllium	6.7	10.0	67	70 - 130
Cadmium	7.4	10.0	74	70 - 130
Chromium (T)	57.8	80.0	72	70 - 130
Cobalt	29.5	40.0	74	70 - 130
Copper	57.2	80.0	72	70 - 130
Lead	58.5	80.0	73	70 - 130
Molybdenum		<u></u>		
Nickel	57.9	80.0	72	70 - 130
Selenium	133	200	67	70 - 130
Silver	7.4	10.0	74	70 - 130
Thallium	62.6	80.0	78	70 - 130
Vanadium	65.0	80.0	81	70 - 130
Zinc	131	200	66	70 - 130

Analyst: KC

Reviewed by: 8 7/25/13

### QA/QC Report

I. Blank Spike (BS) / Blank Spike Duplicate (BSD)

DATE ANALYZED: 05/28/13

ANALYTICAL METHOD

USEPA 6010B

BATCH #:

(LN05932)

LAB SAMPLE I.D.: BLANK SOIL

UNIT: (Circle One) (mg/kg)

mg/L

	SAMPLE	SPIKE			(DUP) SPIKE				BS/BSD % REC.	RPD
METAL	RESULT	CONC	BS	%BS	CONC	BSD	%BSD	RPD	LIMIT	LIMIT
Antimony	ND	200	89.4	44.7	200	92.0	46.0	2.9%	14 - 89	< 30
Arsenic	ND	200	142	71.0	200	146	73.0	2.8%	70 - 130	< 30
Barium										
Beryllium	ND	200	133	66.5	200	135	67.5	1.5%	70 - 130	< 30
Cadmium	ND	200	134	67.0	200	137	68.5	2.2%	70 - 130	< 30
Chromium (T)	ND	200	141	70.5	200	144	72.0	2.1%	70 - 130	< 30
Cobalt	ND	200	141	70.5	200	144	72.0	2.1%	70 - 130	< 30
Copper	ND	200	141	70.5	200	143	71.5	1.4%	70 - 130	< 30
Lead	1.3	200	139	69.5	200	141	70.5	1.4%	70 - 130	< 30
Molybdenum	0.36	200	139	69.5	200	142	71.0	2.1%	70 - 130	< 30
Nickel	1.0	200	141	70.5	200	143	71.5	1.4%	70 - 130	< 30
Selenium	ND	200	131	65.5	200	133	66.5	1.5%	70 - 130	< 30
Silver										
Thallium	ND	200	118	59.0	200	121	60.5	2.5%	70 - 130	< 30
Vanadium	5.3	200	148	74.0	200	152	76.0	2.7%	70 - 130	< 30
Zinc	2.2	200	132	66.0	200	133	66.5	0.8%	70 - 130	< 30
							_			

BS = Blank Spike BSD = Blank Spike Duplicate %BS = Percent Recovery of Blank Spike

RPD = Relative Percent Difference %BSD = Percent Recovery of Blank Spike Duplicate

Analyst: KC