LIMITED SUBSURFACE INVESTIGATION
MOUNT VERNON AVENUE OVERHEAD
BURLINGTON NORTHERN AND
SANTA FE RAILROAD YARD
BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PREPARED FOR:
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December 20, 2013
Project No. 205732003

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Mr. Bob Matthews, PE, SE
Engineering Director
AECOM
901 Via Piemonte, 5th Floor
Ontario, California 91764

Subject: Limited Subsurface Investigation
Mount Vernon Avenue Overhead Bridge Replacement Project
Burlington Northern and Santa Fe Railroad Yard
San Bernardino, California

Dear Mr. Matthews:

Ninyo & Moore is pleased to provide this report for the limited subsurface investigation for the above referenced site. The attached report presents our methodology, findings, conclusions, and recommendations regarding the environmental conditions at the site.

We appreciate the opportunity to be of service to you on this project.

Respectfully submitted,
NINYO & MOORE

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Senior Staff Geologist

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Distribution: (4) Addressee (3 hard copies; 1 via e-mail)

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LIST OF ACRONYMS

ATL	Advanced Technology Laboratories
ACMs	asbestos-containing materials
bgs	below ground surface
BNSF	Burlington Northern and Santa Fe
CCR	California Code of Regulations
Caltrans	California Department of Transportation
Cal/EPA	California Environmental Protection Agency
CIH	Certified Industrial Hygienist
COC	chain-of-custody
CFR	Code of Federal Regulations
CCV	continuing calibration verification
ETP	excavation and transportation plan
HSP	Health and Safety Plan
CHHSLi	Human Health Screening Levels
ICC	initial calibration curve
ISA	Initial Site Assessment
IDW	Investigative Derived Waste
LCS	laboratory control standard
LBP	lead based paint
LSI	limited subsurface investigation
MS	matrix spike
MSD	matrix spike duplicate
MCLs	maximum contaminant levels
mg/l	milligrams per liter
MVAOB	Mount Vernon Avenue Overhead Bridge
OCPs	organochlorine pesticides
PPE	personal protective equipment
PID	photo-ionization detector
PVC	polyvinyl chloride
POLB	Port of Long Beach
QA/QC	Quality Assurance/Quality Control
RSLi	Regional Screening Levels for Industrial Soil
RWQCB	Regional Water Quality Control Board, Los Angeles Region
RCRA	Resource Conservation and Recovery Act
R/W	right-of-way
SANBAG	San Bernardino Associated Governments
SVOCs	semi-volatile organic compounds
Shoofly	shoofly track area
STLC	Soluble Threshold Limit Concentration
SSMRRs	Surplus Soil-Material Reuse Requirements
PCE	tetrachloroethene
TOC	top of casing

TRPH	total recoverable petroleum hydrocarbons
TCLP	Toxic Characteristic Leaching Procedure
TCE	trichloroethene
USA	Underground Service Alert
EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOA	volatile organic analysis
VOCs	volatile organic compounds
WET	Waste Extraction Test

EXECUTIVE SUMMARY

On behalf of the City of San Bernardino, AECOM authorized Ninyo & Moore to conduct a limited subsurface investigation (LSI) for the Mount Vernon Avenue Overhead Bridge (MVAOB) Replacement Project and the proposed shoofly track area (Shoofly) at the Burlington Northern and Santa Fe (BNSF) Railroad Yard, in the City of San Bernardino, California. It is our understanding that the project involves the replacement of the MVAOB, which extends over BNSF and San Bernardino Associated Governments (SANBAG) properties.

The LSI activities described in this report were performed in accordance with BNSF, SANBAG, and AECOM-approved work plans.

The field activities of the LSI were conducted between September 16 and October 4, 2013, and included:

- Pre-field site meetings and boring mark-outs for utility clearances,
- The advancement of hand-auger soil borings (B1 through B9) and collection of select soil samples from the proposed Shoofly layout area,
- The advancement of direct-push borings (DP1 through DP5, and DP4A) and collection of select soil and groundwater samples from the BNSF and SANBAG properties on the bridge replacement alignment.

The objective of this LSI was based on the results and recommendations of Ninyo & Moore's previously performed Initial Site Assessment to evaluate for the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site. The scope of the LSI consists of:

- Evaluate the type of surface and subsurface soil contamination at select locations,
- Estimate the depth of groundwater, if encountered, and evaluate for the presence of contamination,
- Evaluate health and safety concerns related to possible surface and subsurface impacts from suspected chemicals in soil, and
- Provide waste handling, disposal, and reuse recommendations for soil disturbed during earthmoving associated with site construction.

CONCLUSIONS AND RECOMMENDATIONS

Elevated concentrations of constituents of concern were identified in samples collected for the Shoofly, SANBAG, and BNSF properties. On the Shoofly alignment, soil disturbed during earthmoving activities may be classified as a hazardous waste. In the SANBAG and BNSF for the MVAOB replacement alignment, soils encountered in our LSI are not likely to be classified as hazardous waste, but in some areas exceed some regulatory screening levels. Therefore, special considerations may be necessary for handling some excavated soil for the project.

Groundwater was encountered at depths ranging from approximately 23 to 42 feet below ground surface at the site. Concentrations of volatile organic compounds and some Title 22 Metals in groundwater exceeded the California Environmental Protection Agency and/or United States Environmental Protection Agency Maximum Contaminant Levels at the site.

Based on the LSI results we have concluded that constituents in soil at the site represent a potential threat to the health of site workers performing earthwork activities. Risks associated with these constituents will need to be mitigated for both construction workers and the community.

Based on the results of the LSI, four types of soil are expected to require management during earthmoving activities associated with this site: Resource Conservation and Recovery Act-Hazardous Waste, California-Hazardous Waste, Impacted Non-Hazardous Waste, and Soil Acceptable for Reuse.

Based on the results of the LSI we have prepared recommendations for the protection of worker health and safety and well as for proper waste handling, disposal, and reuse of soil disturbed at the site. These recommendations are presented in Section 8 of the report.

1. INTRODUCTION

On behalf of the City of San Bernardino (City), AECOM authorized Ninyo & Moore to conduct a limited subsurface investigation (LSI) for the Mount Vernon Avenue Overhead Bridge (MVAOB) Replacement Project and the proposed shoofly track area (Shoofly) in the Burlington Northern and Santa Fe (BNSF) railroad yard, in the City of San Bernardino, California (site, Figure 1). It is our understanding that the project involves: the replacement of the MVAOB, which extends over BNSF and San Bernardino Associated Governments (SANBAG) properties; and the temporary construction of Shoofly tracks in the BNSF yard trending east to west, north of and adjacent to the existing tracks.

The LSI activities were performed in accordance with Ninyo & Moore's BNSF and AECOM-approved, Revised Work Plan for Environmental Site Investigation dated August 14, 2013 (Revised Work Plan) for activities associated with the BNSF property underneath the MVAOB and Shoofly (Ninyo & Moore, 2013a), and the AECOM-approved, Work Plan for Environmental Site Investigation dated August 28, 2013 (Work Plan), for activities associated with the SANBAG property (Ninyo & Moore, 2013b). These work plans are presented in Appendix A.

The objective of this LSI was based on the results and recommendations of Ninyo & Moore's Initial Site Assessment (ISA) report (Ninyo & Moore, 2010a) to evaluate for the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site. The scope of the LSI consists of:

- Evaluate the type of surface and subsurface soil contamination at select locations,
- Estimate the depth of groundwater, if encountered, and evaluate for the presence of contamination,
- Evaluate health and safety concerns related to possible surface and subsurface impacts from suspected chemicals in soil, and
- Provide waste handling, disposal, and reuse recommendations for soil disturbed during earthmoving associated with site construction.

2. PROJECT LOCATION

For the purposes of this LSI, the sample areas have been divided into three areas: the Shoofly, the BNSF property beneath the MVAOB, and the SANBAG property beneath the MVAOB (Figure 2).

2.1. Shoofly

The Shoofly portion of the site includes an approximately 5,000-foot long area in the BNSF right-of-way (R/W) running north of and adjacent to the existing tracks. The Shoofly extends from approximately 1,850 feet west of the Mount Vernon Avenue Bridge to the intersection of the railroad tracks (Cabrera Avenue) to approximately 3,150 feet east of the MVAOB at the intersection of the railroad tracks and West 5th Street. The eastern portion of the Shoofly curves in a northeasterly direction between the intersection of the railroad tracks and North J Street. The Shoofly will be used to mitigate track abstractions during bridge demolition/construction activities.

2.2. MVAOB – BNSF and SANBAG Properties

The MVAOB extends approximately 2,000 feet along Mount Vernon Avenue (including the bridge and its approaches), from West 2nd Street on the south to West 5th Street on the north. The MVAOB crosses both BNSF and SANBAG properties.

The existing bridge is designated by the California Department of Transportation (Caltrans) and is identified as Bridge No. 54C-0066. The bridge structure extends over the BNSF Railroad Intermodal Facility, BNSF storage tracks, BNSF transcontinental tracks, Metrolink tracks, and a Metrolink parking lot. The existing bridge is constructed of steel plate girders and is approximately 50 feet wide and 975 feet long. The south bridge approach extends approximately 300 feet to the north from 2nd Street. The north bridge approach extends approximately 200 feet to the south from West 4th Street. The year “1934” (presumed year of construction) was noted to have been imprinted in concrete on the northwestern portion of the bridge.

3. GEOLOGY AND HYDROGEOLOGY

The project area is in the Santa Ana River Valley, in the southwestern portion of the Transverse Ranges Geomorphic Province. The Geomorphic Province encompasses an area that extends 320 miles from Point Arguello and San Miguel Island on the west to the mountains of Joshua Tree National Monument on the east, where the Province merges with the Mojave and Colorado Deserts. The Geomorphic Province varies in width from 40 to 60 miles, most of which is characterized by east-west trending mountain ranges that are underlain by Jurassic and older age igneous and metamorphic rocks. The site vicinity is characterized by recent non-marine alluvial deposits over 17,000-feet thick (Norris and Webb, 1990).

Based on a review of the United States Geological Survey (USGS) 7.5-Minute San Bernardino South, California, Topographic Quadrangle Map, dated 1967 and photorevised in 1980 (USGS, 1967), the site is at an approximate elevation of 1,080 feet above mean sea level. The site and vicinity are relatively flat, with regional topography sloping to the southeast.

According to information obtained from the State Water Resources Control Board's GeoTracker website, regional groundwater beneath the site is under unconfined conditions and has a general flow to the southeast (ERM, 2010). Groundwater beneath the site has fluctuated over the last two decades and has shown a decline in elevation since 1999. Due to the lowering of the regional water table, perched groundwater has been observed in wells previously constructed at the site. The perched water zone is measured at approximately 50 feet above the current regional water table. Groundwater measured in September 2010 had perched water zones measured between 87 and 88 feet below the top of casing (TOC) and in the regional water table was measured at depths between 142.05 and 154.32 with several wells measured as dry (ERM, 2010). Previous groundwater measurements at the site have groundwater measurements up to approximately 200 feet below TOC. Groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors.

The east branch of Lytle Creek and the Lytle Cajon Channel cross in a northwest to southeast direction, approximately 1,920 and 4,560 feet west of MVAOB, respectively. No other natural surface water bodies are present within a one mile radius of the site.

3.1. Site Soils

Soils encountered beneath the site during this LSI consisted of sandy silt, silty sand, and sand from the surface to the maximum depth explored of 45 feet below ground surface (bgs).

3.2. Site Hydrology

Groundwater was encountered at depths between approximately 23 and 42 feet bgs, in the direct-push borings advanced during the LSI conducted at the site. Groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors.

4. BACKGROUND

The following presents a summary of the activities Ninyo & Moore has conducted associated with the site.

4.1. ISA

In 2009 Ninyo & Moore prepared an ISA (revised 2010) to evaluate the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site (Ninyo & Moore, 2010a). The ISA separated the site into two portions, the MVAOB and its approaches near 2nd and 5th Streets, and the Shoofly in the BNSF yard. Based on the ISA the following hazardous materials issues in connection with the site were identified:

<u>MVAOB</u>

- Soil underlying the bridge within the BNSF yard has been impacted with petroleum hydrocarbons and metals from historical railway operations.
- Residual herbicides are suspected to be present in soil beneath the bridge.
- The bridge is approximately 1,000 feet west of a chlorinated solvent plume in groundwater which has resulted from historic releases at the BNSF yard.
- Two former gasoline stations appear to have been located within the vicinity of the bridge: one on the northwest corner of 5th Street and Mount Vernon Avenue and the other on the southwest corner of 2nd Street and Mount Vernon Avenue.

Shoofly

- Soil on BNSF R/W in the vicinity of the Shoofly has been impacted with petroleum hydrocarbons and metals from historical railway operations.
- Herbicides may be present in soil beneath the asphalt along the Shoofly.
- The eastern portion of the Shoofly is in close proximity of a chlorinated solvent plume in groundwater which has resulted from historic releases at the BNSF property.

Based on the findings of the ISA, hazardous material issues in connection with the site were identified and Ninyo & Moore recommended that soil (and groundwater if encountered) beneath the MVAOB and Shoofly within the proposed demolition and construction zones should be sampled and analyzed for total petroleum hydrocarbons (TPHs), Title 22 Metals, volatile organic compounds (VOCs), polychlorinated biphenyls, semi-volatile organic compounds (SVOCs), and chlorinated herbicides.

4.2. Asbestos and Lead Survey

Ninyo & Moore conducted asbestos and lead based paint (LBP) surveys to identify lead and asbestos-containing materials (ACMs) on the MVAOB (Ninyo & Moore, 2004, revised 2010b). Results of the surveys identified ACMs and LBPs were present at the site. The conclusions and recommendations are presented in the revised report.

5. SITE INVESTIGATION

The LSI activities were performed between September 16 and October 4, 2013, in general accordance with the Revised Work Plan and the Work Plan included as Appendix A.

The field activities included:

- Advancing nine hand-auger soil borings (B1 through B9) in the Shoofly area and collecting select soil samples from each boring. The borings were spaced approximately 600 feet apart.
- Advancing six direct-push borings (DP1 through DP5, and DP4A) beneath the MVAOB on BNSF and SANBAG R/W and collecting select soil and grab groundwater samples (if encountered) from each boring.

The following sections describe the LSI activities. The approximate locations of the soil borings are presented on Figure 2. Boring logs are presented in Appendix B. Field procedures are described in Appendix C.

5.1. Pre-Field Activities

The following section discusses the pre-field activities conducted for this LSI.

5.1.1. Health and Safety Plan (HSP)

Prior to conducting field activities, Ninyo & Moore prepared a site-specific HSP, as required in 29 Code of Federal Regulations (CFR) Part 1910.120. The HSP addressed health and safety concerns with respect to the activities conducted by Ninyo & Moore and its subcontractors. The HSP and its elements were reviewed by Ninyo & Moore personnel and subcontractors prior to beginning field activities, and personnel present acknowledged their understanding of the HSP. A copy of the HSP is included in Appendix D.

5.1.2. Encroachment Permits

Encroachment permits for access to the BNSF and SANBAG properties to conduct the field work were applied for from BNSF and SANBAG. BNSF provided an Access Agreement and Encroachment permit. SANBAG authorized access for our field work on their property. Copies of the BNSF permit and SANBAG authorization are included in Appendix E.

5.1.3. Training

The BNSF Contractor Orientation safety training course was completed by Ninyo & Moore field staff, subcontractors, and vendors who performed field activities on the BNSF R/W.

5.1.4. Boring Mark-Out, BNSF Utility Hotline, and Underground Service Alert (USA) Notifications

Soil boring locations were selected by Ninyo & Moore, AECOM, and BNSF personnel prior to field mobilization. The boring locations were verified and adjusted in the field

based on field conditions, access, and location of underground utilities. On September 16, 2013, Ninyo & Moore personnel (with assistance from AECOM and BNSF personnel) marked boring locations B9 and DP1 through DP4 on the ground with white spray paint On September 26, 2013, Ninyo & Moore provided PSOMAS of Santa Ana, California, the latitude and longitude information for borings B1 through B8. PSOMAS surveyed and marked the locations on the ground with white spray paint.

Ninyo & Moore contacted the BNSF utility hotline and USA at least one week and 2 business days, respectively, prior to conducting the planned subsurface investigation. The BNSF utility notification hotline marked known telecommunications, hydraulic, and other BNSF facility operated underground lines. USA marked known water, gas, electricity, cable, sewer, and other underground utilities. Prior to field work, the boring locations and utility mark-outs were evaluated, and as a result, boring DP4 was moved approximately 7 feet south. Utility plans and utility pothole location maps were not provided to Ninyo & Moore.

5.2. Field Activities

Field activities were conducted on October 2 through 4, 2013. Boring logs are presented in Appendix B. In accordance with the BNSF access agreement, photographic documentation of the proposed investigation areas was taken prior to and following the completion of the proposed field work and are included in Appendix F.

5.2.1. Shoofly Hand-Auger Borings

Ninyo & Moore advanced soil borings B1 through B9, using a hand auger to the total depth of 5 feet bgs, with the exception of boring B7, which was advanced only to 4.5 feet bgs due to refusal.

Soil samples were collected at the “surface” (first soil at 1-foot or 2 feet bgs depending on asphalt thickness), 3, and 4.5 or 5 feet bgs. Soil samples were collected from the hand-auger bucket and transferred into pre-cleaned laboratory supplied jars. Samples were screened in the field using a photo-ionization detector (PID) to evaluate the

presence of VOCs. The soil samples were placed in a cooler with ice and transported under chain-of-custody (COC) to Advanced Technology Laboratories (ATL), a State of California-certified environmental laboratory.

5.2.2. MVAOB - Direct-Push Borings

Ninyo & Moore cleared the top 5 feet of each direct-push boring with a hand-auger, with the exception of borings DP4 and DP5, which were terminated at 4.5 feet bgs due to the presence of underground utility lines. During advancement of boring DP4, a concrete utility line was encountered at approximately 4.5 feet bgs. As a result, the hand auger boring was backfilled and restored to match surface conditions and a step-out boring, DP4A, was advanced approximately 29 feet southwest of boring DP4. During advancement of boring DP4A, an oil-water saturated soil mixture was encountered from approximately 3 to 5 feet bgs. Boring DP5 was advanced in the vicinity of boring DP4A in an attempt to obtain shallow soil samples outside the oil-water saturated soil mixture. An unknown and unmarked utility line trending northwest was encountered in DP5 at approximately 4.5 feet bgs and the boring was backfilled and restored to match surface conditions.

Borings DP1, DP2, DP3, and DP4A, were advanced by Vironex of Santa Ana, California, using a direct-push rig to depths of 45, 45, 30, and 35 feet bgs, respectively.

5.2.2.1. Soil Sampling

Soil samples were collected at the “surface” (1 foot bgs due to asphalt thickness), 3 and 5 feet bgs, and at 5-foot intervals thereafter. Soil samples were screened in the field using a PID to evaluate the presence of VOCs. Samples from the “surface,” and 3 and 5 feet bgs were collected from the hand-auger bucket and transferred into pre-cleaned laboratory supplied jars. Samples from depths greater than 5 feet bgs were collected in clean acetate sleeves. Some depths had no sample recovery. The soil samples were placed in a cooler with ice, and transported under COC to ATL.

5.2.2.2. Groundwater Sampling

Groundwater was encountered at approximately 23 to 42 feet bgs in borings DP2, DP3, and DP4A, on the BNSF property, and at 42 feet bgs in boring DP1, on the SANBAG property. Grab groundwater samples were collected from the direct-push borings, using a Hydropunch®. The groundwater samples were transferred into pre-cleaned laboratory supplied containers using a peristaltic pump or similar equipment, placed in a cooler with ice, and transported under COC to ATL.

5.3. Laboratory Analyses

A total of 61 soil samples were collected during the LSI, 46 of which were analyzed and the remaining samples placed on hold. A total of four water samples were collected during the LSI The following section discusses the laboratory analyses performed on select soil and groundwater samples. Copies of the laboratory analytical reports are presented in Appendix G.

5.3.1. Shoofly Soil Sample Analyses

A total of 19 soil samples from borings B1 through B9, were collected and analyzed for VOCs, SVOCs, Title 22 Metals, and TPHs in general accordance with United States Environmental Protection Agency (EPA) Methods 8260B/5035, 8270C, 6010B/7471A, and 8015M/5035, respectively. A total of 2, 11, 11, and 10 soil samples from borings B1 through B9, were analyzed for SVOCs by EPA Method 8270 SIM, PCBs by EPA Method 8082, chlorinated herbicides by EPA Method 8151A, and organochlorine pesticides (OCPs) by EPA Method 8081A.

Two samples collected from boring B6 had reported tetrachloroethene (PCE) concentrations in excess of 10 times the Toxic Characteristic Leaching Procedure (TCLP) concentration for PCE. Those samples were subsequently analyzed for leachable PCE by the TCLP. Ten samples collected from borings B3, B5, B6, B7, and B8, had reported lead concentrations in excess of 10 times the Soluble Threshold Limit Concentration (STLC) and were subsequently analyzed for soluble lead by the Waste Extraction Test (WET) method. Six samples collected from borings B3, B5, B6, and B7

had reported lead concentrations in excess of 20 times the TCLP concentration and were subsequently analyzed for leachable lead by the TCLP.

5.3.2. SANBAG Property Soil and Groundwater Sample Analyses

A total of six soil samples collected from boring DP1 were analyzed for VOCs, SVOCs, Title 22 Metals, and TPHs, in general accordance with EPA Methods 8260B/5035, 8270C, 6010B/7471A, and 8015M/5035, respectively. Five soil samples collected from boring DP1 were analyzed for PCBs, chlorinated herbicides, and OCPs in general accordance with EPA Methods 8082, 8151A, and 8081A, respectively.

One groundwater sample was collected from boring DP1. However, due to low yield, only enough groundwater was produced to analyze the sample for TPHs in the carbon ranges C_{13}-C_{22}, C_{23}-C_{32}, and $>C_{32}$; PCBs; and OCPs in general accordance with EPA Methods 8015B, 8082, and 8081A, respectively.

5.3.3. BNSF Property Soil and Groundwater Sample Analyses

A total of 21 soil samples were collected from borings DP2, DP3, DP4, DP4A, and DP5, and were analyzed for VOCs, SVOCs, Title 22 Metals, and TPHs in general accordance with EPA Methods 8260B/5035, 8270C, 6010B/7471A, and 8015M/5035, respectively. A total of 7, 18, 17, and 17 soil samples collected from borings DP2, DP3, DP4, DP4A, and DP5 were analyzed for SVOCs by EPA Method 8270 SIM, PCBs by EPA Methods 8082, chlorinated herbicides by EPA Method 8151A, and OCPs by EPA Methods 8081A, respectively.

Two samples collected from boring DP4 had reported lead concentrations in excess of 10 times the STLC and were subsequently analyzed for soluble lead by the WET method. One sample collected from boring DP4 had a reported lead concentration in excess of 20 times the TCLP and was subsequently analyzed for leachable lead by the TCLP.

Three groundwater samples were collected from borings DP2, DP3, and DP4A. However, due to low yield in boring DP4, only enough groundwater was produced to

analyze the sample for Title 22 Metals by EPA Method 6010B/7471A. Groundwater samples from borings DP2 and DP3 were analyzed for VOCs, SVOCs, TPH, PCBs, chlorinated herbicides, and OCPs in general accordance with EPA Methods 8260, 8270C, 8015B, 8082, 8151A, and 8081A, respectively.

5.4. Site Restoration

After soil and groundwater sampling, the borings were backfilled with bentonite to approximately 0.5 to 1 foot bgs, depending on the thickness of the existing surface material, and were completed to surface grade with asphalt or concrete (to match the existing surface material).

5.5. Decontamination Procedure

Equipment that came into contact with potentially contaminated soil or water was decontaminated consistently to assure the quality of samples collected. Decontamination occurred prior to and after each use of a piece of equipment. Reusable sampling equipment was decontaminated using the triple wash/rinse method (wash water containing a non-phosphate detergent, followed by two rinses with tap water, and a final rinse with distilled water) between each sample. Direct-push sampling equipment was decontaminated before each sample was collected. Nitrile gloves were changed between each sample collection to minimize the likelihood of cross contamination. Disposable equipment intended for one-time use was not decontaminated.

5.6. Investigative Derived Wastes

Used personal protective equipment (PPE) and disposable equipment were double bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and were sent to a municipal landfill. Prior to disposal this equipment was rendered inoperable.

Soil cuttings and decontamination water generated during soil boring activities were transferred into two Caltrans-approved, sealed, and labeled drums, and temporarily stored on site. The soil has been classified as non-hazardous by a California-approved facility for

recycling, and will be transported to this facility at a later date. Copies of the non-hazardous waste manifest will be submitted under separate cover.

5.7. Field Variances

The field activities were conducted, in general accordance with the Revised Work Plan and Work Plan. Based on observations made in the field during drilling; telephone conversations held between AECOM and Ninyo & Moore, on October 1, 2 and 3, 2013; and laboratory analytical results, some field variances occurred and were approved by AECOM. These work variances included:

- the collection of samples at 3 and 5 feet bgs for both the hand-auger and direct-push borings,
- the advancement of direct-push borings DP4A and DP5,
- laboratory analysis of select soil and groundwater samples for OCPs in general accordance with EPA Method 8081A, and
- the analysis of samples that contained lead or PCE concentrations in excess of 10 times their STLC or 20 times their TCLP for soluble lead and leachable lead and PCE.

On October 1, 2013, in a telephone conversation held between Ms. Summer Hansen-Rooks of Ninyo & Moore, and Mr. Todd Dudley of AECOM, the additional scope items listed above were approved by AECOM, with the exception of advancement of direct-push borings DP4A and DP5 and soluble and leachable testing.

On October 2 and 3, 2013, in telephone conversations held between Ms. Summer Hansen-Rooks and Mr. Todd Dudley, the additional scope item related to the advancement of additional direct-push borings DP4A and DP5 was approved by AECOM. This agreement was summarized in an electronic message sent to AECOM and BNSF on October 3 and 8, 2013.

The additional scope item related to soluble and leachable lead and PCE testing was conducted in order to satisfy the LSI objective to provide waste handling, disposal, and

reuse recommendations. This additional scope item was discussed and approved by AECOM prior to performing the laboratory analyses.

6. RESULTS

The LSI evaluated for the presence of possible contaminants in soil at some locations that might exceed acceptable regulatory levels. The results of soil samples were compared to:

- California Environmental Protection Agency (Cal/EPA) Human Health Screening Levels (CHHSLi) for industrial land use (Cal/EPA, 2005),
- Lawrence Berkeley National Laboratory 1995 study background level of trace elements in Southern California Soils (Lawrence, 1995),
- Regional Water Quality Control Board, Los Angeles Region (RWQCB), Maximum Soil Screening Levels (MSSLs) for soils 20 to 150 feet above groundwater (RWQCB, 1996),
- EPA Regional Screening Levels for industrial soil (RSLi) (EPA, 2012),
- Hazardous waste thresholds for disposal at landfills in accordance with Title 22 of the California Code of Regulations (CCR) (www.calregs.com),
- Hazardous waste thresholds for disposal at landfills in accordance with Resource Conservation and Recovery Act (RCRA) Title 40 of the CFR (www.calregs.com), and
- Port of Long Beach (POLB) Surplus Soil-Material Reuse Requirements (SSMRRs) (POLB, 2006).

The CHHSLi and RSLi have been provided for risk decision making purposes to evaluate the presence of possible contaminants that might exceed acceptable regulatory levels with respect to human health exposure.

Recommendations for the impacted soil removal are for those soils exceeding the POLB SSMRRs, MSSLs, or hazardous waste levels. In Ninyo & Moore's opinion, POLB SSMRRs are acceptable guidance criteria for disposition of on-site soil because the intent of the reuse criteria is for similar land use (i.e., commercial/industrial land use).

Analytical results used for waste management were compared to POLB reuse requirements or hazardous waste levels to evaluate if waste acceptable for on-site reuse or if it must be transported to a disposal or recycling facility.

The LSI also evaluated for the presence of contaminants in groundwater that might exceed acceptable regulatory levels. The groundwater results were compared to the Cal/EPA maximum contaminant levels (MCLs) for drinking water and the EPA MCLs.

6.1. Physical Results

Based on assessments conducted to date at the site, the sediments beneath the site consist of sandy silt, silty sand, and sand to a depth of at least 45 feet bgs, the maximum depth explored. An oil-water saturated soil mixture was encountered from approximately 3 to 5 feet bgs in the location of boring DP4A.

Boring B7, along the shoofly, encountered refusal at approximately 4.5 feet bgs. Two borings beneath the MVAOB on the BNSF property, DP4 and DP5, encountered refusal at approximately 4.5 feet bgs due to subsurface utility lines.

Groundwater beneath the site was observed during drilling operations at depths ranging from 23 and 42 feet bgs. Groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors.

6.2. Analytical Results

The chemical results for soil and groundwater samples are presented below. Summaries of the laboratory analytical results for VOCs, SVOCs, Title 22 Metals, TPH extended carbon range, PCBs, chlorinated herbicides, OCPs and total and soluble lead and PCE in soil and groundwater are presented in Tables 1 through 16. The screening levels described in Section 6 are presented at the end of each table. Copies of the analytical reports are presented in Appendix G.

6.2.1. Shoofly Analytical Results

- Detectable concentrations of VOCs were reported in samples collected from depths ranging from 1 to 5 feet bgs. Reported concentrations of benzene, cis-1,2-dichloroethene (cis-1,2 DCE), PCE, and trichloroethene (TCE) exceeded one or more screening levels as described in Section 7.1.

- Select samples with no detectable SVOCs, but with reporting limits in excess of a screening level, were re-analyzed by EPA Method 8270 SIM to attempt to attain reporting limits below screening levels. SVOCs were detected in two samples (B3-2.0 and B3-3.0). Reported concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and phenanthrene exceeded one or more screening levels as described in Section 7.1.

- Detectable concentrations of various Title 22 Metals were reported in samples collected from depths ranging from 1 to 5 feet bgs. Concentrations of arsenic, lead, soluble lead, and leachable lead exceeded one or more screening level as described in Section 7.1.

- Detectable concentrations of TPHs were reported in 11 samples collected at depths ranging from 1 to 4.5 feet bgs, but did not exceed their respective MSSLs for soils 20 to 150 feet above groundwater, with the exception of TPHs in the C_{12}-C_{23} range in samples B3-2.0 and B3-3.0. The calculated concentrations of total recoverable petroleum hydrocarbons (TRPH) exceeded the SSMRRs in 3 samples analyzed at depths of 1, 2, and 3 feet bgs.

- Detectable concentrations of two PCBs (Aroclor 1248 and 1267) and one chlorinated herbicide (pentachlorophenol) were reported in one sample collected at 1 foot bgs in boring B8. These results did not exceed a screening level.

- Detectable concentrations of OCPs were not reported in the samples analyzed.

6.2.2. SANBAG Property Results

- Detectable concentrations of VOCs, were not reported in the samples analyzed with the exception of carbon disulfide in soil boring DP1 at 20 feet bgs which exceeds the SSMRRs.

- Detectable concentrations of SVOCs were not reported in the samples analyzed, with the exception of phenol in soil boring DP1 at 10 feet bgs which exceeds the SSMRRs.

- Detectable concentrations of various Title 22 Metals were reported in samples collected from depths ranging from surface to 20 feet bgs. Concentrations of arsenic and lead exceeded one or more screening level as described in Section 7.1.

- Detectable concentrations of TPHs, PCBs, chlorinated herbicides, and OCPs were not reported in the samples analyzed.

- Groundwater was encountered at approximately 42 feet bgs and the grab sample collected did not detect TPHs, PCBs, or OCPs.

6.2.3. BNSF Property Results

- Detectable concentrations of some VOCs were reported in samples collected at depths of 0.5 and 40 feet bgs. Reported concentrations exceeded one or more screening level as described in Section 7.1.

- Detectable concentrations of SVOCs were not reported in the samples analyzed, with the exception of acenaphthene, fluoranthene, phenathrene, phenol, and pyrene. However, many of the results had elevated detection limits so SVOCs in excess of the requirement may be present in other locations and depths. Reported concentrations exceeded one or more screening levels as described in Section 7.1.

- Detectable concentrations of various Title 22 Metals were reported in samples collected from depths ranging from surface to 20 feet bgs. Concentrations of arsenic and lead exceeded one or more screening levels as described in Section 7.1.

- Detectable concentrations of TPHs were reported in soil samples collected at depths ranging from 5 to 20 feet bgs, but did not exceed their respective MSSLs for soils 20 to 150 feet above groundwater, with the exception of TPHs in the C_{12}-C_{23} range in samples DP3 and DP4A. The calculated concentrations of TRPH exceeded the SSMRRs in several samples.

- Detectable concentrations of one PCB (Aroclor 1260) were reported in one sample at 0.5 feet bgs. This result did not exceed a screening level.

- Detectable concentrations of chlorinated herbicides and OCPs were not reported in samples analyzed.

- Detectable concentrations of some VOCs occurred in the groundwater sample collected from DP2. The reported concentrations exceeded the Cal/EPA and EPA MCLs for cis-1,2-DCE, PCE, trans-1,2-DCE, TCE, and vinyl chloride.

- Detectable concentrations Title 22 Metals were reported in groundwater samples collected from DP2, DP3, and DP4A. The reported concentrations exceeded the Cal/EPA MCLs for arsenic, beryllium, chromium, lead, and nickel.

- Detectable concentrations of TPHs were reported in the groundwater samples collected and analyzed from DP2 and DP3.

- Detectable concentrations of SVOCs, PCBs, chlorinated herbicides, and OCPs were not reported in the groundwater samples analyzed.

6.3. Quality Assurance/Quality Control (QA/QC)

ATL conducted the following QA/QC with respect to EPA Method 8260: a continuing calibration verification (CCV), and 4-bromofluorobenzene tune check performed at least every 12-hour shift. This CCV is an indicator whether or not the initial calibration curve (ICC) was still valid. Whenever the CCV did not pass all method criteria and/or performance of significant instrument maintenance, a new ICC was run. The laboratory QA/QC reports contained a relatively small number of data qualifiers. These qualifiers do not impact the quality of data reported such that the conclusions and recommendations of this report would be modified.

Trip blanks were prepared by ATL and shipped with the soil samples. The trip blanks were analyzed for VOCs. Detectable concentrations of VOCs were not reported in the trip blanks.

Soil samples were performed within respective method holding times. ATL conducted laboratory QA/QC in general accordance with the work plan. QA/QC procedures included analyzing method blanks and spiked samples.

The laboratory data results were reviewed for QA/QC, including recoveries for matrix spike (MS), matrix spike duplicate (MSD), and laboratory control standard (LCS). The laboratory reports contain case narratives, which discuss instances and resolutions where recoveries of analytes exceed QA/QC limits. Relatively few instances (when considering the number of analyses) occurred during the analyses. Where out of ranges recoveries in the MS and/or MSD results were reported, the results were validated by the LCS analytical batch. All data collected satisfied the data quality requirements specified for the investigation. The analyses followed the approved method and included acceptable QC procedures. The relevant QA/QC results were satisfactory and acceptable. No outstanding issues were identified during the course of the data evaluation review. Overall, the presented data (including the qualified results) are reliable and useable for project decision making.

7. CONCLUSIONS

The LSI was performed to evaluate for the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site. The scope of the LSI consists of:

- Evaluate the type of surface and subsurface soil contamination at select locations,
- Estimate the depth of groundwater, if encountered, and evaluate for the presence of contamination,
- Evaluate the health and safety concerns related to possible surface and subsurface impacts from suspected chemicals in soil, and
- Provide waste handling, disposal, and reuse recommendations for soil disturbed during earthmoving associated with site construction.

The purpose of the LSI activities described in this document is to evaluate whether readily apparent and significant concentrations of chemicals of concern are present at the site. This LSI is not intended to evaluate the lateral or vertical extent of any chemicals identified in significant concentrations, and there may be significant concentrations of chemicals present between sampling locations, which may be encountered during construction.

Soil and groundwater sample laboratory results were compared to the screening levels described in Section 6. Additionally, a number of features were observed at the site that are known to be potential sources of chemical releases and in at least one location, free oil was observed in shallow soils.

The following sections describe the identified worker safety issues and a description of the waste types identified at the site.

7.1. Type of Contamination

The following describes the type of contamination identified at the site:

<u>Shoofly</u>

- Both RCRA- and California-Hazardous waste levels of lead were reported in this area to depths up to 4.5 feet bgs.

- The following constituents exceeded the SSMRRs:
  - Some VOCs and lead to depths of 5 feet bgs, including PCE concentrations up to 39,000 micrograms per kilogram in the eastern portion of the proposed shoofly area.
  - SVOCs to depths of 3 feet bgs. However, many of the results had elevated detection limits so SVOCs in excess of the requirements may be present in other locations and depths.
  - TRPHs to depths of 3 feet bgs.
- The following constituents exceeded the MSSLs:
  - Some VOCs and lead to depths of 3 feet bgs.
  - TPHs, primarily in the diesel range to depths of 5 feet bgs.
- The following constituents exceeded the CHHSLi:
  - The SVOC benzo(a)pyrene in one sample (B3-2.0) at 2 feet bgs. However, many of the results had elevated detection limits so SVOCs in excess of the screening level may be present in other locations and depths.
  - Arsenic to 5 feet bgs and lead in one sample at 3 feet bgs.
- The following constituents exceeded the EPA RSLi:
  - The VOC, PCE, in two samples at 1 and 3 feet bgs.
  - SVOCs to depths of 3 feet bgs. However, many of the results had elevated detection limits so SVOCs in excess of the screening levels may be present in other locations and depths.
  - Arsenic to depths of 5 feet bgs.

SANBAG Property

- Hazardous waste levels of constituents were not reported.
- The following constituents exceeded the SSMRRs:
  - One VOC (carbon disulfide) was detected at 20 feet bgs.

- One SVOC (phenol) was detected at 10 feet bgs. However, many of the results had elevated detection limits so SVOCs in excess of the requirement may be present in other locations and depths.

- No constituents exceeded the MSSLs.
- Levels of arsenic in excess of the CHHSLi are present to 5 feet bgs.
- No constituents exceeded the EPA RSLi.

BNSF Property

- Hazardous waste levels of constituents were not reported.
- The following constituents exceeded the SSMRRs:
  - Some VOCs to depths of 0.5 feet bgs and one VOC (cis-1,2-DCE) detected in one sample at 40 feet bgs.
  - One SVOC (phenol) was detected in one sample at 35 feet bgs and one SVOC (phenanthrene) was detected in one sample at 0.5 feet bgs. However, many of the results had elevated detection limits so SVOCs in excess of the requirement may be present in other locations and depths.
  - Lead to depths of 3 feet bgs.
  - TRPHs to depths of 5 feet bgs.
- The following constituents exceeded the MSSLs:
  - One VOC (cis-1,2-DCE) detected in one sample at 40 feet bgs and one VOC (PCE) detected in one sample at 0.5 feet bgs.
  - TPHs, primarily in the diesel range to depths of 3 feet bgs.
- The following constituents exceeded the CHHSLi:
  - No SVOCs exceeded the CHHSLi. However, many of the results had elevated detection limits, so SVOCs in excess of the screening level may be present.
  - Arsenic to depths 35 feet bgs.

- The following constituents exceeded the EPA RSLi:
  - No SVOCs exceeded the RSLi. However, many of the results had elevated detection limits, so SVOCs in excess of the screening level may be present.
  - Arsenic to depths 35 feet bgs.

7.2. Groundwater

Groundwater was not encountered at the Shoofly to the maximum depth explored of 5 feet bgs. Groundwater was encountered at approximately 42 feet bgs in the SANBAG property and at depths ranging from approximately 23 to 42 feet bgs in the BNSF property.

Although groundwater was not encountered in the Shoofly, based on the results of ISA, groundwater in the vicinity of the eastern portion of the shoofly area is known to be contaminated with chlorinated solvents (specifically PCE). Constituents detected in groundwater did not exceed the State or Federal MCLs in the SANBAG property. Concentrations of some VOCs and some Title 22 Metals exceeded the Cal/EPA and/or EPA MCLs in the BNSF property.

7.3. Health and Safety Concerns

Based on the results of the LSI, soil is impacted with constituents that exceed health screening criteria (EPA RSLi and CHHSLi), as described in Section 7.1. Therefore, constituents in soil at the site represent a potential threat to the health of site workers performing earthwork activities. Protection from exposure associated with these constituents will need to be implemented for both construction workers and the community.

7.4. Excavated Soil/Waste Handling

Based on the results of the LSI, four types of soil are expected to require management during earthmoving activities associated with this site. If the soil is impacted to levels that do not allow on-site reuse, the soil should be considered a waste. The four types of soil are as follows:

- **RCRA-Hazardous Waste** – Soil containing 5.0 milligrams per liter (mg/l) or more leachable lead using the TCLP, exceeding the maximum concentration for the toxicity characteristic of the RCRA (Title 40 CFR 261.24).

- **California-Hazardous Waste** – Soil containing 1,000 milligrams per kilogram or more total lead or 5.0 mg/l or more soluble lead, exceeding the TTLC or STLC, respectively for California hazardous waste (Title 22 CCR, Section 66261.24).

- **Impacted Non-Hazardous Waste** – Soil that does not contain concentrations of constituents that would cause the waste to be hazardous, but does contain concentrations of constituents in excess of the SSMRRs.

- **Soil Acceptable for Reuse** – Soil that does not contain concentrations of constituents that would cause the waste to be hazardous, or exceed the SSMRRs or the MSSLs.

8. RECOMMENDATIONS

Based on the results of this LSI, Ninyo & Moore provides the following recommendations.

- A copy of this report, including analytical data, should be provided to contractors performing subsurface work, including but not limited to geotechnical investigations, utility installations, or other construction, to develop an applicable health and safety program.

- The contractor performing the earthmoving activities should be informed that the LSI was not intended to evaluate the vertical or lateral extent of any chemicals identified in significant concentrations and there may be significant concentrations of chemicals present between sampling locations, which may be encountered during construction.

- The contractor performing the earthmoving activities within the project area should follow the construction specification documents prepared for the site. These specifications should describe the steps that should be followed to mitigate the environmental issues related to soil impact at the site.

- The contractor performing the earthmoving activities within the project area should be prepared to encounter, manage, and dispose of RCRA-Hazardous Waste, California-Hazardous Waste, and Impacted Non-Hazardous Waste. City-approved profiles should be obtained from appropriately licensed receiving facilities in advance of earthmoving activities.

- Earthmoving activities in the BNSF area is expected to encounter free oil in the upper 5 feet beneath the northern portion of the MVAOB project. Other areas of free oil may be present at the site.

- Concentrations of VOCs have been detected in samples at the site. A South Coast Air Quality Management District Rule 1166 permit should be obtained and implemented.

- All site workers (e.g., conducting earthwork) should complete a training program meeting the requirements of 29 CFR 1910.120 and 8 CCR 1532.1.

- The following plans will be required for performance of the earthmoving activities within the project area. Plans should be provided to the City for approval prior to the commencement of field activities:
  - A site-specific HSP for use by the contractor and all of its subcontractors doing fieldwork in association with the contaminated soil removal. The site-specific HSP should be reviewed, signed, and stamped by a California Certified Industrial Hygienist (CIH) and a copy should be provided to the City for review and approval prior to starting contaminated soil removal activities.
  - A lead compliance plan should be reviewed, signed, and stamped by a CIH which includes a hazard analysis, dust control measures, air monitoring, signage, work practices, emergency response plans, PPE, decontamination, and documentation.
  - An excavation and transportation plan (ETP) should be prepared for earthmoving activities conducted at the site. The written, project specific ETP will establish the procedures to comply with requirements for excavating, transporting, and disposing or reusing soil associated with the site. The ETP must comply with the regulations of the California Department of Toxic Substances Control and California Occupational Safety and Health Administration. The ETP should include a sampling and analysis plan for the stockpile sampling and a transportation plan for the hazardous waste. The sampling and analysis portions must meet the requirements for the design and development of the sampling plan and reporting of test results contained in the EPA, SW 846, "Test Methods for Evaluating Solid Waste," Volume II: Field Manual Physical/Chemical, Chapter Nine, Section 9.1. The plan must include the following elements:
    1) Excavation schedule by location and date.
    2) Stockpile sampling and analysis plan for waste characterization. Stockpiles must be identified as suspected RCRA-Hazardous Waste, California-Hazardous Waste, Impacted Non-Hazardous Waste, or Acceptable for Reuse.
    3) Dust control measures.
    4) Site(s) for disposal of hazardous waste.
  - The contractor may be required to prepare other plans for this project.
- The contractor performing the earthmoving activities within the project area should expect the following approximate percentages of soil types. We understand earthmoving activities in the proposed shoofly area are not expected to exceed 5 feet bgs.
  - **RCRA-Hazardous Waste** – One of 19 samples in the shoofly area contained a lead concentration that will cause the disturbed soil representative of that sample to be characterized as RCRA-Hazardous Waste. Therefore, approximately 5 percent of the

soil disturbed in the upper 5 feet of the proposed shoofly area is anticipated to be classified as RCRA-Hazardous Waste.

- **California-Hazardous Waste** – Nine of 19 samples in the shoofly area contained lead concentrations that will cause the disturbed soil representative of those samples to be characterized as California-Hazardous Waste. Therefore, approximately 45 percent of the soil disturbed in the upper 5 feet of the proposed shoofly area is anticipated to be classified as California-Hazardous Waste.

- **Impacted Non-Hazardous Waste** – Soil in the proposed shoofly area to the maximum depth explored 5 feet bgs should be considered Impacted Non-Hazardous Waste. Therefore, approximately 50 percent of the soil disturbed in the upper 5 feet of the proposed shoofly area is anticipated to be classified as Impacted Non-Hazardous Waste. Soil in the BNSF area to 5 feet bgs should be considered Impacted Non-Hazardous Waste. Therefore, approximately 100 percent of the soil disturbed in the upper 5 feet of the BNSF area is anticipated to be classified as Impacted Non-Hazardous Waste.

- **Soil Acceptable for Reuse** – Soil not described in the previous three bullets may be acceptable for reuse on site based on environmental testing results. However, monitoring and characterization should be performed during earthmoving activities in accordance with the ETP to confirm environmental acceptability for reuse. Ninyo & Moore understands that geotechnical acceptability for reuse was evaluated by others.

- Dewatering is not expected to be required as part of site construction activities. However, based on the results of the ISA and this LSI, groundwater beneath the site is likely contaminated with chlorinated hydrocarbons and fuel products. If dewatering becomes necessary for this project, the water generated will likely contain fuel products and will need to be treated prior to discharge in accordance with the discharge permit.

9. LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is accredited by the EPA or certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions and recommendations are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or human activities at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than client is undertaken at said parties' sole risk.

10. REFERENCES

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TABLE 1 - SOIL SAMPLE ANALYTICAL RESULTS - VOCs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8260B (µg/kg)													
			1,1-Dichloroethane	1,2,4-Trimethylbenzene	4-Isopropyltoluene	Benzene	Carbon disulfide	Chloromethane	cis-1,2-Dichloroethene	m,p-Xylene	Naphthalene	o-Xylene	PCE	Toluene	TCE	All other VOCs
Proposed Shoofly Track Area																
B1-5.0	5	10/3/2013	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 9.1	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND
B2-3.0	3	10/3/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND
B2-5.0	5	10/3/2013	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 9.3	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND
B3-2.0	2	10/3/2013	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND< 9.3	9.1	ND< 4.6	ND< 4.6	ND< 4.6	ND< 4.6	ND
B3-3.0	3	10/3/2013	ND< 4.4	ND< 4.4	ND< 4.4	4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	7.1	ND< 4.4	6.0	ND< 4.4	ND< 4.4	ND
B4-5.0	5	10/3/2013	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 11	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND
B5-1.0	1	10/4/2013	ND< 4.8	ND< 4.8	ND< 4.8	4.9	ND< 4.8	ND< 4.8	ND< 4.8	ND< 9.5	ND< 4.8	ND< 4.8	160	6.9	ND< 4.8	ND
B5-3.0	3	10/4/2013	ND< 4.7	ND< 4.7	ND< 4.7	6.0	ND< 4.7	ND< 4.7	ND< 4.7	ND< 9.4	ND< 4.7	ND< 4.7	7.0	5.1	ND< 4.7	ND
B5-5.0	5	10/4/2013	ND< 5.3	ND< 5.3	ND< 5.3	17	ND< 5.3	ND< 5.3	ND< 5.3	ND< 11	ND< 5.3	ND< 5.3	14	17	5.9	ND
B6-1.0	1	10/4/2013	4.6	ND< 4.1	ND< 4.1	6.3	ND< 4.1	ND< 4.1	62	ND< 8.1	ND< 4.1	ND< 4.1	23,000	6.2	56	ND
B6-3.0	3	10/4/2013	ND< 4.4	ND< 4.4	ND< 4.4	18	ND< 4.4	ND< 4.4	110	ND< 8.9	ND< 4.4	ND< 4.4	39,000	17	81	ND
B6-5.0	5	10/4/2013	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND< 9.8	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND< 4.9	ND
B7-1.0	1	10/4/2013	ND< 5.0	ND< 5.0	ND< 5.0	20	ND< 5.0	ND< 5.0	ND< 5.0	ND< 10	ND< 5.0	ND< 5.0	ND< 5.0	18	ND< 5.0	ND
B7-3.0	3	10/4/2013	ND< 5.0	ND< 5.0	ND< 5.0	11	ND< 5.0	ND< 5.0	ND< 5.0	ND< 10	ND< 5.0	ND< 5.0	ND< 5.0	7.8	ND< 5.0	ND
B7-4.5	4.5	10/4/2013	ND< 4.9	ND< 4.9	ND< 4.9	8.7	ND< 4.9	6.4	ND< 4.9	ND< 9.7	ND< 4.9	ND< 4.9	ND< 4.9	6.5	ND< 4.9	ND
B8-1.0	1	10/4/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND
B8-3.0	3	10/4/2013	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND< 12	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND< 5.9	ND
B8-5.0	5	10/4/2013	ND< 4.3	ND< 4.3	ND< 4.3	13	ND< 4.3	ND< 4.3	ND< 4.3	ND< 8.5	ND< 4.3	ND< 4.3	ND< 4.3	12	ND< 4.3	ND
B9-5.0	5	10/3/2013	ND< 4.3	ND< 4.3	ND< 4.3	12	ND< 4.3	ND< 4.3	ND< 4.3	ND< 8.7	ND< 4.3	ND< 4.3	ND< 4.3	13	ND< 4.3	ND
Mount Vernon Bridge - SANBAG Property																
DP1-0.5	0.5	10/1/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND
DP1-3.0	3	10/1/2013	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 9.4	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND
DP1-5.0	5	10/1/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND
DP1-10	10	10/1/2013	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 8.6	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND
DP1-15	15	10/1/2013	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 9.1	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND
DP1-20	20	10/1/2013	ND< 4.2	ND< 4.2	ND< 4.2	ND< 4.2	8.1	ND< 4.2	ND< 4.2	ND< 8.4	ND< 4.2	ND< 4.2	ND< 4.2	ND< 4.2	ND< 4.2	ND
Mount Vernon Bridge - BNSF Property																
DP2-5.0	5	10/2/2013	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND< 10	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND< 5.1	ND
DP2-10	10	10/2/2013	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND< 11	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND< 5.3	ND
DP2-20	20	10/2/2013	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 9	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND
DP2-40	40	10/2/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	38	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	7.4	ND
DP3-0.5	0.5	10/2/2013	ND< 5.4	9.3	9.6	ND< 5.4	ND< 5.4	ND< 5.4	ND< 5.4	ND< 11	7.7	ND< 5.4	24	6.8	ND< 5.4	ND
DP3-3.0	3	10/2/2013	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND< 11	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND< 5.6	ND
DP3-5.0	5	10/2/2013	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 10	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND
DP3-20	20	10/2/2013	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 10	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND
DP3-25	25	10/2/2013	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 8.5	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND
DP4-0.5	0.5	10/2/2013	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 10	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND< 5.0	ND
DP4-3.0	3	10/2/2013	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 8.6	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND< 4.3	ND
DP4A-0.5	0.5	10/3/2013	ND< 4.5	11	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	10	4.7	5.0	ND< 4.5	6.2	ND< 4.5	ND
DP4A-3.0	3	10/3/2013	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 8.8	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND< 4.4	ND

TABLE 1 - SOIL SAMPLE ANALYTICAL RESULTS - VOCs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8260B (µg/kg)													
			1,1-Dichloroethane	1,2,4-Trimethylbenzene	4-Isopropyltoluene	Benzene	Carbon disulfide	Chloromethane	cis-1,2-Dichloroethene	m,p-Xylene	Naphthalene	o-Xylene	PCE	Toluene	TCE	All other VOCs
DP4A-5.0	5	10/3/2013	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND< 9.6	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND< 4.8	ND
DP4A-10	10	10/3/2013	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 8.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND< 4.1	ND
DP4A-15	15	10/3/2013	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 9.3	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	ND
DP4A-20	20	10/3/2013	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND< 14	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND< 6.9	ND
DP4A-25	25	10/3/2013	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 9.0	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND
DP4A-35	35	10/4/2013	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 9.0	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND< 4.5	ND
DP5-0.5	0.5	10/3/2013	ND< 4.7	ND< 4.7	ND< 4.7	ND< 4.7	6.2	14	ND< 4.7	13	ND< 4.7	ND< 4.7	ND< 4.7	17	ND< 4.7	ND
DP5-3.0	3	10/3/2013	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND< 12	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND< 6.1	ND
Regulatory Screening Levels																
CHHSLi (µg/kg)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	Various
RSLi (µg/kg)			17,000	260,000	NE	5,400	3,700,000	500,000	2,000,000	2,500,000	18,000	3,000,000	2,600	45,000,000	14,000	Various
MSSL (µg/l)			20	NE	NE	4	NE	NE	24	7,000	NE	7,000	20	600	20	Various
Hazardous Waste Criteria																
TTLC (µg/kg)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2,040,000	Various
STLC (µg/l)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	204,000	Various
TCLP (µg/l)			NE	NE	NE	500	NE	NE	NE	NE	NE	NE	700	NE	500	Various
Reuse Criteria																
POLB Reuse Criteria (µg/kg)			ND	ND	ND	44	ND	ND	ND	23,000	ND	23,000	ND	2,000	ND	Various

Notes:
µg/kg − micrograms per kilogram
µg/l − micrograms per liter
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
MSSL − Maximum Soil Screening Levels based on an estimated 40 feet to groundwater, soil type of silty sand, an attenuation factor of 4, and California maximum contamination levels (11/2008)
ND − not detected above the Practical Quantitation Limit
NE − not established
PCE − tetrachloroethene
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments
STLC − soluble threshold limit concentration maximum concentration
TCE − trichloroethene
TCLP − toxicity characteristic leaching procedure
TTLC − total threshold limit concentration
VOCs − volatile organic compounds

TABLE 2 - SOIL SAMPLE ANALYTICAL RESULTS - SVOCs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8270C (µg/kg)						
			Benzo(a)anthracene	Benzo(b)fluoranthene	Fluoranthene	Phenanthrene	Phenol	Pyrene	All other SVOCs
Proposed Shoofly Track Area									
B1-5.0	5	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B2-3.0	3	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B2-5.0	5	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B3-2.0	2	10/3/2013	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND
B3-3.0	3	10/3/2013	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND
B4-5.0	5	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B5-1.0	1	10/4/2013	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND
B5-3.0	3	10/4/2013	2,000	1,900	5,000	4,700	ND< 1,600	3,600	ND
B5-5.0	5	10/4/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B6-1.0	1	10/4/2013	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND
B6-3.0	3	10/4/2013	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND
B6-5.0	5	10/4/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B7-1.0	1	10/4/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
B7-3.0	3	10/4/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
B7-4.5	4.5	10/4/2013	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND
B8-1.0	1	10/4/2013	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND< 3,300	ND
B8-3.0	3	10/4/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B8-5.0	5	10/4/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
B9-5.0	5	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
Mount Vernon Bridge - SANBAG Property									
DP1-0.5	0.5	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
DP1-3.0	3	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
DP1-5.0	5	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
DP1-10	10	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	1,000	ND< 330	ND
DP1-15	15	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
DP1-20	20	10/1/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
Mount Vernon Bridge - BNSF Property									
DP2-5.0	5	10/2/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
DP2-10	10	10/2/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP2-20	20	10/2/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP2-40	40	10/2/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP3-0.5	0.5	10/2/2013	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND
DP3-3.0	3	10/2/2013	ND< 200,000	ND< 200,000	ND< 200,000	ND< 200,000	ND< 200,000	ND< 200,000	ND
DP3-5.0	5	10/2/2013	ND< 50,000	ND< 50,000	ND< 50,000	ND< 50,000	ND< 50,000	ND< 50,000	ND
DP3-20	20	10/2/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND

TABLE 2 - SOIL SAMPLE ANALYTICAL RESULTS - SVOCs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8270C (µg/kg)						
			Benzo(a)anthracene	Benzo(b)fluoranthene	Fluoranthene	Phenanthrene	Phenol	Pyrene	All other SVOCs
DP3-25	25	10/2/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP4-0.5	0.5	10/2/2013	ND< 25,000	ND< 25,000	ND< 25,000	ND< 25,000	ND< 25,000	ND< 25,000	ND
DP4-3.0	3	10/2/2013	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND
DP4A-0.5	0.5	10/3/2013	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND
DP4A-3.0	3	10/3/2013	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND< 99,000	ND
DP4A-5.0	5	10/3/2013	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND< 1,600	ND
DP4A-10	10	10/3/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP4A-15	15	10/3/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP4A-20	20	10/3/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP4A-25	25	10/3/2013	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND< 660	ND
DP4A-35	35	10/4/2013	ND< 330	ND< 330	ND< 330	ND< 330	950	ND< 330	ND
DP5-0.5	0.5	10/3/2013	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND< 330,000	ND
DP5-3.0	3	10/3/2013	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND< 330	ND
Regulatory Screening Levels									
CHHSLi (µg/kg)			NE	NE	NE	NE	NE	NE	Various
RSLi (µg/kg)			2,100	2,100	22,000,000	NE	180,000,000	17,000,000	Various
Reuse Criteria									
POLB Reuse Criteria (µg/kg)			62	620	2,300,000	620	620	2,300,000	Various

Notes:
µg/kg − micrograms per kilogram
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
ND − not detected above the Practical Quantitation Limit
NE − not established
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments
SVOCs − semi volatile organic compounds

TABLE 3 - SOIL SAMPLE ANALYTICAL RESULTS - SVOCs SIM

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8270 SIM (µg/kg)									
			Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Chrysene	Fluoranthene	Phenanthrene	Pyrene	All other SVOCs
Proposed Shoofly Track Area												
B3-2.0	2	10/3/2013	ND< 1,500	3,600	2,300	1,600	2,500	3,400	5,100	3,200	7,500	ND
B3-3.0	3	10/3/2013	ND< 1,500	2,000	1,700	ND< 1,500	1,900	2,300	3,400	1,700	4,600	ND
Mount Vernon Bridge - BNSF Property												
DP3-0.5	0.5	10/2/2013	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	1,600	ND< 1,500	ND
DP3-3.0	3	10/2/2013	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND< 3,000	ND
DP3-5.0	5	10/2/2013	960	ND< 750	ND< 750	ND< 750	ND< 750	ND< 750	1,100	ND< 750	2,000	ND
DP4-3.0	3	10/2/2013	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND
DP4A-0.5	0.5	10/3/2013	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND< 1,500	ND
DP4A-3.0	3	10/3/2013	ND< 750	ND< 750	ND< 750	ND< 750	ND< 750	ND< 750	ND< 750	ND< 750	860	ND
DP5-0.5	0.5	10/3/2013	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND< 2,500	ND
Regulatory Screening Levels												
CHHSLi (µg/kg)			NE	NE	NE	130	NE	NE	NE	NE	NE	Various
RSLi (µg/kg)			33,000,000	170,000,000	2,100	210	2,100	210,000	22,000,000	NE	17,000,000	Various
Reuse Criteria												
POLB Reuse Criteria (µg/kg)			3,700,000	22,000,000	620	62	620	3,800	2,300,000	620	2,300,000	Various

Notes:
µg/kg − micrograms per kilogram
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
ND − not detected above the Practical Quantitation Limit
NE − not established
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SVOCs − semi volatile organic compounds

TABLE 4 – SOIL SAMPLE ANALYTICAL RESULTS – TITLE 22 METALS

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Methods 6010B/7471A (mg/kg)											
			Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Silver	Vanadium	Zinc	Other Metals
Proposed Shoofly Track Area														
B1-5.0	5	10/3/2013	1.6	40	7.7	5.0	6.8	2.4	ND< 1.0	5.5	ND< 1.0	22	26	ND
B2-3.0	3	10/3/2013	3.5	51	9.8	5.6	8.9	14	ND< 1.0	6.9	ND< 1.0	26	43	ND
B2-5.0	5	10/3/2013	2.2	41	8.4	4.8	7.2	6.5	ND< 1.0	5.9	ND< 1.0	22	32	ND
B3-2.0	2	10/3/2013	4.1	68	16	6.0	50	110	ND< 1.0	13	ND< 1.0	29	79	ND
B3-3.0	3	10/3/2013	3.2	57	17	5.8	42	89	ND< 1.0	16	ND< 1.0	29	67	ND
B4-5.0	5	10/3/2013	1.1	51	7.8	5.3	8.0	3.2	ND< 1.0	5.7	ND< 1.0	20	26	ND
B5-1.0	1	10/4/2013	3.8	74	15	6.1	58	210	1.0	10	ND< 1.0	29	78	ND
B5-3.0	3	10/4/2013	5.5	83	13	7.5	210	330	1.4	12	ND< 1.0	33	68	ND
B5-5.0	5	10/4/2013	2.5	33	6.4	4.2	4.2	1.8	ND< 1.0	4.6	ND< 1.0	20	19	ND
B6-1.0	1	10/4/2013	13	70	13	7.8	65	110	1.5	12	ND< 1.0	28	79	ND
B6-3.0	3	10/4/2013	18	55	10	6.4	53	78	1.4	12	ND< 1.0	25	73	ND
B6-5.0	5	10/4/2013	ND< 1.0	35	7.5	4.1	8.0	5.7	ND< 1.0	4.8	ND< 1.0	16	26	ND
B7-1.0	1	10/4/2013	2.7	85	18	7.5	30	91	ND< 1.0	10	ND< 1.0	34	86	ND
B7-3.0	3	10/4/2013	3.6	80	27	7.2	33	150	1.1	10	ND< 1.0	32	110	ND
B7-4.5	4.5	10/4/2013	3.6	99	27	6.9	39	210	1.0	11	ND< 1.0	33	110	ND
B8-1.0	1	10/4/2013	3.0	99	14	4.3	23	77	ND< 1.0	8.6	ND< 1.0	22	85	ND
B8-3.0	3	10/4/2013	2.1	27	3.8	2.1	7.7	6.6	ND< 1.0	2.6	ND< 1.0	12	120	ND
B8-5.0	5	10/4/2013	2.4	79	16	8.6	18	6.8	ND< 1.0	11	ND< 1.0	40	50	ND
B9-5.0	5	10/3/2013	2.9	51	13	5.7	12	4.9	ND< 1.0	9.9	ND< 1.0	23	30	ND
Mount Vernon Bridge - SANBAG Property														
DP1-0.5	0.5	10/1/2013	ND< 1.0	41	9.5	5.2	9.5	14	ND< 1.0	5.6	ND< 1.0	23	38	ND
DP1-3.0	3	10/1/2013	1.0	31	7.2	4.4	5.8	2.6	ND< 1.0	5.2	ND< 1.0	21	22	ND
DP1-5.0	5	10/1/2013	ND< 1.0	58	12	7.0	11	4.0	ND< 1.0	8.6	ND< 1.0	33	40	ND
DP1-10	10	10/1/2013	ND< 1.0	27	8.3	4.2	4.2	1.8	ND< 1.0	5.9	ND< 1.0	23	18	ND
DP1-15	15	10/1/2013	ND< 1.0	26	6.6	3.6	4.8	2.1	ND< 1.0	4.9	ND< 1.0	17	17	ND
DP1-20	20	10/1/2013	ND< 1.0	30	11	3.8	5.6	2.3	1.0	6.2	ND< 1.0	16	19	ND
Mount Vernon Bridge - BNSF Property														
DP2-5.0	5	10/2/2013	1.1	64	10	6.2	11	7.1	ND< 1.0	7.8	ND< 1.0	28	32	ND
DP2-10	10	10/2/2013	ND< 0.99	19	6.5	3.2	3.4	1.8	ND< 0.99	3.9	ND< 0.99	16	16	ND
DP2-20	20	10/2/2013	2.1	19	5.0	2.6	7.9	1.9	ND< 1.0	3.9	ND< 1.0	13	22	ND
DP2-40	40	10/2/2013	1.1	28	11	3.3	4.8	1.4	ND< 1.0	6.8	ND< 1.0	15	16	ND
DP3-0.5	0.5	10/2/2013	2.6	49	16	5.9	21	39	ND< 1.0	14	ND< 1.0	39	42	ND
DP3-3.0	3	10/2/2013	ND< 1.0	20	5.4	3.2	3.3	2.8	ND< 1.0	7.3	ND< 1.0	16	15	ND
DP3-5.0	5	10/2/2013	ND< 1.0	18	4.6	2.7	4.2	1.9	ND< 1.0	3.8	ND< 1.0	12	14	ND
DP3-20	20	10/2/2013	ND< 1.0	30	6.3	5.1	5.1	2.2	ND< 1.0	4.7	ND< 1.0	17	21	ND
DP3-25	25	10/2/2013	1.1	46	11	5.3	7.6	2.9	ND< 1.0	6.8	ND< 1.0	24	29	ND
DP4-0.5	0.5	10/2/2013	2.8	84	12	3.8	34	120	ND< 1.0	8.3	ND< 1.0	21	62	ND
DP4-3.0	3	10/2/2013	2.6	42	14	4.8	72	100	1.1	14	ND< 1.0	22	43	ND
DP4A-0.5	0.5	10/3/2013	1.8	52	19	4.9	21	31	1.7	20	1.5	32	41	ND
DP4A-3.0	3	10/3/2013	ND< 1.0	22	5.4	3.3	5.1	4.8	ND< 1.0	4.7	ND< 1.0	16	15	ND
DP4A-5.0	5	10/3/2013	ND< 1.0	37	6.7	4.5	6.5	3.5	ND< 1.0	5.5	ND< 1.0	18	24	ND
DP4A-10	10	10/3/2013	ND< 1.0	29	7.9	4.0	4.8	1.9	ND< 1.0	4.7	ND< 1.0	22	20	ND
DP4A-15	15	10/3/2013	ND< 1.0	21	5.9	3.3	5.2	2.1	ND< 1.0	4.0	ND< 1.0	18	15	ND
DP4A-20	20	10/3/2013	ND< 0.99	19	4.4	2.1	3.6	2.1	ND< 0.99	2.8	ND< 0.99	12	15	ND
DP4A-25	25	10/3/2013	2.2	14	5.9	2.2	10	2.1	ND< 1.0	3.3	ND< 1.0	12	12	ND
DP4A-35	35	10/4/2013	1.6	20	8.5	4.3	3.4	3.8	ND< 1.0	4.4	ND< 1.0	31	15	ND
DP5-0.5	0.5	10/3/2013	1.7	70	22	5.9	19	15	4.2	32	1.5	29	35	ND
DP5-3.0	3	10/3/2013	1.1	16	4.5	2.5	5.1	2.8	ND< 1.0	3.7	ND< 1.0	13	13	ND
Regulatory Screening Levels														
CHHSLi (mg/kg)			0.24	63,000	100,000	3,200	38,000	320	4,800	16,000	4,800	6,700	100,000	Various
RSLi (mg/kg)			2.4	190,000	1,500,000	300	41,000	800	5,100	20,000	5,100	5,100	310,000	Various

TABLE 4 – SOIL SAMPLE ANALYTICAL RESULTS – TITLE 22 METALS

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Methods 6010B/7471A (mg/kg)											
			Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Silver	Vanadium	Zinc	Other Metals
Hazardous Waste Criteria														
TTLC (mg/kg)			500	10,000	2,500	8,000	2,500	1,000	3,500	2,000	500	2,400	5,000	Various
STLC (mg/l)			5	100	5	80	25	5	350	20	5	24	250	Various
TCLP (mg/l)			5	100	5	NE	NE	5	NE	NE	5	NE	NE	Various
POLB Reuse Criteria (mg/kg)			20	1,000	50	800	250	50	390	200	50	78	2,500	Various

Notes:
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
bgs − below ground surface
ID − identification
mg/kg − milligrams per kilogram
mg/l − milligrams per liter
ND − not detected above the Practical Quantitation Limit
NE − not established
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments
STLC − Soluble Threshold Limit Concentration
TCLP – soluble lead by the Toxicity Characteristic Leaching Procedure
TTLC – total lead for comparison to the Total Threshold Limit Concentration

TABLE 5 – SOIL SAMPLE ANALYTICAL RESULTS – TPHs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8015B (Modified) (mg/kg)				
			TPHs C_4-C_{12}	TPHs C_{13}-C_{22}	TPHs C_{23}-C_{32}	TPHs > C_{32}	TRPH
Proposed Shoofly Track Area							
B1-5.0	5	10/3/2013	ND< 0.90	ND< 10	ND< 10	ND< 10	ND
B2-3.0	3	10/3/2013	ND< 0.92	16	24	ND< 10	40
B2-5.0	5	10/3/2013	ND< 0.94	ND< 10	ND< 10	ND< 10	ND
B3-2.0	2	10/3/2013	ND< 0.9	2,200	4,600	4,100	10,900
B3-3.0	3	10/3/2013	ND< 0.89	1,500	3,100	2,200	13,600
B4-5.0	5	10/3/2013	ND< 0.98	ND< 10	ND< 10	ND< 10	ND
B5-1.0	1	10/4/2013	ND< 0.89	87	220	200	507
B5-3.0	3	10/4/2013	ND< 0.95	79	240	280	599
B5-5.0	5	10/4/2013	ND< 1.0	ND< 10	ND< 10	ND< 10	ND
B6-1.0	1	10/4/2013	ND< 0.86	42	160	160	362
B6-3.0	3	10/4/2013	ND< 0.93	20	97	130	609
B6-5.0	5	10/4/2013	ND< 0.96	ND< 10	ND< 10	ND< 10	ND
B7-1.0	1	10/4/2013	ND< 0.99	21	72	61	154
B7-3.0	3	10/4/2013	ND< 1.0	28	100	93	221
B7-4.5	4.5	10/4/2013	ND< 0.78	27	120	130	277
B8-1.0	1	10/4/2013	ND< 1.0	180	710	830	1,720
B8-3.0	3	10/4/2013	ND< 1.0	ND< 10	ND< 10	ND< 10	ND
B8-5.0	5	10/4/2013	ND< 0.87	ND< 10	ND< 10	ND< 10	ND
B9-5.0	5	10/3/2013	ND< 0.88	ND< 10	ND< 10	ND< 10	ND
Mount Vernon Bridge - SANBAG Property							
DP1-0.5	0.5	10/1/2013	ND< 0.89	ND< 10	ND< 10	ND< 10	ND
DP1-3.0	3	10/1/2013	ND< 0.79	ND< 10	ND< 10	ND< 10	ND
DP1-5.0	5	10/1/2013	ND< 0.83	ND< 10	ND< 10	ND< 10	ND
DP1-10	10	10/1/2013	ND< 0.86	ND< 10	ND< 10	ND< 10	ND
DP1-15	15	10/1/2013	ND< 0.91	ND< 10	ND< 10	ND< 10	ND
DP1-20	20	10/1/2013	ND< 0.84	ND< 10	ND< 10	ND< 10	ND
Mount Vernon Bridge - BNSF Property							
DP2-5.0	5	10/2/2013	ND< 0.95	12	ND< 10	ND< 10	12
DP2-10	10	10/2/2013	ND< 0.98	ND< 10	ND< 10	ND< 10	ND
DP2-20	20	10/2/2013	ND< 1.0	ND< 10	ND< 10	ND< 10	ND
DP2-40	40	10/2/2013	ND< 0.88	ND< 10	ND< 10	ND< 10	ND
DP3-0.5	0.5	10/2/2013	ND< 1.1	2,600	7,200	7,100	16,900
DP3-3.0	3	10/2/2013	ND< 0.98	1,300	4,900	6,000	12,200

TABLE 5 – SOIL SAMPLE ANALYTICAL RESULTS – TPHs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8015B (Modified) (mg/kg)				
			TPHs C_4-C_{12}	TPHs C_{13}-C_{22}	TPHs C_{23}-C_{32}	TPHs > C_{32}	TRPH
DP3-5.0	5	10/2/2013	1.1	4,000	5,700	2,800	12,501.10
DP3-20	20	10/2/2013	1.3	ND< 10	ND< 10	ND< 10	1.3
DP3-25	25	10/2/2013	ND< 0.87	ND< 10	ND< 10	ND< 10	ND
DP4-0.5	0.5	10/2/2013	ND< 1.2	97	580	890	1,567
DP4-3.0	3	10/2/2013	ND< 0.98	1,200	4,100	5,600	10,900
DP4A-0.5	0.5	10/3/2013	ND< 1.0	1,800	6,500	7,900	16,200
DP4A-3.0	3	10/3/2013	4.0	3,600	4,500	2,900	11,004
DP4A-5.0	5	10/3/2013	3.8	270	280	110	663.8
DP4A-10	10	10/3/2013	ND< 0.85	ND< 10	ND< 10	ND< 10	ND
DP4A-15	15	10/3/2013	ND< 0.94	ND< 10	ND< 10	ND< 10	ND
DP4A-20	20	10/3/2013	ND< 0.91	ND< 10	ND< 10	ND< 10	ND
DP4A-25	25	10/3/2013	ND< 0.96	ND< 10	ND< 10	ND< 10	ND
DP4A-35	35	10/4/2013	ND< 0.82	ND< 10	ND< 10	ND< 10	ND
DP5-0.5	0.5	10/3/2013	ND< 1.2	480	2,800	4,900	8,180
DP5-3.0	3	10/3/2013	ND< 1.0	ND< 10	ND< 10	ND< 10	ND
Regulatory Screening Levels							
MSSL (mg/kg)			500	1,000	10,000	NE	NE
POLB Reuse Criteria (mg/kg)			NE	NE	NE	NE	1,000

Notes:
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
EPA − United States Environmental Protection Agency
ID − identification
mg/kg − milligrams per kilogram
MSSL − Maximum Soil Screening Levels based on an estimated 40 feet to groundwater, soil type of silty sand, an attenuation factor of 4, and California maximum contamination levels (11/2008)
ND − not detected above the Practical Quantitation Limit
NE − not established
POLB − Port of Long Beach
SANBAG − San Bernardino Associated Governments
TPH − total petroleum hydrocarbons
TRPH − total recoverable petroleum hydrocarbons

TABLE 6 – SOIL SAMPLE ANALYTICAL RESULTS – PCBs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8082 (µg/kg)		
			Aroclor 1248	Aroclor 1260	All other PCBs
Proposed Shoofly Track Area					
B1-5.0	5	10/3/2013	ND< 16	ND< 16	ND
B2-5.0	5	10/3/2013	ND< 16	ND< 16	ND
B4-5.0	5	10/3/2013	ND< 16	ND< 16	ND
B5-1.0	1	10/4/2013	ND< 16	ND< 16	ND
B5-5.0	5	10/4/2013	ND< 16	ND< 16	ND
B6-5.0	5	10/4/2013	ND< 16	ND< 16	ND
B7-1.0	1	10/4/2013	ND< 16	ND< 16	ND
B8-1.0	1	10/4/2013	110	90	ND
B8-3.0	3	10/4/2013	ND< 16	ND< 16	ND
B8-5.0	5	10/4/2013	ND< 16	ND< 16	ND
B9-5.0	5	10/3/2013	ND< 16	ND< 16	ND
Mount Vernon Bridge - SANBAG Property					
DP1-0.5	0.5	10/1/2013	ND< 16	ND< 16	ND
DP1-5.0	5	10/1/2013	ND< 16	ND< 16	ND
DP1-10	10	10/1/2013	ND< 16	ND< 16	ND
DP1-15	15	10/1/2013	ND< 16	ND< 16	ND
DP1-20	20	10/1/2013	ND< 16	ND< 16	ND
Mount Vernon Bridge - BNSF Property					
DP2-5.0	5	10/2/2013	ND< 16	ND< 16	ND
DP2-10	10	10/2/2013	ND< 48	ND< 48	ND
DP2-20	20	10/2/2013	ND< 48	ND< 48	ND
DP2-40	40	10/2/2013	ND< 48	ND< 48	ND
DP3-0.5	0.5	10/2/2013	ND< 16	ND< 16	ND
DP3-5.0	5	10/2/2013	ND< 16	ND< 16	ND
DP3-20	20	10/2/2013	ND< 48	ND< 48	ND
DP3-25	25	10/2/2013	ND< 48	ND< 48	ND
DP4-0.5	0.5	10/2/2013	ND< 16	18	ND
DP4-3.0	3	10/2/2013	ND< 16	ND< 16	ND
DP4A-0.5	0.5	10/3/2013	ND< 16	ND< 16	ND
DP4A-5.0	5	10/3/2013	ND< 16	ND< 16	ND
DP4A-10	10	10/3/2013	ND< 48	ND< 48	ND

TABLE 6 – SOIL SAMPLE ANALYTICAL RESULTS – PCBs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8082 (µg/kg)		
			Aroclor 1248	Aroclor 1260	All other PCBs
DP4A-15	15	10/3/2013	ND< 48	ND< 48	ND
DP4A-20	20	10/3/2013	ND< 48	ND< 48	ND
DP4A-25	25	10/3/2013	ND< 48	ND< 48	ND
DP4A-35	35	10/4/2013	ND< 48	ND< 48	ND
DP5-0.5	0.5	10/3/2013	ND< 16	ND< 16	ND
Regulatory Screening Levels					
CHHSLi (µg/kg)			300	300	Various
RSLi (µg/kg)			740	740	Various
POLB Reuse Criteria (µg/kg)			220	220	Various

Notes:
µg/kg − micrograms per kilogram
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
ND − not detected above the Practical Quantitation Limit
PCBs − polychlorinated biphenyls
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments

TABLE 7 - SOIL SAMPLE ANALYTICAL RESULTS - CHLORINATED HERBICIDES

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8151A (µg/kg)	
			PCP	All Other Chlorinated Herbicides
Proposed Shoofly Track Area				
B1-5.0	5	10/3/2013	ND< 10	ND
B2-5.0	5	10/3/2013	ND< 10	ND
B4-5.0	5	10/3/2013	ND< 10	ND
B5-1.0	1	10/4/2013	ND< 10	ND
B5-5.0	5	10/4/2013	ND< 10	ND
B6-5.0	5	10/4/2013	ND< 10	ND
B7-1.0	1	10/4/2013	ND< 10	ND
B8-1.0	1	10/4/2013	16.5	ND
B8-3.0	3	10/4/2013	ND< 10	ND
B8-5.0	5	10/4/2013	ND< 10	ND
B9-5.0	5	10/3/2013	ND< 10	ND
Mount Vernon Bridge - SANBAG Property				
DP1-0.5	0.5	10/1/2013	ND< 10	ND
DP1-5.0	5	10/1/2013	ND< 10	ND
DP1-10	10	10/1/2013	ND< 10	ND
DP1-15	15	10/1/2013	ND< 10	ND
DP1-20	20	10/1/2013	ND< 10	ND
Mount Vernon Bridge - BNSF Property				
DP2-5.0	5	10/2/2013	ND< 10	ND
DP2-10	10	10/2/2013	ND< 10	ND
DP2-20	20	10/2/2013	ND< 10	ND
DP2-40	40	10/2/2013	ND< 10	ND
DP3-0.5	0.5	10/2/2013	ND< 50	ND
DP3-5.0	5	10/2/2013	ND< 50	ND
DP3-20	20	10/2/2013	ND< 10	ND
DP3-25	25	10/2/2013	ND< 10	ND
DP4-0.5	0.5	10/2/2013	ND< 20	ND
DP4A-0.5	0.5	10/3/2013	ND< 50	ND
DP4A-5.0	5	10/3/2013	ND< 10	ND
DP4A-10	10	10/3/2013	ND< 10	ND
DP4A-15	15	10/3/2013	ND< 10	ND
DP4A-20	20	10/3/2013	ND< 10	ND

TABLE 7 - SOIL SAMPLE ANALYTICAL RESULTS - CHLORINATED HERBICIDES

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8151A (µg/kg)	
			PCP	All Other Chlorinated Herbicides
DP4A-25	25	10/3/2013	ND< 10	ND
DP4A-35	35	10/4/2013	ND< 10	ND
DP5-0.5	0.5	10/3/2013	ND< 50	ND
Blanks				
Method Blank	NA	NA	ND< 10	ND
Regulatory Screening Levels				
CHHSLi (µg/kg)			13,000	Various
RSLi (µg/kg)			2,700	Various
Hazardous Waste Criteria				
TTLC (µg/kg)			17,000	Various
STLC (µg/l)			1,700	Various
TCLP (µg/l)			100,000	Various
Reuse Criteria				
POLB Reuse Criteria (µg/kg)			NE	NE

Notes:
µg/kg − micrograms per kilogram
µg/l − micrograms per liter
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
NA − not applicable
ND − not detected above the Practical Quantitation Limit
NE − not established
PCP − pentachlorophenol
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments
STLC − Soluble Threshold Limit Concentration
TCLP − Toxic Characteristic Leaching Procedure levels
TTLC − Total Threshold Limit Concentration

TABLE 8 - SOIL SAMPLE ANALYTICAL RESULTS - OCPs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8081A (µg/kg)
Proposed Shoofly Track Area			
B1-5.0	5	10/3/2013	ND
B2-5.0	5	10/3/2013	ND
B4-5.0	5	10/3/2013	ND
B5-1.0	1	10/4/2013	ND
B5-5.0	5	10/4/2013	ND
B6-5.0	5	10/4/2013	ND
B7-1.0	1	10/4/2013	ND
B8-1.0	1	10/4/2013	ND
B8-5.0	5	10/4/2013	ND
B9-5.0	5	10/3/2013	ND
Mount Vernon Bridge - SANBAG Property			
DP1-0.5	0.5	10/1/2013	ND
DP1-10	10	10/1/2013	ND
DP1-15	15	10/1/2013	ND
DP1-20	20	10/1/2013	ND
DP1-5.0	5	10/1/2013	ND
Mount Vernon Bridge - BNSF Property			
DP2-10	10	10/2/2013	ND
DP2-20	20	10/2/2013	ND
DP2-40	40	10/2/2013	ND
DP2-5.0	5	10/2/2013	ND
DP3-0.5	0.5	10/2/2013	ND
DP3-20	20	10/2/2013	ND
DP3-25	25	10/2/2013	ND
DP3-5.0	5	10/2/2013	ND
DP4-0.5	0.5	10/2/2013	ND
DP4A-0.5	0.5	10/3/2013	ND
DP4A-10	10	10/3/2013	ND
DP4A-15	15	10/3/2013	ND
DP4A-20	20	10/3/2013	ND
DP4A-25	25	10/3/2013	ND

TABLE 8 - SOIL SAMPLE ANALYTICAL RESULTS - OCPs

Sample ID	Sample Depth (feet bgs)	Date Sampled	EPA Method 8081A (µg/kg)
DP4A-35	35	10/4/2013	ND
DP4A-5.0	5	10/3/2013	ND
DP5-0.5	0.5	10/3/2013	ND
Regulatory Screening Levels			
CHHSLi (µg/kg)			Various
RSLi (µg/kg)			Various
Reuse Criteria			
POLB Reuse Criteria (µg/kg)			Various

Notes:
µg/kg − micrograms per kilogram
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
CHHSLi − California Human Health Screening Levels for industrial land use (1/2005)
EPA − United States Environmental Protection Agency
ID − identification
ND − not detected above the Practical Quantitation Limit
NE − not established
OCPs − organochlorine pesticides
POLB − Port of Long Beach
RSLi − Regional Screening Levels for industrial soil, United States Environmental Protection Agency, Pacific Southwest, Region 9, May 2013
SANBAG − San Bernardino Associated Governments

TABLE 9 – SOIL SAMPLE ANALYTICAL RESULTS - TOTAL AND SOLUBLE LEAD AND PCE

Sample ID	Sample Depth (feet bgs)	Date Sampled	Test Type	Units	Analyte	
					Lead	PCE
Proposed Shoofly Track Area						
B3-2.0	2	10/3/2013	Total	mg/kg	110	ND< 0.0046
			STLC	mg/l	6.0	--
			TCLP	mg/l	0.11	--
B3-3.0	3	10/3/2013	Total	mg/kg	89	0.0060
			STLC	mg/l	5.7	--
			TCLP	mg/l	--	--
B5-1.0	1	10/4/2013	Total	mg/kg	210	0.16
			STLC	mg/l	7.2	--
			TCLP	mg/l	ND<0.050	--
B5-3.0	3	10/4/2013	Total	mg/kg	330	0.0070
			STLC	mg/l	28	--
			TCLP	mg/l	20	--
B6-1.0	1	10/4/2013	Total	mg/kg	110	23
			STLC	mg/l	7.4	--
			TCLP	mg/l	0.25	0.060
B6-3.0	3	10/4/2013	Total	mg/kg	78	39
			STLC	mg/l	9.6	--
			TCLP	mg/l	--	ND< 0.0500
B7-1.0	1	10/4/2013	Total	mg/kg	91	ND< 0.0050
			STLC	mg/l	5.6	--
			TCLP	mg/l	--	--
B7-3.0	3	10/4/2013	Total	mg/kg	150	ND< 0.0050
			STLC	mg/l	7.9	--
			TCLP	mg/l	ND<0.050	--
B7-4.5	4.5	10/4/2013	Total	mg/kg	210	ND< 0.0049
			STLC	mg/l	12	--
			TCLP	mg/l	ND<0.050	--
B8-1.0	1	10/4/2013	Total	mg/kg	77	ND< 0.0044
			STLC	mg/l	1.7	--
			TCLP	mg/l	--	--
Mount Vernon Bridge - BNSF Property						
DP4-0.5	0.5	10/2/2013	Total	mg/kg	120	ND< 0.0050
			STLC	mg/l	1.3	--
			TCLP	mg/l	ND<0.050	--
DP4-3.0	3	10/2/2013	Total	mg/kg	100	ND< 0.0043
			STLC	mg/l	4.9	--
			TCLP	mg/l	--	--
Hazardous Waste Criteria			TTLC	mg/kg	1,000	NE
			STLC	mg/l	5.0	NE
			TCLP	mg/l	5.0	0.7

Notes:
-- – not analyzed
bgs − below ground surface
BNSF − Burlington Northern and Santa Fe Railroad
ID – identification
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
ND − not detected above reporting limits
NE − not established
PCE − Tetrachloroethene
STLC – soluble lead by the Waste Extraction Test (WET) using citric acid for comparison to the Soluble Threshold Limit Concentration
TCLP – soluble lead and PCE by the Toxicity Characteristic Leaching Procedure
Total – total lead for comparison to the Total Threshold Limit Concentration

TABLE 10 – WATER SAMPLE ANALYTICAL RESULTS – VOCs

Sample ID	Date Sampled	EPA Method 8260B (µg/l)						
		1,1-Dichloroethene	cis-1,2-Dichloroethene	PCE	trans-1,2-Dichloroethene	TCE	Vinyl chloride	All other VOCs
Mount Vernon Bridge - SANBAG Property								
DP1-W	NS	--	--	--	--	--	--	--
Mount Vernon Bridge - BNSF Property								
DP2-W	10/2/2013	2.8	370	5.5	14	180	11	ND
DP3-W	10/2/2013	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND
DP4A-W	NS	--	--	--	--	--	--	--
Blanks								
Trip Blank	NA	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND< 0.50	ND
Regulatory Screening Levels								
CA Primary MCL (µg/l)		6	6	5	10	5	0.5	Various
EPA Primary MCL (µg/l)		7	70	5	100	5	2.0	Various

Notes:
-- – not analyzed
µg/l − micrograms per liter
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
NA − not applicable
ND − not detected above the Practical Quantitation Limit
NS − not sampled
PCE − tetrachloroethene
TCE − trichloroethene
SANBAG − San Bernardino Associated Governments
VOCs − volatile organic compounds
DP1-W and DP4-W did not produce enough water to sample for analysis.

TABLE 11 – WATER SAMPLE ANALYTICAL RESULTS – SVOCs

Sample ID	Date Sampled	EPA Methods 8270C (µg/l)
Mount Vernon Bridge - SANBAG Property		
DP1-W	10/2/2013	ND
Mount Vernon Bridge - BNSF Property		
DP2-W	10/2/2013	ND
DP3-W	10/2/2013	ND
DP4A-W	NS	--
Regulatory Screening Levels		
CA Primary MCL (µg/l)		Various
EPA Primary MCL (µg/l)		Various

Notes:
-- – not analyzed
µg/l − micrograms per liter
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
ND − not detected above the Practical Quantitation Limit
NS − not sampled
SANBAG − San Bernardino Associated Governments
SVOCs − semi-volatile organic compounds
DP4A-W did not produce enough water to sample for analysis.

TABLE 12 – WATER SAMPLE ANALYTICAL RESULTS – TITLE 22 METALS

Sample ID	Date Sampled	Title 22 Metals by EPA Methods 6010B (mg/l)												
		Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Vanadium	Zinc	Other Metals
Mount Vernon Bridge - SANBAG Property														
DP1-W	NS	--	--	--	--	--	--	--	--	--	--	--	--	--
Mount Vernon Bridge - BNSF Property														
DP2-W	10/2/2013	0.022	0.52	ND< 0.0030	0.0037	0.25	0.063	0.14	0.029	0.014	0.13	0.29	0.31	ND
DP3-W	10/2/2013	ND< 0.010	0.27	ND< 0.0030	ND< 0.0030	0.058	0.034	0.038	0.0082	0.011	0.034	0.080	0.10	ND
DP4A-W	10/3/2013	0.027	0.87	0.0045	ND< 0.0030	0.18	0.055	0.49	0.37	0.0097	0.15	0.46	0.50	ND
Regulatory Screening Levels														
CA Primary MCL (mg/l)		0.010	1	0.004	0.005	0.05	NE	1.3	0.015	NE	0.1	NE	NE	Various
EPA Primary MCL (mg/l)		0.010	2	0.004	0.005	0.10	NE	1.3	0.015	NE	NE	NE	NE	Various

Notes:
-- − not analyzed
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
mg/l − milligrams per liter
ND − not detected above the Practical Quantitation Limit
NE − not established
NS − not sampled
SANBAG − San Bernardino Associated Governments
DP1-W did not produce enough water to sample for analysis

TABLE 13 – WATER SAMPLE ANALYTICAL RESULTS – TPHs

Sample ID	Date Sampled	EPA Method 8015B (mg/l)			
		TPHs C_4-C_{12}	TPHs C_{13}-C_{22}	TPHs C_{23}-C_{32}	TPHs > C_{32}
Mount Vernon Bridge - SANBAG Property					
DP1-W	10/2/2013	--	ND< 0.2	ND< 0.20	ND< 0.20
Mount Vernon Bridge - BNSF Property					
DP2-W	10/2/2013	0.33	0.21	ND< 0.20	ND< 0.20
DP3-W	10/2/2013	ND< 0.2	1.5	0.31	ND< 0.20
DP4A-W	NS	--	--	--	--

Notes:
-- − not analyzed
BNSF − Burlington Northern and Santa Fe Railroad
Environmental screening levels are not established by the Santa Ana Regional Water Quality Control Board for TPHs in groundwater
EPA − United States Environmental Protection Agency
ID − identification
mg/l − milligrams per liter
ND − not detected above the Practical Quantitation Limit
NS − not sampled
SANBAG − San Bernardino Associated Governments
TPHs − total petroleum hydrocarbons
DP4A-W did not produce enough water to sample for analysis.

TABLE 14 – WATER SAMPLE ANALYTICAL RESULTS – PCBs

Sample ID	Date Sampled	EPA Method 8082 (µg/l)
Mount Vernon Bridge - SANBAG Property		
DP1-W	10/2/2013	ND
Mount Vernon Bridge - BNSF Property		
DP2-W	10/2/2013	ND
DP3-W	10/2/2013	ND
DP4A-W	NS	--
Regulatory Screening Levels		
CA Primary MCL (µg/l)		Various
EPA Primary MCL (µg/l)		Various

Notes:
-- − not analyzed
µg/l − micrograms per liter
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
ND − not detected above the Practical Quantitation Limits
NS − not sampled
PCBs − polychlorinated biphenyls
SANBAG − San Bernardino Associated Governments
DP4A-W did not produce enough water to sample for analysis.

TABLE 15 - WATER SAMPLE ANALYTICAL RESULTS - CHLORINATED HERBICIDES

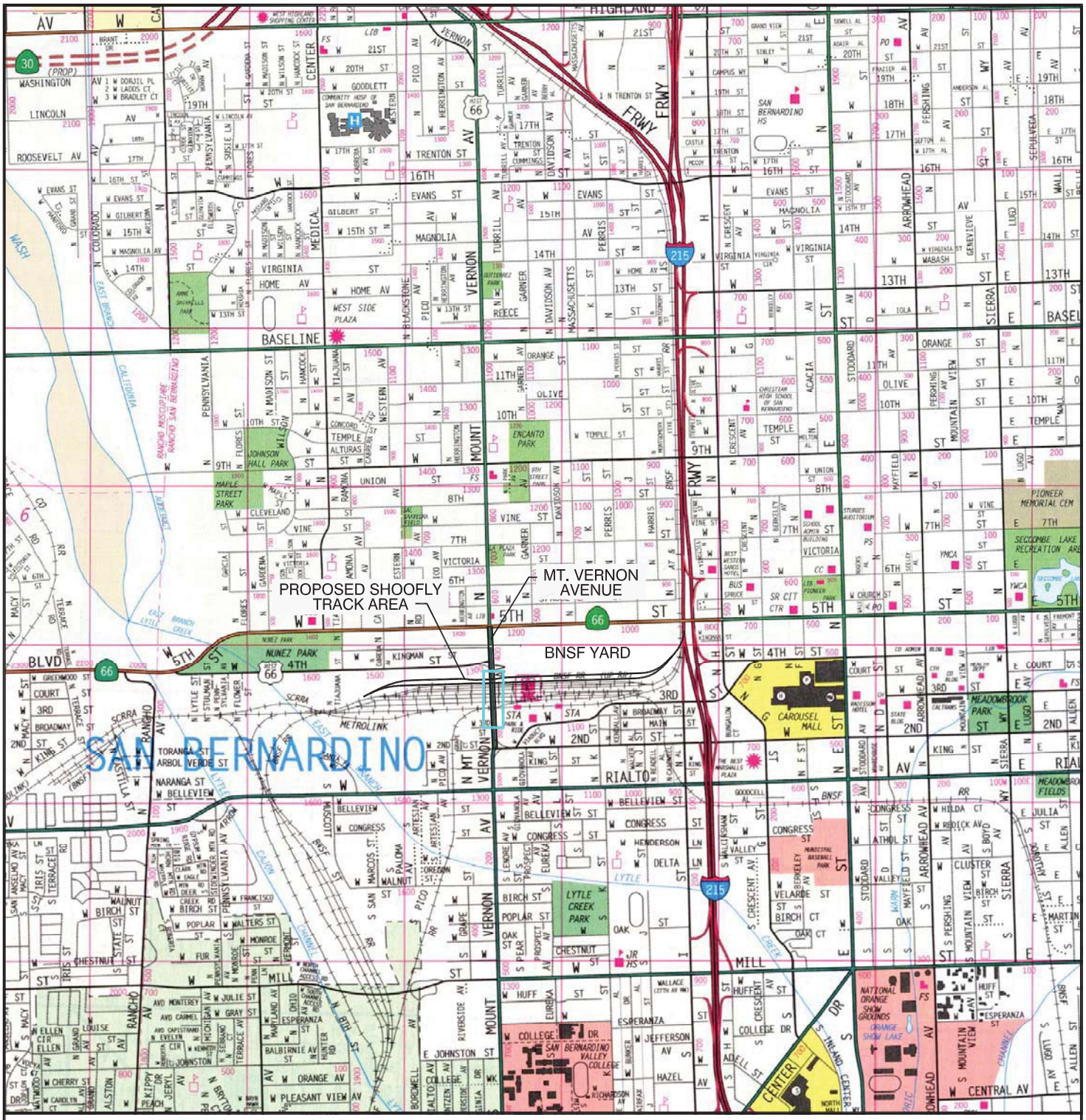
Sample ID	Date Sampled	EPA Method 8151A (µg/kg)
Mount Vernon Bridge - SANBAG Property		
DP1-W	NS	--
Mount Vernon Bridge - BNSF Property		
DP2-W	10/2/2013	ND
DP3-W	10/2/2013	ND
DP4A-W	NS	--
Blanks		
Method Blank	NA	ND
Regulatory Screening Levels		
CA Primary MCL (µg/kg)		Various
EPA Primary MCL (µg/kg)		Various

Notes:
-- − not analyzed
µg/kg − micrograms per kilogram
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
NA − not applicable
ND − not detected above the Practical Quantitation Limit
NS − not sampled
SANBAG − San Bernardino Associated Governments
DP1-W and DP4A-W did not produce enough water to sample for analysis.

TABLE 16 - WATER SAMPLE ANALYTICAL RESULTS - OCPs

Sample ID	Date Sampled	EPA Method 8081A (µg/l)
Mount Vernon Bridge - SANBAG Property		
DP1-W	10/2/2013	ND
Mount Vernon Bridge - BNSF Property		
DP2-W	10/2/2013	ND
DP3-W	10/2/2013	ND
DP4A-W	NS	--
Regulatory Screening Levels		
CA Primary MCL (µg/l)		Various
EPA Primary MCL (µg/l)		Various

Notes:
-- − not analyzed
µg/l − micrograms per liter
BNSF − Burlington Northern and Santa Fe Railroad
CA Primary MCL − California EPA Maximum Contaminant Levels for drinking water adopted by the California Department of Health Services (updated 11/2008)
EPA − United States Environmental Protection Agency
EPA Primary MCL − United States EPA maximum contaminant levels (updated 11/2008)
ID − identification
ND − not detected above the Practical Quantitation Limit
NS − not sampled
OCP − organochlorine pesticides
SANBAG − San Bernardino Associated Governments
DP4A-W did not produce enough water to sample for analysis.



REFERENCE: 2007 THOMAS GUIDE FOR LOS ANGELES/ORANGE COUNTIES, STREET GUIDE AND DIRECTORY

N

SCALE IN FEET

0 2,400 4,800

LEGEND

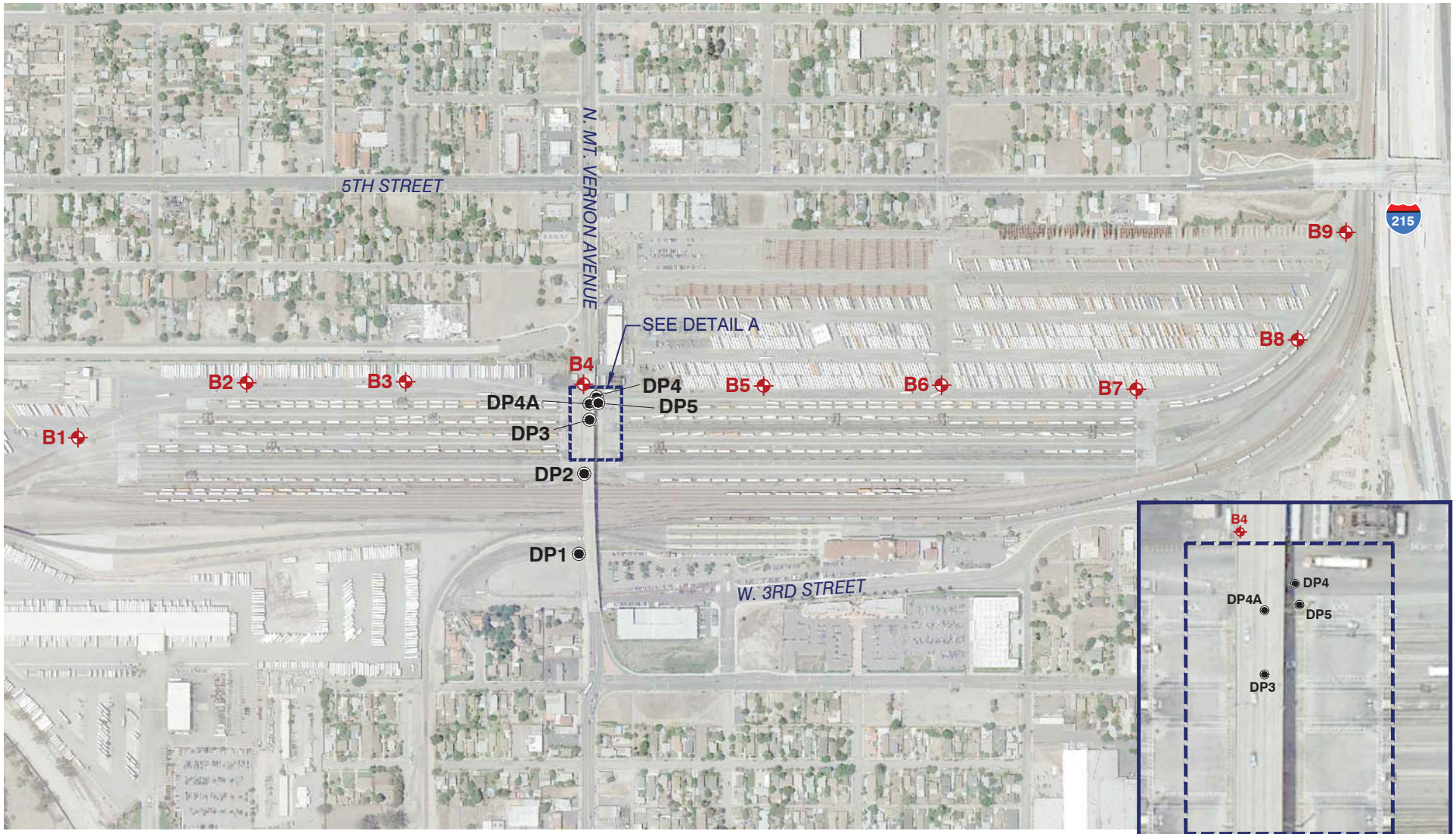
LIMITS OF BRIDGE REPLACEMENT

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

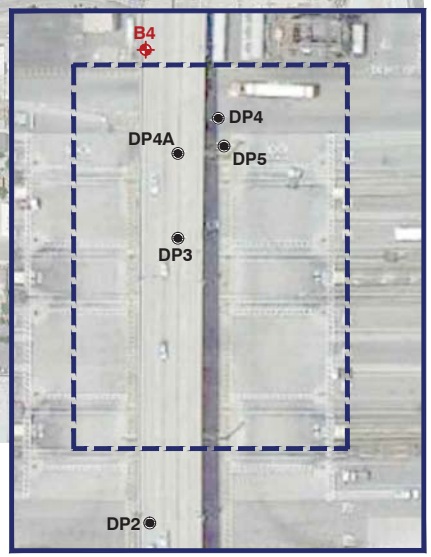
Map © Rand McNally, R.L.07-S-129

Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	1
205732003	12/13		

205732003-SL.dwg 13:20:17 12/17/2013 GK



REFERENCE: GOOGLE EARTH IMAGERY, 2013.



DETAIL A

SCALE: 1"=150'

LEGEND	
B9	BORING
DP5	DIRECT PUSH

N

SCALE IN FEET

0 600 1,200

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		BORING LOCATIONS	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE SAN BERNARDINO, CALIFORNIA	2
205732003	12/13		

205732003-SP.dwg, Dec 16, 2013, 8:34am, SN

APPENDIX A

WORK PLANS

August 14, 2013
Project No. 205732003

Mohan Char, Ph.D., P.E.
AECOM
999 W Town & Country Road
Orange, California 92868

Subject: Revised Work Plan for Environmental Site Investigation
Mount Vernon Avenue Overhead Replacement Project
Burlington Northern and Santa Fe Railroad Yard
San Bernardino, California

Reference: Ninyo & Moore, 2010, Revised Initial Site Assessment, Mount Vernon Avenue Bridge and Proposed Shoofly Track Area, Burlington Northern and Santa Fe Railroad Yard, San Bernardino, California, dated January 13.

Dear Dr. Char:

In accordance with your request and authorization, Ninyo & Moore has prepared this revised work plan for an environmental site investigation for the Mount Vernon Avenue Overhead Replacement Project of the Mount Vernon Avenue Bridge and the proposed Shoofly Track area at the Burlington Northern and Santa Fe (BNSF) Railroad Yard in the City of San Bernardino, California (site, Figure 1).

INTRODUCTION/BACKGROUND

In 2009, Ninyo & Moore prepared the above referenced Initial Site Assessment (ISA) report (revised 2010) to evaluate the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site. The ISA separated the site into two portions. The first portion is the Mount Vernon Avenue Bridge and its approaches near 2nd and 5th Streets. The bridge structure extends over a BNSF railroad intermodal facility, BNSF yard operation tracks, BNSF transcontinental tracks, Metrolink tracks, and a Metrolink parking lot. It is our understanding that the City of San Bernardino intends to replace the Mount Vernon Avenue Bridge. The second portion of the site is the proposed shoofly track area in the BNSF yard trending east to west, north of and adjacent to

the existing tracks. Shoofly tracks are temporary tracks that would be used to replace rail capacity during planned bridge demolition/construction activities.

Based on the ISA the following hazardous materials issues in connection with the site were identified:

Mount Vernon Avenue Bridge

- Soil underlying the bridge within the BNSF yard has been impacted with petroleum hydrocarbons and metals from historical railway operations.
- Residual herbicides are suspected to be present in soil beneath the bridge.
- The bridge is approximately 1,000 feet west of a chlorinated solvent plume in groundwater which has resulted from historic releases at the BNSF rail yard.
- Two former gasoline stations appear to have been located within the immediate vicinity of the bridge: one on the northwest corner of 5th Street and Mount Vernon Avenue and the other on the southwest corner of 2nd Street and Mount Vernon Avenue.

Proposed Shoofly Track Area

- Soil on BNSF property in the vicinity of the proposed shoofly track area has been impacted with petroleum hydrocarbons and metals from historical railway operations.
- Herbicides may be present in soil beneath the asphalt along the proposed shoofly track area.
- The eastern portion of the proposed shoofly track area is in the immediate vicinity of a chlorinated solvent plume in groundwater which has resulted from historic releases at the BNSF property.

Based on the ISA, Ninyo & Moore made the following recommendations for investigation within the BNSF area:

Mount Vernon Avenue

- Soil (and groundwater if encountered) beneath the bridge within the proposed demolition and construction zones should be sampled and analyzed for chemicals of concern including petroleum hydrocarbons, metals, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and chlorinated herbicides. Testing should be done during the final design phase to reduce the impact on BNSF operations. The testing should be done in one mobilization.

Proposed Shoofly Track Area

- Soil (and groundwater if encountered) beneath the proposed shoofly track area should be sampled and analyzed for petroleum hydrocarbons, metals, VOCs, PCBs, SVOCs, and chlorinated herbicides. All testing should be done during the final design phase to reduce the impact on BNSF operations. The testing should be done in one mobilization.

SCOPE OF WORK

Based on the results of the ISA, Ninyo & Moore has identified a total of 13 soil borings. Photographic documentation of the proposed investigation areas will be taken prior to and following the completion of the proposed field work. Nine borings (B1 though B9) will be hand augered at approximately 600-foot spacing along the shoofly (Figure 2) to approximately five feet below ground surface (bgs). Soil samples will be collected at surface and 5-foot depths. Additionally, three direct-push borings (DP2 through DP4) will be advanced to approximately 50 feet bgs beneath the bridge (Figure 3). Soil samples will be collected at the surface and at 5-foot intervals thereafter to the total depth. Samples will be field screened for VOCs using a photoionization detector (PID). Based on the PID readings, select soil samples will be analyzed for total petroleum hydrocarbons with carbon-chain spectrum (TPHcc) in general accordance with United States Environmental Protection Agency (EPA) Method 8015B, VOCs plus oxygenates by EPA Method 8260B, SVOCs by EPA Method 8270C, California Assessment Method (CAM) 17 Metals by EPA Method 6010B/7471A, PCBs by EPA Method 8082, and chlorinated herbicides by EPA Method 8151.

Point of Access and Site Control

Point of access for the borings beneath the bridge (DP2 through DP4) and borings along the shoofly (B1 through B9) will be the main entrance from 4th Street.

For intrusive field activities such as direct-push sampling and hand auger/soil sampling operations, precautions shall be taken to assure that only authorized personnel with the proper training, certification, and personal protect protective equipment (PPE) enter work areas associated with direct-push sampling operations, operation of hand augers, and/or the potential for exposure to hazardous conditions/materials. In these areas, access is controlled with cau-

tion tape and/or barricades. Proper training would include decontamination, hazard recognition, safe operating procedures and the completion of BNSF contractor orientation training. Proper certification would include the badge confirming completion of the BNSF safety training course offered by contractororientation.com, to certify the required training has been completed.

A pre-entry briefing will be held prior to initiating site activity and at such other times as necessary to ensure that personnel are apprised of the site safety and health concerns and that this plan is being followed. The pre-entry briefing will be held before the start of actual work. The briefing will include representatives of AECOM and BNSF (if present), subcontractors, and Ninyo & Moore employees and will include verification of safety training and a discussion of site-specific hazards analyses and the means, methods, devices, processes, practices, conditions, or operations which will be implemented at the site.

Prior to the start of field work and following completion of field work, photographs will be taken of the proposed work areas.

Soil Sampling

Surface soil samples will be collected directly from the hand auger bucket and transferred into laboratory supplied jars. When advancing borings with a direct-push rig, the acetate drill-rod liners will be cut open to characterize the soil cores. Samples will be collected by transferring the soil from the desired depths into the appropriate size glass jars supplied by the analytical laboratory. Soil sampling procedures are presented in Attachment A.

Samples will be labeled, sealed into plastic bags, and stored in a cooler on ice for delivery under chain of custody (COC) to a state certified analytical laboratory. Soil samples collected for total petroleum hydrocarbons gasoline and VOCs analyses will be collected in accordance with EPA field preservation Method 5035. Soil sample containers required for the specified analyses will be provided by the laboratory prior to the sampling event. The containers will be pre-cleaned and will not be rinsed prior to sample collection. Preservatives, if required, will have been added to the containers by the laboratory prior to shipment

of the sample containers to the sample collector. Samples will be submitted to the laboratory and analyzed on a normal turnaround time.

Groundwater Sampling

Groundwater is not expected to be encountered prior to total depth in the shoofly borings. If groundwater is encountered a grab groundwater sample will be collected. Grab groundwater samples, if encountered in borings DP2 through DP4, will be analyzed for TPHcc, VOCs, SVOCs, CAM 17 Metals, PCBs, and chlorinated herbicides.

Grab groundwater samples will be collected, if encountered, using a Hydropunch®. The groundwater sample will be transferred directly into laboratory supplied containers using a peristaltic pump or similar equipment. Samples will be labeled, sealed into plastic bags, and stored in a cooler on ice for delivery under COC to a state certified analytical laboratory. Grab groundwater sampling procedures are presented in Attachment A.

Water samples will be collected in laboratory provided glass volatile organic analysis vials, bottles, and plastic containers. Samples will be labeled, recorded on a COC, and placed in a cooler containing ice for transport to Advanced Technology Laboratories. A trip blank will be included in each cooler that contains water samples to be analyzed for VOCs and analyzed for VOCs. A temperature blank will be included in each cooler.

Decontamination, Waste Management, and Disposal

The primary focus of the decontamination program is to minimize the spread of contaminated material beyond a given site. Personnel will implement at a minimum decontamination procedures consisting of washing exposed skin with soap and water for these field activities. During field activities, a variety of small equipment is anticipated to be used. The level of potential contamination for vehicles and equipment at this site is low for the sampling equipment and support vehicles used.

Reusable sampling equipment, including brass or stainless steel sample liners will be decontaminated using the triple wash/rinse method (wash water containing a non-phosphate detergent, followed by two rinses with tap water, and a final rinse with distilled water) be-

tween each sample. Clean and decontaminated hand auger samplers will be used for each borehole location. Direct-push sampling equipment will be decontaminated before each sample is collected. Tubing and disposable bailers used will be disposed of after one use.

Excess soil cuttings, waste water, decontamination water, and investigation derived waste (IDW) will be stored onsite in Department of Transportation (DOT)-approved drums. The drums will be removed and disposed at a facility licensed to receive the waste after the material has been characterized using the site sampling data. The disposal facility will be an AECOM approved facility and will be selected after the waste has been characterized.

Site Restoration

After sampling in unpaved areas, the boreholes will be backfilled with hydrated bentonite to within four inches of ground surface and completed to surface grade. In paved areas, the boring will be backfilled with hydrated bentonite and patch with similar type of existing pavement which will be equal to the existing thickness. Photographic documentation will be taken following the completion of the proposed field work.

POLLUTION PREVENTION MEASURES AND RUNOFF MANAGEMENT

The following pollution prevention measures and runoff management procedures will be implemented at the site.

Pollution Preventive Measures

- Inspect all containers upon delivery to the site for visible defects and ensure that each drum or container includes a re-sealable lid.
- Set any 55-gallon drums on wooden pallets to facilitate transport via forklift
- Perform weekly inspections of the storage area.
- Select flat areas for temporary storage away from high-traffic zones and storm or sewer drains.

Spill Containment Measures

The following actions will be taken by Ninyo & Moore field personnel assigned to the field activities in the unlikely event of a spill:

- The Site Coordinator (field team leader) and Site Health and Safety Officer (SHSO) are to be notified immediately.
- Workers not involved in spill containment and/or cleanup shall evacuate the immediate area and designated emergency response personnel attired in appropriate PPE, shall proceed to the spill area with a spill cleanup and control kit, including absorbent materials.
- Attempts shall be made to stop the source(s) of spillage immediately.
- The SHSO shall monitor for exposure to chemicals or hazardous substances during spill cleanup work and shall stay at the spill area until the area has been cleared, inspected, and readied for reentry. A spill incident report shall be prepared by the SHSO.

Runoff Management

In an effort to limit the potential for run off, Ninyo & Moore does not anticipate to stockpile excess soil onsite. Excess soil cuttings, waste water, decontamination water, and IDW will be stored onsite in DOT approved drums.

In the unlikely event that a soil boring will need to remain open for a significant period of time (e.g., overnight), Ninyo & Moore will take appropriate measures (i.e., sand bags) to ensure no surface runoff enters the bore hole. It is not anticipated that soil borings will remain open for a period of time longer than a few hours, and impacts from surface runoff are not expected. In addition, work will not be conducted during significant rainfall events where surface runoff would be generated.

Record Keeping and Notifications

The SHSO shall thoroughly document the spill in an Incident Report which will be forwarded to the Corporate Safety Manager and Project Manager. Records of all hazardous materials releases shall be maintained with the project files and the facility operating record. The Project Manager will make any necessary notifications to off-site authorities and he and the

Safety Manager will approve the reentry to the site for routine use and will issue a final release report pertaining to cleanup of the area.

HEALTH AND SAFETY PLAN

A hazards analysis was performed for the site. The site specific physical, chemical, and biological hazards are included as an attachment to this work plan (Attachment B). The following sections describe the medical surveillance, hazard monitoring, personnel protective equipment, confined space entry, and emergency procedures to be implemented during the field activities at the site.

Medical Surveillance Requirements

Site personnel will be required to participate in their employer's medical surveillance program before being permitted to work on location. The medical surveillance program for Ninyo & Moore employees is described in the Ninyo & Moore Injury and Illness Prevention Program. Teaming partner or subcontractor medical surveillance programs are described in respective company documents. Subcontractors will be required to demonstrate, by document submittal, their maintenance of Occupational Safety and Health Administration (OSHA)-compliant programs, including Title 8 California Code of Regulations, Section 5192, and to maintain records as required by the applicable contract. Specific exceptions to the medical surveillance requirements may be granted by the SHSO for site access by specialty subcontractors performing non-intrusive activity. If level C becomes necessary on site, an appropriate exclusion zone will be established and personnel without medical clearance for respiratory protection or the appropriate PPE will be prohibited entry.

Hazard Monitoring

Ninyo & Moore prepared a Hazard Analysis of the site that identifies the potential chemical and physical hazards that may be encountered during field activities (Attachment B). During the field activities for the Site Investigation (SI) at the site, the following monitoring requirements will be mandated:

Table 1 – Chemical/Physical Agent Monitoring Requirements

Scope of Work Task	Chemical/ Hazard	Instrument	Responsible Group	Initial Frequency
Low Hazard				
Hand Augering/Direct-Push Soil and Groundwater Sampling	TPH, Benzene, VOCs, Organic vapor	PID or FID	SHSO	Start of task, hourly, continuous if zone of contamination encountered
Surface soil sampling	Metals	Visual Observation (dust)	SHSO	at SHSO discretion
	TPH, Benzene, VOCs	PID or FID	SHSO	at SHSO discretion
Decontamination of equipment	Metals	Visual Observation	SHSO	N/A
	TPH, Benzene, VOCs, Organic vapor	PID or FID	SHSO	at SHSO discretion

Notes:
FID – Flame Ionization Detector
N/A – Not applicable
PID – Photo-ionization Detector
SHSO – Site Health and Safety Officer
TPH – Total Petroleum Hydrocarbons
VOCs – Volatile Organic Compounds

Table 2 – Monitoring Methods and Action Levels for Uncharacterized[1] Mixtures Using Screening Survey Instruments

Hazard	Method	Action Level[2]	Protection Action
Total Organic Vapor	PID[3] or FID[4]	Background to 2 ppm[5] above background	No action required
		> 2 ppm	Air purifying respirator, half or full face, level C protection with appropriate cartridges
		> 5 ppm	Air purifying respirator, full face, Level C protection, personnel monitoring required to I.D. contaminants
		> 10 ppm	Supplied air protection, Level B
		> 50 ppm	STOP WORK
Combustible Gas	Explosimeter or FID	< 10% LEL[6]	No action
		10% to 20% LEL	Start continuous monitoring; Permit only classified electrical equipment and nonsparking tools
		> 20% LEL	STOP WORK, ascertain source of gas

Table 2 – Monitoring Methods and Action Levels for Uncharacterized[1] Mixtures Using Screening Survey Instruments

Hazard	Method	Action Level[2]	Protection Action
Oxygen Concentration	Oxygen analyzer	< 19.5% v/v[7]	Leave area, evaluate reason for deficiency, monitor again remotely or with IDLH[8] entry program
		19.5 to 20.5 v/v	Slight deficiency, continue continuous monitoring
		20-5 - 21.0% v/v	Normal range
		> 22.0% v/v	Elevated reading, check calibration, investigate cause, STOP any potential spark-producing activity

Notes:
1 Carcinogenic and highly toxic materials not verified absent from atmosphere
2 All action levels are readings observed above background. Verify absence of highly toxic compounds as necessary, e.g. vinyl chloride, methylene chloride, benzene etc.
3 photo-ionization detector
4 flame ionization detector
5 parts per million
6 lower explosive limit
7 volume per volume
8 immediately dangerous to life or health

Table 3 – Action Levels for Heat Stress

Type Measurement	Action Level	Action
Ear insertable core temperature	100.4° F or greater	Remove from work
Ear insertable core temperature	<99° F	Return to work

Table 4 – Frequency of Physiological Monitoring for Fit and Acclimated Workers

Adjusted Temperature[1]	Normal Work Ensemble[2] After Each:	Impermeable Ensemble After Each:
90° F (32.2° C) or above	45 minutes of work	15 minutes of work
86.5° F - 90° F (30.8° C - 32.2° C)	60 minutes of work	30 minutes of work
82.5° F - 86.5° F (28.1° C - 30.8° C)	90 minutes of work	60 minutes of work
76.5° F - 82.5° F (25.3° C - 28.1° C)	120 minutes of work	90 minutes of work
72.5° F - 76.5° F (22.5° C - 25.3° C)	150 minutes of work	120 minutes of work

Notes:
1 Calculate the adjusted air temperature (Ta adj) with the following equation: Ta adj(°F) = Ta(°F) + (13 X percent sunshine / 100). Measure air temperature (Ta) with a standard mercury-in-glass thermometer with the bulb shielded from radiant heat. Estimate the percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to attenuate shadow (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadow).
2 A normal work ensemble consists of coveralls or other cotton clothing with long sleeves and pants.

Personal Protective Equipment

Based on an evaluation of potential hazards, the following level of PPE will be mandated for the listed tasks:

Table 5 – Personal Protective Equipment (potential or actual chemical exposure)

Task	Hazard	Level	Body	Respirator	Skin	Other
Soil and groundwater sampling, decontamination of equipment, controlling spread of contamina-tion	Minimal chemical exposure, noise, solar radiation	D* or C	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Full-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded	Latex or nitrile gloves	Hard hat, safety glasses, hearing protection, steel-toed boots
Direct-push activities	Minimal chemical exposure, noise, solar radiation	D* or C	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Full-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded	Latex or nitrile gloves	Hard hat, safety glasses, hearing protection, steel-toed boots

Note:
N/A – not applicable
*Work will be initiated at Level D. PPE will be upgraded to Level C based on results of field observations.

Roadway Work Zones – Reflective Vest Requirements

The standard specifies that high-visibility apparel be made of background material that is fluorescent red-orange, yellow-green, or a combination of these, and reflective material placed so that the worker is seen from 360 degrees. The standard (American National Standards Institute/International Safety Equipment Association [ANSI/ISEA] 107-1999) defines three garment classifications (I, II, and III) based on worker hazards and tasks, complexity of the work environment or background, and vehicular traffic and speed.

Table 6 – ANSI/ISEA 107-1999 Standard Classes

Class I	Lowest level of visibility. Generally worn in environments where speeds do not exceed 25 miles per hour. Orange or lime vest with $^{3}/_{8}$-inch reflective tape.
Class II	Commonly work in environments where traffic is moving in excess of 25 miles per hour Orange or lime vest with 2-inch reflective tape.
Class III	The highest level of visibility. Worn in environments where traffic is moving in excess of 55 miles per hour. Orange or lime vest that is 3 inches longer than the standard size with 2-inch reflective tape.

The minimum requirements for reflective safety vests for this project shall be:

Class I ☐

Class II ☒

Class III ☐

This minimum requirement is to be followed by all employees, subcontractors, and visitors that are required to wear a safety vest on the project. This includes, but is not limited to, work on or near active highways and/or roadways or when the construction contractor and/or client requires a safety vest to be worn on a project.

Confined Space Entry

Confined spaces, including but not limited to trenches, ditches, holes, culverts, structures, and tanks, present multiple hazards including oxygen deficiency, toxic agent exposure, heat stress, engulfment, and other hazards.

Confined space entry is not anticipated nor is it authorized for project personnel or subcontractors during this work activity. If it becomes necessary to enter a confined space during this project, appropriate training, equipment and supervision will be put in place and the entry will be made in accordance with a specific confined space entry permit approved by the Corporate Safety Manager. A designated OSHA-competent person for confined space work will be on-site during all confined space entry activities. Detailed confined space entry procedures will be maintained for any permit-required confined space work.

Emergency Response

In the event of a medical emergency or fire during fieldwork at the construction areas at the site, the standard “911” emergency telephone number shall be called from the on-site mobile phone or any base phone. A mobile telephone will be available during all field activities. On a daily basis, and at each work location, the SHSO and/or field team leader will verify that mobile phones are operational. Standard hand signals will be reviewed at the site tail-gate safety meeting prior to beginning work.

Emergency facility locations and phone numbers are listed below. Hospital location map is included as Figure 4. All project vehicles shall maintain a copy of this work plan together with the appropriate emergency maps at all times, in a readily accessible location.

Directions to the nearest medical facility from Mount Vernon Avenue Bridge are as follows:

- From the corner of Mount Vernon Avenue and Second Street:
  - Travel north on North Mount Vernon Avenue toward West Viaduct Boulevard.
  - Turn left onto West Sixteenth Street
  - Take the third right onto North Medical Center Drive
  - Turn right
- The hospital (Community Hospital of San Bernardino) is located on the left-hand side.

  Community Hospital of San Bernardino
  1805 Medical Center Drive
  San Bernardino, California 92411
  Main: (909) 887-6333

Training Requirements

The BNSF contractor orientation safety training course will be completed online at contractororientation.com by Ninyo & Moore field staff, subcontractor supervisors and personnel, visitors, and vendors associated with the proposed BNSF investigation work. Ninyo & Moore field staff, subcontractor supervisors and personnel, visitors, and vendors will wear the badge issued to them to certify completion of the BNSF contractor orientation safety training when at the BNSF site. A matrix summarizing training requirements for Ninyo & Moore field staff, subcontract supervisors and personnel, visitors, and vendors is presented below.

Table 7 – Training Assignment Matrix

Category	40-Hour Basic	8-Hour Refresher	24-Hours Supervisor Experience	8-Hour Supervisor Refresher[4]	BNSF Contractor Orientation Safety Training	Ninyo & Moore Safety Orienta-tion	First Aid/CPR
Ninyo & Moore Field Staff	X	X	X		X	X	X[1]
Ninyo & Moore or Subcontractor Supervisor	X[2]	X[2]	X	X[3]	X	X[4]	X[1]
Subcontractor	X[2]	X[2]	X		X	X[4]	X[1]
Visitor	X[5]	X[5]	X[6]		X		
Vendor	X[5]	X[5]	X[6]		X		

Notes:
1 At remote locations, (emergency responders more than 10 minutes away) a minimum of two people will be on-site, during field-work, who have a valid certificate in basic first aid/CPR from the American Red Cross (or equivalent) documented training.
2 The requirement for 40-hour basic and 8-hour refresher training for certain non-intrusive work shall be made on a case-by-case basis by the Corporate Safety Manager.
3 Employees may take supervisor training in lieu of standard refresher training.
4 A site-specific safety orientation must be given to all visiting/working personnel.
5 For vendors/visitors requiring controlled area access to work on contaminated equipment.
6 Not required if escorted.

REPORTING

Ninyo & Moore will prepare a SI report, which will describe our field methodologies, findings, conclusions and recommendations for handling soil in construction, and development of HSPs. The report will include analytical results in narrative and tabular form, sample location diagrams, photographs, copies of signed waste manifests, and recommendations for additional assessment if appropriate. The report will be signed by a Ninyo & Moore, California licensed Professional Geologist or Engineer. A copy of the report will be submitted to the TRC BNSF Program Manager.

We anticipate the SI report will be submitted approximately 30 working days (6 weeks) from the date the last sample is submitted to the laboratory.

Sincerely,
NINYO & MOORE

Jonathan Johnson
Senior Staff Geologist

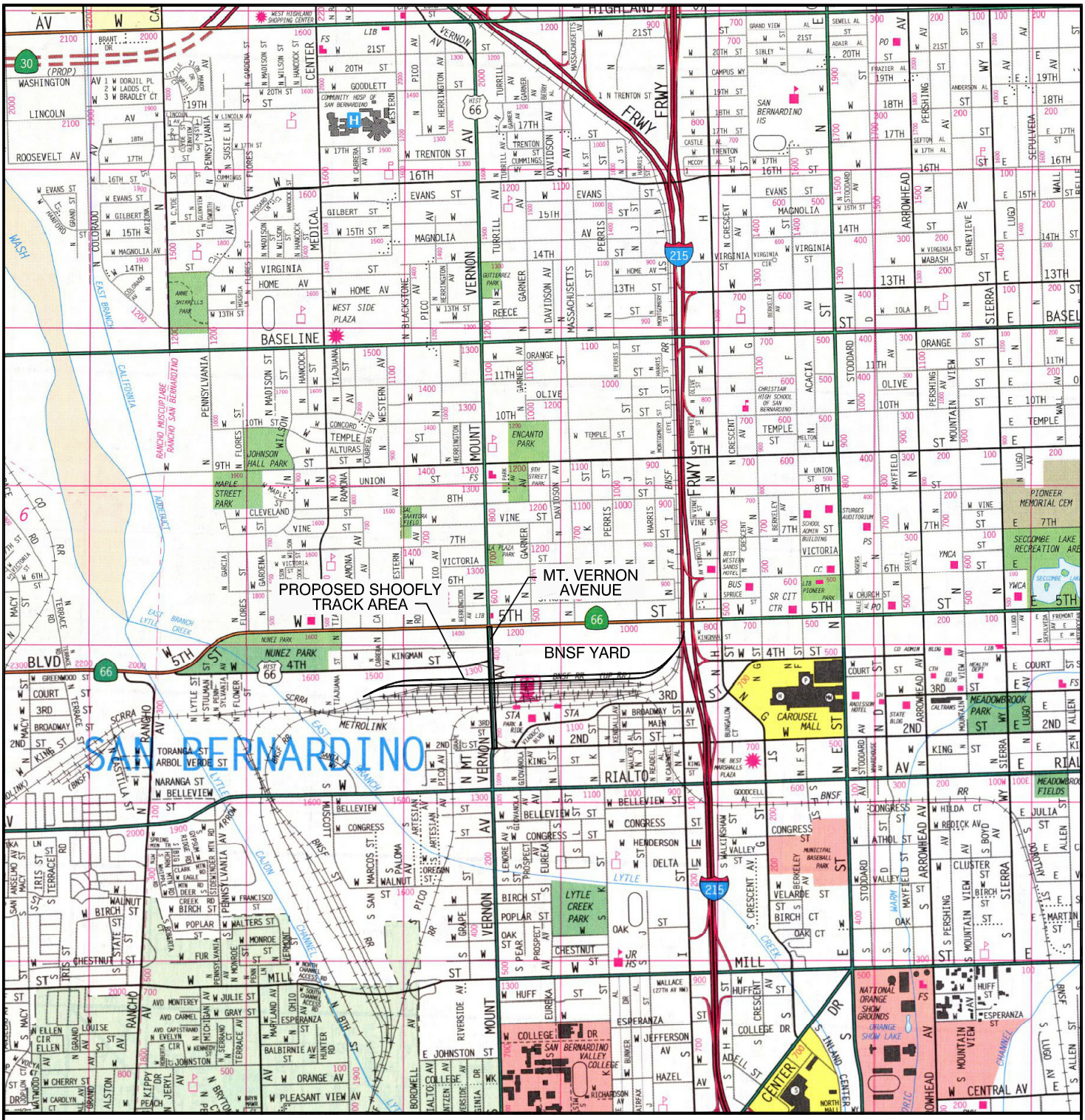
Summer Hansen-Rooks
Project Environmental Scientist

John Jay Roberts, PG, CEG
Senior Geologist

JJJ/SJH/JJR/SJW/NA/mlc

Attachments: Figure 1 – Site Location
Figure 2 – Shoofly Boring Locations
Figure 3A – Bridge Bent Boring Locations
Figure 3B – Bridge Bent Boring Locations
Figure 4 – Hospital Route
Attachment A – Standard Operating Procedures
Attachment B – Hazards Analysis

Distribution: (1) Addressee (via e-mail)
(1) Mr. Riaz Ahmed, TRC BNSF Program Manager (via e-mail)



REFERENCE: 2007 THOMAS GUIDE FOR LOS ANGELES/ORANGE COUNTIES, STREET GUIDE AND DIRECTORY

APPROXIMATE SCALE IN FEET

0 2400 4800

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Map © Rand McNally, R.L.07-S-129

205732_A1.DWG

Ninyo & Moore

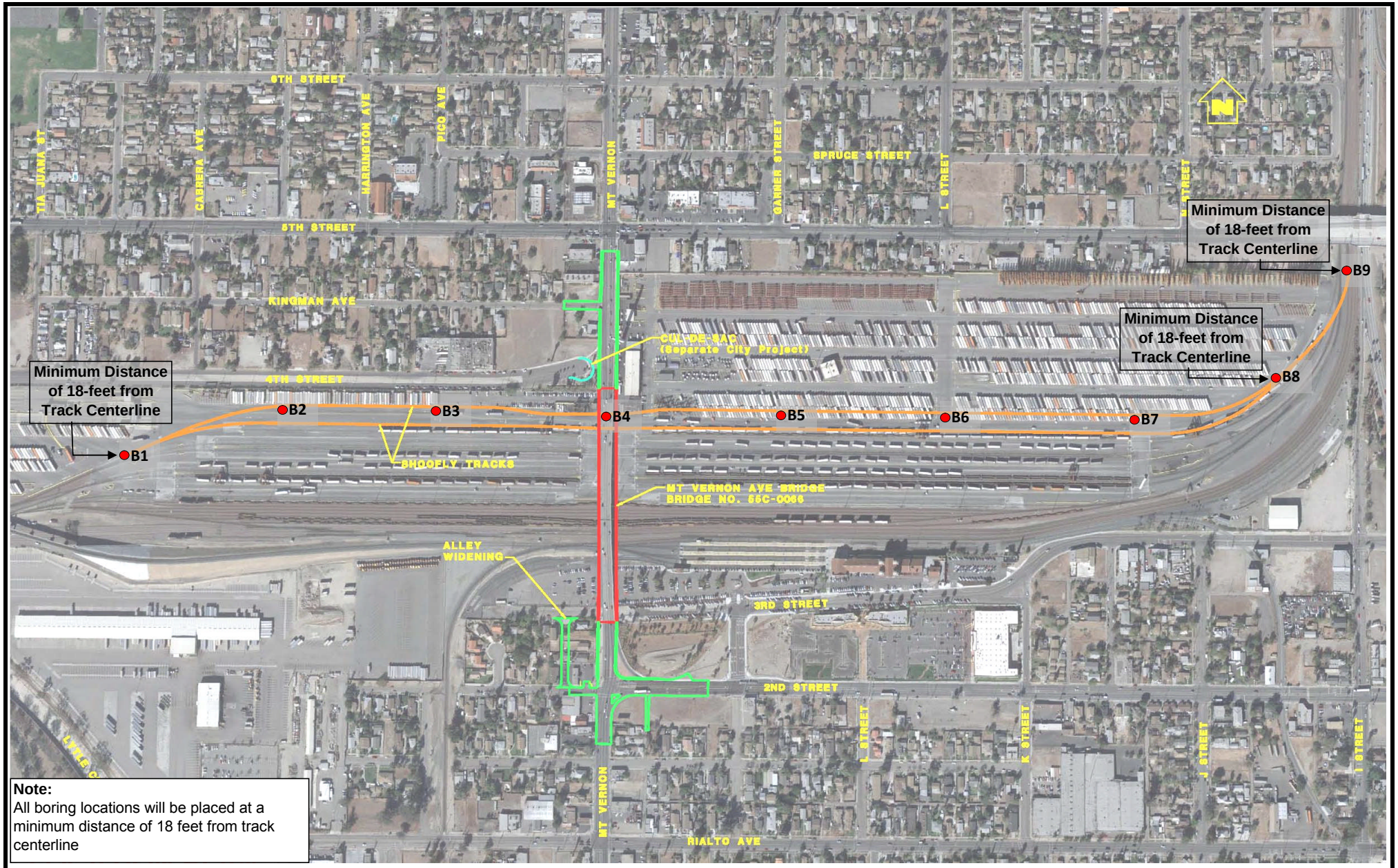
PROJECT NO.	DATE
205732003	12/13

SITE LOCATION

MOUNT VERNON AVENUE OVERHEAD REPLACEMENT
SAN BERNARDINO, CALIFORNIA

FIGURE

1



Note:
All boring locations will be placed at a minimum distance of 18 feet from track centerline

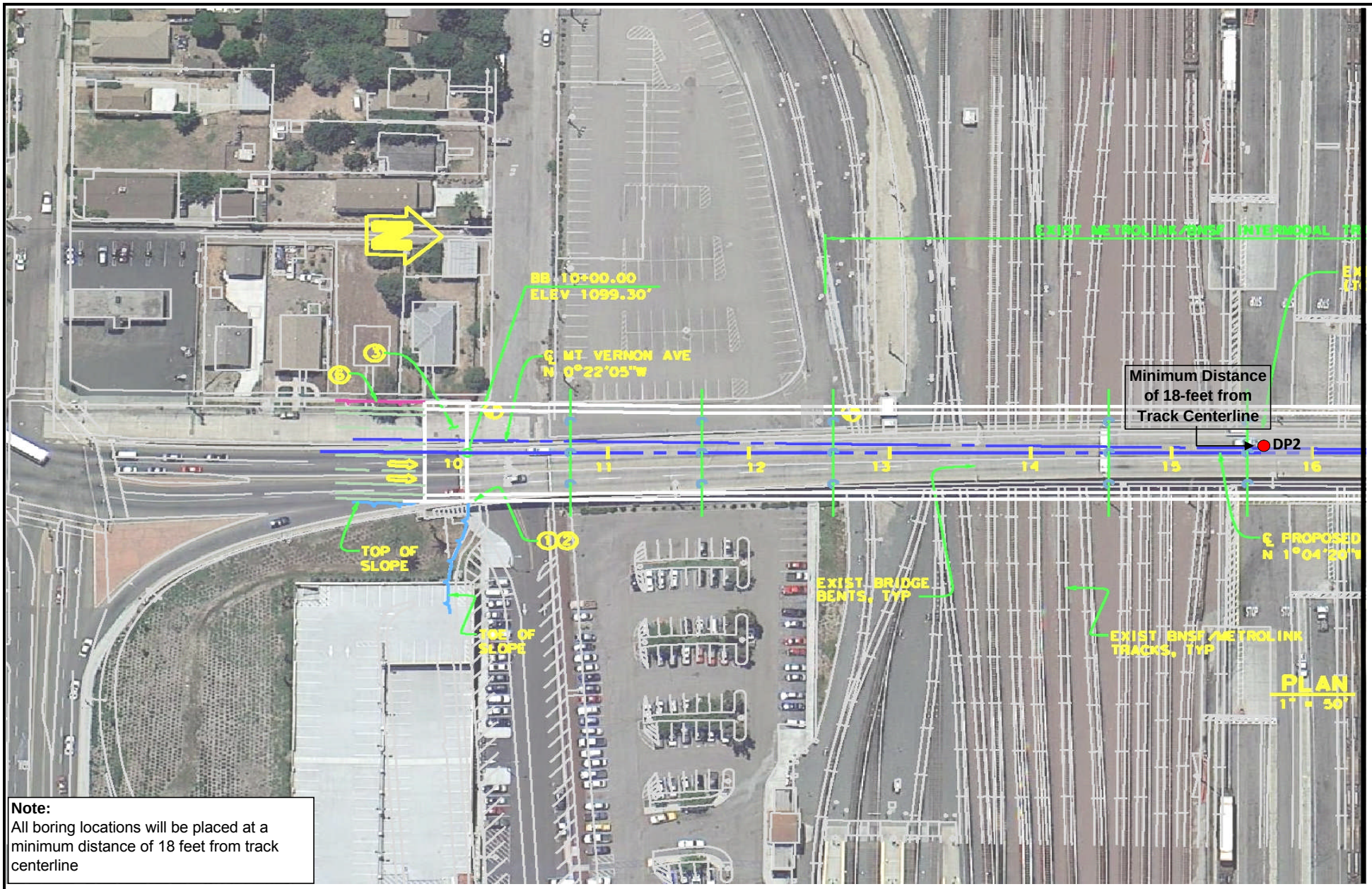
LEGEND

B1 SHOOFLY BORING LOCATIONS

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		SHOOFLY BORING LOCATIONS	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	2
205732003	12/13		



MATCH LINE - SEE FIGURE 3B

Note:
All boring locations will be placed at a minimum distance of 18 feet from track centerline

LEGEND

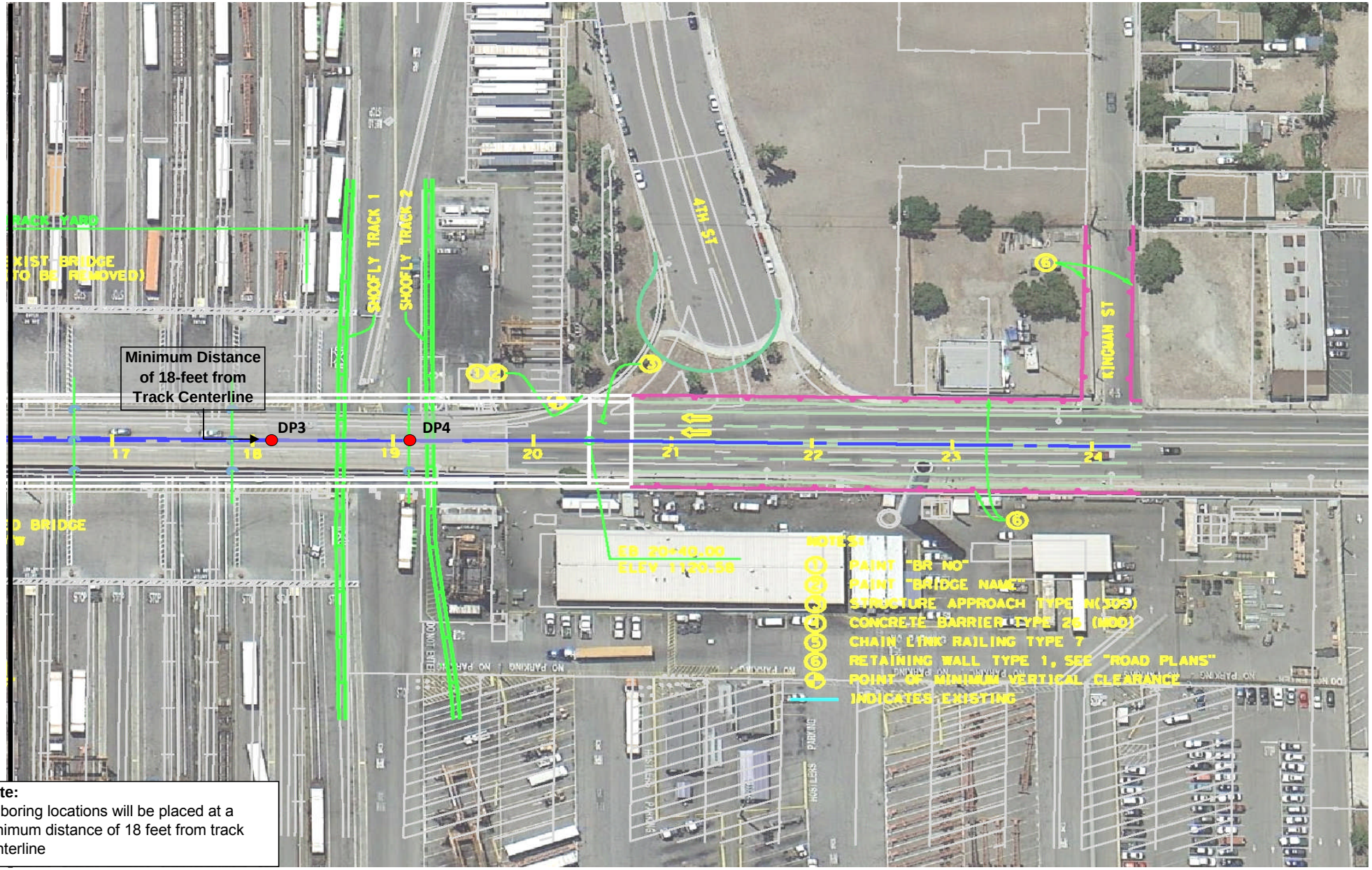
DP2 BRIDGE BENT BORING LOCATION

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		BRIDGE BENT BORING LOCATIONS	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	3A
205732003	12/13		

MATCH LINE - SEE FIGURE 3A



Note:
All boring locations will be placed at a minimum distance of 18 feet from track centerline

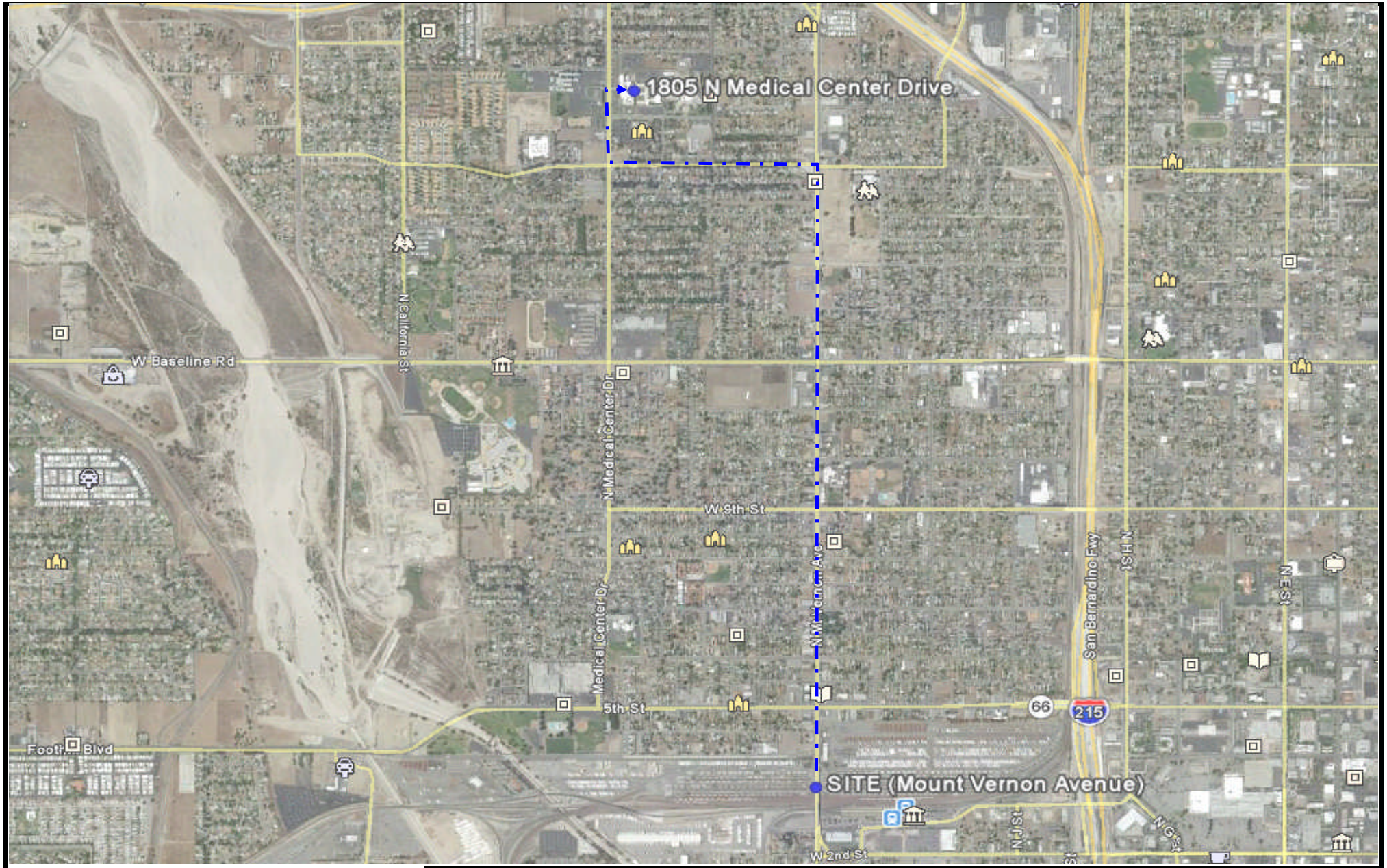
LEGEND

DP4 BRIDGE BENT BORING LOCATION

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore	BRIDGE BENT BORING LOCATIONS	FIGURE
PROJECT NO. 205732003 / DATE 12/13	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	3B



LEGEND

HOSPITAL ROUTE

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		HOSPITAL ROUTE	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	4
205732003	12/13		

ATTACHMENT A

STANDARD OPERATING PROCEDURES

Direct-Push Soil Sampling

Prior to drilling the soil borings, the proposed locations will be photographed and hand-augered to approximately 5 feet below ground surface to clear utilities. The borings will then be drilled using a direct-push drill rig system to collect soil (and groundwater) samples from beneath the site. Drilling services will be provided by a State-licensed drilling contractor. The direct-push rig consists of a van or pick-up truck-mounted hydraulic ram/pneumatic hammer system which pushes 4-foot-long, 1¼-inch-diameter rods. Soil samples are collected by attaching a 2- or 4-foot-long, 1.6- or 2-inch-diameter, stainless steel core sample or macro-core sampler containing brass or acetate sleeves to the bottom of the rods.

The probe-drive sampler consists of the sampler, sample tube, center rods, and a drive head. The sample tubes are placed in the sampler. The center rods are placed into the sampler. The drive head is then screwed onto the top of the sampler.

Undisturbed soil samples are collected by driving the sampler and rods to the target depth. The center rods keep the piston tip from rising into the sampler. Subsequently, the probe-drive sampler remains sealed while it is pushed or driven to the desired sampling depth. Once the target depth is reached, a two-foot drive rod without a center rod is placed on top of the drive rod string. The sampler is then pushed approximately 24 inches. As the sampler is pushed down, the piston tip and center rods rise in the sampler on top of the intruding soil. The rods and sampler are then retrieved. The sampler is disassembled, the sample tubes removed for sample logging, identification, and analysis, and the apparatus decontaminated prior to reuse.

On retrieval, the sample sleeve containing the soil samples will be removed from the sampler, cut to the desired sample length, capped with Teflon sheeting, and sealed with polyethylene end caps. The sample tube will be labeled with the project number, sample number, sample depth, collection date and time, and sampler's initials. The soil samples will be placed in sealable plas-

tic bags and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius. These samples will be used for chemical analysis, with the exception of volatile organic compounds (VOCs).

Soil Sample Screening for VOCs

Before field work begins each day, the photo-ionization detector (PID) will be zeroed against the ambient air and calibrated to 100 parts per million isobutylene. The soil in the second sample sleeve from the shoe of the sampler will be used to describe the soil and to measure VOCs using the PID. A portion of the sample will be removed and placed in a resealable plastic bag. The sample will then be agitated and set aside in the sun for approximately 15 to 30 minutes to allow organic vapors, if present, to accumulate in the void space (headspace) of the bag. Readings from the PID are used to provide a field evaluation of the presence and relative concentrations of VOCs in soil.

Grab Groundwater Sampling

Grab groundwater sampling procedures may include sampling by Hydropunch™ or through a temporary well. The most appropriate method will be selected based on the soil boring methods described in the work plan and site conditions.

Sample Handling and Analysis

Samples will be labeled with the following information: sample identification, date, time, and analysis. Sample information will be recorded on a chain of custody (COC). Soil and water samples will be placed in plastic baggies and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius for transportation to a laboratory certified by the Department of Public Health Environmental Accreditation Program, for analysis.

Soil Classification

Soil cuttings, the soil from the shoe of the sampler, and the remaining sleeves will be examined and logged. Soil characterization information, including soil type (e.g., fill, native soil, or bedrock) will be recorded on boring logs in accordance with the Unified Soil Classification System. Soil descriptions, sample type and depth, texture, color, density or consistency, odor, an estimate

of soil moisture content, percent recovery in the sampling sleeve, and related drilling information will be recorded in general accordance on boring logs. Boring logs will be reviewed by a Ninyo & Moore California licensed Professional Geologist or Civil Engineer.

Decontamination

Reusable sampling equipment will be decontaminated before each use, using the triple rinse method (water containing Alconox® detergent, one rinse of water, and a final rinse with de-ionized water between each sample.

Chain-of-Custody Documentation

Sample information including: project name, sample location, sample identification, date of sample collection, time of sample collection, analyses, sample matrix, laboratory turn-around-time, number and type of containers, sample matrix, and preservation method will be recorded on a COC. The COC will be filled out and signed with the date and time by the sampler. The COC will accompany the samples. If the custody of the samples and COC are transferred the COC will be signed with the date and time by the releasing and new custodians.

Backfill

Hand-auger and direct-push boreholes will be backfilled to within 4-inches of ground surface with hydrated bentonite, and resurfaced to original grade. After resurfacing, each borehole will be photographed.

Investigative Derived Waste (IDW) Handling

Discarded single use equipment/items, such as gloves and pails, will be disposed as municipal solid waste. IDW is not considered hazardous waste and can be disposed at a permitted disposal facility. Discarded equipment, which can still be re-used, will be rendered inoperable prior to its disposal in the refuse facility.

Excess soil cuttings, waste water, and decontamination water will be stored in Department of Transportation approved drums in a secure on-site location provided by the Port of Los Angeles, Environmental Management Division (Port). The drums will be removed and disposed at a facility licensed to receive the waste after the material has been characterized using the site sampling

data. The disposal facility will be a Port approved facility and will be determined after the waste has been characterized.

Personal protective equipment and equipment intended for one time use will be rendered inoperable, collected in large trash bags, and disposed as normal non-hazardous waste.

ATTACHMENT B

HAZARDS ANALYSIS

Significant Hazards

Significant hazards identified during the job-hazard analysis include work near roadways, noise, falling, slipping, tripping, manual lifting, extreme heat or heat stress, general physical hazards, and lifting/twisting hazards. The following sections provide more information.

- **Work Near Roadways**

  Work on the shoulder will subject workers to heavy traffic, some moving at high speeds. Workers will maintain a high awareness of traffic conditions during work location mobilization and during subsequent activities. Whenever possible, work will be conducted behind barriers such as guard rails, sound walls, or field vehicles.

- **Subcontractor-Furnished Equipment Including Energized and Rotating Equipment (Direct-Push Drill Rig)**

  The subcontractor is responsible for proper and safe operation of all the equipment they bring to the site. Ninyo & Moore employees will not operate subcontractor-furnished equipment unless that equipment is expressly provided for use by Ninyo & Moore personnel. This section does not prohibit use of power from subcontractor-provided generators or the handling of drilling tool components such as samplers.

  Heavy equipment with rotating shafts or gears will be guarded where practicable to prevent accidental contact. Only experienced operators are allowed to work around rotating parts that cannot be adequately guarded. Personnel who must work around rotating equipment will not wear loose-fitting clothes that could get caught.

  Site personnel will not operate or handle drilling equipment or heavy equipment owned by subcontractors. The drilling subcontractors will maintain and implement safety procedures according to their safety and health plan. Only qualified subcontractor personnel will operate heavy equipment during field activities. Subcontractors will maintain in operating condition all appropriate safety devices on machinery and rotating equipment (e.g., backup alarms, emergency stops, guards) at all times. Subcontractors will implement effective safety programs for use of this type of equipment.

- **Noise**

  Working near the roadway and active railroad tracks can subject workers to noise exposures in excess of allowable limits. Personnel who operate or must work next to the roadway or railroad tracks will be required to wear hearing protection (ear plugs or muffs) to reduce their exposure to excessive noise. Persons exposed to noise in excess of 85 decibels (estimated) will be required to wear hearing protection.

- **Falling, Slipping, and Tripping**

  Work zone surfaces will be maintained in a neat and orderly state. Foot traffic will avoid areas where materials are stored on the ground. Tools and materials will not be left randomly on surfaces when not in direct use. The field supervisor will assure that the work area around each hand auger operation is maintained in a neat and orderly state.

- **Manual Lifting Techniques**

  During any manual material-handling tasks, personnel will be trained to lift with the force of the load suspended on their legs and not on their backs. An adequate number of personnel or an appropriate mechanical device must be used to safely lift or handle heavy equipment. When heavy objects must be lifted manually, workers will keep the load close to the body and will avoid any twisting or turning motions to minimize stress on the lower back.

- **Extreme Heat and Heat Stress**

  Heat stress is an important health consideration in warm weather. Weather conditions, characterized by high temperatures and low humidity, in conjunction with wearing personal protective clothing, may aggravate heat-stress problems. Standard measures, including designating a shaded rest area, taking frequent rest breaks, and performing heat-stress monitoring of workers, may be used to minimize heat-stress-related problems. A readily available supply of liquids, such as water and fluids containing electrolytes, will be available at the work site to replenish body fluids. Visual observation of workers by the Site Health and Safety Officer (SHSO) for heat-stress-related signs and symptoms, and body core temperature monitoring will be performed when outside temperatures exceed 70 degrees Fahrenheit and impermeable clothing is being worn, when outside temperatures exceed 90 degrees Fahrenheit in street clothes, or whenever other conditions warrant. Signs and symptoms of heat stress include profuse sweating, headache, skin flushing, dizziness, confusion, and rapid heart rate. Workers exhibiting a body core temperature of 100.4 degrees Fahrenheit or greater (measured at the ear drum) will be removed to a cooler area or activity until body core temperature returns to below 99 degrees Fahrenheit.

  If persons exhibiting heat-stress symptoms are left untreated, the condition can elevate to heat stroke. Heat stroke is typically manifested by hot, dry skin with a body core temperature of 104 degrees Fahrenheit or greater. Heat stroke can be fatal if treatment is delayed. Therefore, persons exhibiting heat-stroke symptoms need to have their core temperature re-

duced immediately by use of cold packs, cold water wipes, or immersion. Heat-stroke victims need to be transported to a professional medical facility immediately after the victim's core temperature has been reduced or while the victim's core temperature is being reduced.

- **General Physical Hazards**

  The site may include ditches, areas that are poorly drained, rough or uneven terrain, depressed areas, protruding objects, and impalement hazards. The SHSO will assure that a careful prework walkover is made of all work areas and potential access or egress routes. Unsafe areas may be flagged or taped by the SHSO and will be identified to all personnel.

- **Solar Radiation**

  The SHSO will encourage field personnel working out doors to utilize covering or sunblock preparations to minimize the harmful effects of the sun's rays on the skin.

- **Lifting/Twisting Injuries**

  Use of hand augers subjects the sampler to forces which could cause back, shoulder, or neck injury. Common-sense safety precautions will be followed such as frequent rest breaks, proper lifting technique, and careful ergonomic practices.

Chemical Hazards

This section describes the toxicological (health) hazards associated with exposure to organic and inorganic chemicals and metals during the project. Chemicals which are expected to be encountered are discussed in the following sections.

Chemical hazards identified during the job hazard analysis include lead, volatile organic compounds (VOCs), chlorinated herbicides, organochlorine pesticides, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs) and other heavy metals.

- **Total Petroleum Hydrocarbons (TPH)**

  TPH is a term used to describe a large family of several hundred chemical compounds that originally come from crude oil. TPH is a mixture of chemicals, but they are all made mainly from hydrocarbons. Some chemicals that may be found in TPH are hexane, jet fuels, mineral oils, benzene, toluene, xylenes, naphthalene, and fluorine, as well as other petroleum products and gasoline components. Some of the TPH compounds can affect your central nervous system. One compound can cause headaches and dizziness at high concentrations in the air. Another compound can cause a nerve disorder called "peripheral neuropathy," consisting of

numbness in the feet and legs. Other TPH compounds can cause effects on the blood, immune system, lungs, skin, and eyes.

Animal studies have shown effects on the lungs, central nervous system, liver, and kidney from exposure to TPH compounds. Some TPH compounds have also been shown to affect reproduction and the developing fetus in animals. The International Agency for Research on Cancer (IARC) has determined that one TPH compound (benzene) is carcinogenic to humans. IARC has determined that other TPH compounds (benzo[a]pyrene and gasoline) are probably and possibly carcinogenic to humans. Most of the other TPH compounds are considered not to be classifiable by IARC.

- **Benzene**

  Benzene is a common constituent of motor fuels, aviation gasoline, and some industrial solvents. A known human carcinogen, benzene is the principal concern and the basis for establishing the action levels for continuous monitoring equipment in the vicinity of gasoline and other light distillate products. Continuous organic vapor monitoring will not detect benzene specifically; therefore, the action level is based upon the conservative assumption that the benzene content of the volatile mixture is less than 20 percent. The action level for respiratory protection may be revised once the airborne contaminant environment is fully characterized. The use of benzene-specific detector tubes or portable gas chromatography may be used to quantify benzene concentrations. In the event that the presence of benzene is confirmed to be above the Occupational Safety and Health Administration (OSHA) action level, guidelines set forth in the OSHA document, Benzene Regulated Areas, will be implemented.

- **VOCs**

  VOCs are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands.

  Health effects may include eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans. Key signs or symptoms associated with exposure to VOCs include conjunctival irritation, nose and throat discomfort, headache, allergic skin reaction, dyspnea, declines in serum cholinesterase levels, nausea, emesis, epistaxis, fatigue, dizziness.

  The ability of organic chemicals to cause health effects varies greatly from those that are highly toxic, to those with no known health effect. As with other pollutants, the extent and nature of the health effect will depend on many factors including level of exposure and length of time exposed. Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have

experienced soon after exposure to some organics. Many organic compounds are known to cause cancer in animals; some are suspected of causing, or are known to cause, cancer in humans.

- **Pesticides**

  Pesticides potentially used or disposed at the site range from relativity low-toxicity products to highly poisonous compounds. Exposure to extremely small quantities of some pesticides may result in serious bodily harm, even death.

- **Polychlorinated Biphenyls (PCBs)**

  PCBs, also referred to as Aroclors, are synthetic industrial products that have been commonly used as cooling fluid and for electrical insulation. PCBs are common contaminants of oily type waste and are found around railroad tracks and in industrial areas and dumps. PCBs are recognized environmental pollutants and suspected human carcinogens. Work involving exposure to PCBs above the atmospheric action level or in contact materials exceeding 100 micrograms per gram may require special medical evaluation and approval of the SHSO.

- **Chlorinated Solvents**

  Chlorinated solvents present a wide range of toxic modalities, with certain compounds being highly toxic and others being essentially inert. Chlorinated solvents are often identified by a familiar characteristic odor. The photoionization detector (PID) used for field monitoring has reduced sensitivity (response factor) for some chlorinated hydrocarbons. Detector tubes or other methods may be used for detection. Sensing of the characteristic odor indicates the need to upgrade respiratory protection and to initiate personnel monitoring. A conservative action level of 5 parts per million above background will be utilized for upgrading of respiratory protection at each boring location. Should work continue in respiratory protection, an exclusion zone will be constructed to minimize exposure to organic vapor in excess of the action level to personnel outside this zone. This measure will also serve to protect casual observers and the community in general.

- **Lead**

  Lead will be encountered as a contaminant of soil in locations near the freeways. Lead is a toxic heavy metal and a suspected carcinogen that may be encountered in inorganic and organic forms. Geoprobe sampling and hand-augering at the selected locations is not expected to generate airborne dust at levels where lead exposure is significant. If high winds are encountered, work will be temporarily stopped until better weather conditions can be maintained.

- **Heavy Metals**

  A variety of heavy metals may be present in low concentrations at the site. Some heavy metals are highly toxic; others are also recognized human carcinogens. Because these materials are not volatile unless highly heated, control by proper use of PPE and personnel hygiene practices will prevent significant exposure to heavy metals.

- **PAHs**

  PAHs are produced from coal tar and other sources and are used in a variety of industrial products. PAH is a recognized human carcinogen. Exposure by any route to PAH and other recognized human carcinogens will be maintained at the absolute practicable minimum level.

Biological Hazards

The SHSO will screen the area for biological hazards during the initial site visit and will discuss any problems with installation personnel during the prework review. Multiple biological hazards are present at the site. The most common hazards anticipated are discussed below.

- **Rattlesnakes**

  Personnel should be extremely careful when walking through tall grass, rocks, or debris. If a rattlesnake is encountered, slowly and quietly back away from the snake. Inform all personnel at the site of its location. Do not attempt to move or kill a snake because certain species of rattlesnake are protected under state and federal laws. In the event of a snakebite, immediately summon emergency medical services and notify the SHSO. Do not try to move the affected limb; instead, immobilize the injured area, keeping it lower than the heart if possible, and wait for transportation. Do not apply ice; do not cut the wound; do not apply a tourniquet. The venom should be wiped off the skin since venom will attack intact skin.

- **Insects**

  Bees, wasps, yellow jackets, black widow spiders, scorpions, and brown recluse spiders present a potential hazard on this project, especially so for those individuals sensitized to those bites or stings. Prior to initial assignment on this project, personnel with known allergic responses to insect stings will be identified and field supervisors made aware of this condition. These personnel will also carry an antidote kit if so advised by their physician. The SHSO will confirm that the antidote kit is accessible and notify the emergency medical service providers in the event of any incident.

In all cases, a victim suspected of being bitten by either a black widow or brown recluse spider or stung by a scorpion will receive medical attention. The venom from the brown recluse spider is capable of causing coma and kidney failure in its victim.

Protection methods against insects may be employed, such as the use of protective clothing or insect repellents, as well as extermination measures, and training in recognition and identification of harmful insects.

- **Poisonous Plants**

Poisonous plants may be present at the site. Poison ivy, poison oak, and poison sumac are identified by three leaves or five leaves emanating from a stem. The plants contain a resin that causes a delayed allergic hypersensitivity reaction on contact. The resin is active in live, dead, dry, and burned plant parts, and it may be carried through the air. Signs and symptoms are usually evident within 24 to 48 hours after exposure. These include burning, stinging, and blisters. Notify the SHSO if these plants are observed. If exposure or contact occurs, wash the affected area, but do not spread the resin to un-contacted areas.

August 28, 2013
Project No. 205732003

Mohan Char, Ph.D., P.E.
AECOM
999 W Town & Country Road
Orange, California 92868

Subject: Work Plan for Environmental Site Investigation
Mount Vernon Avenue Overhead Replacement Project
Burlington Northern and Santa Fe Railroad Yard
San Bernardino, California

Reference: Ninyo & Moore, 2010, Revised Initial Site Assessment, Mount Vernon Avenue Bridge and Proposed Shoofly Track Area, Burlington Northern and Santa Fe Railroad Yard, San Bernardino, California, dated January 13.

Dear Dr. Char:

In accordance with your request and authorization, Ninyo & Moore has prepared this summary of a work plan for an environmental site investigation for the Mount Vernon Avenue Overhead Replacement Project of the Mount Vernon Avenue Bridge and the proposed Shoofly Track area at the Burlington Northern and Santa Fe (BNSF) Railroad Yard in the City of San Bernardino, California (site, Figure 1). This summary is intended to briefly describe the drilling and sampling of one boring proposed on the property owned by the San Bernardino Associated Governments (SANBAG). The Lease/License Application for the permission to enter, advance and sample the boring is provided as Attachment A.

INTRODUCTION/BACKGROUND

In 2009, Ninyo & Moore prepared the above referenced Initial Site Assessment (ISA) report (revised 2010) to evaluate the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release at the site. The site includes the Mount Vernon Avenue Bridge and its approaches near 2nd and 5th Streets. The bridge structure extends over a BNSF railroad intermodal facility, BNSF yard operation tracks, BNSF transcontinental tracks, Metrolink tracks, and a Metrolink parking lot. It is our understanding that the City of San Bernardino intends to replace the Mount Vernon

Avenue Bridge. Soil (and groundwater if encountered) beneath the bridge within the proposed demolition and construction zones will be sampled and analyzed for chemicals of concern including petroleum hydrocarbons, metals, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and chlorinated herbicides. Testing should be done during the final design phase to reduce the impact on BNSF operations. The testing should be done in one mobilization.

SCOPE OF SERVICES

Based on the results of the ISA, Ninyo & Moore has identified one direct push soil boring (DP1) to be advanced to approximately 50 feet and sampled on SANBAG property. Photographic documentation of the proposed investigation areas will be taken prior to and following the completion of the proposed field work. Soil samples will be collected at the surface and at 5-foot intervals thereafter to the total depth. Samples will be field screened for VOCs using a photoionization detector (PID). Based on the PID readings, select soil samples will be analyzed for total petroleum hydrocarbons with carbon-chain spectrum (TPHcc) in general accordance with United States Environmental Protection Agency (EPA) Method 8015B, VOCs plus oxygenates by EPA Method 8260B, SVOCs by EPA Method 8270C, California Assessment Method (CAM) 17 Metals by EPA Method 6010B/7471A, PCBs by EPA Method 8082, and chlorinated herbicides by EPA Method 8151.

Point of Access and Site Control

Point of access for the boring DP1 will be the main parking lot entrance from 3rd Street. For intrusive field activities such as direct-push sampling and hand auger/soil sampling operations, precautions shall be taken to assure that only authorized personnel with the proper training, certification, and personal protective equipment (PPE) enter work areas associated with direct-push sampling operations, operation of hand augers, and/or the potential for exposure to hazardous conditions/materials. In these areas, access is controlled with caution tape and/or barricades.

Prior to the start of field work and following completion of field work, photographs will be taken of the proposed work areas.

Soil Sampling

Surface soil samples will be collected directly from the hand auger bucket and transferred into laboratory supplied jars. When advancing borings with a direct-push rig, the acetate drill-rod liners will be cut open to characterize the soil cores. Samples will be collected by transferring the soil from the desired depths into the appropriate size glass jars supplied by the analytical laboratory. Soil sampling procedures are presented in Attachment B.

Groundwater Sampling

Grab groundwater sample, if encountered in boring DP1, will be analyzed for TPHcc, VOCs, SVOCs, CAM 17 Metals, PCBs, and chlorinated herbicides.

Decontamination, Waste Management, and Disposal

Reusable sampling equipment, including brass or stainless steel sample liners will be decontaminated using the triple wash/rinse method (wash water containing a non-phosphate detergent, followed by two rinses with tap water, and a final rinse with distilled water) between each sample. Clean and decontaminated hand auger samplers will be used for each borehole location. Direct-push sampling equipment will be decontaminated before each sample is collected. Tubing and disposable bailers used will be disposed of after one use.

Excess soil cuttings, waste water, decontamination water, and investigation derived waste will be stored onsite in Department of Transportation-approved drums. The drums will be removed and disposed at a facility licensed to receive the waste after the material has been characterized using the site sampling data. The disposal facility will be an AECOM approved facility and will be selected after the waste has been characterized.

Site Restoration

After sampling in unpaved areas, the boreholes will be backfilled with hydrated bentonite to within four inches of ground surface and completed to surface grade. In paved areas, the boring will be backfilled with hydrated bentonite and patch with similar type of existing

pavement which will be equal to the existing thickness. Photographic documentation will be taken following the completion of the proposed field work.

POLLUTION PREVENTION MEASURES AND RUNOFF MANAGEMENT

The following pollution prevention measures and runoff management procedures will be implemented at the site.

Pollution Preventive Measures

- Inspect all containers upon delivery to the site for visible defects and ensure that each drum or container includes a re-sealable lid.
- Set any 55-gallon drums on wooden pallets to facilitate transport via forklift.
- Perform weekly inspections of the storage area.
- Select flat areas for temporary storage away from high-traffic zones and storm or sewer drains.

Spill Containment Measures

The following actions will be taken by Ninyo & Moore field personnel assigned to the field activities in the unlikely event of a spill:

- The Site Coordinator (field team leader) and Site Health and Safety Officer (SHSO) are to be notified immediately.
- Workers not involved in spill containment and/or cleanup shall evacuate the immediate area and designated emergency response personnel attired in appropriate PPE, shall proceed to the spill area with a spill cleanup and control kit, including absorbent materials.
- Attempts shall be made to stop the source(s) of spillage immediately.
- The SHSO shall monitor for exposure to chemicals or hazardous substances during spill cleanup work and shall stay at the spill area until the area has been cleared, inspected, and readied for reentry. A spill incident report shall be prepared by the SHSO.

HEALTH AND SAFETY PLAN

A hazards analysis was performed for the site. The site specific physical, chemical, and biological hazards are included the Health and Safety Plan (HSP).

REPORTING

Ninyo & Moore will prepare a Site Investigation (SI) report, which will describe our field methodologies, findings, conclusions and recommendations for handling soil in construction, and development of HSPs. The report will include analytical results in narrative and tabular form, sample location diagrams, photographs, copies of signed waste manifests, and recommendations for additional assessment if appropriate. The report will be signed by a Ninyo & Moore, California licensed Professional Geologist or Engineer.

We anticipate the SI report will be submitted approximately 30 working days (6 weeks) from the date the last sample is submitted to the laboratory.

Sincerely,
NINYO & MOORE

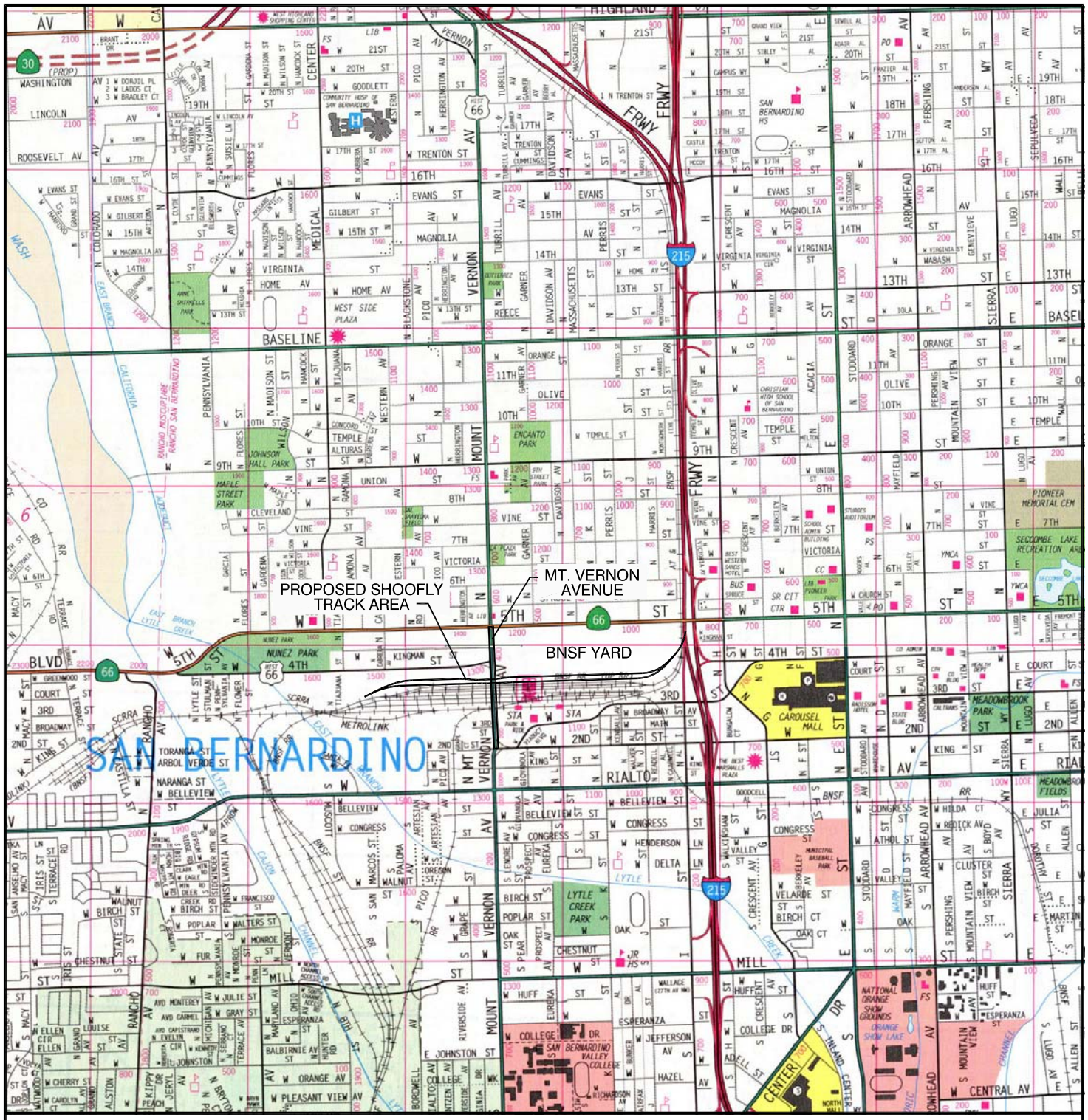
Summer J. Hansen-Rooks
Project Environmental Scientist

John Jay Roberts, PG, CEG
Senior Geologist

SJH/JJR/sc

Attachments: Figure 1 – Site Location
Figure 2 – Boring Location
Attachment A – Epic Land Solutions, Inc. SANBAG Lease/License Application
Attachment B – Standard Operating Procedures

Distribution: (1) Addressee (via e-mail)
(1) Mr. Todd W. Dudley, P.E., S.E., AECOM (via e-mail)



REFERENCE: 2007 THOMAS GUIDE FOR LOS ANGELES/ORANGE COUNTIES, STREET GUIDE AND DIRECTORY

APPROXIMATE SCALE IN FEET

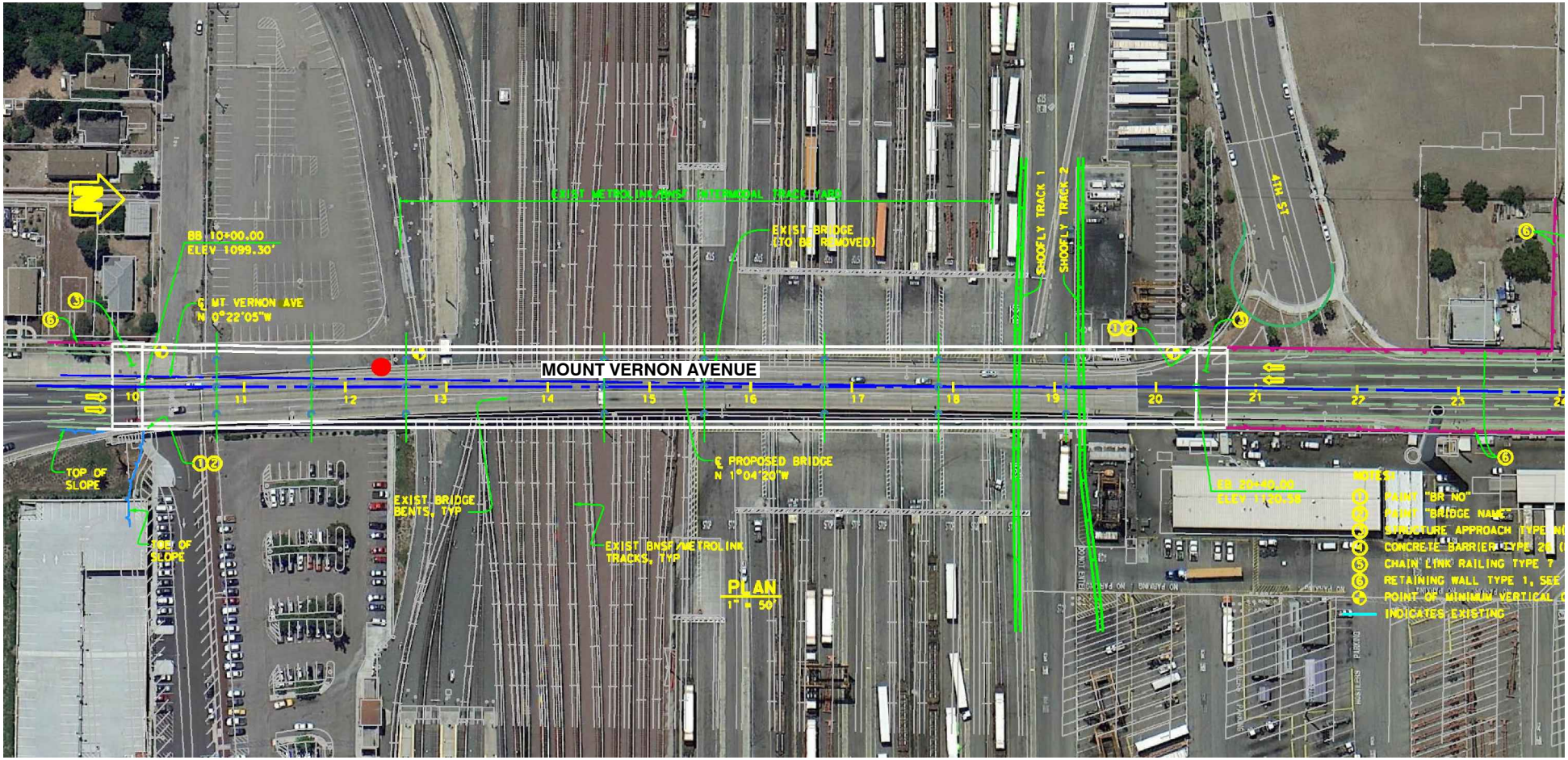
0 2400 4800

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Map © Rand McNally, R.L.07-S-129

Ninyo & Moore	SITE LOCATION	FIGURE
PROJECT NO. 205732003 / DATE 8/13	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	1



REFERENCE: GOOGLE EARTH AERIAL PHOTO, 2013.

LEGEND	
●	PROPOSED BORING

N

SCALE IN FEET

0 150 300

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		BORING LOCATION	FIGURE
PROJECT NO.	DATE	MOUN VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	2
205732003	8/13		

205732003_PBL.dwg 11:28:28 08/28/2013 GK

ATTACHMENT A

EPIC LAND SOLUTIONS, INC. SANBAG LEASE/LICENSE APPLICATION

Epic Land Solutions, Inc.

3850 Vine Street, Suite 200
Riverside, CA 92507

Phone: (951) 321-1800
Fax: (951) 321-1836

SAN BERNARDINO ASSOCIATED GOVERNMENTS
LEASE / LICENSE APPLICATION

INFORMATION BY APPLICANT

Date Submitted: August 26, 2013
Project Name: Mount Vernon Avenue OH (Replacement)
Project Location: Area beneath existing bridge adjacent to SANBAG parking area west of Santa Fe Depot
City: San Bernardino

Name of Person/Contractor Submitting Application on Behalf of Applicant: John Jay Roberts
Company Name: Ninyo & Moore
Person/Contractor's Address: 475 Goddard, Suite 200
Irvine, CA 92618

Person/Contractor Telephone #: (949) 753-7070
Fax #: (949) 753-7071
E-mail: jroberts@ninyoandmoore.com

Name of Applicant as it will Appear On Document: John Jay Roberts
State of Incorporation/Status: _____
Address of Licensee: 475 Goddard, Suite 200, Irvine, CA 92618

Name & Title of Individual Who Will Execute Agreement: John Jay Roberts, Senior Geologist

Contact Information:
Telephone #: (949) 753-7070 (x12210)
Fax #: (949) 753-7071
E-Mail: jroberts@ninyoandmoore.com

SANBAG/EPIC USE ONLY

Plan Check Fee: $_____
File Number: _____

Submittal Date: _____
Project Number: _____

Mile Post: _____
Thomas Guide: _____

Subdivision/Branch _____
Date Received: _____

Epic Land Solutions
San Bernardino Associated Governments

850 Vine Street, Suite 200
Riverside, California 92507
951-321-1800

SANBAG File No.: _____

UNDERGROUND STRUCTURE INFORMATION
(Information by Applicant)

Project Name: Mount Vernon Avenue OH (Replacement)

Notes:
1. Applicant to fill in all information lines or N/A if it does not apply
2. If pipe or casing diameter is greater than 42 inches, applicant must submit engineering plans, calculations, specification, soil reports, shoring plans, and sequence of construction

Carrier Pipe: ☐ New Construction ☐ Reconstruction N/A

Non-Flammable Substance: ☐ Flammable Substance: ☐ N/A

Applicant Doing Business as: ☐ Individual ☐ Partnership ☒ Corporation ☐ Municipality

Nearest Cross Street: 3rd Street
Angle of Crossing with Tracks: N/A
Pipe Slope or Gradient: N/A

	Carrier Pipe	Casing Pipe
Content to be handled		
Nominal Diameter		
Pipe Material		
Specifications and Grade		
Wall Thickness		
Operating Pressure/Maximum Pressure		
Minimum Yield Strength		
Type of Joints		
Coating Material		
Length of Casing		
Longitudinal Distance from Centerline of Track		
Vents: Number		
Distance from Centerline of Track		
Depth: Base of Rail to Top of Casing		
Roadway Ditches		

Method of Installation:
Dry Bore ☐ Directional Bore ☐

Type, Size, and Spacing of Insulator Supports		
Distance to Shut-off Valve on Each Side of R/W		
Type of Seals at Ends of Casings		
Casing Filler		
Longitudinal Pipeline: Distance from C/L of Outside Track		
Depth of Bury to Top of Pipe		

Number of Conduits _____ Size _____
Number of Fibers Per _____

Epic Land Solutions
San Bernardino Associated Governments

850 Vine Street, Suite 200
Riverside, California 92507
951-321-1800

SANBAG File No.: _____

OVERHEAD STRUCTURE INFORMATION
(Information by Applicant)

Project Name: _____

Notes: 1. Applicant to fill in all information lines or N/A if it does not apply
2. If pipe or casing diameter is greater than 42 inches, applicant must submit engineering plans, calculations, specification, soil reports, shoring plans, and sequence of construction

New Construction ☐ Reconstruction ☐ Maintenance ☐

Communication Line ☐ Fiber Optic ☐ Power Line ☐

Existing Facility

Height Above Top of Rail in Feet:
Supply _____
Communication: _____
Fiber Optic: _____

General Information

Angle of Crossing with Track: _____
Length of Span in Feet: _____
Height Above Top of Rail in Feet: _____
(No Wind, 60 Degrees)

Poles

Type: Existing ☐ New ☐
Length of Pole in Feet _____
Circumference of Top of Pole in Inches (16" Cir Min.)
Location of Pole with Respect to Right of Way _____
_____
Pole Inside of R/W Left _____ Right _____
Pole Outside of R/W Left _____ Right _____
Dept of Pole Below Ground Surface in Feet (5 Ft. Min. in Soil) _____

Cable

Type: Supply ☐ Communication ☐ Fiber ☐
Voltage _____ Number _____ Size _____
Frequency _____ Phase _____
Number of Fibers _____ Type _____

ATTACHMENT B

STANDARD OPERATING PROCEDURES

Direct-Push Soil Sampling

Prior to drilling the soil borings, the proposed locations will be photographed and hand-augured to approximately 5 feet below ground surface to clear utilities. The borings will then be drilled using a direct-push drill rig system to collect soil (and groundwater) samples from beneath the site. Drilling services will be provided by a State-licensed drilling contractor. The direct-push rig consists of a van or pick-up truck-mounted hydraulic ram/pneumatic hammer system which pushes 4-foot-long, 1¼-inch-diameter rods. Soil samples are collected by attaching a 2- or 4-foot-long, 1.6- or 2-inch-diameter, stainless steel core sample or macro-core sampler containing brass or acetate sleeves to the bottom of the rods.

The probe-drive sampler consists of the sampler, sample tube, center rods, and a drive head. The sample tubes are placed in the sampler. The center rods are placed into the sampler. The drive head is then screwed onto the top of the sampler.

Undisturbed soil samples are collected by driving the sampler and rods to the target depth. The center rods keep the piston tip from rising into the sampler. Subsequently, the probe-drive sampler remains sealed while it is pushed or driven to the desired sampling depth. Once the target depth is reached, a two-foot drive rod without a center rod is placed on top of the drive rod string. The sampler is then pushed approximately 24 inches. As the sampler is pushed down, the piston tip and center rods rise in the sampler on top of the intruding soil. The rods and sampler are then retrieved. The sampler is disassembled, the sample tubes removed for sample logging, identification, and analysis, and the apparatus decontaminated prior to reuse.

On retrieval, the sample sleeve containing the soil samples will be removed from the sampler, cut to the desired sample length, capped with Teflon sheeting, and sealed with polyethylene end caps. The sample tube will be labeled with the project number, sample number, sample depth, collection date and time, and sampler's initials. The soil samples will be placed in sealable plas-

tic bags and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius. These samples will be used for chemical analysis, with the exception of volatile organic compounds (VOCs).

Soil Sample Screening for VOCs

Before field work begins each day, the photoionization detector (PID) will be zeroed against the ambient air and calibrated to 100 parts per million isobutylene. The soil in the second sample sleeve from the shoe of the sampler will be used to describe the soil and to measure VOCs using the PID. A portion of the sample will be removed and placed in a resealable plastic bag. The sample will then be agitated and set aside in the sun for approximately 15 to 30 minutes to allow organic vapors, if present, to accumulate in the void space (headspace) of the bag. Readings from the PID are used to provide a field evaluation of the presence and relative concentrations of VOCs in soil.

Grab Groundwater Sampling

Grab groundwater sampling procedures may include sampling by Hydropunch™ or through a temporary well. The most appropriate method will be selected based on the soil boring methods described in the work plan and site conditions.

Sample Handling and Analysis

Samples will be labeled with the following information: sample identification, date, time, and analysis. Sample information will be recorded on a chain of custody (COC). Soil and water samples will be placed in plastic baggies and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius for transportation to a laboratory certified by the Department of Public Health Environmental Accreditation Program, for analysis.

Soil Classification

Soil cuttings, the soil from the shoe of the sampler, and the remaining sleeves will be examined and logged. Soil characterization information, including soil type (e.g., fill, native soil, or bedrock) will be recorded on boring logs in accordance with the Unified Soil Classification System. Soil descriptions, sample type and depth, texture, color, density or consistency, odor, an estimate

of soil moisture content, percent recovery in the sampling sleeve, and related drilling information will be recorded in general accordance on boring logs. Boring logs will be reviewed by a Ninyo & Moore California licensed Professional Geologist or Civil Engineer.

Decontamination

Reusable sampling equipment will be decontaminated before each use, using the triple rinse method (water containing Alconox® detergent, one rinse of water, and a final rinse with de-ionized water between each sample.

Chain-of-Custody Documentation

Sample information including: project name, sample location, sample identification, date of sample collection, time of sample collection, analyses, sample matrix, laboratory turn-around-time, number and type of containers, sample matrix, and preservation method will be recorded on a COC. The COC will be filled out and signed with the date and time by the sampler. The COC will accompany the samples. If the custody of the samples and COC are transferred the COC will be signed with the date and time by the releasing and new custodians.

Backfill

Hand-auger and direct-push boreholes will be backfilled to within 4-inches of ground surface with hydrated bentonite, and resurfaced to original grade. After resurfacing, each borehole will be photographed.

Investigative Derived Waste (IDW) Handling

Discarded single use equipment/items, such as gloves and pails, will be disposed as municipal solid waste. IDW is not considered hazardous waste and can be disposed at a permitted disposal facility. Discarded equipment, which can still be re-used, will be rendered inoperable prior to its disposal in the refuse facility.

Excess soil cuttings, waste water, and decontamination water will be stored in Department of Transportation-approved drums in a secure on-site location provided by the Port of Los Angeles, Environmental Management Division (Port). The drums will be removed and disposed at a facility licensed to receive the waste after the material has been characterized using the site sampling

data. The disposal facility will be a Port approved facility and will be determined after the waste has been characterized.

Personal protective equipment and equipment intended for one time use will be rendered inoperable, collected in large trash bags, and disposed as normal non-hazardous waste.

APPENDIX B

BORING LOGS

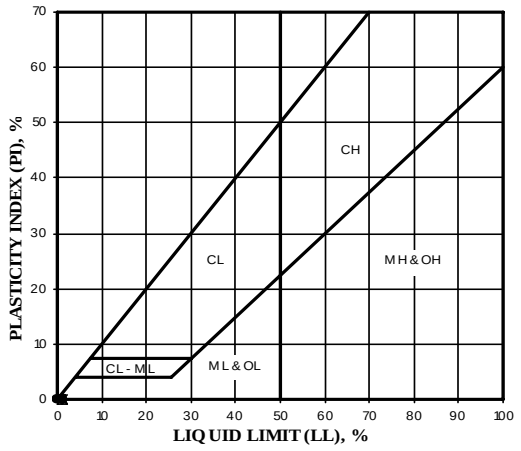
U.S.C.S. METHOD OF SOIL CLASSIFICATION

MAJOR DIVISIONS		SYMBOL	TYPICAL NAMES
COARSE-GRAINED SOILS (More than 1/2 of soil > No. 200 Sieve Size)	GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size	GW	Well graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 1/2 of coarse fraction < No. 4 sieve size	SW	Well graded sands or gravelly sands, little or no fines
		SP	Poorly graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (More than 1/2 of soil < No. 200 sieve size)	SILTS & CLAYS Liquid Limit <50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS Liquid Limit >50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

GRAIN SIZE CHART

CLASSIFICATION	RANGE OF GRAIN	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	306 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
Coarse	3" to 3/4"	76.2 to 19.1
Fine	3/4" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.075
Coarse	No. 4 to No. 10	4.76 to 2.00
Medium	No. 10 to No. 40	2.00 to 0.420
Fine	No. 40 to No. 200	0.420 to 0.075
SILT & CLAY	Below No. 200	Below 0.075

PLASTICITY CHART



Ninyo & Moore

U.S.C.S. METHOD OF SOIL CLASSIFICATION

Updated Nov. 2011

BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
0	■							Bulk sample.
		■						Modified split-barrel drive sampler.
		☒						No recovery with modified split-barrel drive sampler.
		▬						Sample retained by others.
		◤						Standard Penetration Test (SPT).
5		⁄						No recovery with a SPT.
		▯	XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
		⁄						No recovery with Shelby tube sampler.
		▤						Continuous Push Sample.
				⚲				Seepage.
10				▽				Groundwater encountered during drilling.
				▼				Groundwater measured after drilling.
						▦	SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.
						▨	CL	Dashed line denotes material change.
15								Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
20								The total depth line is a solid line that is drawn at the bottom of the boring.

Ninyo & Moore

BORING LOG

Explanation of Boring Log Symbols

PROJECT NO.	DATE	FIGURE
	Rev. 11/11	

DATE DRILLED 10/3/13 BORING NO. B1

GROUND ELEVATION 1,109' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 6 inches thick.
	■			B1-1.0	0.6			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel. Trace clay.
	■			B1-3.0	0.6				
	■			B1-5.0	1.0				Dark brown.
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/3/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20									
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Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-1

DATE DRILLED 10/3/13 BORING NO. B2

GROUND ELEVATION 1,109' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 21 inches thick.
	■			B2-2.0	1.4			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			B2-3.0	2.8				
	■			B2-5.0	2.4				
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/3/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-2

DATE DRILLED 10/3/13 BORING NO. B3

GROUND ELEVATION 1,105' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 18 inches thick.
	■			B3-2.0	8.9			ML	FILL: Dark brown, dry, sandy SILT; trace gravel.
	■			B3-3.0	8.3				
	■			B5-5.0	0.3				
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/3/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-3

DATE DRILLED 10/3/13 BORING NO. B4

GROUND ELEVATION 1,088' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 8 inches thick.
	■			B4-1.0	1.1			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			B4-3.0	0.8				
	■			B4-5.0	2.1				
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/3/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-4

DATE DRILLED 10/4/13 BORING NO. B5

GROUND ELEVATION 1,074' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■			B5-1.0	28.6			ML	ASPHALT/GRAVEL: Approximately 6 inches thick.
									FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			B5-3.0	10.8				
	■			B5-5.0	19.6			SM	Orange; silty SAND.
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-5

DATE DRILLED 10/4/13 BORING NO. B6

GROUND ELEVATION 1,068' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 6 inches thick.
	■			B6-1.0	108			ML	FILL: Dark brown, dry, sandy SILT; trace gravel.
	■			B6-3.0	200				
	■			B6-5.0	12.7				
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-6

DATE DRILLED 10/4/13 BORING NO. B7

GROUND ELEVATION 1,066' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 6 inches thick.
	■			B7-1.0	14.1			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			B7-3.0	22.3				
	■			B7-4.5	20.8				Total Depth = 4.5 feet (Refusal). Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-7

DATE DRILLED 10/4/13 BORING NO. B8

GROUND ELEVATION 1,069' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT DROP

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 6 inches thick.
	■			B8-1.0	18.8			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			B8-3.0	17.1				
	■			B8-5.0	35.6				Dark brown.
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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30									
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-8

DATE DRILLED 10/3/13 BORING NO. B9

GROUND ELEVATION 1,068' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Hand Auger

DRIVE WEIGHT _____ DROP _____

SAMPLED BY ACL/JEV LOGGED BY ACL/JEV REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 6 inches thick.
	■			B9-1.0	-			ML	FILL: Dark brown, dry, sandy SILT; trace gravel.
	■			B9-3.0	1.0				
	■			B9-5.0	0.6				
									Total Depth = 5 feet. Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/3/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20									
30									
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-9

DATE DRILLED 10/1/13 BORING NO. DP1

GROUND ELEVATION 1,075' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY JJJ/ACL LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									
	■			DP1-0.5	2.7			SM	ASPHALT: Approximately 6 inches thick.
									FILL: Moderate olive brown, dry, silty SAND; gravel.
	■			DP1-3.0	2.3				
	■			DP1-5.0	3.7				Trace clay.
								ML	Moderate yellowish brown, damp, sandy SILT. Silty SAND.
								ML	ALLUVIUM: Moderate yellowish brown, damp, sandy SILT.
10		■		DP1-10	4.2				
								SM	Moderate yellowish brown, damp, silty SAND.
		■		DP1-15	4.8				
20		■		DP1-20	6.7				
								ML	Moderate olive gray, damp, sandy SILT.
		⊠						SM	Moderate olive gray, damp, silty SAND.
									No recovery.
30		⊠							
									No recovery.
		⊠							
									No recovery.
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-10

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40						▽		SM	ALLUVIUM: (Continued) Moderate olive gray, damp, silty SAND.
									Total Depth = 45 feet. Groundwater was encountered at approximately 40 feet during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13. Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
50									
60									
70									
80									

DATE DRILLED 10/1/13 BORING NO. DP1

GROUND ELEVATION 1,075' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY JJJ/ACL LOGGED BY JJJ REVIEWED BY JJR

Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-11

DATE DRILLED 10/2/13 BORING NO. DP2

GROUND ELEVATION 1,080' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY ACL/JEV LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT: Approximately 18 inches thick.
	■			DP2-0.5	1.4			SM	FILL: Moderate brown, dry, silty SAND; gravel.
	■			DP2-3.0	0.7				Moderate olive brown. Bits of brick.
	■			DP2-5.0	1.2				Trace gravel/asphalt.
								ML	Damp; sandy SILT.
10		■		DP2-10	2.2			SM	ALLUVIUM: Dry; silty SAND.
		■		DP2-15	1.7				Moist.
20		■		DP2-20	2.0				Dry; gravel.
									Moist.
		■		DP2-25	1.2				
30		■		DP2-30	1.7				Damp; trace gravel.
		⊠		DP2-35					No recovery.
40		■		DP2-40	3.7				Moist.

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-12

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40						▽		SM	ALLUVIUM: (Continued) Moderate olive brown, moist, silty SAND.
									Total Depth = 45 feet. Groundwater was encountered at approximately 42 feet during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/2/13. Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
50									
60									
70									
80									

DATE DRILLED 10/2/13 BORING NO. DP2

GROUND ELEVATION 1,080' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY ACL/JEV LOGGED BY JJJ REVIEWED BY JJR

Ninyo & Moore

BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-13

DATE DRILLED 10/2/13 BORING NO. DP3

GROUND ELEVATION 1,082' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING

DRIVE WEIGHT DROP

SAMPLED BY ACL/JEV LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT: Approximately 18 inches thick.
	■			DP3-0.5	18.1			SM	FILL: Moderate brown, dry, silty SAND; gravel.
	■			DP3-3.0	1.1				Trace gravel; diesel odor; dark staining.
								ML	Moderate olive gray, dry, sandy SILT; trace clay; slight odor.
	■			DP3-5.0	22.0			SM	Moderate yellowish brown, dry, silty SAND; trace clay.
10		■		DP3-10	1.7			ML / SM	ALLUVIUM: Moderate yellowish brown, dry, sandy SILT. Moderate yellowish brown, dry, silty SAND.
		■		DP3-15	1.4				
20		■		DP3-20	2.3				
						▽			
		■		DP3-25	2.8			ML / SM	Moderate yellowish brown, moist, sandy SILT; trace gravel; trace clay. Moderate yellowish brown, moist, silty SAND; trace gravel.
									Moderate olive gray.
									Moderate yellowish brown.
30									Total Depth = 30 feet. Groundwater was encountered at approximately 23 feet during drilling. Staining and odor noted in 3 and 5 foot samples. Backfilled with hydrated bentonite on 10/2/13.
									Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-14

DATE DRILLED 10/2/13 BORING NO. DP4

GROUND ELEVATION 1,087' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY ACL/JEV LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT: Approximately 8 inches thick.
	■			DP4-0.5	2.2			SM	FILL: Moderate brown, dry, silty SAND; gravel.
	■			DP4-3.0	3.3				
									Total Depth = 4.5 feet (Refusal). Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10									
20									
30									
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-15

DATE DRILLED 10/3/13 and 10/4/13 BORING NO. DP4A

GROUND ELEVATION 1,087' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY JJJ LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								GM	ASPHALT: Approximately 6 inches thick.
	■			DP4A-0.5	51.4			ML	FILL: Approximately 12 inches thick.
	■			DP4A-3.0	42.9				GRAVEL: Moderate brown, dry, sandy SILT; gravel; slight diesel odor; dark staining.
	■			DP4A-5.0	23.6			SM	Silty SAND; trace gravel; trace clay; staining.
								ML	Moderate olive gray, saturated, sandy SILT; stained with oil; diesel odor.
								ML	ALLUVIUM: Moderate olive gray, sandy SILT; diesel odor; staining.
10		■		DP4A-10	2.9			SM	Moderate olive brown, damp, silty SAND.
		■		DP4A-15	3.4				Moderate yellowish brown.
20		■		DP4A-20	3.5				Trace gravel.
		■		DP4A-25	1.7	▽			Moist.
									Wet.
30									No recovery.
		■		DP4A-35	7.2			SM	Moderate olive gray, wet, silty SAND.
									Total Depth = 35 feet. Groundwater was encountered at approximately 23 feet during drilling. Staining and odors noted in surface, 5 and 8 foot samples. Slight diesel odor noted at 3 feet. Backfilled with hydrated bentonite on 10/4/13.
40									

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-16

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40									Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
50									
60									
70									
80									

DATE DRILLED 10/3/13 and 10/4/13 BORING NO. DP4A

GROUND ELEVATION 1,087' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT DROP

SAMPLED BY JJJ LOGGED BY JJJ REVIEWED BY JJR

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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-17

DATE DRILLED 10/3/13 BORING NO. DP5

GROUND ELEVATION 1,087' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY JJJ LOGGED BY JJJ REVIEWED BY JJR

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	SAMPLE ID	ORGANIC VAPORS (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT/GRAVEL: Approximately 18 inches thick.
	■			DP5-0.5	35.9			ML	FILL: Moderate brown, dry, sandy SILT; trace gravel.
	■			DP5-3.0	1.1			SP	Moderate yellowish brown, damp, SAND.
									Total Depth = 4.5 feet (Refusal). Groundwater was not encountered during drilling. No staining or odors noted in samples. Backfilled with hydrated bentonite on 10/4/13.
10									Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20									
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BORING LOG

MOUNT VERNON AVENUE OVERHEAD BRIDGE REPLACEMENT PROJECT
SAN BERNARDINO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205732003	12/13	B-18

APPENDIX C

FIELD PROCEDURES

APPENDIX C

FIELD PROCEDURES

HAND AUGER SOIL SAMPLING PROCEDURES

A hand auger bucket is attached to an extension rod and "T" handle using threaded nuts or locking pins. If concrete or asphalt is present it must be cored prior to hand augering. The auger is advanced into the soil by hand while simultaneously rotating and putting downward pressure on the T-handle. The bucket is retrieved and emptied periodically (typically every 3 to 5 inches).

Once the target sample depth is reached, samples are collected by emptying the contents (i.e., soil cuttings) of the bucket into a laboratory provided 4-ounce glass sample jar with Teflon lid. Care is exercised to collect samples from the bucket representative of the sampling target depth. Soil cuttings will be profiled and disposed in accordance with the Soil Classification and Investigative Derived Waste (IDW) Standard Operating Procedures.

DIRECT-PUSH SOIL SAMPLING PROCEDURES

Prior to drilling the soil borings, the proposed locations will be hand-augered to approximately 5 feet bgs to clear utilities. The borings will then be drilled using a direct-push drill rig system to collect soil (and groundwater) samples from beneath the site. Drilling services will be provided by a State-licensed drilling contractor. The direct-push rig consists of a van or pick-up truck-mounted hydraulic ram/pneumatic hammer system which pushes 4-foot-long, 1¼-inch-diameter rods. Soil samples are collected by attaching a 2- or 4-foot-long, 1.6- or 2-inch-diameter, stainless steel core sample or macro-core sampler containing brass or acetate sleeves to the bottom of the rods.

The probe-drive sampler consists of the sampler, sample tube, a piston tip attached to a piston rod, a drive head, and a piston stop pin. The sample tubes are placed in the sampler. The piston tip and attached piston rod are placed into the sampler from the bottom. The drive head is then screwed onto the top of the sampler. The piston stop-pin is screwed into the top of the drive head. The sampler is then attached to the 1-inch drive rods.

Undisturbed soil samples are collected by driving the sampler and rods to the target depth. The piston stop pin keeps the piston tip and rod from rising into the sampler. Subsequently, the probe-drive sampler remains sealed while it is pushed or driven to the desired sampling depth. Once the target depth is reached, the piston stop-pin is removed by means of extension rods inserted down the inside diameter of the probe rods. The sampler is then pushed approximately 24 inches. As the sampler is pushed down, the piston tip and rod rise in the sampler on top of the intruding soil. The rods and sampler are then retrieved. The sampler is disassembled, the sample tubes removed for sample logging, identification, and analysis, and the apparatus decontaminated prior to reuse.

The macro-core sampler consists of the sampler, cutting shoe, point assembly, drive head, sample sleeve, and (optional) sand catcher. Once assembled, the point assembly is placed in the cutting shoe and locked in place. The sample is then driven to the target depth. The point assembly is unlocked using extension rods lowered through the drive rods. The sampler is then driven another 4 feet. The sampler and drive rods are then retrieved, the sampler disassembled, and the sample tube removed for sample logging, identification and analysis. The apparatus is then decontaminated prior to reuse.

On retrieval, the sample sleeve containing the soil samples will be removed from the sampler, cut to the desired sample length, capped with Teflon sheeting, and sealed with polyethylene end caps. The sample tube will be labeled with the project number, sample number, sample depth, collection date and time, and sampler's initials. The soil samples will be placed in sealable plastic bags and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius. These samples will be used for chemical analysis, with the exception of volatile organic compounds (VOCs).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) 5035 SOIL SAMPLING PROCEDURES

If a soil sample is to be analyzed for VOCs or Total Petroleum Hydrocarbons Gasoline, the sample will be collected in accordance with EPA Method 5035 and following the California

Department of Toxic Substances Control Method 5035 Guidance Document, dated November, 2004.

The sample in the bottommost sleeve will be used for the EPA Method 5035 sample preservation. A plastic syringe will be used to collect three samples of approximately 5 grams of soil from the sample. Two of the 5-gram soil samples are ejected into two pre-weighed, laboratory supplied, 40-milliliter volatile organic analysis (VOA) vials containing sodium bisulfate preservative and one 5-gram soil sample is ejected into a 40-milliliter VOA vile containing methanol. A new syringe is used for each sampling interval.

A sample label is placed on the VOA vials with the sample number, location, and date recorded on the label. The VOA vials are placed in a zip-lock bag. VOA vials collected at a specific sample location and depths will be placed in one zip-lock bag. The zip-lock bag and its contents will be stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius.

SOIL SAMPLE SCREENING FOR VOCS

Before field work begins each day, the photo-ionization detector (PID) will be zeroed against the ambient air and calibrated to 100 parts per million isobutylene. The soil in the second sample sleeve from the shoe of the sampler will be used to describe the soil and to measure VOCs using the PID. A portion of the sample will be removed and placed in a Ziploc™ bag. The sample will then be agitated and set aside in the sun for approximately 15 to 30 minutes to allow organic vapors, if present, to accumulate in the void space (headspace) of the bag. Readings from the PID are used to provide a field evaluation of the presence and relative concentrations of VOCs in soil.

GRAB GROUNDWATER SAMPLING

Grab groundwater sampling procedures may include sampling by Geoprobe™ Hydropunch or through a temporary well. The most appropriate method will be selected based on the soil boring methods described in the work plan and site conditions.

Geoprobe Hydropunch Groundwater Sampling Procedures

The Geoprobe™ Hydropunch groundwater sampler operates by advancing 1¾-inch hollow push rods with the filter tip in a closed configuration to the base of the desired sampling interval. Once at the desired sample depth, the push rods are retracted; exposing the encased filter screen and allowing groundwater to infiltrate hydrostatically from the formation into the inlet screen. New dedicated small diameter polyethylene tubing fitted with a one-way check valve will be lowered through the drive rod into the sampler. The tubing will be raised and lowered rapidly to allow water to enter through the check valve and accumulate inside the tubing and rise to the surface. A bailer will be used to collect samples to be analyzed for VOCs. Groundwater samples will be collected directly from the tubing into laboratory supplied containers. The time necessary to collect the sample at each depth interval is a function of sampling protocols, volume requirements, and the yield characteristics and storage capacity of the formation. After sample collection, the push rods and sampler, with the exception of the tubing, polyvinyl chloride (PVC) screen and steel drop-off tip are retrieved to the ground surface, decontaminated, and prepared for the next sampling event.

A groundwater sample may be collected via the installation of a temporary well. A temporary well is installed by advancing 2-⅛-inch hollow push rods with an expendable steel point to the base of the desired sampling interval. Once at the desired sample depth, a disposable PVC screen attached to PVC casing is inserted through the inside diameter of the hollow push rods at which point the push rods are extracted; leaving behind the PVC screen and casing in the borehole and allowing groundwater to infiltrate hydrostatically from the formation into the PVC screen. New dedicated small diameter polyethylene tubing fitted with a one-way check valve will be lowered through the drive rod into the sampler. The tubing will be raised and lowered rapidly to allow water to enter through the check valve and accumulate inside the tubing and rise to the surface. A bailer will be used to collect samples to be analyzed for VOCs. Groundwater samples will be collected directly from the tubing into laboratory supplied containers. The time necessary to collect the sample at each depth interval is a function of sampling protocols, volume requirements, and the yield characteristics and storage capacity of the formation. After sample collection, the PVC

screen and casing, with the exception of the expendable steel pint are retrieved from the borehole to the ground surface and either decontaminated, and prepared for the next sampling event or disposed of.

SAMPLE HANDLING AND ANALYSIS

Samples will be labeled with the following information: sample identification, date, time, and analysis. Sample information will be recorded on a chain-of-custody (COC). Soil and water samples will be placed in plastic baggies and stored in a cooler chilled using ice to a temperature of approximately 4 degrees Celsius for transportation to ATL, a laboratory certified by the Department of Public Health Environmental Accreditation Program, for analysis.

CHAIN-OF-CUSTODY DOCUMENTATION

Sample information including: project name, sample location, sample identification, date of sample collection, time of sample collection, analyses, sample matrix, laboratory turn-around-time, number and type of containers, sample matrix, and preservation method will be recorded on a COC. The COC will be filled out and signed with the date and time by the sampler. The COC will accompany the samples. If the custody of the samples and COC are transferred the COC will be signed with the date and time by the releasing and new custodians.

BACKFILL

Hand-auger and direct-push boreholes will be backfilled to within 4-inches of ground surface with hydrated bentonite, and resurfaced to original grade using concrete.

SOIL CLASSIFICATION

Soil cuttings, the soil from the shoe of the sampler, and the remaining sleeves will be examined and logged. Soil characterization information, including soil type (e.g., fill, native soil, or bedrock) will be recorded on boring logs in accordance with the Unified Soil Classification System. Soil descriptions, sample type and depth, texture, color, density or consistency, odor, an estimate of soil moisture content, percent recovery in the sampling sleeve, and related drilling

information will be recorded in general accordance on boring logs. Boring logs will be reviewed by a Ninyo & Moore California licensed Professional Geologist or Civil Engineer.

DECONTAMINATION PROCEDURES

Reusable sampling equipment will be decontaminated before each use, using the triple rinse method (water containing Alconox® detergent, one rinse of water, and a final rinse with de-ionized water between each sample.

INVESTIGATIVE DERIVED WASTE (IDW) HANDLING PROCEDURES

Discarded single use equipment/items, such as gloves and pails, will be disposed as municipal solid waste. IDW is not considered hazardous waste and can be disposed at a permitted disposal facility. Discarded equipment, which can still be re-used, will be rendered inoperable prior to its disposal in the refuse facility.

Excess soil cuttings, waste water, and decontamination water will be stored in Department of Transportation approved drums in a secure on-site location provided by Burlington Northern and Santa Fe. The drums will be removed and disposed at a facility licensed to receive the waste after the material has been characterized using the site sampling data. The disposal facility will be an AECOM approved facility and will be determined after the waste has been characterized.

Personal protective equipment and equipment intended for one time use will be rendered inoperable, collected in large trash bags, and disposed as normal non-hazardous waste.

DATA VALIDATION

The laboratory analytical results will be subjected to a data quality review that will include the quality control samples used in the field (i.e., equipment blanks and split duplicate samples) along with review of the laboratory quality control results. Aspects of the data that will be evaluated include:

- Completeness;
- Accuracy;

- Precision;
- Sensitivity (Reporting limits/ Method Detection Limit criteria);
- Conformance with holding times; and
- COC Requirements.

The laboratory will need to provide a signed hardcopy of the results. Quality Assurance/Quality Control procedures will be in place for both deliverable formats. Data Validation Memoranda will be included in the report.

APPENDIX D

HEALTH AND SAFETY PLAN

NINYO & MOORE
Site Specific Health and Safety Plan Short-Form

HEALTH AND SAFETY PLAN

A hazards analysis was performed for the site. The site specific physical, chemical, and biological hazards are included as an attachment to this work plan (Attachment A). The following sections describe the medical surveillance, hazard monitoring, personnel protective equipment, confined space entry, and emergency procedures to be implemented during the field activities at the site.

Medical Surveillance Requirements

Site personnel will be required to participate in their employer's medical surveillance program before being permitted to work on location. The medical surveillance program for Ninyo & Moore employees is described in the Ninyo & Moore Injury and Illness Prevention Program. Teaming partner or subcontractor medical surveillance programs are described in respective company documents. Subcontractors will be required to demonstrate, by document submittal, their maintenance of Occupational Safety and Health Administration (OSHA)-compliant programs, including Title 8 California Code of Regulations, Section 5192, and to maintain records as required by the applicable contract. Specific exceptions to the medical surveillance requirements may be granted by the SHSO for site access by specialty subcontractors performing non-intrusive activity. If level C becomes necessary on site, an appropriate exclusion zone will be established and personnel without medical clearance for respiratory protection or the appropriate PPE will be prohibited entry.

Hazard Monitoring

Ninyo & Moore prepared a Hazard Analysis of the site that identifies the potential chemical and physical hazards that may be encountered during field activities (Attachment A). During the field activities for the Site Investigation (SI) at the site, the following monitoring requirements will be mandated:

Table 1 – Chemical/Physical Agent Monitoring Requirements

Scope of Work Task	Chemical/ Hazard	Instrument	Responsible Group	Initial Frequency
Low Hazard				
Hand Augering/Direct-Push Soil and Groundwater Sampling	TPH, Benzene, VOCs, Organic vapor	PID or FID	SHSO	Start of task, hourly, continuous if zone of contamination encountered
Surface soil sampling	Metals	Visual Observation (dust)	SHSO	at SHSO discretion
	TPH, Benzene, VOCs	PID or FID	SHSO	at SHSO discretion
Decontamination of equipment	Metals	Visual Observation	SHSO	N/A
	TPH, Benzene, VOCs, Organic vapor	PID or FID	SHSO	at SHSO discretion

Notes:
FID – Flame Ionization Detector
N/A – Not applicable
PID – Photo-ionization Detector
SHSO – Site Health and Safety Officer
TPH – Total Petroleum Hydrocarbons
VOCs – Volatile Organic Compounds

Table 2 – Monitoring Methods and Action Levels for Uncharacterized[1] Mixtures Using Screening Survey Instruments

Hazard	Method	Action Level[2]	Protection Action
Total Organic Vapor	PID[3] or FID[4]	Background to 2 ppm[5] above background	No action required
		> 2 ppm	Air purifying respirator, half or full face, level C protection with appropriate cartridges
		> 5 ppm	Air purifying respirator, full face, Level C protection, personnel monitoring required to I.D. contaminants
		> 10 ppm	Supplied air protection, Level B
		> 50 ppm	STOP WORK
Combustible Gas	Explosimeter or FID	< 10% LEL[6]	No action
		10% to 20% LEL	Start continuous monitoring; Permit only classified electrical equipment and nonsparking tools
		> 20% LEL	STOP WORK, ascertain source of gas

Table 2 – Monitoring Methods and Action Levels for Uncharacterized[1] Mixtures Using Screening Survey Instruments

Hazard	Method	Action Level[2]	Protection Action
Oxygen Concentration	Oxygen analyzer	< 19.5% v/v[7]	Leave area, evaluate reason for deficiency, monitor again remotely or with IDLH[8] entry program
		19.5 to 20.5 v/v	Slight deficiency, continue continuous monitoring
		20-5 - 21.0% v/v	Normal range
		> 22.0% v/v	Elevated reading, check calibration, investigate cause, STOP any potential spark-producing activity

Notes:
1 Carcinogenic and highly toxic materials not verified absent from atmosphere
2 All action levels are readings observed above background. Verify absence of highly toxic compounds as necessary, e.g. vinyl chloride, methylene chloride, benzene etc.
3 photo-ionization detector
4 flame ionization detector
5 parts per million
6 lower explosive limit
7 volume per volume
8 immediately dangerous to life or health

Table 3 – Action Levels for Heat Stress

Type Measurement	Action Level	Action
Ear insertable core temperature	100.4° F or greater	Remove from work
Ear insertable core temperature	<99° F	Return to work

Table 4 – Frequency of Physiological Monitoring for Fit and Acclimated Workers

Adjusted Temperature[1]	Normal Work Ensemble[2] After Each:	Impermeable Ensemble After Each:
90° F (32.2° C) or above	45 minutes of work	15 minutes of work
86.5° F - 90° F (30.8° C - 32.2° C)	60 minutes of work	30 minutes of work
82.5° F - 86.5° F (28.1° C - 30.8° C)	90 minutes of work	60 minutes of work
76.5° F - 82.5° F (25.3° C - 28.1° C)	120 minutes of work	90 minutes of work
72.5° F - 76.5° F (22.5° C - 25.3° C)	150 minutes of work	120 minutes of work

Notes:
1 Calculate the adjusted air temperature (Ta adj) with the following equation: Ta adj(°F) = Ta(°F) + (13 X percent sunshine / 100). Measure air temperature (Ta) with a standard mercury-in-glass thermometer with the bulb shielded from radiant heat. Estimate the percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to attenuate shadow (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadow).
2 A normal work ensemble consists of coveralls or other cotton clothing with long sleeves and pants.

Personal Protective Equipment

Based on an evaluation of potential hazards, the following level of PPE will be mandated for the listed tasks:

Table 5 – Personal Protective Equipment (potential or actual chemical exposure)

Task	Hazard	Level	Body	Respirator	Skin	Other
Soil and groundwater sampling, decontamination of equipment, controlling spread of contamination	Minimal chemical exposure, noise, solar radiation	D* or C	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Full-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded	Latex or nitrile gloves	Hard hat, safety glasses, hearing protection, steel-toed boots
Direct-push activities	Minimal chemical exposure, noise, solar radiation	D* or C	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Full-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded	Latex or nitrile gloves	Hard hat, safety glasses, hearing protection, steel-toed boots

Note:
N/A – not applicable
*Work will be initiated at Level D. PPE will be upgraded to Level C based on results of field observations.

Roadway Work Zones – Reflective Vest Requirements

The standard specifies that high-visibility apparel be made of background material that is fluorescent red-orange, yellow-green, or a combination of these, and reflective material placed so that the worker is seen from 360 degrees. The standard (American National Standards Institute/International Safety Equipment Association [ANSI/ISEA] 107-1999) defines three garment classifications (I, II, and III) based on worker hazards and tasks, complexity of the work environment or background, and vehicular traffic and speed.

Table 6 – ANSI/ISEA 107-1999 Standard Classes

Class I	Lowest level of visibility. Generally worn in environments where speeds do not exceed 25 miles per hour. Orange or lime vest with $^{3}/_{8}$-inch reflective tape.
Class II	Commonly work in environments where traffic is moving in excess of 25 miles per hour Orange or lime vest with 2-inch reflective tape.
Class III	The highest level of visibility. Worn in environments where traffic is moving in excess of 55 miles per hour. Orange or lime vest that is 3 inches longer than the standard size with 2-inch reflective tape.

The minimum requirements for reflective safety vests for this project shall be:

Class I ☐

Class II ☒

Class III ☐

This minimum requirement is to be followed by all employees, subcontractors, and visitors that are required to wear a safety vest on the project. This includes, but is not limited to, work on or near active highways and/or roadways or when the construction contractor and/or client requires a safety vest to be worn on a project.

Confined Space Entry

Confined spaces, including but not limited to trenches, ditches, holes, culverts, structures, and tanks, present multiple hazards including oxygen deficiency, toxic agent exposure, heat stress, engulfment, and other hazards.

Confined space entry is not anticipated nor is it authorized for project personnel or subcontractors during this work activity. If it becomes necessary to enter a confined space during this project, appropriate training, equipment and supervision will be put in place and the entry will be made in accordance with a specific confined space entry permit approved by the Corporate Safety Manager. A designated OSHA-competent person for confined space work will be on-site during all confined space entry activities. Detailed confined space entry procedures will be maintained for any permit-required confined space work.

Emergency Response

In the event of a medical emergency or fire during fieldwork at the construction areas at the site, the standard “911” emergency telephone number shall be called from the on-site mobile phone or any base phone. A mobile telephone will be available during all field activities. On a daily basis, and at each work location, the SHSO and/or field team leader will verify that mobile phones are operational. Standard hand signals will be reviewed at the site tail-gate safety meeting prior to beginning work.

Emergency facility locations and phone numbers are listed below. A hospital location map is included as Figure A. All project vehicles shall maintain a copy of this work plan together with the appropriate emergency maps at all times, in a readily accessible location.

Directions to the nearest medical facility from Mount Vernon Avenue Bridge are as follows:

- From the corner of Mount Vernon Avenue and Second Street:
  - Travel north on North Mount Vernon Avenue toward West Viaduct Boulevard.
  - Turn left onto West Sixteenth Street
  - Take the third right onto North Medical Center Drive
  - Turn right
- The hospital (Community Hospital of San Bernardino) is located on the left-hand side.

  Community Hospital of San Bernardino
  1805 Medical Center Drive
  San Bernardino, California 92411
  Main: (909) 887-6333

Training Requirements

The BNSF contractor orientation safety training course will be completed online at contractororientation.com by Ninyo & Moore field staff, subcontractor supervisors and personnel, visitors, and vendors associated with the proposed BNSF investigation work. Ninyo & Moore field staff, subcontractor supervisors and personnel, visitors, and vendors will wear the badge issued to them to certify completion of the BNSF contractor orientation safety training when at the BNSF site. A matrix summarizing training requirements for Ninyo & Moore field staff, subcontract supervisors and personnel, visitors, and vendors is presented below.

Table 7 – Training Assignment Matrix

Category	40-Hour Basic	8-Hour Refresher	24-Hours Supervisor Experience	8-Hour Supervisor Refresher[4]	BNSF Contractor Orientation Safety Training	Ninyo & Moore Safety Orientation	First Aid/CPR
Ninyo & Moore Field Staff	X	X	X		X	X	X[1]
Ninyo & Moore or Subcontractor Supervisor	X[2]	X[2]	X	X[3]	X	X[4]	X[1]
Subcontractor	X[2]	X[2]	X		X	X[4]	X[1]
Visitor	X[5]	X[5]	X[6]		X		
Vendor	X[5]	X[5]	X[6]		X		

Notes:

[1] At remote locations, (emergency responders more than 10 minutes away) a minimum of two people will be on-site, during fieldwork, who have a valid certificate in basic first aid/CPR from the American Red Cross (or equivalent) documented training.

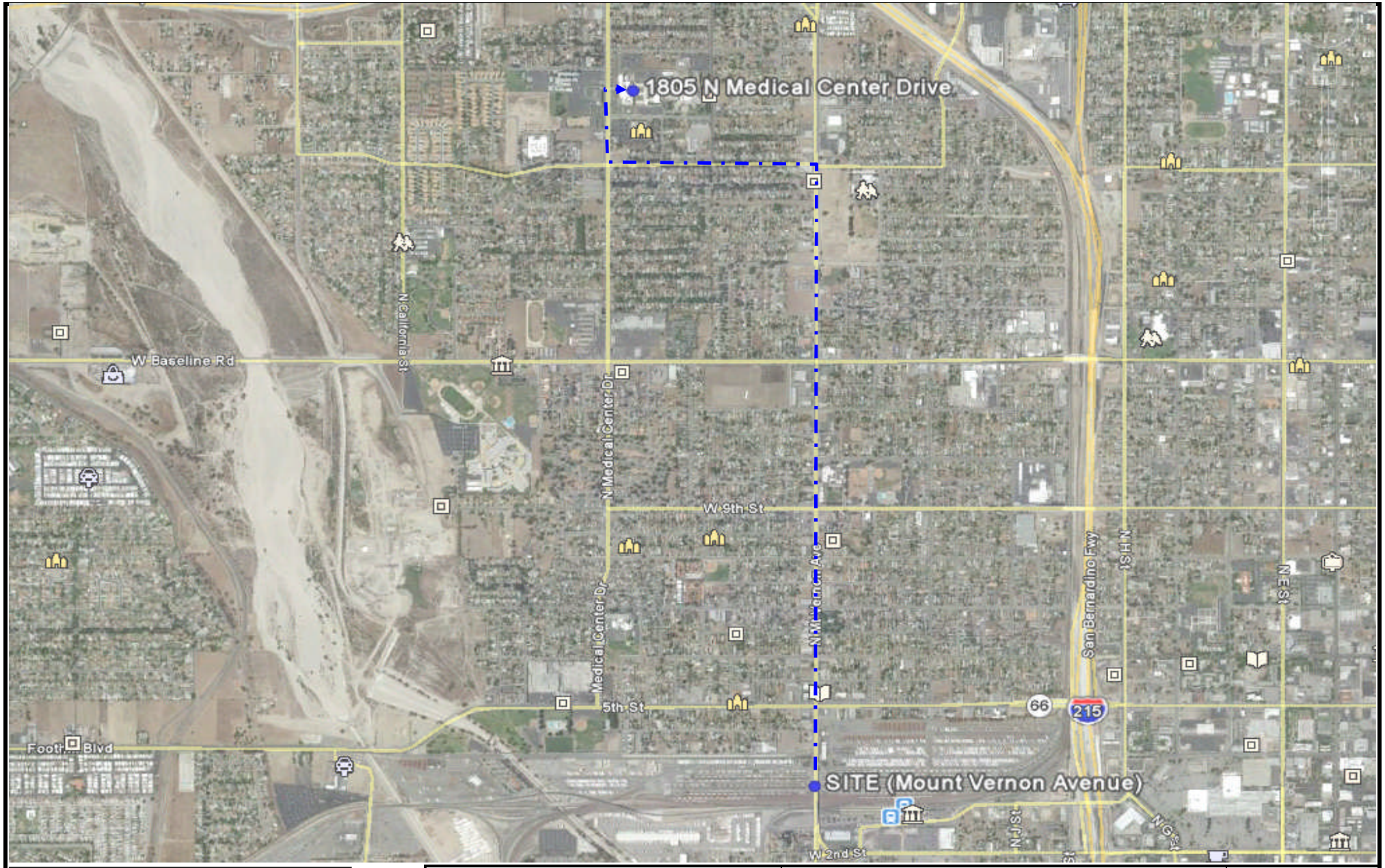
[2] The requirement for 40-hour basic and 8-hour refresher training for certain non-intrusive work shall be made on a case-by-case basis by the Corporate Safety Manager.

[3] Employees may take supervisor training in lieu of standard refresher training.

[4] A site-specific safety orientation must be given to all visiting/working personnel.

[5] For vendors/visitors requiring controlled area access to work on contaminated equipment.

[6] Not required if escorted.



LEGEND

HOSPITAL ROUTE

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		HOSPITAL ROUTE	FIGURE
PROJECT NO.	DATE	MOUNT VERNON AVENUE OVERHEAD REPLACEMENT SAN BERNARDINO, CALIFORNIA	A
205732003	12/13		

ATTACHMENT A

HAZARDS ANALYSIS

Significant Hazards

Significant hazards identified during the job-hazard analysis include work near roadways, noise, falling, slipping, tripping, manual lifting, extreme heat or heat stress, general physical hazards, and lifting/twisting hazards. The following sections provide more information.

- **Work Near Roadways**

  Work on the shoulder will subject workers to heavy traffic, some moving at high speeds. Workers will maintain a high awareness of traffic conditions during work location mobilization and during subsequent activities. Whenever possible, work will be conducted behind barriers such as guard rails, sound walls, or field vehicles.

- **Subcontractor-Furnished Equipment Including Energized and Rotating Equipment (Direct-Push Drill Rig)**

  The subcontractor is responsible for proper and safe operation of all the equipment they bring to the site. Ninyo & Moore employees will not operate subcontractor-furnished equipment unless that equipment is expressly provided for use by Ninyo & Moore personnel. This section does not prohibit use of power from subcontractor-provided generators or the handling of drilling tool components such as samplers.

  Heavy equipment with rotating shafts or gears will be guarded where practicable to prevent accidental contact. Only experienced operators are allowed to work around rotating parts that cannot be adequately guarded. Personnel who must work around rotating equipment will not wear loose-fitting clothes that could get caught.

  Site personnel will not operate or handle drilling equipment or heavy equipment owned by subcontractors. The drilling subcontractors will maintain and implement safety procedures according to their safety and health plan. Only qualified subcontractor personnel will operate heavy equipment during field activities. Subcontractors will maintain in operating condition all appropriate safety devices on machinery and rotating equipment (e.g., backup alarms, emergency stops, guards) at all times. Subcontractors will implement effective safety programs for use of this type of equipment.

- **Noise**

  Working near the roadway and active railroad tracks can subject workers to noise exposures in excess of allowable limits. Personnel who operate or must work next to the roadway or railroad tracks will be required to wear hearing protection (ear plugs or muffs) to reduce their exposure to excessive noise. Persons exposed to noise in excess of 85 decibels (estimated) will be required to wear hearing protection.

- **Falling, Slipping, and Tripping**

  Work zone surfaces will be maintained in a neat and orderly state. Foot traffic will avoid areas where materials are stored on the ground. Tools and materials will not be left randomly on surfaces when not in direct use. The field supervisor will assure that the work area around each hand auger operation is maintained in a neat and orderly state.

- **Manual Lifting Techniques**

  During any manual material-handling tasks, personnel will be trained to lift with the force of the load suspended on their legs and not on their backs. An adequate number of personnel or an appropriate mechanical device must be used to safely lift or handle heavy equipment. When heavy objects must be lifted manually, workers will keep the load close to the body and will avoid any twisting or turning motions to minimize stress on the lower back.

- **Extreme Heat and Heat Stress**

  Heat stress is an important health consideration in warm weather. Weather conditions, characterized by high temperatures and low humidity, in conjunction with wearing personal protective clothing, may aggravate heat-stress problems. Standard measures, including designating a shaded rest area, taking frequent rest breaks, and performing heat-stress monitoring of workers, may be used to minimize heat-stress-related problems. A readily available supply of liquids, such as water and fluids containing electrolytes, will be available at the work site to replenish body fluids. Visual observation of workers by the Site Health and Safety Officer (SHSO) for heat-stress-related signs and symptoms, and body core temperature monitoring will be performed when outside temperatures exceed 70 degrees Fahrenheit and impermeable clothing is being worn, when outside temperatures exceed 90 degrees Fahrenheit in street clothes, or whenever other conditions warrant. Signs and symptoms of heat stress include profuse sweating, headache, skin flushing, dizziness, confusion, and rapid heart rate. Workers exhibiting a body core temperature of 100.4 degrees Fahrenheit or greater (measured at the ear drum) will be removed to a cooler area or activity until body core temperature returns to below 99 degrees Fahrenheit.

  If persons exhibiting heat-stress symptoms are left untreated, the condition can elevate to heat stroke. Heat stroke is typically manifested by hot, dry skin with a body core temperature of 104 degrees Fahrenheit or greater. Heat stroke can be fatal if treatment is delayed. Therefore, persons exhibiting heat-stroke symptoms need to have their core

temperature reduced immediately by use of cold packs, cold water wipes, or immersion. Heat-stroke victims need to be transported to a professional medical facility immediately after the victim's core temperature has been reduced or while the victim's core temperature is being reduced.

- **General Physical Hazards**

  The site may include ditches, areas that are poorly drained, rough or uneven terrain, depressed areas, protruding objects, and impalement hazards. The SHSO will assure that a careful prework walkover is made of all work areas and potential access or egress routes. Unsafe areas may be flagged or taped by the SHSO and will be identified to all personnel.

- **Solar Radiation**

  The SHSO will encourage field personnel working out doors to utilize covering or sunblock preparations to minimize the harmful effects of the sun's rays on the skin.

- **Lifting/Twisting Injuries**

  Use of hand augers subjects the sampler to forces which could cause back, shoulder, or neck injury. Common-sense safety precautions will be followed such as frequent rest breaks, proper lifting technique, and careful ergonomic practices.

Chemical Hazards

This section describes the toxicological (health) hazards associated with exposure to organic and inorganic chemicals and metals during the project. Chemicals which are expected to be encountered are discussed in the following sections.

Chemical hazards identified during the job hazard analysis include lead, volatile organic compounds (VOCs), chlorinated herbicides, organochlorine pesticides, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs) and other heavy metals.

- **Total Petroleum Hydrocarbons (TPH)**

  TPH is a term used to describe a large family of several hundred chemical compounds that originally come from crude oil. TPH is a mixture of chemicals, but they are all made mainly from hydrocarbons. Some chemicals that may be found in TPH are hexane, jet fuels, mineral oils, benzene, toluene, xylenes, naphthalene, and fluorine, as well as other petroleum products and gasoline components. Some of the TPH compounds can affect your central

nervous system. One compound can cause headaches and dizziness at high concentrations in the air. Another compound can cause a nerve disorder called "peripheral neuropathy," consisting of numbness in the feet and legs. Other TPH compounds can cause effects on the blood, immune system, lungs, skin, and eyes.

Animal studies have shown effects on the lungs, central nervous system, liver, and kidney from exposure to TPH compounds. Some TPH compounds have also been shown to affect reproduction and the developing fetus in animals. The International Agency for Research on Cancer (IARC) has determined that one TPH compound (benzene) is carcinogenic to humans. IARC has determined that other TPH compounds (benzo[a]pyrene and gasoline) are probably and possibly carcinogenic to humans. Most of the other TPH compounds are considered not to be classifiable by IARC.

- **Benzene**

Benzene is a common constituent of motor fuels, aviation gasoline, and some industrial solvents. A known human carcinogen, benzene is the principal concern and the basis for establishing the action levels for continuous monitoring equipment in the vicinity of gasoline and other light distillate products. Continuous organic vapor monitoring will not detect benzene specifically; therefore, the action level is based upon the conservative assumption that the benzene content of the volatile mixture is less than 20 percent. The action level for respiratory protection may be revised once the airborne contaminant environment is fully characterized. The use of benzene-specific detector tubes or portable gas chromatography may be used to quantify benzene concentrations. In the event that the presence of benzene is confirmed to be above the Occupational Safety and Health Administration (OSHA) action level, guidelines set forth in the OSHA document, Benzene Regulated Areas, will be implemented.

- **VOCs**

VOCs are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands.

Health effects may include eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans. Key signs or symptoms associated with exposure to VOCs include conjunctival irritation, nose and throat discomfort, headache, allergic skin reaction, dyspnea, declines in serum cholinesterase levels, nausea, emesis, epistaxis, fatigue, dizziness.

The ability of organic chemicals to cause health effects varies greatly from those that are highly toxic, to those with no known health effect. As with other pollutants, the extent and nature of the health effect will depend on many factors including level of exposure and

length of time exposed. Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have experienced soon after exposure to some organics. Many organic compounds are known to cause cancer in animals; some are suspected of causing, or are known to cause, cancer in humans.

- **Pesticides**

  Pesticides potentially used or disposed at the site range from relativity low-toxicity products to highly poisonous compounds. Exposure to extremely small quantities of some pesticides may result in serious bodily harm, even death.

- **Polychlorinated Biphenyls (PCBs)**

  PCBs, also referred to as Aroclors, are synthetic industrial products that have been commonly used as cooling fluid and for electrical insulation. PCBs are common contaminants of oily type waste and are found around railroad tracks and in industrial areas and dumps. PCBs are recognized environmental pollutants and suspected human carcinogens. Work involving exposure to PCBs above the atmospheric action level or in contact materials exceeding 100 micrograms per gram may require special medical evaluation and approval of the SHSO.

- **Chlorinated Solvents**

  Chlorinated solvents present a wide range of toxic modalities, with certain compounds being highly toxic and others being essentially inert. Chlorinated solvents are often identified by a familiar characteristic odor. The photoionization detector (PID) used for field monitoring has reduced sensitivity (response factor) for some chlorinated hydrocarbons. Detector tubes or other methods may be used for detection. Sensing of the characteristic odor indicates the need to upgrade respiratory protection and to initiate personnel monitoring. A conservative action level of 5 parts per million above background will be utilized for upgrading of respiratory protection at each boring location. Should work continue in respiratory protection, an exclusion zone will be constructed to minimize exposure to organic vapor in excess of the action level to personnel outside this zone. This measure will also serve to protect casual observers and the community in general.

- **Lead**

  Lead will be encountered as a contaminant of soil in locations near the freeways. Lead is a toxic heavy metal and a suspected carcinogen that may be encountered in inorganic and organic forms. Geoprobe sampling and hand-augering at the selected locations is not expected to generate airborne dust at levels where lead exposure is significant. If high winds are encountered, work will be temporarily stopped until better weather conditions can be maintained.

- **Heavy Metals**

  A variety of heavy metals may be present in low concentrations at the site. Some heavy metals are highly toxic; others are also recognized human carcinogens. Because these materials are not volatile unless highly heated, control by proper use of PPE and personnel hygiene practices will prevent significant exposure to heavy metals.

- **PAHs**

  PAHs are produced from coal tar and other sources and are used in a variety of industrial products. PAH is a recognized human carcinogen. Exposure by any route to PAH and other recognized human carcinogens will be maintained at the absolute practicable minimum level.

Biological Hazards

The SHSO will screen the area for biological hazards during the initial site visit and will discuss any problems with installation personnel during the prework review. Multiple biological hazards are present at the site. The most common hazards anticipated are discussed below.

- **Rattlesnakes**

  Personnel should be extremely careful when walking through tall grass, rocks, or debris. If a rattlesnake is encountered, slowly and quietly back away from the snake. Inform all personnel at the site of its location. Do not attempt to move or kill a snake because certain species of rattlesnake are protected under state and federal laws. In the event of a snakebite, immediately summon emergency medical services and notify the SHSO. Do not try to move the affected limb; instead, immobilize the injured area, keeping it lower than the heart if possible, and wait for transportation. Do not apply ice; do not cut the wound; do not apply a tourniquet. The venom should be wiped off the skin since venom will attack intact skin.

- **Insects**

  Bees, wasps, yellow jackets, black widow spiders, scorpions, and brown recluse spiders present a potential hazard on this project, especially so for those individuals sensitized to those bites or stings. Prior to initial assignment on this project, personnel with known allergic responses to insect stings will be identified and field supervisors made aware of this condition. These personnel will also carry an antidote kit if so advised by their physician. The SHSO will confirm that the antidote kit is accessible and notify the emergency medical service providers in the event of any incident.

In all cases, a victim suspected of being bitten by either a black widow or brown recluse spider or stung by a scorpion will receive medical attention. The venom from the brown recluse spider is capable of causing coma and kidney failure in its victim.

Protection methods against insects may be employed, such as the use of protective clothing or insect repellents, as well as extermination measures, and training in recognition and identification of harmful insects.

- **Poisonous Plants**

Poisonous plants may be present at the site. Poison ivy, poison oak, and poison sumac are identified by three leaves or five leaves emanating from a stem. The plants contain a resin that causes a delayed allergic hypersensitivity reaction on contact. The resin is active in live, dead, dry, and burned plant parts, and it may be carried through the air. Signs and symptoms are usually evident within 24 to 48 hours after exposure. These include burning, stinging, and blisters. Notify the SHSO if these plants are observed. If exposure or contact occurs, wash the affected area, but do not spread the resin to un-contacted areas.

APPENDIX E

ENCROACHMENT PERMITS AND AUTHORIZATION

205732003
SHR

JONES LANG LASALLE

Jones Lang LaSalle Brokerage, Inc.
4300 Amon Carter Blvd., Suite 100
Fort Worth, Texas 76155
tel +1 817-230-2600, fax +1 817 306-8265

September 4, 2013

13-48135

Nancy Anglin
Principal Engineer
Ninyo & Moore
475 Goddard, Suite 200
Irvine, CA 92618

Dear Ms. Anglin:

Enclosed please find one (1) fully executed Agreement for your file. **A copy of the executed Agreement must be available upon request at the job site allowing authorization to do the work.** Please contact the Roadmaster at telephone (909) 386-4060 or cell (760) 267-4308, and the Director of Environmental Project Controls & Real Estate at telephone (817) 352-0194, ten (10) days in advance of entry and **BEFORE YOU DIG, CALL 1-800-533-2891**.

If you need additional information please contact me at (817) 230-2633.

Sincerely,

Heather Calhoun
Sr. Contract Specialist

Enclosure

cc: Justin Devine, BNSF Roadmaster – justin.devine@bnsf.com
Matt Graham, Director of Environmental Project Controls & Real Estate – matt.graham@bnsf.com

Ninyo & Moore — Transmittal

475 Goddard, Suite 200, Irvine, California 92618 ♦ Phone 949/753-7070 ♦ Fax 949/753-7071 ♦ www.ninyoandmoore.com

To:	Heather Calhoun	**Date:**	August 23, 2013
Firm:	Jones Lang LaSalle	**Fax No:**	
Address:	4300 Amon Carter Blvd., Suite 200, Fort Worth, Texas 76155	**Telephone No:**	
From:	Nancy Anglin	**Total Pages Including Transmittal:**	
Subject:	License for Environmental Access - Mt. Vernon Avenue, San Bernardino, CA / Tracking No. 13-48135	**Project No:**	205732003

☐ **Urgent**	☐ **For Approval**	☐ **For Your Use**	☐ **Please Reply**	☐ **As Requested**
Original Document:	☐ **Will Not Follow**	☐ **Will Follow**	☐ **By U.S. Mail**	☐ **By Other**

Please find attached two executed copies of the License for Environmental Access agreement for the Mt. Vernon Avenue, San Bernardino Project. Also attached is our Certificate of Insurance for your files, along with Check No. 10605 in the amount of $575.00 to participate in the BNSF's Railroad Protective Policy. Please return one fully executed copy of the Agreement for our files. Should you have any questions, please contact our office.

- **Geotechnical Engineering**
- **Engineering Geology**
- **Materials Testing and Inspection**
- **Construction Management**
- **Engineering Design**
- **Environmental Engineering**
- **Environmental Site Assessments**
- **Regulatory Compliance and Permitting**
- **Water Quality and Resource Evaluations**
- **Hazardous Waste Management**
- **Soil and Groundwater Remediation**
- **Asbestos and Lead-Based Paint Surveys**
- **Geophysical Studies**
- **Mineral Resource Evaluations**
- **Value Engineering**
- **Forensic Studies**
- **Expert Witness Testimony**

205732003

Diane Triffet

SHR

From: Jay Roberts
Sent: Friday, September 06, 2013 4:59 PM
To: Nancy Anglin; Summer Hansen-Rooks
Cc: Diane Triffet
Subject: FW: Emailing: Ninyo & Moore, 13-48135

Ninyo & Moore 13-48135.pdf (1...

It seems like they would have copied you, Nancy, but here's the agreement.

Summer please print and place in project file.

Diane please add to your file.

John Jay Roberts, PG, CEG
Senior Geologist
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618
(949) 753-7070 (x12210)
(949) 753-7071 (Fax)
jroberts@ninyoandmoore.com

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-----Original Message-----
From: Salazar, Katrina (US) [mailto:Katrina.Salazar@am.jll.com]
Sent: Friday, September 06, 2013 1:22 PM
To: Jay Roberts; matt.graham@bnsf.com; mike.makerov@bnsf.com; jo.kelly@bnsf.com; rahmed@trcsolutions.com; justin.devine@bnsf.com
Cc: Calhoun, Heather (US)
Subject: Emailing: Ninyo & Moore, 13-48135

Attached please find copies of the above referenced executed agreement and cover letter of instructions. Please contact BNSF Road master prior to entering the railroad's right-of-way. The Road master's contact information is located in the cover letter; and copies of the executed agreement and the cover letter have also been emailed to him for ready reference.

Thank you

This email is for the use of the intended recipient(s) only. If you have received this email in error, please notify the sender immediately and then delete it. If you are not

the intended recipient, you must not keep, use, disclose, copy or distribute this email without the author's prior permission. We have taken precautions to minimize the risk of transmitting software viruses, but we advise you to carry out your own virus checks on any attachment to this message. We cannot accept liability for any loss or damage caused by software viruses. The information contained in this communication may be confidential and may be subject to the attorney-client privilege. If you are the intended recipient and you do not wish to receive similar electronic messages from us in the future then please respond to the sender to this effect.

JONES LANG LASALLE

Jones Lang LaSalle Brokerage, Inc.
4300 Amon Carter Blvd., Suite 100
Fort Worth, Texas 76155
tel +1 817-230-2600, fax +1 817 306-8265

August 22, 2013

13-48135

205732003

S HR

Nancy Anglin
Principal Engineer
Ninyo & Moore
475 Goddard, Suite 200
Irvine, CA 92618

Dear Ms. Anglin:

Enclosed please find duplicate counterparts of the requested contract for execution by an official authorized to execute contract agreements on behalf of Ninyo & Moore. Please execute and ***return both copies with original signatures*** for completion on part of BNSF Railway Company ("BNSF") to this office.

Please note the agreements cannot be executed by BNSF without an approved insurance certificate. If there are any issues with your insurance, you will be contacted by a member of the Risk Management team of BNSF Railway Company:

- A Certificate of insurance as required in the agreement;
- A **separate policy** for Railroad Protective Liability Insurance as required in the agreement (**ORIGINAL POLICY MUST BE PROVIDED**). BNSF Railway Company will be the only insured party; OR;

  In lieu of providing a separate policy for Railroad Protective Liability Insurance, you may participate in the BNSF's Railroad Protective Policy by checking the appropriate box in the contract and including a check in the amount of $575.00 payable to BNSF Railway Company.

Acceptance and deposit of any check by BNSF does not constitute an agreement between BNSF and Licensee for the requested license. BNSF shall not be obligated to hold the check in a separate fund, but may commingle the funds with other funds of BNSF, and in no event shall BNSF be responsible for interest on said funds.

The enclosed permit is not a binding agreement and shall become binding only when, and if, it is executed by you and fully approved and executed by BNSF Railway Company. Upon completion on behalf of BNSF, one fully executed counterpart will be returned for your records.

Please be informed that if contracts, fees, and insurance are not returned within sixty (60) days, a $600.00 processing fee will be assessed.

Sincerely,

Heather Calhoun
Sr. Contract Specialist

Enclosures

Diane Triffet 205732003

SHR

From: Summer Hansen-Rooks
Sent: Thursday, August 22, 2013 2:02 PM
To: Jay Roberts
Cc: Diane Triffet; Nancy Anglin
Subject: RE: Environmental Access Agreement: Ninyo & Moore (Tracking #13-48135)

Jay,
I will check with Diane to see if she needs anything, request a check for $575, print out two copies of the access agreement, get the copies signed and mail the package out to BNSF.
Thank you,
Summer

Summer Hansen-Rooks
Project Environmental Scientist
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618
(949) 753-7070 (x12206)
(949) 753-7071 (Fax)
shansenrooks@ninyoandmoore.com

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-----Original Message-----
From: Jay Roberts
Sent: Thursday, August 22, 2013 12:56 PM
To: Summer Hansen-Rooks
Cc: Diane Triffet; Nancy Anglin
Subject: FW: Environmental Access Agreement: Ninyo & Moore (Tracking #13-48135)

We are getting closer. I will respond to Heather. We need to go through Diane Triffet who will order the certificate of insurance. (Diane, please see Section 19.).

Summer please prepare a request for check $575. payable to BNSF Railway company) per the cover letter for the BNSF Railroad Protective Liability Insurance policy. We'll need to send the check back with the two signed copies for BNSF countersignature.

Thanks

John Jay Roberts, PG, CEG
Senior Geologist
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618
(949) 753-7070 (x12210)
(949) 753-7071 (Fax)
jroberts@ninyoandmoore.com

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-----Original Message-----
From: Calhoun, Heather (US) [mailto:Heather.Calhoun@am.jll.com]
Sent: Thursday, August 22, 2013 12:08 PM
To: Nancy Anglin
Cc: Jay Roberts
Subject: Environmental Access Agreement: Ninyo & Moore (Tracking #13-48135)

Nancy:

Attached is the Environmental Access Agreement for **Ninyo & Moore** (Tracking #13-48135). If everything looks acceptable, please **print two (2) copies** and follow the instructions on the cover letter. If not, please advise as soon as possible.

Please contact me if you have any questions or concerns.

Thanks!

Heather Calhoun
Senior Contract Specialist - Fort Worth
Jones Lang LaSalle Americas, Inc.
4300 Amon Carter Blvd., Suite 100
Fort Worth, Texas 76155
tel +1 817-230-2600 direct +1 817-230-2633
fax +1 817-306-8265
heather.calhoun@am.jll.com
www.joneslanglasalle.com
Please visit the BNSF Permits website for more information:
http://www.bnsf.com/communities/faqs/permits-real-estate/

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NINYO & MOORE
475 GODDARD SUITE 200
IRVINE, CA 92618
949-753-7070

10605
16-24/1220 6592
0808489108

DATE AUGUST 22, 2013

PAY TO THE ORDER OF BNSF RAILWAY COMPANY $ 575.00

FIVE HUNDRED SEVENTY-FIVE & NO 100'S DOLLARS

Security Features Details on Back.

WELLS FARGO
Wells Fargo Bank, N.A.
California
wellsfargo.com

Patricia C. Zaby MP

FOR RAILROAD COVERAGE FOR ACCESS AGREMT TO CONDUCT FIELD WK
PROJECT # 205732003

⑈0000010605⑈ ⑆122000247⑆ 0808489108⑈

205732003
SHR

Law Department Approved

Tracking #13-48135

LICENSE FOR ENVIRONMENTAL ACCESS

THIS LICENSE ("License"), made as of the 4th day of September, 2013 ("Effective Date") by and between **BNSF RAILWAY COMPANY**, a Delaware corporation ("Licensor") and **NINYO & MOORE**, a California corporation ("Licensee").

NOW THEREFORE, in consideration of the mutual covenants contained herein, the parties agree to the following:

GENERAL

1. Licensor hereby grants Licensee a non-exclusive license, subject to all rights, interests, and estates of third parties, including, without limitation, any leases, licenses, easements, liens or other encumbrances, and upon the terms and conditions set forth below, to use the area of Licensor's property shown on the attached Drawing No. 3-58399A and 3-58399B, dated July 18, 2013, attached hereto, marked Exhibit "A", and made a part hereof, situated at or near San Bernardino, County of San Bernardino, State of California, Line Segment 7602 and Line Segment 7600, from Mile Post 0.660 to Mile Post 80.36 ("Premises") for the purposes specified in Section 3 below.

2. Licensee shall not disturb any improvements of Licensor or Licensor's existing lessees, licensees, easement beneficiaries or lien holders, if any, or interfere with the use of such improvements.

3. Licensee shall use Premises exclusively as a site for performing environmental and engineering explorations to include one of, or a combination of, the following categories of work:

   (a) Drilling of soil test borings;
   (b) Installation of groundwater monitoring wells;
   (c) Performing groundwater inflow tests on wells;
   (d) Obtaining groundwater samples from wells;
   (e) Maintenance and/or checking groundwater level in wells approximately one time per month;
   (f) Performance of any necessary remediation as determined by Licensor in its sole discretion or by applicable state and/ or federal regulations at Licensee's sole cost and expense. In the event applicable state and/or federal regulations require that the Premises be remediated, Licensee will obtain a No Further Action Letter, Release, or other such equivalent closure document from the state or federal agency having jurisdiction over the remediation of the Premises. Such No Further Action Letter, Release, or other such equivalent closure document shall not be contingent upon or specify the performance of any further work or conditions with respect to the Premises. Licensee warrants that it will conduct an environmental site investigation. Licensee shall not use the Premises for any other purpose whatsoever. Licensee shall not use or store hazardous substances, as defined by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA") or petroleum or oil as defined by applicable Environmental Laws on the Premises.

4. In case of the eviction of Licensee by anyone owning or claiming title to or any interest in the Premises, Licensor shall not be liable to refund Licensee any compensation paid hereunder or for any damage Licensee sustains in connection therewith.

5. Any contractors or subcontractors performing work on the Premises, or entering the Premises on behalf of Licensee, shall be deemed agents of Licensee for purposes of this License.

TERM

6. This License shall commence on the Effective Date and shall continue for a period of one (1) year, subject to prior termination as hereinafter described.

COMPENSATION

7. (a) Licensee shall pay Licensor, prior to the Effective Date, the sum of Nine Thousand and No/100 Dollars ($9,000.00) as compensation for the use of the Premises.

(b) Licensee agrees to reimburse Licensor (pursuant to the terms of Section 7(c) below) for all costs and expenses incurred by Licensor in connection with Licensee's use of the Premises or the presence, including but not limited to the furnishing of Licensor's flaggers and any vehicle rental costs incurred. Licensee shall bear the cost of flagger services and other safety measures provided by Licensor, when deemed necessary by Licensor's representative. Flagging costs shall include, but not be limited to, the following: pay for at least an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays (as applicable); vacation allowance; paid holidays (as applicable); railway and unemployment insurance; public liability and property damage insurance; health and welfare benefits; transportation; meals; lodging and supervision. Negotiations for railway labor or collective bargaining agreements and rate changes authorized by appropriate Federal authorities may increase flagging rates. Flagging rates in effect at the time of performance by the flaggers will be used to calculate the flagging costs pursuant to this Section 7.

(c) All invoices are due thirty (30) days after the date of invoice. In the event that Licensee shall fail to pay any monies due to Licensor within thirty (30) days after the invoice date, then Licensee shall pay interest on such unpaid sum from thirty (30) days after its invoice date to the date of payment by Licensee at an annual rate equal to (i) the greater of (a) for the period January 1 through June 30, the prime rate last published in *The Wall Street Journal* in the preceding December plus two and one-half percent (2 1/2%), and for the period July 1 through December 31, the prime rate last published in *The Wall Street Journal* in the preceding June plus two and one-half percent (2 1/2%), or (b) twelve percent (12%), or (ii) the maximum rate permitted by law, whichever is less.

COMPLIANCE WITH LAWS

8. (a) Licensee shall observe and comply with any and all laws, statutes, regulations, ordinances, orders, covenants, restrictions, or decisions of any court of competent jurisdiction ("Legal Requirements") relating to the use of the Premises.

(b) Prior to entering the Premises, Licensee shall and shall cause its contractor to comply with all Licensor's applicable safety rules and regulations. Prior to commencing any work on the Premises, Licensee shall complete and shall require its contractor to complete the safety-training program at the following Internet Website "http://contractororientation.com". This training must be completed no more than one year in advance of Licensee's entry on the Premises.

DEFINITION OF COST AND EXPENSE

9. For the purpose of this License, "cost' or "costs" "expense" or "expenses" includes, but is not limited to, actual labor and material costs including all assignable additives, and material and supply costs at current value where used.

RIGHT OF LICENSOR TO USE

10. Licensor excepts and reserves the right, to be exercised by Licensor and any other parties who may obtain written permission or authority from Licensor:

(a) to maintain, renew, use, operate, change, modify and relocate any existing pipe, power, communication lines and appurtenances and other facilities or structures of like character upon, over, under or across the Premises;

(b) to construct, maintain, renew, use, operate, change, modify and relocate any tracks or additional facilities or structures upon, over, under or across the Premises; or

(c) to use the Premises in any manner as the Licensor in its sole discretion deems appropriate, provided Licensor uses all commercially reasonable efforts to avoid material interference with the use of the Premises by Licensee for the purpose specified in Section 3 above.

LICENSEE'S OPERATIONS

11. (a) Licensee shall notify Licensor's Roadmaster at 740 Carnegie Dr., San Bernardino, California 92408, telephone (909) 386-4060 or cell (760) 267-4308, and Licensor's Director of Environmental Project Controls & Real Estate at 2500 Lou Menk Dr., AOB-3, Fort Worth, Texas 76131, telephone (817) 352-0194, at least ten (10) business days prior to entering the Premises. After completion of use of the Premises for the purpose specified in Section 3, Licensee shall notify Licensor in writing that such use has been completed.

(b) In performing the work described in Section 3, Licensee shall use only public roadways to cross from one side of Licensor's tracks to the other.

(c) Prior to the commencement of any work, Licensee shall submit a workplan to Licensor's Director of Environmental Project Controls & Real Estate at 2500 Lou Menk Dr., AOB-3, Fort Worth, Texas 76131, telephone (817) 352-0194, for Licensor's review. No work, as set forth in Section 3, may be conducted by Licensee without Licensor's written consent of said workplan for the purpose specified in Section 3. Such review and consent by Licensor shall not constitute the sufficiency or effectiveness of any workplan.

(d) No monitoring wells may be installed on the property prior to written approval of Licensee's workplan for the installation of such monitoring wells. Upon obtaining such consent, Licensee shall provide Licensor the location of said well(s) relative to Licensor's nearest trackage, identifying Licensor's nearest Mile Post sign number.

12. Under no conditions shall Licensee be permitted to conduct any tests, investigations or any other activity using mechanized equipment and/or machinery, or place or store any mechanized equipment, tools or other materials, within twenty-five (25) feet of the centerline of any railroad track on the Premises unless Licensee has obtained prior written approval from Licensor. Licensee shall, at its sole cost and expense, perform all activities on and about the Premises in such a manner as not at any time to be a source of danger to or interference with the existence or use of present or future tracks, roadbed or property of Licensor, or the safe operation and activities of Licensor. If ordered to cease using the Premises at any time by Licensor's personnel due to any hazardous condition, Licensee shall immediately do so. Notwithstanding the foregoing right of Licensor, the parties agree that Licensor has no duty or obligation to monitor Licensee's use of the Premises to determine the safe nature thereof, it being solely Licensee's responsibility to ensure that Licensee's use of the Premises is safe. Neither the exercise nor the failure by Licensor to exercise any rights granted in this Section will alter the liability allocation provided by this License.

13. (a) Licensee shall explore the proposed location for such work with hand tools to a depth of at least three (3) feet below the surface of the ground to determine whether pipelines or other structures exist below the surface, provided, however, that in lieu of the foregoing, the Licensee shall have the right to use suitable detection equipment or other generally accepted industry practice (e.g., consulting with the Underground Services Association) to determine the existence or location of pipelines and other subsurface structures prior to drilling or excavating with mechanized equipment. Upon Licensee's written request, which shall be made thirty (30) business days in advance of Licensee's requested entry on the Premises, Licensor will provide Licensee any information that Licensor's Engineering Department has in its possession concerning the existence and approximate location of Licensor's underground utilities and pipelines on the Premises. Prior to conducting any such boring work, the Licensee will review all such material. Licensor does not warrant the accuracy or completeness of information relating to subsurface conditions and Licensee's operations will be subject at all times to the liability provisions herein.

(b) For all bores greater than 26-inch diameter and at a depth less than 10.0 feet below bottom of rail, a soil investigation will need to be performed by the Licensee and reviewed by Licensor prior to construction. This study is to determine if granular material is present, and to prevent subsidence during the installation process. If the investigation determines in Licensor's reasonable opinion that granular material is present, Licensor may select a new location for Licensee's use, or may require Licensee to furnish for Licensor's review and approval, in its sole discretion a remedial plan to deal with the granular material. Once Licensor has approved any such remedial plan in writing, Licensee shall, at its sole cost and expense, carry out the approved plan in accordance with all terms thereof and hereof.

14. Any open hole, boring or well constructed upon Premises by Licensee shall be safely covered and secured at all times when Licensee is not working in the actual vicinity thereof. Following completion of that portion of the work, all holes or borings constructed on the Premises by Licensee shall be:

(a) filled in to surrounding ground level with compacted bentonite grout; or

(b) otherwise secured or retired in accordance with any applicable Legal Requirement. No excavated materials may remain on the Premises for more than ten (10) days, but must be properly disposed of by Licensee in accordance with applicable Legal Requirements.

15. Upon completion of Licensee's work on the Premises or upon termination of this License, whichever shall occur first, Licensee shall, at its sole cost and expense:

(a) remove all of its equipment from the Premises;

(b) report and restore any damage to the Premises arising from, growing out of, or connected with Licensee's use of the Premises;

(c) remedy any unsafe conditions on the Premises created or aggravated by Licensee; and

(d) perform any other work to restore the Premises to a useable condition as deemed necessary in Licensor's sole discretion.

16. Licensee's on-site supervision shall retain/maintain a fully-executed copy of this License at all times while on the Premises.

LIABILITY

17. (a) **TO THE FULLEST EXTENT PERMITTED BY LAW, LICENSEE SHALL RELEASE, INDEMNIFY, DEFEND AND HOLD HARMLESS LICENSOR AND LICENSOR'S AFFILIATED COMPANIES, PARTNERS, SUCCESSORS, ASSIGNS, LEGAL REPRESENTATIVES, OFFICERS, DIRECTORS, SHAREHOLDERS, EMPLOYEES AND AGENTS (COLLECTIVELY, "INDEMNITEES") FOR, FROM AND AGAINST ANY AND ALL CLAIMS, LIABILITIES, FINES, PENALTIES, COSTS, DAMAGES, LOSSES, LIENS,**

CAUSES OF ACTION, SUITS, DEMANDS, JUDGMENTS AND EXPENSES (INCLUDING, WITHOUT LIMITATION, COURT COSTS, ATTORNEYS' FEES AND COSTS OF INVESTIGATION, REMOVAL AND REMEDIATION AND GOVERNMENTAL OVERSIGHT COSTS) ENVIRONMENTAL OR OTHERWISE (COLLECTIVELY "LIABILITIES") OF ANY NATURE, KIND OR DESCRIPTION OF ANY PERSON OR ENTITY DIRECTLY OR INDIRECTLY ARISING OUT OF, RESULTING FROM OR RELATED TO (IN WHOLE OR IN PART):

(i) THIS LICENSE, INCLUDING, WITHOUT LIMITATION, ITS ENVIRONMENTAL PROVISIONS,

(ii) ANY RIGHTS OR INTERESTS GRANTED PURSUANT TO THIS LICENSE,

(iii) LICENSEE'S OCCUPATION AND USE OF THE PREMISES,

(iv) THE ENVIRONMENTAL CONDITION AND STATUS OF THE PREMISES CAUSED BY OR CONTRIBUTED BY LICENSEE, OR

(v) ANY ACT OR OMISSION OF LICENSEE OR LICENSEE'S OFFICERS, AGENTS, INVITEES, EMPLOYEES, OR CONTRACTORS, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM, OR ANYONE THEY CONTROL OR EXERCISE CONTROL OVER,

EVEN IF SUCH LIABILITIES ARISE FROM OR ARE ATTRIBUTED TO, IN WHOLE OR IN PART, ANY NEGLIGENCE OF ANY INDEMNITEE. THE ONLY LIABILITIES WITH RESPECT TO WHICH LICENSEE'S OBLIGATION TO INDEMNIFY THE INDEMNITEES DOES NOT APPLY ARE LIABILITIES TO THE EXTENT PROXIMATELY CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF AN INDEMNITEE.

(b) FURTHER, TO THE FULLEST EXTENT PERMITTED BY LAW, NOTWITHSTANDING THE LIMITATION IN SECTION 17(a), LICENSEE SHALL NOW AND FOREVER WAIVE ANY AND ALL CLAIMS, REGARDLESS WHETHER BASED ON THE STRICT LIABILITY, NEGLIGENCE OR OTHERWISE, THAT RAILROAD IS AN "OWNER", "OPERATOR", "ARRANGER", OR "TRANSPORTER" WITH RESPECT TO THE PREMISES FOR THE PURPOSES OF CERCLA OR OTHER ENVIRONMENTAL LAWS. LICENSEE WILL INDEMNIFY, DEFEND AND HOLD THE INDEMNITEES HARMLESS FROM ANY AND ALL SUCH CLAIMS REGARDLESS OF THE NEGLIGENCE OF THE INDEMNITEES. LICENSEE FURTHER AGREES THAT THE USE OF THE PREMISES AS CONTEMPLATED BY THIS LICENSE SHALL NOT IN ANY WAY SUBJECT LICENSOR TO CLAIMS THAT LICENSOR IS OTHER THAN A COMMON CARRIER FOR PURPOSES OF ENVIRONMENTAL LAWS AND EXPRESSLY AGREES TO INDEMNIFY, DEFEND, AND HOLD THE INDEMNITEES HARMLESS FOR ANY AND ALL SUCH CLAIMS. IN NO EVENT SHALL LICENSOR BE RESPONSIBLE FOR THE ENVIRONMENTAL CONDITION OF THE PREMISES.

(c) **TO THE FULLEST EXTENT PERMITTED BY LAW, LICENSEE FURTHER AGREES, REGARDLESS OF ANY NEGLIGENCE OR ALLEGED NEGLIGENCE OF ANY INDEMNITEE, TO INDEMNIFY, AND HOLD HARMLESS THE INDEMNITEES AGAINST AND ASSUME THE DEFENSE OF ANY LIABILITIES ASSERTED AGAINST OR SUFFERED BY ANY INDEMNITEE UNDER OR RELATED TO THE FEDERAL EMPLOYERS' LIABILITY ACT ("FELA") WHENEVER EMPLOYEES OF LICENSEE OR ANY OF ITS AGENTS, INVITEES, OR CONTRACTORS CLAIM OR ALLEGE THAT THEY ARE EMPLOYEES OF ANY INDEMNITEE OR OTHERWISE. THIS INDEMNITY SHALL ALSO EXTEND, ON THE SAME BASIS, TO FELA CLAIMS BASED ON ACTUAL OR ALLEGED VIOLATIONS OF ANY FEDERAL, STATE OR LOCAL LAWS OR REGULATIONS, INCLUDING BUT NOT LIMITED TO THE SAFETY APPLIANCE ACT, THE BOILER INSPECTION ACT, THE OCCUPATIONAL HEALTH AND SAFETY ACT, THE RESOURCE CONSERVATION AND RECOVERY ACT, AND ANY SIMILAR STATE OR FEDERAL STATUTE.**

(d) Upon written notice from Licensor, Licensee agrees to assume the defense of any lawsuit or other proceeding brought against any Indemnitee by any entity, relating to any matter covered by this License for which Licensee has an obligation to assume liability for and/or save and hold harmless any Indemnitee. Licensee shall pay all costs incident to such defense, including, but not limited to, attorneys' fees, investigators' fees, litigation and appeal expenses, settlement payments, and amounts paid in satisfaction of judgments.

PERSONAL PROPERTY WAIVER

18. **ALL PERSONAL PROPERTY, INCLUDING, BUT NOT LIMITED TO, FIXTURES, EQUIPMENT, OR RELATED MATERIALS UPON THE PREMISES WILL BE AT THE RISK OF LICENSEE ONLY, AND NO INDEMNITEE WILL BE LIABLE FOR ANY DAMAGE THERETO OR THEFT THEREOF, WHETHER OR NOT DUE IN WHOLE OR IN PART TO THE NEGLIGENCE OF ANY INDEMNITEE.**

INSURANCE

19. Licensee shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. Commercial General Liability Insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of $2,000,000 each occurrence and an aggregate limit of at least $4,000,000. Coverage must be purchased on a post 1998 ISO occurrence or equivalent and include coverage for, but not limited to, the following:

- Bodily Injury and Property Damage
- Personal Injury and Advertising Injury
- Fire legal liability
- Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- The employee and workers compensation related exclusions in the above policy shall not apply with respect to claims related to railroad employees.
- The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- Any exclusions related to the explosion, collapse and underground hazards shall be removed.

No other endorsements limiting coverage may be included on the policy.

B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least $1,000,000 per occurrence, and include coverage for, but not limited to the following:

- Bodily injury and property damage
- Any and all vehicles owned, used or hired

C. Workers Compensation and Employers Liability Insurance. This insurance shall include coverage for, but not limited to:

- Licensee's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.
- Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 by disease policy limit, $500,000 by disease each employee.

D. Railroad Protective Liability Insurance. This insurance shall name only the Licensor as the Insured with coverage of at least $2,000,000 per occurrence and $6,000,000 in the aggregate. The coverage obtained under this policy shall only be effective during the initial environmental testing and/or exploration. If further exploration and testing is needed at a later date, an additional Railroad Protective Liability Insurance Policy shall be required. The policy shall be issued on a standard ISO form CG 00 35 10 93 and include the following:

- Endorsed to include the Pollution Exclusion Amendment (ISO form CG 28 31 10 93)
- Endorsed to include the Limited Seepage and Pollution Endorsement.
- Endorsed to include Evacuation Expense Coverage Endorsement.
- No other endorsements restricting coverage may be added.
- The original policy must be provided to the Licensor prior to performing any work or services under this Agreement

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate in Licensor's Blanket Railroad Protective Liability Insurance Policy available to Licensee or its contractor. The limits of coverage are the same as above. The cost is $575.00.

☒ I **elect** to participate in Licensor's Blanket Policy;

☐ I **elect not** to participate in Licensor's Blanket Policy.

Other Requirements:

Where allowable by law all policies (applying to coverage listed above) shall contain no exclusion for punitive damages and certificates of insurance shall reflect that no exclusion exists.

Licensee agrees to waive its right of recovery against Licensor for all claims and suits against Licensor. In addition, its insurers, through policy endorsement, waive their right of subrogation against Licensor for all claims and suits. The certificate of insurance must reflect waiver of subrogation endorsement. Licensee further waives its right of recovery, and its insurers also waive their right of subrogation against Licensor for loss of its owned or leased property or property under its care, custody, or control.

Licensee's insurance policies through policy endorsement must include wording which states that the policy shall be primary and non-contributing with respect to any insurance carried by Licensor. The certificate of insurance must reflect that the above wording is included in evidenced policies.

All policy(ies) required above (excluding Workers Compensation and if applicable, Railroad Protective) shall include a severability of interest endorsement and shall name Licensor and Jones Lang LaSalle Brokerage, Inc. as an additional insured with respect to work performed under this agreement. Severability of interest and naming Licensor and Jones Lang LaSalle Brokerage, Inc. as additional insureds shall be indicated on the certificate of insurance.

Licensee is not allowed to self-insure without the prior written consent of Licensor. If granted by Licensor, any deductible, self-insured retention or other financial responsibility for claims shall be covered directly by Licensee in lieu of insurance. Any and all Licensor liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by Licensee's insurance will be covered as if Licensee elected not to include a deductible, self-insured retention, or other financial responsibility for claims.

Prior to commencing the Work, Licensee shall furnish to Licensor an acceptable certificate(s) of insurance including an original signature of the authorized representative evidencing the required coverage, endorsements, and amendments. The policy(ies) shall contain a provision that obligates the insurance company(ies) issuing such policy(ies) to notify Licensor in writing at least 30 days prior to any cancellation, non-renewal, substitution or material alteration. This cancellation provision shall be indicated on the certificate of insurance. In the event of a claim or lawsuit involving Railroad arising out of this agreement, Licensee will make available any required policy covering such claim or lawsuit.

Any insurance policy shall be written by a reputable insurance company acceptable to Licensor or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

Licensee represents that this License has been thoroughly reviewed by Licensee's insurance agent(s)/broker(s), who have been instructed by Licensee to procure the insurance coverage required by this Agreement. Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.

Not more frequently than once every five years, Licensor may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

If any portion of the operation is to be subcontracted by Licensee, Licensee shall require that the subcontractor shall provide and maintain insurance coverages as set forth herein, naming Licensor as an additional insured, and shall require that the subcontractor shall release, defend and indemnify Licensor to the same extent and under the same terms and conditions as Licensee is required to release, defend and indemnify Licensor herein.

Failure to provide evidence as required by this section shall entitle, but not require, Licensor to terminate this License immediately. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Licensee's obligations hereunder.

The fact that insurance (including, without limitation, self-insurance) is obtained by Licensee shall not be deemed to release or diminish the liability of Licensee including, without limitation, liability under the indemnity provisions of this License. Damages recoverable by Licensor shall not be limited by the amount of the required insurance coverage.

For purposes of this section, Licensor shall mean "Burlington Northern Santa Fe Corporation", "BNSF Railway Company" and the subsidiaries, successors, assigns and affiliates of each.

ENVIRONMENTAL

20. (a) Licensee shall strictly comply with all federal, state and local environmental laws and regulations in its use of the Premises, including, but not limited to, the Resource Conservation and Recovery Act, as amended (RCRA), the Clean Water Act, the Oil Pollution Act, the Hazardous Materials Transportation Act, CERCLA (collectively referred to as the "Environmental Laws"). Licensee shall not maintain a treatment, storage, transfer or disposal facility, or underground storage tank, as defined by Environmental Laws on the Premises. Licensee shall not release or suffer the release of oil or hazardous substances, as defined by Environmental Laws on or about the Premises.

(b) Licensee shall give Licensor immediate notice to Licensor's Resource Operations Center at (800) 832-5452 of any release of hazardous substances on or from the Premises, violation of Environmental Laws, or inspection or inquiry by governmental authorities charged with enforcing Environmental Laws with respect to Licensee's use of the Premises. Licensee shall use the best efforts to promptly respond to any release on or from the Premises.

Licensee also shall give Licensor immediate notice of all measures undertaken on behalf of Licensee to investigate, remediate, respond to or otherwise cure such release or violation.

(c) Licensee recognizes and assumes all responsibility for all present and future environmental obligations imposed under applicable Environmental Laws, regulations or other such requirements relating to contamination of the Premises or groundwater thereunder arising from, caused by, contributed to, or in any way growing out of Licensee's operations. Licensee further agrees to undertake at its sole cost and expense any cleanup of any contamination of the Premises and groundwater thereunder arising from, caused by, contributed to, or in any way growing out of Licensee's operations as required by applicable laws and regulations.

(d) Licensee agrees to waive any and all statutes of limitations applicable to any controversy or dispute arising out of Section 20(c), and Licensee further agrees that it will not raise or plead a statute of limitations defense against Licensor in any action arising out of Licensees' failure to comply with the preceding subsection.

(e) In the event that Licensor has notice from Licensee or otherwise of a release or violation of Environmental Laws on the Premises which occurred or may occur during the term of this License, Licensor may require Licensee, at Licensee's sole risk and expense, to take timely measures to investigate, remediate, respond to or otherwise cure such release or violation affecting the Premises or Licensor's right-of-way.

(f) Licensee shall promptly report to Licensor in writing any conditions or activities upon the Premises known to Licensee which create a risk of harm to persons, property or the environment and shall take whatever action is necessary to prevent injury to persons or property arising out of such conditions or activities; provided, however, that Licensee's reporting to Licensor shall not relieve Licensee of any obligation whatsoever imposed on it by this License. Licensee shall promptly respond to Licensor's request for information regarding said conditions or activities.

(g) Licensee will promptly transmit to Licensor copies of all reports, data boring logs, well completion and other information obtained from all operations on the Premises to Licensor's Director of Environmental Project Controls & Real Estate. Licensor shall have the option to obtain split samples and otherwise have reasonable access to the groundwater monitoring well(s) subject to this License for the purpose of obtaining samples or other information from the monitoring well(s). Licensee shall also advise Licensor of any applicable health and safety plans or other similar programs in effect with respect to the operations on the Premises.

(h) Unless otherwise required by applicable law, Licensee shall keep confidential and shall not disclose any reports, data boring logs, well completion and any other information obtained in connection with this License to third parties without the prior written consent of Licensor.

ALTERATIONS

21. Licensee may not make any alterations of the Premises or permanently affix anything to the Premises or any buildings or other structures adjacent to the Premises without Licensor's prior written consent.

NO WARRANTIES

22. **LICENSOR'S DUTIES AND WARRANTIES ARE LIMITED TO THOSE EXPRESSLY STATED IN THIS LICENSE AND SHALL NOT INCLUDE ANY IMPLIED DUTIES OR IMPLIED WARRANTIES, NOW OR IN THE FUTURE. NO REPRESENTATIONS OR WARRANTIES HAVE BEEN MADE BY LICENSOR OTHER THAN THOSE CONTAINED IN THIS LICENSE. LICENSEE HEREBY WAIVES ANY AND ALL WARRANTIES WITH RESPECT TO THE PREMISES, EXPRESS OR IMPLIED, OR WHICH MAY EXIST BY OPERATION OF LAW OR IN EQUITY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, HABITABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

QUIET ENJOYMENT

23. **LICENSOR DOES NOT WARRANT ITS TITLE TO THE PROPERTY NOR UNDERTAKE TO DEFEND LICENSEE IN THE PEACEABLE POSSESSION OR USE THEREOF. NO COVENANT OF QUIET ENJOYMENT IS MADE.**

DEFAULT

24. If default shall be made in any of the covenants or agreements of Licensee contained in this document, or in case of any assignment or transfer of this License by operation of law, Licensor may, at its option, terminate this License by serving five (5) days' notice in writing upon Licensee. Any waiver by Licensor of any default or defaults shall not constitute a waiver of the right to terminate this License for any subsequent default or defaults, nor shall any such waiver in any way affect Licensor's ability to enforce any Section of this License. The remedy set forth in this Section 24 shall be in addition to, and not in limitation of, any other remedies that Licensor may have at law or in equity.

TERMINATION

25. (a) This License may be terminated by Licensor, at any time, by serving ten (10) days' written notice of termination upon Licensee. This License may be terminated by Licensee upon execution of Licensor's Mutual Termination Letter Agreement then in effect. Upon expiration of the time specified in such notice, this License and all rights of Licensee shall absolutely cease.

(b) Upon termination, should Licensee have installed its monitoring well(s) on the Premises, once Licensee's well(s) are retired, Licensee shall provide Licensor a copy of the closure documents, submitted directly to Licensor's Director of Environmental Project Controls & Real Estate at 2500 Lou Menk Dr., AOB-3, Fort Worth, Texas 76131.

26. If Licensee fails to surrender to Licensor the Premises, upon any termination of this License, all liabilities and obligations of Licensee hereunder shall continue in effect until the Premises are surrendered. Termination shall not release Licensee from any liability or obligation, whether of indemnity or otherwise, resulting from any events happening prior to the date of termination.

ASSIGNMENT

27. Neither Licensee, nor the heirs, legal representatives, successors or assigns of Licensee, nor any subsequent assignee, shall assign or transfer this License or any interest herein, without the prior written consent and approval of Licensor, which may be withheld in Licensor's sole discretion.

NOTICES

28. Any notice required or permitted to be given hereunder by one party to the other shall be in writing and the same shall be given and shall be deemed to have been served and given if (i) placed in the United States mail, certified, return receipt requested, or (ii) deposited into the custody of a nationally recognized overnight delivery service, addressed to the party to be notified at the address for such party specified below, or to such other address as the party to be notified may designate by giving the other party no less than thirty (30) days' advance written notice of such change in address.

If to Licensor: Jones Lang LaSalle Brokerage, Inc.
4300 Amon Carter Blvd., Suite 100
Fort Worth, TX 76155
Attn: Licenses/Permits

with a copy to: BNSF Railway Company
2500 Lou Menk Dr. – AOB3
Fort Worth, TX 76131
Attn: Senior Manager Real Estate

with a copy to: BNSF Railway Company
740 E. Carnegie Dr.
San Bernardino, CA 92408
Attn: Remediation Manager

with a copy to: BNSF Railway Company
2500 Lou Menk Dr. – AOB3
Fort Worth, TX 76131
Attn: Director of Environmental Project Controls & Real Estate

If to Licensee: Ninyo & Moore
475 Goddard, Suite 200
Irvine, CA 92618

SURVIVAL

29. Neither termination nor expiration will release either party from any liability or obligation under this License, whether of indemnity or otherwise, resulting from any acts, omissions or events happening prior to the date of termination or expiration, or, if later, the date when the Premises are restored to its condition as of the Effective Date.

RECORDATION

30. It is understood and agreed that this License shall not be placed on public record.

APPLICABLE LAW

31. All questions concerning the interpretation or application of provisions of this License shall be decided according to the substantive laws of the State of Texas without regard to conflicts of law provisions.

SEVERABILITY

32. To the maximum extent possible, each provision of this License shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this License shall be prohibited by, or held to be invalid under, applicable law, such provision shall be ineffective solely to the extent of such prohibition or invalidity, and this shall not invalidate the remainder of such provision or any other provision of this License.

INTEGRATION

33. This License is the full and complete agreement between Licensor and Licensee with respect to all matters relating to Licensee's use of the Premises, and supersedes any and all other agreements between the parties hereto relating to Licensee's use of the Premises as described herein. However, nothing herein is intended to terminate either any surviving obligation of Licensee or Licensee's obligation to defend and hold Licensor harmless in any prior written agreement between the parties.

MISCELLANEOUS

34. In the event that Licensee consists of two or more parties, all the covenants and agreements of Licensee herein contained shall be the joint and several covenants and agreements of such parties.

[Intentionally left blank]

35. The waiver by Licensor of the breach of any provision herein by Licensee shall in no way impair the right of Licensor to enforce that provision for any subsequent breach thereof.

Jones Lang LaSalle Brokerage, Inc. is acting as representative for BNSF Railway Company.

IN WITNESS WHEREOF, this License has been duly executed, in duplicate, by the parties hereto as of the day and year first above written.

BNSF RAILWAY COMPANY
Jones Lang LaSalle Brokerage, Inc.,
Its Attorney in Fact
4300 Amon Carter Blvd., Suite 100
Fort Worth, TX 76155

By: _____
Ed Darter
Title: Senior Vice President – National Accounts

NINYO & MOORE
475 Goddard, Suite 200
Irvine, CA 92618

By: _____
Title: Nancy Angling
Principal Engineer/Operations Manager

TRACKING NO. 13-48135

EXHIBIT "A"

ATTACHED TO CONTRACT BETWEEN

BNSF RAILWAY COMPANY

AND

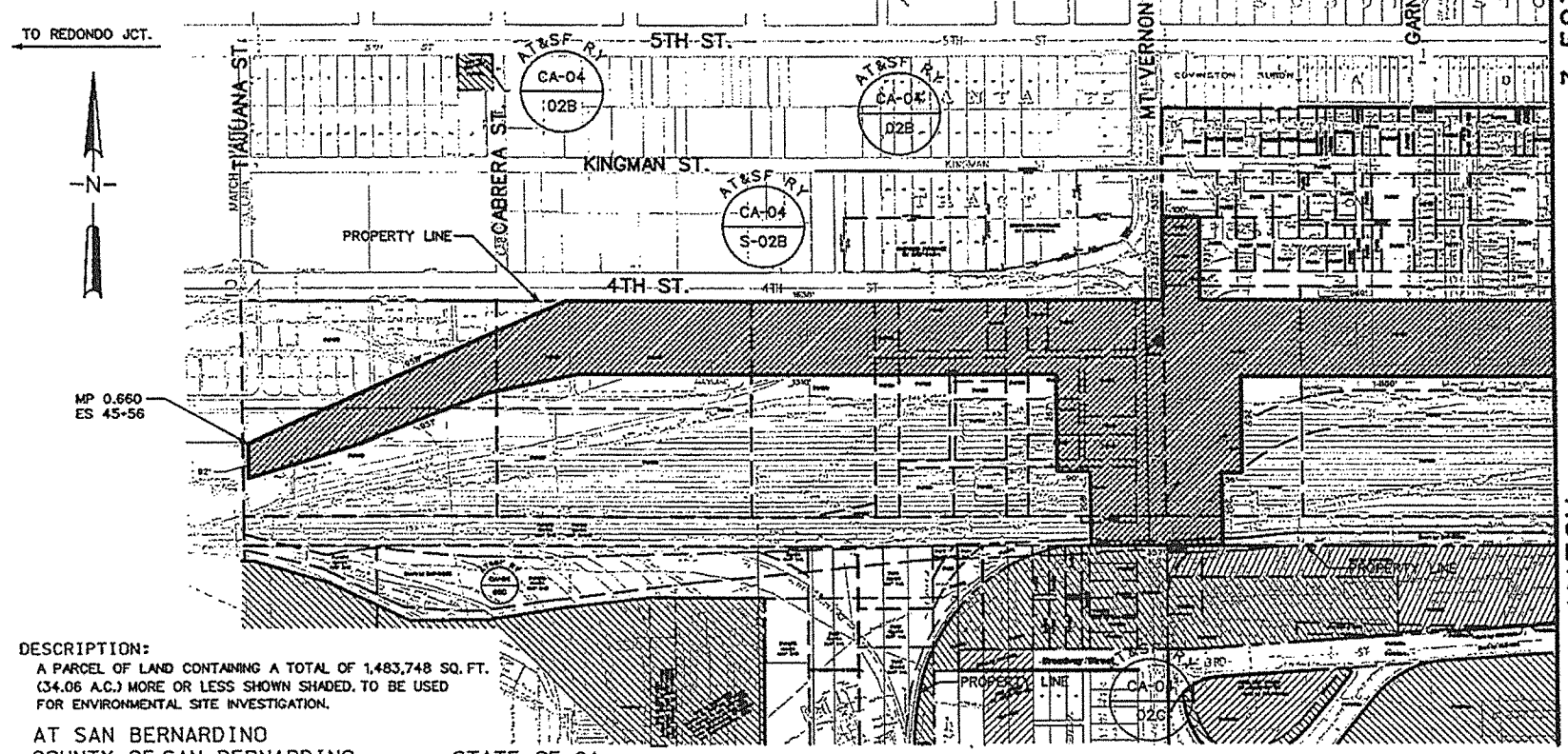
NINYO & MOORE

SCALE: 1 IN. = 300 FT.
CALIFORNIA DIV.
SAN BERNARDINO SUBDIV. L.S. 7602
DATE 07/18/2013

SECTION: –
TOWNSHIP: –
RANGE: –
MERIDIAN: SBM

TRIM LINE

NOTE:
ALL R/W SOLD BY QCD. NO. DAT-51506 AND QD NO. DAT-51508 TO SAN BERNARDINO ASSOCIATED GOVERNMENTS, DATED 03/29/1993 FROM SAN BERNARDINO TO HIGHLAND JCT. MP 0.12 - MP 13.34, ON THE REDLANDS SUBDIVISION WITH EXCEPTIONS AS NOTED. RAIL FREIGHT SERVICE EASEMENT RESERVED.



DESCRIPTION:
A PARCEL OF LAND CONTAINING A TOTAL OF 1,483,748 SQ. FT. (34.06 A.C.) MORE OR LESS SHOWN SHADED. TO BE USED FOR ENVIRONMENTAL SITE INVESTIGATION.

AT SAN BERNARDINO
COUNTY OF SAN BERNARDINO STATE OF CA

JNC

MAP REF. 509029/509030

DRAWING NO. 3-58399A

TRACKING NO. 13-48135

EXHIBIT "A"

ATTACHED TO CONTRACT BETWEEN

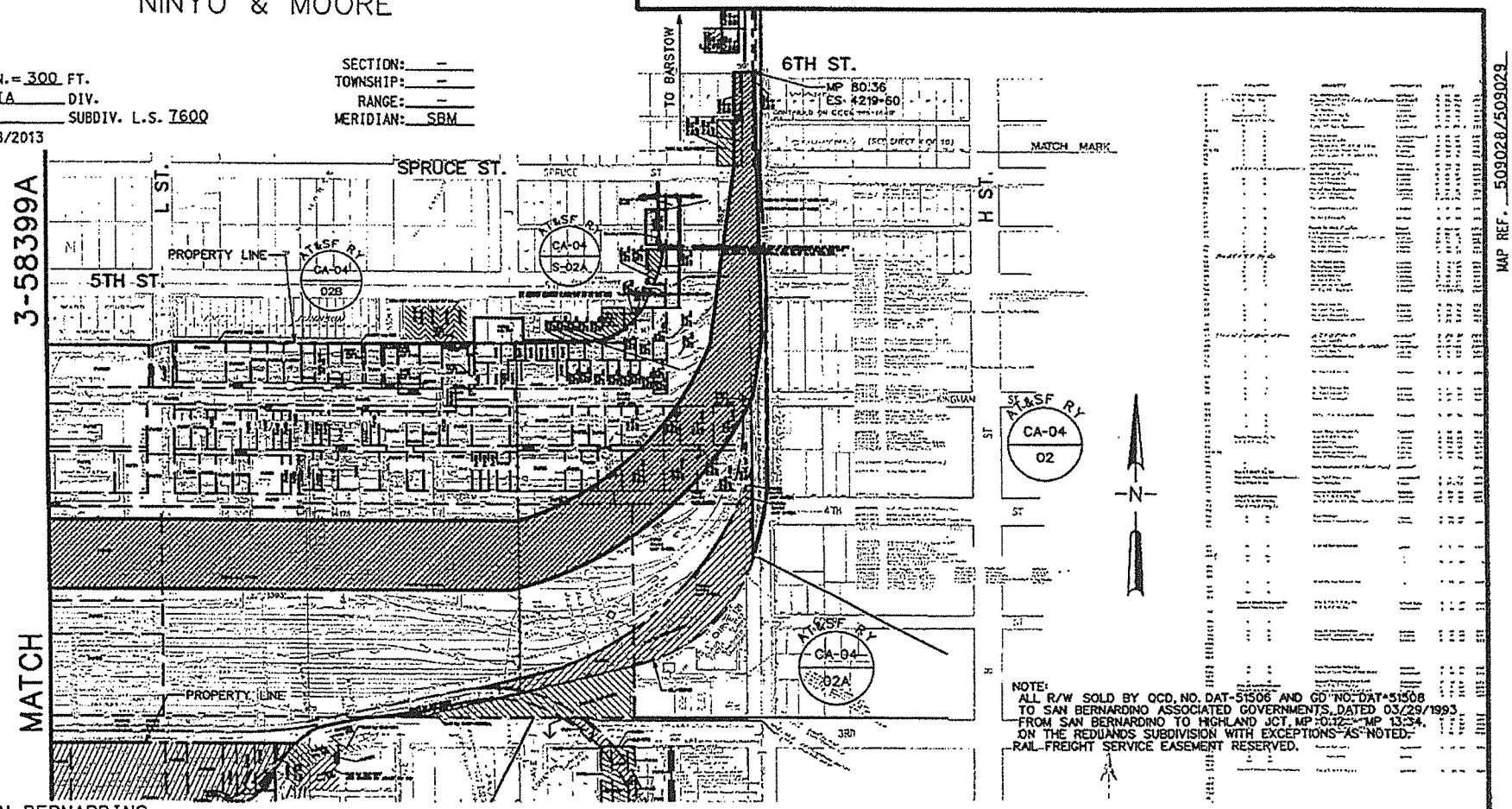
BNSF RAILWAY COMPANY

AND

NINYO & MOORE

SCALE: 1 IN. = 300 FT.
CALIFORNIA DIV.
CAJON SUBDIV. L.S. 7600
DATE 07/18/2013

SECTION: –
TOWNSHIP: –
RANGE: –
MERIDIAN: SBM



MAP REF. 509028/509029

AT SAN BERNARDINO
COUNTY OF SAN BERNARDINO STATE OF CA

JNC

DRAWING NO. 3-58399B

From: Dudley, Todd [Todd.Dudley@aecom.com]
Sent: Friday, September 13, 2013 10:51 AM
To: Lino Cheang (l.cheang@earthmech.com); Chavinpat Pongsakornpatara (Chavinpat@earthmech.com); Jay Roberts; Summer Hansen-Rooks
Cc: Char, Mohan; Gee, Kimberly; Toan, Kristina; Mike Grubbs
Subject: Mt Vernon - Soil Boring / Sampling on SANBAG Property

We have received permission to perform the required soil borings on SANBAG property based on the following exhibits, which were approved by SANBAG. It will not be necessary to acquire a separate permit for this work.

Please note that the locations for the soil borings have been marked in the field. The boring location for EMI was field adjusted to avoid conflicts with an existing sewer.

We need to notify SANBAG ahead of time when the work will be performed. Please forward your exploration schedule as soon as you know when the work will be done.

Todd W. Dudley, P.E., S.E.
Senior Project Engineer, Northern California
Transportation
P 916.414.5800 ext. 6040
D 916.414.1568
todd.dudley@aecom.com

AECOM
2020 L Street, Suite 300, Sacramento, CA 95811
F 916.414.1557
www.aecom.com

APPENDIX F

PHOTOGRAPHIC DOCUMENTATION

Photograph 1: **View looking north from boring DP-1.**

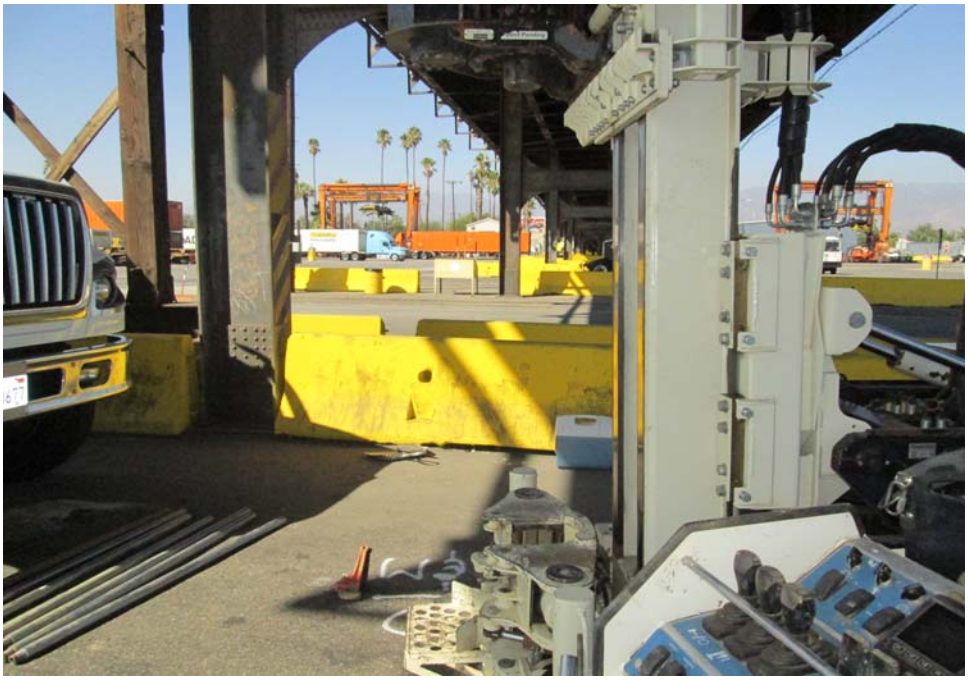
Photograph 2: **View looking east from boring DP-1.**

Photograph 3: **View looking south from boring DP-1.**

Photograph 4: **View looking west from boring DP-1.**

Photograph 5: **Drilling with the Geoprobe 8040DT at boring DP-1.**

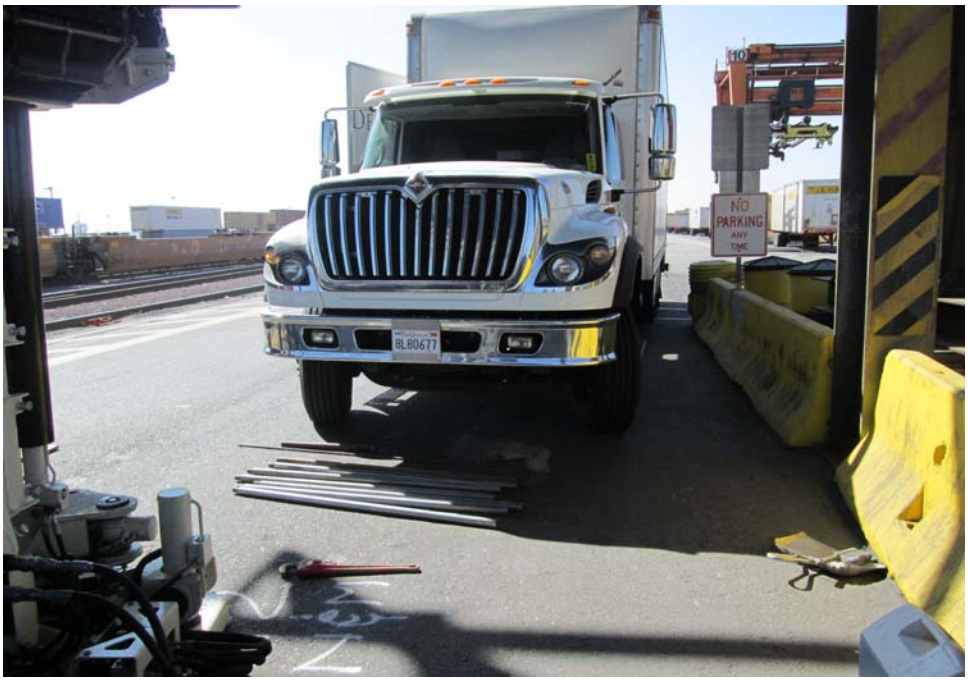
Photograph 6: **Sealed boring after completion at boring DP-1.**



Photograph 7: **View looking north from boring DP-2.**

Photograph 8: **View looking east from boring DP-2.**

Photograph 9: **View looking south from boring DP-2.**



Photograph 10: **View looking west from boring DP-2.**

Photograph 11: **Drilling taking place at boring DP-2.**

Photograph 12: **Sealed boring after completion at DP-2.**

Photograph 13: **View looking north from boring DP-3.**

Photograph 14: **View looking east from boring DP-3.**

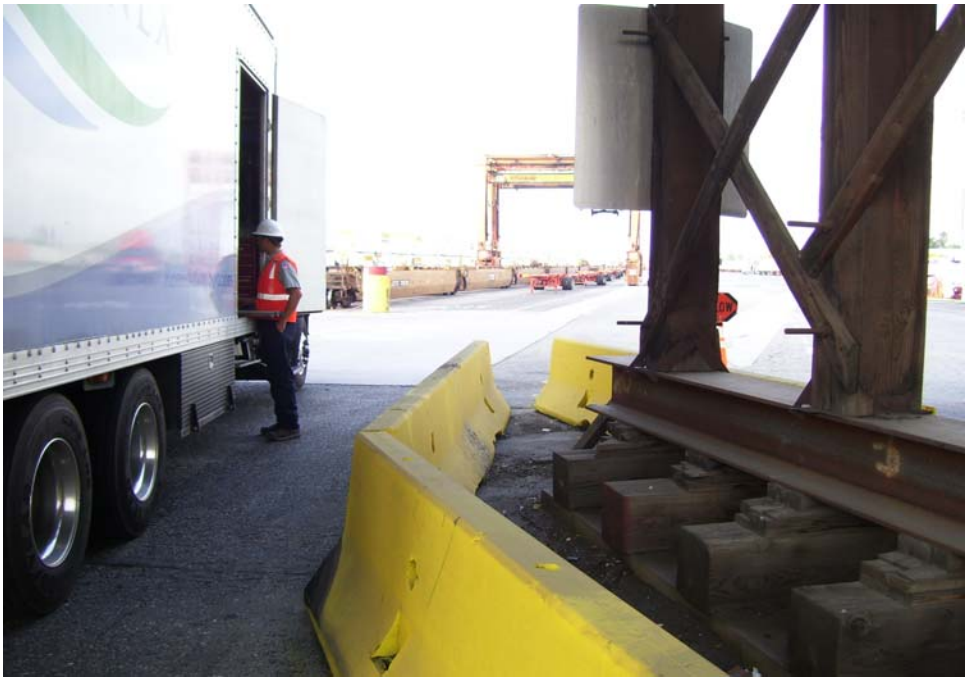
Photograph 15: **View looking south from boring DP-3.**

Photograph 16: **View looking west from boring DP-3.**

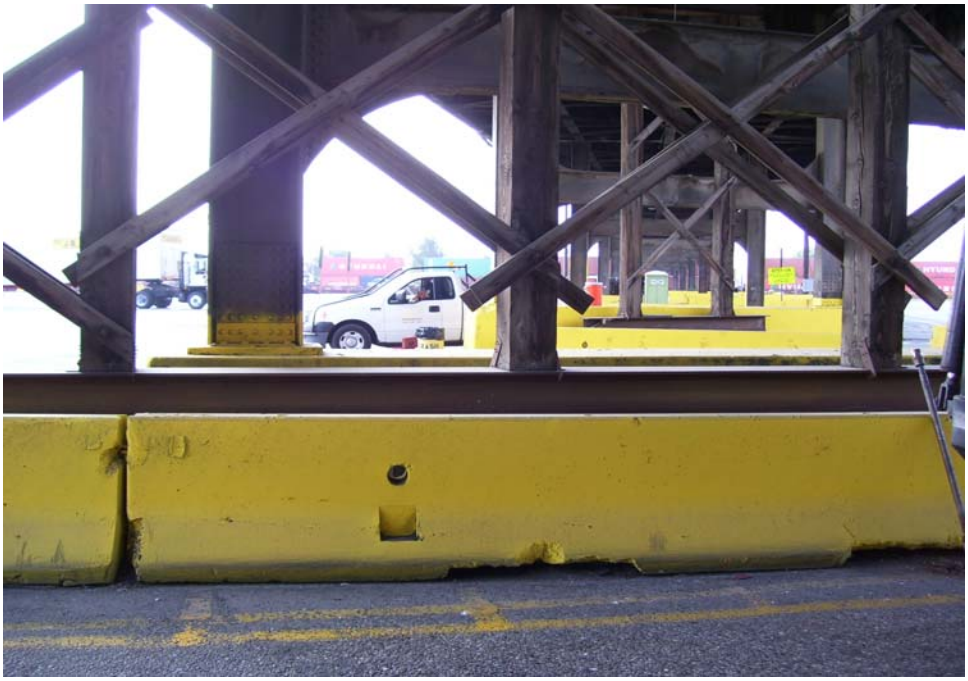
Photograph 17: **Hand augering taking place at boring DP-3.**

Photograph 18: **Sealed boring after completion at boring DP-3.**

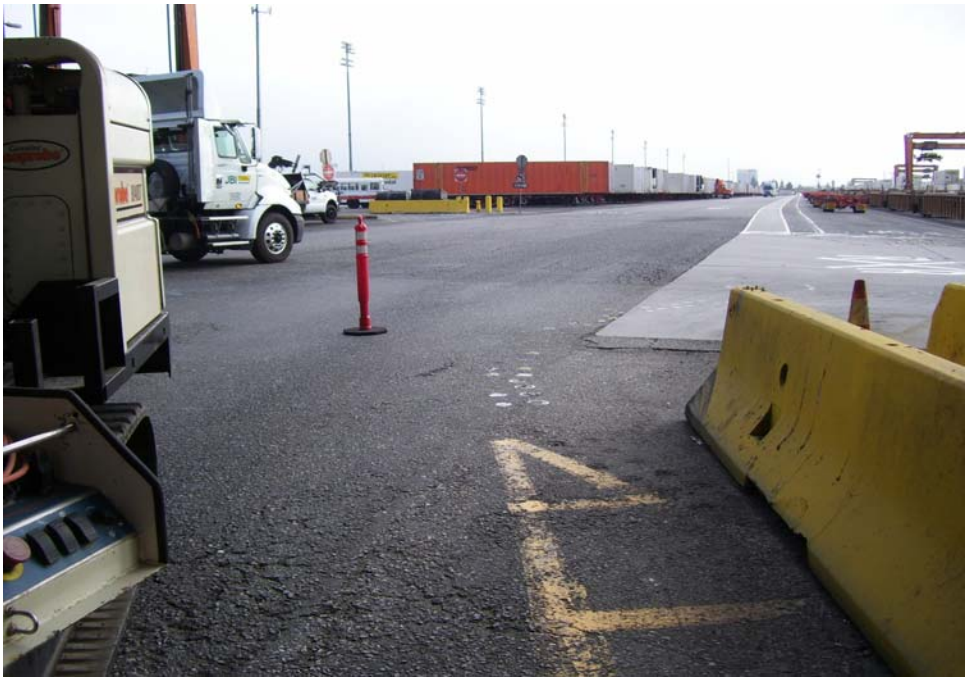
Photograph 19: **View looking north from boring DP-4a.**



Photograph 20: **View looking west from boring DP-4a.**



Photograph 21: **View looking south from boring DP-4a.**



Photograph 22: **View looking east from boring DP-4a.**

Photograph 23: **Looking into boring DP-4a.**

Photograph 24: **Closer view of the oil in boring DP-4a.**

Photograph 25: **Oil stained disposable hand bailer at boring DP-4a.**

Photograph 26: **Oil stained hand auger at boring DP-4a.**

Photograph 27: **View of the oil-water separator from DP-4a.**

Photograph 28: **View of nearby tire repair shop from DP-4a.**

Photograph 29: **Boring B2 prior to hand augering.**

Photograph 30: **Sealed boring after completion at boring B-2.**

Photograph 31: **Boring B-3.**

Photograph 32: **Sealed boring after completion at boring B-3.**

Photograph 33: **Sealed boring after completion at boring B-4.**

Photograph 34: **Boring B-5 prior to hand augering.**

Photograph 35: **View looking north from boring B-5.**

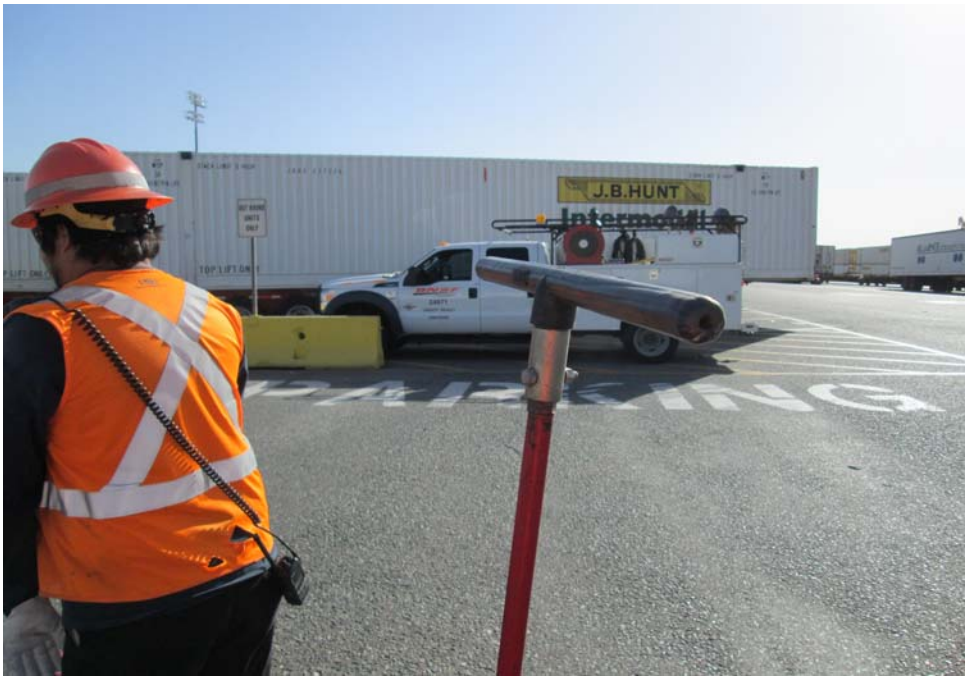
Photograph 36: **View looking east from boring B-5.**

Photograph 37: **View looking south from boring B-5.**

Photograph 38: **View looking west form boring B-5.**

Photograph 39: **Sealed boring after completion at boring B-5.**

Photograph 40: **View looking north from boring B-6.**



Photograph 41: **View looking east from boring B-6.**

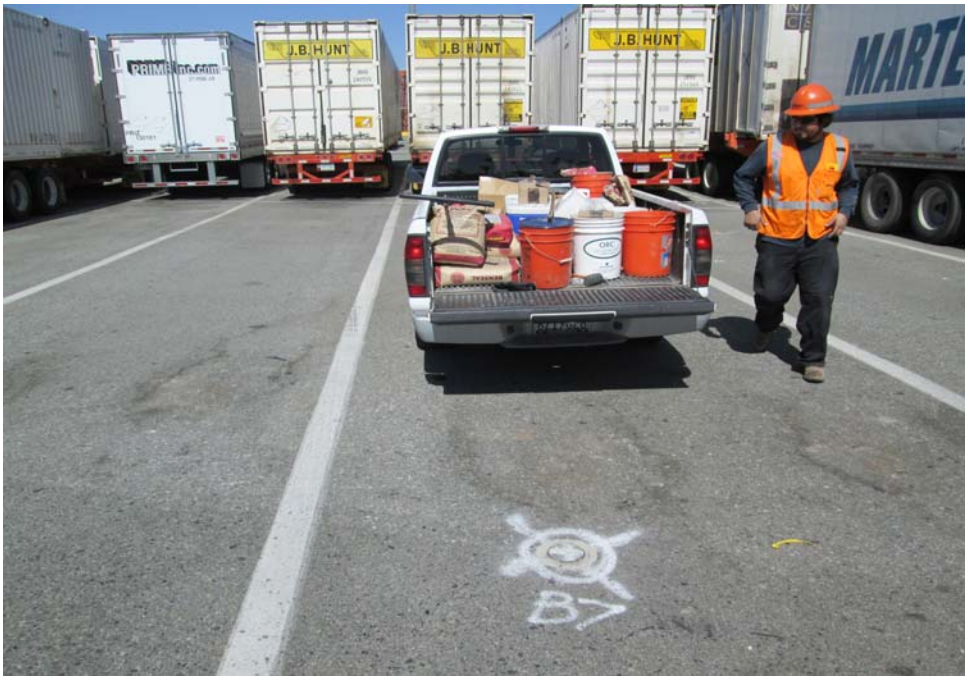
Photograph 42: **View looking south from boring B-6.**

Photograph 43: **View looking west from boring B-6.**

Photograph 44: **Boring B-6 during hand augering.**

Photograph 45: **Sealed boring after completion at boring B-6.**

Photograph 46: **Sealed boring after completion at boring B-6.**



Photograph 47: **View looking north from boring B-7.**

Photograph 48: **View looking east from boring B-7.**

Photograph 49: **View looking south from boring B-7.**

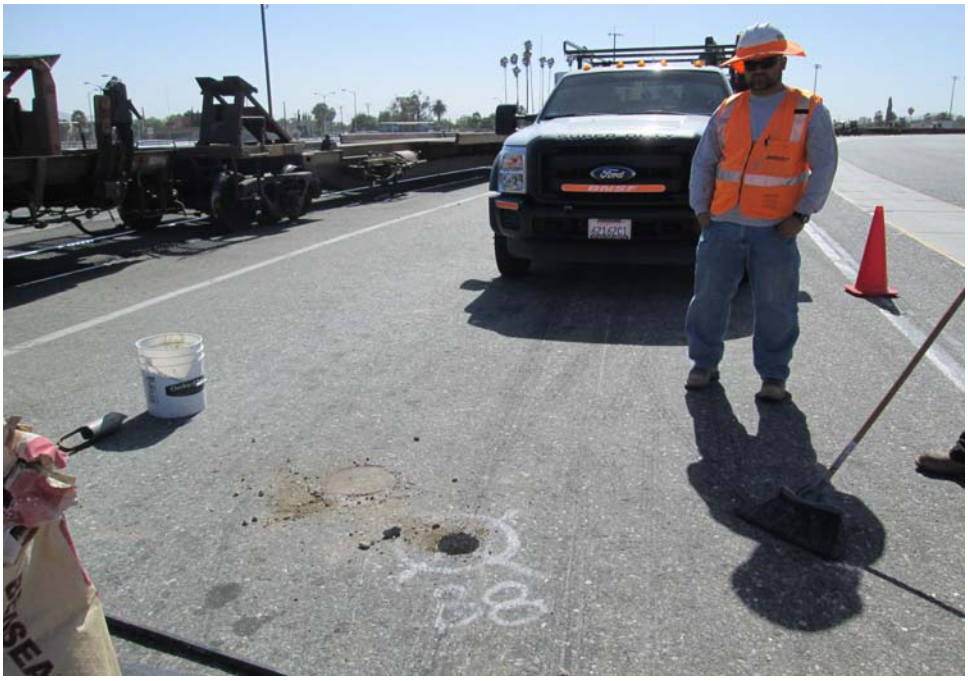
Photograph 50: **View looking west from boring B-7.**

Photograph 51: **Boring B-8.**

Photograph 52: **View looking north from boring B-8.**

Photograph 53: **View looking east from boring B-8.**

Photograph 54: **View looking south from boring B-8.**



Photograph 55: **View looking west from boring B-8.**

Photograph 56: **Sealed boring after completion at boring B-8.**

Photograph 57: **Boring B-9.**

APPENDIX G

LABORATORY REPORTS

ADVANCED TECHNOLOGY LABORATORIES

November 01, 2013

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Summer Hansen-Rooks
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618
Tel: (949) 753-7070
Fax:(949) 753-7071

Re: ATL Work Order Number : 1303113

Client Reference : AECOM-Mt. Vernon Avenue, 205732003

Enclosed are the results for sample(s) received on October 07, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP1-0.5	1303113-01	Soil	10/01/13 8:42	10/07/13 15:34
DP1-3.0	1303113-02	Soil	10/01/13 8:49	10/07/13 15:34
DP1-5.0	1303113-03	Soil	10/01/13 8:52	10/07/13 15:34
DP1-10	1303113-04	Soil	10/01/13 9:25	10/07/13 15:34
DP1-15	1303113-05	Soil	10/01/13 9:55	10/07/13 15:34
DP1-20	1303113-06	Soil	10/01/13 9:37	10/07/13 15:34
Trip Blank	1303113-07	Water	10/01/13 0:00	10/07/13 15:34
DP4-0.5	1303113-08	Soil	10/02/13 8:46	10/07/13 15:34
DP4-3.0	1303113-09	Soil	10/02/13 9:27	10/07/13 15:34
DP3-0.5	1303113-10	Soil	10/02/13 10:26	10/07/13 15:34
DP3-3.0	1303113-11	Soil	10/02/13 10:46	10/07/13 15:34
DP3-5.0	1303113-12	Soil	10/02/13 10:51	10/07/13 15:34
DP3-20	1303113-15	Soil	10/02/13 11:27	10/07/13 15:34
DP3-25	1303113-16	Soil	10/02/13 11:37	10/07/13 15:34
DP3-W	1303113-17	Water	10/02/13 12:25	10/07/13 15:34
DP2-5.0	1303113-20	Soil	10/02/13 13:46	10/07/13 15:34
DP2-10	1303113-21	Soil	10/02/13 13:56	10/07/13 15:34
DP2-20	1303113-23	Soil	10/02/13 14:10	10/07/13 15:34
DP2-40	1303113-26	Soil	10/02/13 15:04	10/07/13 15:34
DP2-W	1303113-27	Water	10/02/13 15:57	10/07/13 15:34
B9-5.0	1303113-30	Soil	10/03/13 9:40	10/07/13 15:34
B4-5.0	1303113-33	Soil	10/03/13 11:05	10/07/13 15:34
B3-2.0	1303113-34	Soil	10/03/13 12:46	10/07/13 15:34
B3-3.0	1303113-35	Soil	10/03/13 12:52	10/07/13 15:34
B2-3.0	1303113-38	Soil	10/03/13 14:26	10/07/13 15:34
B2-5.0	1303113-39	Soil	10/03/13 14:31	10/07/13 15:34
B1-5.0	1303113-42	Soil	10/03/13 15:17	10/07/13 15:34
DP4A-0.5	1303113-43	Soil	10/03/13 8:45	10/07/13 15:34
DP4A-3.0	1303113-44	Soil	10/03/13 9:05	10/07/13 15:34
DP4A-5.0	1303113-45	Soil	10/03/13 10:00	10/07/13 15:34
DP4A-10	1303113-46	Soil	10/03/13 9:25	10/07/13 15:34
DP4A-15	1303113-47	Soil	10/03/13 10:42	10/07/13 15:34
DP4A-20	1303113-48	Soil	10/03/13 10:54	10/07/13 15:34
DP4A-25	1303113-49	Soil	10/03/13 11:10	10/07/13 15:34
DP5-0.5	1303113-50	Soil	10/03/13 14:30	10/07/13 15:34
DP5-3.0	1303113-51	Soil	10/03/13 14:50	10/07/13 15:34
B6-1.0	1303113-52	Soil	10/04/13 9:15	10/07/13 15:34

Certificate of Analysis

Ninyo & Moore	Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200	Report To :	Summer Hansen-Rooks
Irvine , CA 92618	Reported :	11/01/2013

B6-1.0	1303113-52	Soil	10/04/13 9:15	10/07/13 15:34
B6-3.0	1303113-53	Soil	10/04/13 9:41	10/07/13 15:34
B6-3.0	1303113-53	Soil	10/04/13 9:41	10/07/13 15:34
B6-5.0	1303113-54	Soil	10/04/13 9:46	10/07/13 15:34
B5-1.0	1303113-55	Soil	10/04/13 10:37	10/07/13 15:34
B5-3.0	1303113-56	Soil	10/04/13 10:50	10/07/13 15:34
B5-5.0	1303113-57	Soil	10/04/13 11:16	10/07/13 15:34
DP4A-35	1303113-58	Soil	10/04/13 9:55	10/07/13 15:34
B7-1.0	1303113-59	Soil	10/04/13 12:26	10/07/13 15:34
B7-3.0	1303113-60	Soil	10/04/13 12:32	10/07/13 15:34
B7-4.5	1303113-61	Soil	10/04/13 12:55	10/07/13 15:34
B8-1.0	1303113-62	Soil	10/04/13 14:03	10/07/13 15:34
B8-3.0	1303113-63	Soil	10/04/13 14:20	10/07/13 15:34
B8-5.0	1303113-64	Soil	10/04/13 14:28	10/07/13 15:34
DP1-W	1303113-65	Water	10/02/13 14:02	10/07/13 15:34
DP4A	1303113-67	Water	10/03/13 0:00	10/07/13 15:34

CASE NARRATIVE

The samples for EPA 8151 (Chlorinated Herbicides) analysis was subcontracted to AETL with DOHS Cert.#1541.

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5
Lab ID: 1303113-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Arsenic	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Barium	**41**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:01	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Chromium	**9.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Cobalt	**5.2**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Copper	**9.5**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Lead	**14**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Nickel	**5.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Vanadium	**23**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	
Zinc	**38**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:02	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:02	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.89	NA	1	B3J0198	10/09/2013	10/09/13 10:46	
Surrogate: 4-Bromofluorobenzene	*126 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 10:46*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 17:31	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 17:31	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 17:31	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5
Lab ID: 1303113-01

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*97.4 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 17:31*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
4,4´-DDE	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
4,4´-DDT	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Aldrin	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
alpha-BHC	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
alpha-Chlordane	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
beta-BHC	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Chlordane	ND	8.5	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
delta-BHC	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Dieldrin	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endosulfan I	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endosulfan II	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endosulfan sulfate	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endrin	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endrin aldehyde	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Endrin ketone	ND	2.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
gamma-BHC	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
gamma-Chlordane	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Heptachlor	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Heptachlor epoxide	ND	1.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Methoxychlor	ND	5.0	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Toxaphene	ND	50	NA	1	B3J0390	10/17/2013	10/18/13 12:05	H4
Surrogate: Decachlorobiphenyl	*93.4 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 12:05*	H4
Surrogate: Tetrachloro-m-xylene	*88.4 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 12:05*	H4

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5
Lab ID: 1303113-01

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 10:57	H4
Surrogate: Decachlorobiphenyl	*109 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 10:57*	H4
Surrogate: Tetrachloro-m-xylene	*94.7 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 10:57*	H4

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5

Lab ID: 1303113-01

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
4-Chlorotoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Benzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Bromobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Bromochloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Bromodichloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Bromoform	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Bromomethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Carbon disulfide	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Carbon tetrachloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Chlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Chloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Chloroform	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Chloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Di-isopropyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Dibromochloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Dibromomethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Ethyl Acetate	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Ethyl Ether	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Ethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Freon-113	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Isopropylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
m,p-Xylene	ND	8.8	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Methylene chloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
MTBE	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
n-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
n-Propylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Naphthalene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
o-Xylene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
sec-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Styrene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5

Lab ID: 1303113-01

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
tert-Butanol	ND	88	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
tert-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Tetrachloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Toluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Trichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Vinyl acetate	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Vinyl chloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 20:56	
Surrogate: 1,2-Dichloroethane-d4	*155 %*		*56 - 159*		B3J0204	10/09/2013	*10/09/13 20:56*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0204	10/09/2013	*10/09/13 20:56*	
Surrogate: Dibromofluoromethane	*129 %*		*60 - 127*		B3J0204	10/09/2013	*10/09/13 20:56*	S1
Surrogate: Toluene-d8	*117 %*		*70 - 121*		B3J0204	10/09/2013	*10/09/13 20:56*	

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5

Lab ID: 1303113-01

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-0.5
Lab ID: 1303113-01

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 12:54	
Surrogate: 1,2-Dichlorobenzene-d4	*98.9 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: 2,4,6-Tribromophenol	*123 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: 2-Chlorophenol-d4	*101 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: 2-Fluorobiphenyl	*124 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: 2-Fluorophenol	*102 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: 4-Terphenyl-d14	*159 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: Nitrobenzene-d5	*114 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 12:54*	
Surrogate: Phenol-d5	*102 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 12:54*	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-3.0
Lab ID: 1303113-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Arsenic	**1.0**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Barium	**31**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Chromium	**7.2**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Cobalt	**4.4**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Copper	**5.8**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Lead	**2.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Molybdenum	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Nickel	**5.2**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Vanadium	**21**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	
Zinc	**22**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:41	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:05	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.79	NA	1	B3J0198	10/09/2013	10/09/13 11:02	
Surrogate: 4-Bromofluorobenzene	*125 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 11:02*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:17	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:17	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:17	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-3.0
Lab ID: 1303113-02

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*93.9 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 15:17*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1,1-Trichloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1,2,2-Tetrachloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1,2-Trichloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1-Dichloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1-Dichloroethene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,1-Dichloropropene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2,3-Trichloropropane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2,3-Trichlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2,4-Trichlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2,4-Trimethylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2-Dibromo-3-chloropropane	ND	9.4	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2-Dibromoethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2-Dichlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2-Dichloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,2-Dichloropropane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,3,5-Trimethylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,3-Dichlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,3-Dichloropropane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
1,4-Dichlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
2,2-Dichloropropane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
2-Chlorotoluene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
4-Chlorotoluene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
4-Isopropyltoluene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Benzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Bromobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Bromochloromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Bromodichloromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Bromoform	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Bromomethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Carbon disulfide	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-3.0

Lab ID: 1303113-02

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Chlorobenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Chloroethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Chloroform	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Chloromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
cis-1,2-Dichloroethene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
cis-1,3-Dichloropropene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Di-isopropyl ether	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Dibromochloromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Dibromomethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Dichlorodifluoromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Ethyl Acetate	ND	47	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Ethyl Ether	ND	47	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Ethyl tert-butyl ether	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Ethylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Freon-113	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Hexachlorobutadiene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Isopropylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
m,p-Xylene	ND	9.4	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Methylene chloride	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
MTBE	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
n-Butylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
n-Propylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Naphthalene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
o-Xylene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
sec-Butylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Styrene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
tert-Amyl methyl ether	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
tert-Butanol	ND	94	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
tert-Butylbenzene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Tetrachloroethene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Toluene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
trans-1,2-Dichloroethene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
trans-1,3-Dichloropropene	ND	47	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Trichloroethene	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Trichlorofluoromethane	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Vinyl acetate	ND	47	NA	1	B3J0204	10/09/2013	10/09/13 21:14	

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Client Sample ID DP1-3.0

Lab ID: 1303113-02

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	4.7	NA	1	B3J0204	10/09/2013	10/09/13 21:14	
Surrogate: 1,2-Dichloroethane-d4	*164 %*		*56 - 159*		B3J0204	10/09/2013	*10/09/13 21:14*	S1
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0204	10/09/2013	*10/09/13 21:14*	
Surrogate: Dibromofluoromethane	*139 %*		*60 - 127*		B3J0204	10/09/2013	*10/09/13 21:14*	S1
Surrogate: Toluene-d8	*112 %*		*70 - 121*		B3J0204	10/09/2013	*10/09/13 21:14*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	

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Client Sample ID DP1-3.0

Lab ID: 1303113-02

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	

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Client Sample ID DP1-3.0
Lab ID: 1303113-02

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 13:21	
Surrogate: 1,2-Dichlorobenzene-d4	*84.8 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: 2,4,6-Tribromophenol	*112 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: 2-Chlorophenol-d4	*84.8 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: 2-Fluorobiphenyl	*105 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: 2-Fluorophenol	*87.1 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: 4-Terphenyl-d14	*155 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: Nitrobenzene-d5	*101 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 13:21*	
Surrogate: Phenol-d5	*87.5 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 13:21*	

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Client Sample ID DP1-5.0
Lab ID: 1303113-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Arsenic	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Barium	**58**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Chromium	**12**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Cobalt	**7.0**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Copper	**11**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Lead	**4.0**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Nickel	**8.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Vanadium	**33**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	
Zinc	**40**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:07	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.83	NA	1	B3J0198	10/09/2013	10/09/13 11:18	
Surrogate: 4-Bromofluorobenzene	*125 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 11:18*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:26	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:26	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:26	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*107 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 02:26*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
4,4´-DDE	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
4,4´-DDT	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Aldrin	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
alpha-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
alpha-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
beta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Chlordane	ND	8.5	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
delta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Dieldrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endosulfan I	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endosulfan II	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endosulfan sulfate	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endrin aldehyde	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Endrin ketone	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
gamma-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
gamma-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Heptachlor	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Heptachlor epoxide	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Methoxychlor	ND	5.0	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Toxaphene	ND	50	NA	1	B3J0219	10/09/2013	10/09/13 19:15	
Surrogate: Decachlorobiphenyl	*71.7 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 19:15*	
Surrogate: Tetrachloro-m-xylene	*77.4 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 19:15*	

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Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1221	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1232	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1242	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1248	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1254	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1260	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1262	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Aroclor 1268	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:05	
Surrogate: Decachlorobiphenyl	*111 %*		*39 - 128*		B3J0219	10/09/2013	*10/09/13 19:05*	
Surrogate: Tetrachloro-m-xylene	*86.2 %*		*38 - 122*		B3J0219	10/09/2013	*10/09/13 19:05*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-5.0

Lab ID: 1303113-03

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
4-Chlorotoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Benzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Bromobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Bromochloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Bromodichloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Bromoform	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Bromomethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Carbon disulfide	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Carbon tetrachloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Chlorobenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Chloroethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Chloroform	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Chloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Di-isopropyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Dibromochloromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Dibromomethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Ethyl Acetate	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Ethyl Ether	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Ethylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Freon-113	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Isopropylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
m,p-Xylene	ND	8.8	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Methylene chloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
MTBE	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
n-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
n-Propylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Naphthalene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
o-Xylene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
sec-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Styrene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-5.0
Lab ID: 1303113-03

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
tert-Butanol	ND	88	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
tert-Butylbenzene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Tetrachloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Toluene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Trichloroethene	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Vinyl acetate	ND	44	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Vinyl chloride	ND	4.4	NA	1	B3J0204	10/09/2013	10/09/13 21:33	
Surrogate: 1,2-Dichloroethane-d4	*157 %*		*56 - 159*		B3J0204	10/09/2013	*10/09/13 21:33*	
Surrogate: 4-Bromofluorobenzene	*108 %*		*69 - 131*		B3J0204	10/09/2013	*10/09/13 21:33*	
Surrogate: Dibromofluoromethane	*137 %*		*60 - 127*		B3J0204	10/09/2013	*10/09/13 21:33*	S1
Surrogate: Toluene-d8	*119 %*		*70 - 121*		B3J0204	10/09/2013	*10/09/13 21:33*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-5.0

Lab ID: 1303113-03

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-5.0
Lab ID: 1303113-03

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:13	
Surrogate: 1,2-Dichlorobenzene-d4	*95.0 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: 2,4,6-Tribromophenol	*115 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: 2-Chlorophenol-d4	*94.3 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: 2-Fluorobiphenyl	*108 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: 2-Fluorophenol	*100 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: 4-Terphenyl-d14	*166 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 15:13*	S1
Surrogate: Nitrobenzene-d5	*106 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 15:13*	
Surrogate: Phenol-d5	*99.4 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 15:13*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Arsenic	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Barium	**27**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:14	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Chromium	**8.3**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Cobalt	**4.2**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Copper	**4.2**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Lead	**1.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Nickel	**5.9**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Vanadium	**23**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	
Zinc	**18**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:15	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:08	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.86	NA	1	B3J0198	10/09/2013	10/09/13 11:34	
Surrogate: 4-Bromofluorobenzene	*122 %*	*59 - 160*			B3J0198	10/09/2013	*10/09/13 11:34*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:49	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:49	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:49	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*109 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 05:49*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 14:42	
Surrogate: Decachlorobiphenyl	*100 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 14:42*	
Surrogate: Tetrachloro-m-xylene	*73.7 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 14:42*	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:07	
Surrogate: Decachlorobiphenyl	*93.5 %*		*39 - 128*		B3J0231	10/10/2013	*10/10/13 18:07*	
Surrogate: Tetrachloro-m-xylene	*79.3 %*		*38 - 122*		B3J0231	10/10/2013	*10/10/13 18:07*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1,1-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1,2,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1,2-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,1-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2,3-Trichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2,3-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2,4-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2,4-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2-Dibromo-3-chloropropane	ND	8.6	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2-Dibromoethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,3,5-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,3-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,3-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
1,4-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
2,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
4-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
4-Isopropyltoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Benzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Bromobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Bromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Bromodichloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Bromoform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Bromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Carbon disulfide	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Carbon tetrachloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Chlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Chloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Chloroform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Chloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
cis-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
cis-1,3-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Di-isopropyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Dibromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Dibromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Dichlorodifluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Ethyl Acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Ethyl Ether	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Ethyl tert-butyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Ethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Freon-113	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Hexachlorobutadiene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Isopropylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
m,p-Xylene	ND	8.6	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Methylene chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
MTBE	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
n-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
n-Propylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Naphthalene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
o-Xylene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
sec-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Styrene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
tert-Butanol	ND	86	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
tert-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Tetrachloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Toluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
trans-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
trans-1,3-Dichloropropene	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Trichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Trichlorofluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Vinyl acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Vinyl chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 14:06	
Surrogate: 1,2-Dichloroethane-d4	*162 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 14:06*	S1
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 14:06*	
Surrogate: Dibromofluoromethane	*135 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 14:06*	S1
Surrogate: Toluene-d8	*111 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 14:06*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-10
Lab ID: 1303113-04

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Phenol	**1000**	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 15:39	
Surrogate: 1,2-Dichlorobenzene-d4	*82.8 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: 2,4,6-Tribromophenol	*110 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: 2-Chlorophenol-d4	*82.8 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: 2-Fluorobiphenyl	*94.9 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: 2-Fluorophenol	*87.6 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: 4-Terphenyl-d14	*160 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: Nitrobenzene-d5	*90.4 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 15:39*	
Surrogate: Phenol-d5	*87.9 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 15:39*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-15
Lab ID: 1303113-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Barium	**26**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:57	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Chromium	**6.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Cobalt	**3.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Copper	**4.8**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Lead	**2.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Nickel	**4.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Vanadium	**17**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	
Zinc	**17**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 14:58	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:14	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.91	NA	1	B3J0198	10/09/2013	10/09/13 11:50	
Surrogate: 4-Bromofluorobenzene	*114 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 11:50*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:43	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:43	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 02:43	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*104 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 02:43*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
4,4´-DDE	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
4,4´-DDT	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Aldrin	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
alpha-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
alpha-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
beta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Chlordane	ND	8.5	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
delta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Dieldrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endosulfan I	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endosulfan II	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endosulfan sulfate	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endrin aldehyde	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Endrin ketone	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
gamma-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
gamma-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Heptachlor	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Heptachlor epoxide	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Methoxychlor	ND	5.0	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Toxaphene	ND	50	NA	1	B3J0219	10/09/2013	10/09/13 19:29	
Surrogate: Decachlorobiphenyl	*72.4 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 19:29*	
Surrogate: Tetrachloro-m-xylene	*79.9 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 19:29*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-15
Lab ID: 1303113-05

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1221	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1232	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1242	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1248	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1254	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1260	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1262	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Aroclor 1268	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 19:36	
Surrogate: Decachlorobiphenyl	*108 %*		*39 - 128*		B3J0219	10/09/2013	*10/09/13 19:36*	
Surrogate: Tetrachloro-m-xylene	*86.4 %*		*38 - 122*		B3J0219	10/09/2013	*10/09/13 19:36*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1,1-Trichloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1,2,2-Tetrachloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1,2-Trichloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1-Dichloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1-Dichloroethene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,1-Dichloropropene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2,3-Trichloropropane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2,3-Trichlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2,4-Trichlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2,4-Trimethylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2-Dibromo-3-chloropropane	ND	9.1	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2-Dibromoethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2-Dichlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2-Dichloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,2-Dichloropropane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,3,5-Trimethylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,3-Dichlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,3-Dichloropropane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
1,4-Dichlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
2,2-Dichloropropane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-15
Lab ID: 1303113-05

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
4-Chlorotoluene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
4-Isopropyltoluene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Benzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Bromobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Bromochloromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Bromodichloromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Bromoform	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Bromomethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Carbon disulfide	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Carbon tetrachloride	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Chlorobenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Chloroethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Chloroform	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Chloromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
cis-1,2-Dichloroethene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
cis-1,3-Dichloropropene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Di-isopropyl ether	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Dibromochloromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Dibromomethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Dichlorodifluoromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Ethyl Acetate	ND	45	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Ethyl Ether	ND	45	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Ethyl tert-butyl ether	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Ethylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Freon-113	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Hexachlorobutadiene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Isopropylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
m,p-Xylene	ND	9.1	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Methylene chloride	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
MTBE	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
n-Butylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
n-Propylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Naphthalene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
o-Xylene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
sec-Butylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Styrene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-15
Lab ID: 1303113-05

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
tert-Butanol	ND	91	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
tert-Butylbenzene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Tetrachloroethene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Toluene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
trans-1,2-Dichloroethene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
trans-1,3-Dichloropropene	ND	45	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Trichloroethene	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Trichlorofluoromethane	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Vinyl acetate	ND	45	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Vinyl chloride	ND	4.5	NA	1	B3J0224	10/10/2013	10/10/13 14:24	
Surrogate: 1,2-Dichloroethane-d4	*160 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 14:24*	S1
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 14:24*	
Surrogate: Dibromofluoromethane	*137 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 14:24*	S1
Surrogate: Toluene-d8	*113 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 14:24*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	

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Client Sample ID DP1-15
Lab ID: 1303113-05

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-15
Lab ID: 1303113-05

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:06	
Surrogate: 1,2-Dichlorobenzene-d4	*91.6 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: 2,4,6-Tribromophenol	*106 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: 2-Chlorophenol-d4	*91.1 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: 2-Fluorobiphenyl	*103 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: 2-Fluorophenol	*97.2 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: 4-Terphenyl-d14	*147 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: Nitrobenzene-d5	*102 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 16:06*	
Surrogate: Phenol-d5	*94.6 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 16:06*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Barium	**30**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:00	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Chromium	**11**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Cobalt	**3.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Copper	**5.6**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Lead	**2.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Molybdenum	**1.0**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Nickel	**6.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Vanadium	**16**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	
Zinc	**19**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:01	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:16	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.84	NA	1	B3J0198	10/09/2013	10/09/13 12:06	
Surrogate: 4-Bromofluorobenzene	*124 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 12:06*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:00	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:00	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:00	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*99.8 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 03:00*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
4,4´-DDE	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
4,4´-DDT	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Aldrin	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
alpha-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
alpha-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
beta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Chlordane	ND	8.5	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
delta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Dieldrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endosulfan I	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endosulfan II	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endosulfan sulfate	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endrin aldehyde	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Endrin ketone	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
gamma-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
gamma-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Heptachlor	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Heptachlor epoxide	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Methoxychlor	ND	5.0	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Toxaphene	ND	50	NA	1	B3J0219	10/09/2013	10/09/13 19:42	
Surrogate: Decachlorobiphenyl	*72.8 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 19:42*	
Surrogate: Tetrachloro-m-xylene	*84.2 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 19:42*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1221	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1232	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1242	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1248	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1254	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1260	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1262	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Aroclor 1268	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 20:06	
Surrogate: Decachlorobiphenyl	*112 %*		*39 - 128*		B3J0219	10/09/2013	*10/09/13 20:06*	
Surrogate: Tetrachloro-m-xylene	*87.5 %*		*38 - 122*		B3J0219	10/09/2013	*10/09/13 20:06*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1,1-Trichloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1,2,2-Tetrachloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1,2-Trichloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1-Dichloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1-Dichloroethene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,1-Dichloropropene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2,3-Trichloropropane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2,3-Trichlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2,4-Trichlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2,4-Trimethylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2-Dibromo-3-chloropropane	ND	8.4	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2-Dibromoethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2-Dichlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2-Dichloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,2-Dichloropropane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,3,5-Trimethylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,3-Dichlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,3-Dichloropropane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
1,4-Dichlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
2,2-Dichloropropane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
4-Chlorotoluene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
4-Isopropyltoluene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Benzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Bromobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Bromochloromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Bromodichloromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Bromoform	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Bromomethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Carbon disulfide	**8.1**	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Carbon tetrachloride	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Chlorobenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Chloroethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Chloroform	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Chloromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
cis-1,2-Dichloroethene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
cis-1,3-Dichloropropene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Di-isopropyl ether	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Dibromochloromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Dibromomethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Dichlorodifluoromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Ethyl Acetate	ND	42	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Ethyl Ether	ND	42	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Ethyl tert-butyl ether	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Ethylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Freon-113	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Hexachlorobutadiene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Isopropylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
m,p-Xylene	ND	8.4	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Methylene chloride	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
MTBE	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
n-Butylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
n-Propylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Naphthalene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
o-Xylene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
sec-Butylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Styrene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
tert-Butanol	ND	84	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
tert-Butylbenzene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Tetrachloroethene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Toluene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
trans-1,2-Dichloroethene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
trans-1,3-Dichloropropene	ND	42	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Trichloroethene	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Trichlorofluoromethane	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Vinyl acetate	ND	42	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Vinyl chloride	ND	4.2	NA	1	B3J0282	10/14/2013	10/14/13 15:29	
Surrogate: 1,2-Dichloroethane-d4	*132 %*		*56 - 159*		B3J0282	10/14/2013	*10/14/13 15:29*	
Surrogate: 4-Bromofluorobenzene	*99.9 %*		*69 - 131*		B3J0282	10/14/2013	*10/14/13 15:29*	
Surrogate: Dibromofluoromethane	*118 %*		*60 - 127*		B3J0282	10/14/2013	*10/14/13 15:29*	
Surrogate: Toluene-d8	*107 %*		*70 - 121*		B3J0282	10/14/2013	*10/14/13 15:29*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-20
Lab ID: 1303113-06

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 16:34	
Surrogate: 1,2-Dichlorobenzene-d4	*83.0 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: 2,4,6-Tribromophenol	*112 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: 2-Chlorophenol-d4	*83.0 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: 2-Fluorobiphenyl	*93.5 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: 2-Fluorophenol	*88.0 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: 4-Terphenyl-d14	*155 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: Nitrobenzene-d5	*93.6 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 16:34*	
Surrogate: Phenol-d5	*87.5 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 16:34*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID Trip Blank

Lab ID: 1303113-07

Volatile Organic Compounds by EPA 8260 **Analyst: DP/**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,1-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2-Dibromoethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,3-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
2,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
2-Chloroethyl vinyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
2-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
4-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
4-Isopropyltoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Benzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Bromobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Bromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Bromodichloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Bromoform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Bromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Carbon disulfide	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Carbon tetrachloride	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Chlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Chloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Chloroform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Chloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID Trip Blank
Lab ID: 1303113-07

Volatile Organic Compounds by EPA 8260 **Analyst: DP/**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Di-isopropyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Dibromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Dibromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Dichlorodifluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Ethyl Acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Ethyl Ether	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Ethyl tert-butyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Ethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Freon-113	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Hexachlorobutadiene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Isopropylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
m,p-Xylene	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Methylene chloride	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
MTBE	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
n-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
n-Propylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Naphthalene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
o-Xylene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
sec-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Styrene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
tert-Amyl methyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
tert-Butanol	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
tert-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Tetrachloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Toluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
trans-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Trichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Trichlorofluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Vinyl acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Vinyl chloride	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 21:55	
Surrogate: 1,2-Dichloroethane-d4	*87.0 %*	*70 - 130*			B3J0193	10/09/2013	*10/09/13 21:55*	
Surrogate: 4-Bromofluorobenzene	*90.2 %*	*70 - 130*			B3J0193	10/09/2013	*10/09/13 21:55*	
Surrogate: Dibromofluoromethane	*97.6 %*	*70 - 130*			B3J0193	10/09/2013	*10/09/13 21:55*	
Surrogate: Toluene-d8	*97.1 %*	*70 - 130*			B3J0193	10/09/2013	*10/09/13 21:55*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-0.5
Lab ID: 1303113-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Arsenic	**2.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Barium	**84**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Chromium	**12**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Cobalt	**3.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Copper	**34**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Lead	**120**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Nickel	**8.3**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Vanadium	**21**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	
Zinc	**62**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:17	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:15	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.3**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:16	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:18	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-0.5
Lab ID: 1303113-08

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.2	NA	1	B3J0198	10/09/2013	10/09/13 12:22	
Surrogate: 4-Bromofluorobenzene	*105 %*	*59 - 160*			B3J0198	10/09/2013	*10/09/13 12:22*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**97**	20	NA	2	B3J0245	10/10/2013	10/10/13 19:28	
T/R Hydrocarbons: C23-C32	**580**	20	NA	2	B3J0245	10/10/2013	10/10/13 19:28	
T/R Hydrocarbons: >C32	**890**	20	NA	2	B3J0245	10/10/2013	10/10/13 19:28	
Surrogate: p-Terphenyl	*97.2 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 19:28*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
4,4´-DDE	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
4,4´-DDT	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Aldrin	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
alpha-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
alpha-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
beta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Chlordane	ND	85	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
delta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Dieldrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endosulfan I	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endosulfan II	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endosulfan sulfate	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endrin aldehyde	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Endrin ketone	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
gamma-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
gamma-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Heptachlor	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Heptachlor epoxide	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Methoxychlor	ND	50	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4

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Client Sample ID DP4-0.5
Lab ID: 1303113-08

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Toxaphene	ND	500	NA	10	B3J0390	10/17/2013	10/18/13 12:31	D1, H4
Surrogate: Decachlorobiphenyl	*64.0 %*		*32 - 113*		B3J0390	10/17/2013	*10/18/13 12:31*	H4
Surrogate: Tetrachloro-m-xylene	*69.2 %*		*32 - 101*		B3J0390	10/17/2013	*10/18/13 12:31*	H4

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1260	**18**	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 17:41	H4
Surrogate: Decachlorobiphenyl	*64.4 %*		*39 - 128*		B3J0390	10/17/2013	*10/18/13 17:41*	H4
Surrogate: Tetrachloro-m-xylene	*79.8 %*		*38 - 122*		B3J0390	10/17/2013	*10/18/13 17:41*	H4

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1,1-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,1-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2,3-Trichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2-Dibromoethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	

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Client Sample ID DP4-0.5

Lab ID: 1303113-08

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,3-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
2,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
2-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
4-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
4-Isopropyltoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Benzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Bromobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Bromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Bromodichloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Bromoform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Bromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Carbon disulfide	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Carbon tetrachloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Chlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Chloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Chloroform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Chloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Di-isopropyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Dibromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Dibromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Dichlorodifluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Ethyl Acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Ethyl Ether	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Ethyl tert-butyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Ethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Freon-113	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Hexachlorobutadiene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Isopropylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
m,p-Xylene	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 15:01	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-0.5
Lab ID: 1303113-08

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methylene chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
MTBE	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
n-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
n-Propylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Naphthalene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
o-Xylene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
sec-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Styrene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
tert-Amyl methyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
tert-Butanol	ND	100	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
tert-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Tetrachloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Toluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
trans-1,3-Dichloropropene	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Trichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Trichlorofluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Vinyl acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Vinyl chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 15:01	
Surrogate: 1,2-Dichloroethane-d4	*170 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 15:01*	S1
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 15:01*	
Surrogate: Dibromofluoromethane	*138 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 15:01*	S1
Surrogate: Toluene-d8	*111 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 15:01*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
1,2-Dichlorobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
1,3-Dichlorobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
1,4-Dichlorobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,4,5-Trichlorophenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,4,6-Trichlorophenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,4-Dichlorophenol	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,4-Dimethylphenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,4-Dinitrophenol	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1

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Client Sample ID DP4-0.5

Lab ID: 1303113-08

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4-Dinitrotoluene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2,6-Dinitrotoluene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Chloronaphthalene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Chlorophenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Methylnaphthalene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Methylphenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Nitroaniline	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
2-Nitrophenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
3,3´-Dichlorobenzidine	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
3-Nitroaniline	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4,6-Dinitro-2-methyphenol	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Bromophenyl-phenylether	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Chloro-3-methylphenol	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Chloroaniline	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Chlorophenyl-phenylether	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Methylphenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Nitroaniline	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
4-Nitrophenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Acenaphthene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Acenaphthylene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Anthracene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzidine (M)	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzo(a)anthracene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzo(a)pyrene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzo(b)fluoranthene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzo(g,h,i)perylene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzo(k)fluoranthene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzoic acid	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Benzyl alcohol	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
bis(2-chloroethoxy)methane	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
bis(2-Chloroethyl)ether	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
bis(2-chloroisopropyl)ether	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
bis(2-ethylhexyl)phthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Butylbenzylphthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Chrysene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Di-n-butylphthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Di-n-octylphthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-0.5
Lab ID: 1303113-08

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibenz(a,h)anthracene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Dibenzofuran	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Diethyl phthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Dimethyl phthalate	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Fluoranthene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Fluorene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Hexachlorobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Hexachlorobutadiene	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Hexachlorocyclopentadiene	ND	50000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Hexachloroethane	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Indeno(1,2,3-cd)pyrene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Isophorone	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
N-Nitroso-di-n propylamine	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
N-Nitrosodiphenylamine	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Naphthalene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Nitrobenzene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Pentachlorophenol	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Phenanthrene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Phenol	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Pyrene	ND	25000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Pyridine	ND	120000	NA	25	B3J0249	10/10/2013	10/11/13 13:48	D1
Surrogate: 1,2-Dichlorobenzene-d4	*68.3 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: 2,4,6-Tribromophenol	*15.0 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: 2-Chlorophenol-d4	*57.0 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: 2-Fluorobiphenyl	*58.5 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: 2-Fluorophenol	*66.8 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: 4-Terphenyl-d14	*59.3 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: Nitrobenzene-d5	*69.8 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 13:48*	D1
Surrogate: Phenol-d5	*57.0 %*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 13:48*	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0
Lab ID: 1303113-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Arsenic	**2.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Barium	**42**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:21	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Chromium	**14**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Cobalt	**4.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Copper	**72**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Lead	**100**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Molybdenum	**1.1**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Nickel	**14**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Vanadium	**22**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	
Zinc	**43**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:22	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:18	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:20	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.98	NA	1	B3J0254	10/11/2013	10/11/13 13:04	
Surrogate: 4-Bromofluorobenzene	*72.1 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 13:04*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0
Lab ID: 1303113-09

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**1200**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:35	
T/R Hydrocarbons: C23-C32	**4100**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:35	
T/R Hydrocarbons: >C32	**5600**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:35	
Surrogate: p-Terphenyl	*110 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 20:35*	

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:12	H4
Surrogate: Decachlorobiphenyl	*30.5 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 18:12*	H4, S10
Surrogate: Tetrachloro-m-xylene	*48.3 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 18:12*	H4

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1,1-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1,2,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1,2-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,1-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2,3-Trichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2,3-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2,4-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2,4-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2-Dibromo-3-chloropropane	ND	8.6	NA	1	B3J0224	10/10/2013	10/10/13 15:20	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0

Lab ID: 1303113-09

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2-Dibromoethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,3,5-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,3-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,3-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
1,4-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
2,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
2-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
4-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
4-Isopropyltoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Benzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Bromobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Bromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Bromodichloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Bromoform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Bromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Carbon disulfide	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Carbon tetrachloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Chlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Chloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Chloroform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Chloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
cis-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
cis-1,3-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Di-isopropyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Dibromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Dibromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Dichlorodifluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Ethyl Acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Ethyl Ether	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Ethyl tert-butyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Ethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Freon-113	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Hexachlorobutadiene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Isopropylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0

Lab ID: 1303113-09

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
m,p-Xylene	ND	8.6	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Methylene chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
MTBE	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
n-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
n-Propylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Naphthalene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
o-Xylene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
sec-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Styrene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
tert-Amyl methyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
tert-Butanol	ND	86	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
tert-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Tetrachloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Toluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
trans-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
trans-1,3-Dichloropropene	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Trichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Trichlorofluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Vinyl acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Vinyl chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 15:20	
Surrogate: 1,2-Dichloroethane-d4	*158 %*	*56 - 159*			B3J0224	10/10/2013	*10/10/13 15:20*	
Surrogate: 4-Bromofluorobenzene	*101 %*	*69 - 131*			B3J0224	10/10/2013	*10/10/13 15:20*	
Surrogate: Dibromofluoromethane	*134 %*	*60 - 127*			B3J0224	10/10/2013	*10/10/13 15:20*	S1
Surrogate: Toluene-d8	*114 %*	*70 - 121*			B3J0224	10/10/2013	*10/10/13 15:20*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0

Lab ID: 1303113-09

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
1,2-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
1,3-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
1,4-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4,5-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4,6-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4-Dichlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4-Dimethylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4-Dinitrophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,4-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2,6-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Chloronaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Chlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Methylnaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
2-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
3,3´-Dichlorobenzidine	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
3-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4,6-Dinitro-2-methyphenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Bromophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Chloro-3-methylphenol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Chloroaniline	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Chlorophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
4-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Acenaphthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Acenaphthylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzidine (M)	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzo(a)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzo(a)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzo(b)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzo(g,h,i)perylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzo(k)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Benzoic acid	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4-3.0

Lab ID: 1303113-09

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
bis(2-chloroethoxy)methane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
bis(2-Chloroethyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
bis(2-chloroisopropyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
bis(2-ethylhexyl)phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Butylbenzylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Chrysene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Di-n-butylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Di-n-octylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Dibenz(a,h)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Dibenzofuran	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Diethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Dimethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Fluorene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Hexachlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Hexachlorobutadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Hexachlorocyclopentadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Hexachloroethane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Indeno(1,2,3-cd)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Isophorone	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
N-Nitroso-di-n propylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
N-Nitrosodiphenylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Naphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Nitrobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Pentachlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Phenanthrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Phenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Pyridine	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:15	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4

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475 Goddard Suite 200	Report To :	Summer Hansen-Rooks
Irvine , CA 92618	Reported :	11/01/2013

Client Sample ID DP4-3.0
Lab ID: 1303113-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 14:15*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Acenaphthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Acenaphthylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Benzo(a)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Benzo(a)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Benzo(b)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Benzo(g,h,i)perylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Benzo(k)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Chrysene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Dibenz(a,h)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Fluorene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Indeno(1,2,3-cd)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Naphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Phenanthrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 15:49	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 15:49*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 15:49*	S4, D1
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 15:49*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 15:49*	D1, S4

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-0.5
Lab ID: 1303113-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Arsenic	**2.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Barium	**49**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:24	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Chromium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Cobalt	**5.9**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Copper	**21**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Lead	**39**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Nickel	**14**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Vanadium	**39**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	
Zinc	**42**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:25	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:22	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.1	NA	1	B3J0198	10/09/2013	10/09/13 12:38	
Surrogate: 4-Bromofluorobenzene	*86.3 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 12:38*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**2600**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:01	
T/R Hydrocarbons: C23-C32	**7200**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:01	
T/R Hydrocarbons: >C32	**7100**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:01	

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Lab ID: 1303113-10

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*108 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 20:01*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	H4, D1
4,4´-DDE	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
4,4´-DDT	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Aldrin	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
alpha-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
alpha-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
beta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Chlordane	ND	85	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
delta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Dieldrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endosulfan I	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endosulfan II	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endosulfan sulfate	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endrin aldehyde	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Endrin ketone	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
gamma-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
gamma-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Heptachlor	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Heptachlor epoxide	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Methoxychlor	ND	50	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Toxaphene	ND	500	NA	10	B3J0390	10/17/2013	10/18/13 12:58	D1, H4
Surrogate: Decachlorobiphenyl	*63.3 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 12:58*	H4
Surrogate: Tetrachloro-m-xylene	*49.3 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 12:58*	H4

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Client Sample ID DP3-0.5
Lab ID: 1303113-10

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 18:43	H4
Surrogate: Decachlorobiphenyl	*16.4 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 18:43*	S10, H4
Surrogate: Tetrachloro-m-xylene	*60.1 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 18:43*	H4

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1,1-Trichloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1,2,2-Tetrachloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1,2-Trichloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1-Dichloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1-Dichloroethene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,1-Dichloropropene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2,3-Trichloropropane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2,3-Trichlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2,4-Trichlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2,4-Trimethylbenzene	**9.3**	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2-Dibromo-3-chloropropane	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2-Dibromoethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2-Dichlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2-Dichloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,2-Dichloropropane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,3,5-Trimethylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,3-Dichlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,3-Dichloropropane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
1,4-Dichlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
2,2-Dichloropropane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-0.5
Lab ID: 1303113-10

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
4-Chlorotoluene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
4-Isopropyltoluene	**9.6**	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Benzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Bromobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Bromochloromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Bromodichloromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Bromoform	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Bromomethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Carbon disulfide	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Carbon tetrachloride	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Chlorobenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Chloroethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Chloroform	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Chloromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
cis-1,2-Dichloroethene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
cis-1,3-Dichloropropene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Di-isopropyl ether	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Dibromochloromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Dibromomethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Dichlorodifluoromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Ethyl Acetate	ND	54	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Ethyl Ether	ND	54	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Ethyl tert-butyl ether	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Ethylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Freon-113	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Hexachlorobutadiene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Isopropylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
m,p-Xylene	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Methylene chloride	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
MTBE	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
n-Butylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
n-Propylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Naphthalene	**7.7**	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
o-Xylene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
sec-Butylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Styrene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-0.5
Lab ID: 1303113-10

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
tert-Butanol	ND	110	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
tert-Butylbenzene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Tetrachloroethene	**24**	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Toluene	**6.8**	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
trans-1,2-Dichloroethene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
trans-1,3-Dichloropropene	ND	54	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Trichloroethene	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Trichlorofluoromethane	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Vinyl acetate	ND	54	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Vinyl chloride	ND	5.4	NA	1	B3J0224	10/10/2013	10/10/13 15:39	
Surrogate: 1,2-Dichloroethane-d4	*160 %*	*56 - 159*			B3J0224	10/10/2013	*10/10/13 15:39*	S7
Surrogate: 4-Bromofluorobenzene	*109 %*	*69 - 131*			B3J0224	10/10/2013	*10/10/13 15:39*	
Surrogate: Dibromofluoromethane	*132 %*	*60 - 127*			B3J0224	10/10/2013	*10/10/13 15:39*	S7
Surrogate: Toluene-d8	*112 %*	*70 - 121*			B3J0224	10/10/2013	*10/10/13 15:39*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
1,2-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
1,3-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
1,4-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4,5-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4,6-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4-Dichlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4-Dimethylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4-Dinitrophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,4-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2,6-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Chloronaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Chlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Methylnaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
2-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-0.5

Lab ID: 1303113-10

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
3-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4,6-Dinitro-2-methyphenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Bromophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Chloro-3-methylphenol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Chloroaniline	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Chlorophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
4-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Acenaphthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Acenaphthylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzidine (M)	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzo(a)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzo(a)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzo(b)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzo(g,h,i)perylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzo(k)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzoic acid	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Benzyl alcohol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
bis(2-chloroethoxy)methane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
bis(2-Chloroethyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
bis(2-chloroisopropyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
bis(2-ethylhexyl)phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Butylbenzylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Chrysene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Di-n-butylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Di-n-octylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Dibenz(a,h)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Dibenzofuran	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Diethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Dimethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Fluorene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Hexachlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Hexachlorobutadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-0.5

Lab ID: 1303113-10

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Hexachloroethane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Indeno(1,2,3-cd)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Isophorone	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
N-Nitroso-di-n propylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
N-Nitrosodiphenylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Naphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Nitrobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Pentachlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Phenanthrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Phenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Pyridine	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 14:43	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 14:43*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Acenaphthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Acenaphthylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Benzo(a)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Benzo(a)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Benzo(b)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Benzo(g,h,i)perylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Benzo(k)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Chrysene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Dibenz(a,h)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	

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Client Sample ID DP3-0.5
Lab ID: 1303113-10

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Fluorene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Indeno(1,2,3-cd)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Naphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Phenanthrene	**1600**	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 16:15	
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 16:15*	S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 16:15*	S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 16:15*	S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 16:15*	S4

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-3.0
Lab ID: 1303113-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Arsenic	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Barium	**20**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:35	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Chromium	**5.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Cobalt	**3.2**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Copper	**3.3**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Lead	**2.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Nickel	**7.3**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Vanadium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	
Zinc	**15**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:36	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:24	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.98	NA	1	B3J0198	10/09/2013	10/09/13 12:54	
Surrogate: 4-Bromofluorobenzene	*120 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 12:54*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**1300**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:52	
T/R Hydrocarbons: C23-C32	**4900**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:52	
T/R Hydrocarbons: >C32	**6000**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:52	

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Client Sample ID DP3-3.0

Lab ID: 1303113-11

Hydrocarbon Chain Distribution by EPA 8015B (Modified) **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*91.5 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 20:52*	

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1,1-Trichloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1,2,2-Tetrachloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1,2-Trichloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1-Dichloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1-Dichloroethene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,1-Dichloropropene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2,3-Trichloropropane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2,3-Trichlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2,4-Trichlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2,4-Trimethylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2-Dibromo-3-chloropropane	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2-Dibromoethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2-Dichlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2-Dichloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,2-Dichloropropane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,3,5-Trimethylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,3-Dichlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,3-Dichloropropane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
1,4-Dichlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
2,2-Dichloropropane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
2-Chlorotoluene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
4-Chlorotoluene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
4-Isopropyltoluene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Benzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Bromobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Bromochloromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Bromodichloromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Bromoform	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Bromomethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Carbon disulfide	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-3.0

Lab ID: 1303113-11

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Chlorobenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Chloroethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Chloroform	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Chloromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
cis-1,2-Dichloroethene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
cis-1,3-Dichloropropene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Di-isopropyl ether	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Dibromochloromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Dibromomethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Dichlorodifluoromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Ethyl Acetate	ND	56	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Ethyl Ether	ND	56	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Ethyl tert-butyl ether	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Ethylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Freon-113	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Hexachlorobutadiene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Isopropylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
m,p-Xylene	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Methylene chloride	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
MTBE	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
n-Butylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
n-Propylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Naphthalene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
o-Xylene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
sec-Butylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Styrene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
tert-Amyl methyl ether	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
tert-Butanol	ND	110	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
tert-Butylbenzene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Tetrachloroethene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Toluene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
trans-1,2-Dichloroethene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
trans-1,3-Dichloropropene	ND	56	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Trichloroethene	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Trichlorofluoromethane	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Vinyl acetate	ND	56	NA	1	B3J0224	10/10/2013	10/10/13 15:57	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-3.0
Lab ID: 1303113-11

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	5.6	NA	1	B3J0224	10/10/2013	10/10/13 15:57	
Surrogate: 1,2-Dichloroethane-d4	*161 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 15:57*	S1
Surrogate: 4-Bromofluorobenzene	*84.4 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 15:57*	
Surrogate: Dibromofluoromethane	*135 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 15:57*	S1
Surrogate: Toluene-d8	*102 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 15:57*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
1,2-Dichlorobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
1,3-Dichlorobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
1,4-Dichlorobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4,5-Trichlorophenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4,6-Trichlorophenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4-Dichlorophenol	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4-Dimethylphenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4-Dinitrophenol	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,4-Dinitrotoluene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2,6-Dinitrotoluene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Chloronaphthalene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Chlorophenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Methylnaphthalene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Methylphenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Nitroaniline	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
2-Nitrophenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
3,3´-Dichlorobenzidine	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
3-Nitroaniline	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4,6-Dinitro-2-methyphenol	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Bromophenyl-phenylether	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Chloro-3-methylphenol	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Chloroaniline	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Chlorophenyl-phenylether	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Methylphenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Nitroaniline	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
4-Nitrophenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-3.0

Lab ID: 1303113-11

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Acenaphthene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Acenaphthylene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Anthracene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzidine (M)	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzo(a)anthracene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzo(a)pyrene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzo(b)fluoranthene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzo(g,h,i)perylene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzo(k)fluoranthene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzoic acid	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Benzyl alcohol	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
bis(2-chloroethoxy)methane	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
bis(2-Chloroethyl)ether	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
bis(2-chloroisopropyl)ether	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
bis(2-ethylhexyl)phthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Butylbenzylphthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Chrysene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Di-n-butylphthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Di-n-octylphthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Dibenz(a,h)anthracene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Dibenzofuran	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Diethyl phthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Dimethyl phthalate	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Fluoranthene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Fluorene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Hexachlorobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Hexachlorobutadiene	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Hexachlorocyclopentadiene	ND	400000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Hexachloroethane	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Indeno(1,2,3-cd)pyrene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Isophorone	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
N-Nitroso-di-n propylamine	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
N-Nitrosodiphenylamine	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Naphthalene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Nitrobenzene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Pentachlorophenol	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Phenanthrene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-3.0
Lab ID: 1303113-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Pyrene	ND	200000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Pyridine	ND	990000	NA	200	B3J0249	10/10/2013	10/11/13 15:10	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 15:10*	S4, D1
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 15:10*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Acenaphthene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Acenaphthylene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Anthracene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Benzo(a)anthracene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Benzo(a)pyrene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Benzo(b)fluoranthene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Benzo(g,h,i)perylene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Benzo(k)fluoranthene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Chrysene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Dibenz(a,h)anthracene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Fluoranthene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Fluorene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Indeno(1,2,3-cd)pyrene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Naphthalene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Phenanthrene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Pyrene	ND	3000	NA	200	B3J0354	10/16/2013	10/17/13 16:41	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 16:41*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 16:41*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 16:41*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 16:41*	D1, S4

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-5.0
Lab ID: 1303113-12

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Barium	**18**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Chromium	**4.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Cobalt	**2.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Copper	**4.2**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Lead	**1.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Nickel	**3.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Vanadium	**12**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	
Zinc	**14**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:04	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:26	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	**1.1**	0.96	NA	1	B3J0254	10/11/2013	10/11/13 13:20	
Surrogate: 4-Bromofluorobenzene	*81.8 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 13:20*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**4000**	100	NA	10	B3J0208	10/09/2013	10/10/13 12:52	
T/R Hydrocarbons: C23-C32	**5700**	100	NA	10	B3J0208	10/09/2013	10/10/13 12:52	
T/R Hydrocarbons: >C32	**2800**	100	NA	10	B3J0208	10/09/2013	10/10/13 12:52	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-5.0
Lab ID: 1303113-12

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*91.9 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 12:52*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
4,4´-DDE	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
4,4´-DDT	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Aldrin	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
alpha-BHC	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
alpha-Chlordane	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
beta-BHC	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Chlordane	ND	43	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
delta-BHC	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Dieldrin	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endosulfan I	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endosulfan II	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endosulfan sulfate	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endrin	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endrin aldehyde	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Endrin ketone	ND	10	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
gamma-BHC	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
gamma-Chlordane	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Heptachlor	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Heptachlor epoxide	ND	5.0	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Methoxychlor	ND	25	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Toxaphene	ND	250	NA	5	B3J0231	10/10/2013	10/11/13 17:35	D1
Surrogate: Decachlorobiphenyl	*78.9 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 17:35*	D1
Surrogate: Tetrachloro-m-xylene	*52.6 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 17:35*	D1

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Client Sample ID DP3-5.0

Lab ID: 1303113-12

Polychlorinated Biphenyls by EPA 8082 — **Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:49	
Surrogate: Decachlorobiphenyl	*14.9 %*	*39 - 128*			B3J0231	10/10/2013	*10/11/13 02:49*	S10
Surrogate: Tetrachloro-m-xylene	*79.7 %*	*38 - 122*			B3J0231	10/10/2013	*10/11/13 02:49*	

Volatile Organic Compounds by EPA 5035/EPA 8260 — **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1,1-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,1-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2,3-Trichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2-Dibromoethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,3-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
2,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-5.0

Lab ID: 1303113-12

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
4-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
4-Isopropyltoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Benzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Bromobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Bromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Bromodichloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Bromoform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Bromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Carbon disulfide	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Carbon tetrachloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Chlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Chloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Chloroform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Chloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Di-isopropyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Dibromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Dibromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Dichlorodifluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Ethyl Acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Ethyl Ether	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Ethyl tert-butyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Ethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Freon-113	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Hexachlorobutadiene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Isopropylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
m,p-Xylene	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Methylene chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
MTBE	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
n-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
n-Propylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Naphthalene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
o-Xylene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
sec-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Styrene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	

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Client Sample ID DP3-5.0
Lab ID: 1303113-12

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
tert-Butanol	ND	100	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
tert-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Tetrachloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Toluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
trans-1,3-Dichloropropene	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Trichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Trichlorofluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Vinyl acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Vinyl chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:16	
Surrogate: 1,2-Dichloroethane-d4	*157 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 16:16*	
Surrogate: 4-Bromofluorobenzene	*108 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 16:16*	
Surrogate: Dibromofluoromethane	*136 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 16:16*	S1
Surrogate: Toluene-d8	*111 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 16:16*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
1,2-Dichlorobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
1,3-Dichlorobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
1,4-Dichlorobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4,5-Trichlorophenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4,6-Trichlorophenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4-Dichlorophenol	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4-Dimethylphenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4-Dinitrophenol	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,4-Dinitrotoluene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2,6-Dinitrotoluene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Chloronaphthalene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Chlorophenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Methylnaphthalene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Methylphenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Nitroaniline	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
2-Nitrophenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1

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Client Sample ID DP3-5.0

Lab ID: 1303113-12

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
3-Nitroaniline	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4,6-Dinitro-2-methyphenol	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Bromophenyl-phenylether	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Chloro-3-methylphenol	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Chloroaniline	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Chlorophenyl-phenylether	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Methylphenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Nitroaniline	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
4-Nitrophenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Acenaphthene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Acenaphthylene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Anthracene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzidine (M)	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzo(a)anthracene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzo(a)pyrene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzo(b)fluoranthene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzo(g,h,i)perylene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzo(k)fluoranthene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzoic acid	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Benzyl alcohol	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
bis(2-chloroethoxy)methane	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
bis(2-Chloroethyl)ether	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
bis(2-chloroisopropyl)ether	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
bis(2-ethylhexyl)phthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Butylbenzylphthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Chrysene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Di-n-butylphthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Di-n-octylphthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Dibenz(a,h)anthracene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Dibenzofuran	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Diethyl phthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Dimethyl phthalate	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Fluoranthene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Fluorene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Hexachlorobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Hexachlorobutadiene	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-5.0

Lab ID: 1303113-12

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	99000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Hexachloroethane	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Indeno(1,2,3-cd)pyrene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Isophorone	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
N-Nitroso-di-n propylamine	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
N-Nitrosodiphenylamine	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Naphthalene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Nitrobenzene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Pentachlorophenol	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Phenanthrene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Phenol	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Pyrene	ND	50000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Pyridine	ND	250000	NA	50	B3J0239	10/10/2013	10/11/13 12:26	D1
Surrogate: 1,2-Dichlorobenzene-d4	*51.0 %*	*48 - 113*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: 2,4,6-Tribromophenol	*37.5 %*	*14 - 162*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: 2-Chlorophenol-d4	*40.5 %*	*40 - 117*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: 2-Fluorobiphenyl	*55.5 %*	*52 - 126*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: 2-Fluorophenol	*43.5 %*	*26 - 124*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: 4-Terphenyl-d14	*75.0 %*	*36 - 163*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: Nitrobenzene-d5	*48.0 %*	*42 - 118*			B3J0239	10/10/2013	*10/11/13 12:26*	D1
Surrogate: Phenol-d5	*37.5 %*	*29 - 124*			B3J0239	10/10/2013	*10/11/13 12:26*	D1

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Acenaphthene	**960**	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Acenaphthylene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Benzo(a)anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Benzo(a)pyrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Benzo(b)fluoranthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Benzo(g,h,i)perylene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Benzo(k)fluoranthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Chrysene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Dibenz(a,h)anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	

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Client Sample ID DP3-5.0
Lab ID: 1303113-12

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoranthene	**1100**	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Fluorene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Indeno(1,2,3-cd)pyrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Naphthalene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Phenanthrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Pyrene	**2000**	750	NA	50	B3J0354	10/16/2013	10/17/13 17:07	
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 17:07*	S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 17:07*	S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 17:07*	S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 17:07*	S4

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Client Sample ID DP3-20
Lab ID: 1303113-15

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Barium	**30**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:07	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Chromium	**6.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Cobalt	**5.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Copper	**5.1**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Lead	**2.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Nickel	**4.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Vanadium	**17**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	
Zinc	**21**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:08	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:28	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	**1.3**	1.0	NA	1	B3J0198	10/09/2013	10/09/13 13:26	
Surrogate: 4-Bromofluorobenzene	*68.3 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 13:26*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:17	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:17	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:17	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*111 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 03:17*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
4,4´-DDE	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
4,4´-DDT	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Aldrin	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
alpha-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
beta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Chlordane	ND	26	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
delta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Dieldrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endosulfan I	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endosulfan II	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Endrin ketone	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
gamma-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Heptachlor	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Methoxychlor	ND	15	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Toxaphene	ND	150	NA	1	B3J0219	10/09/2013	10/09/13 19:55	D3
Surrogate: Decachlorobiphenyl	*71.6 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 19:55*	
Surrogate: Tetrachloro-m-xylene	*77.5 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 19:55*	

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Lab ID: 1303113-15

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1221	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1232	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1242	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1248	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1254	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1260	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1262	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Aroclor 1268	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 20:37	D3
Surrogate: Decachlorobiphenyl	*108 %*	*39 - 128*			B3J0219	10/09/2013	*10/09/13 20:37*	D3
Surrogate: Tetrachloro-m-xylene	*83.9 %*	*38 - 122*			B3J0219	10/09/2013	*10/09/13 20:37*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1,1-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,1-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2,3-Trichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2-Dibromoethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2-Dichloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,3-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
2,2-Dichloropropane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	

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Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
4-Chlorotoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
4-Isopropyltoluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Benzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Bromobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Bromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Bromodichloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Bromoform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Bromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Carbon disulfide	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Carbon tetrachloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Chlorobenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Chloroethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Chloroform	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Chloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Di-isopropyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Dibromochloromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Dibromomethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Dichlorodifluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Ethyl Acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Ethyl Ether	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Ethyl tert-butyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Ethylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Freon-113	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Hexachlorobutadiene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Isopropylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
m,p-Xylene	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Methylene chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
MTBE	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
n-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
n-Propylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Naphthalene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
o-Xylene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
sec-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Styrene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-20
Lab ID: 1303113-15

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
tert-Butanol	ND	100	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
tert-Butylbenzene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Tetrachloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Toluene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
trans-1,3-Dichloropropene	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Trichloroethene	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Trichlorofluoromethane	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Vinyl acetate	ND	50	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Vinyl chloride	ND	5.0	NA	1	B3J0224	10/10/2013	10/10/13 16:34	
Surrogate: 1,2-Dichloroethane-d4	*136 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 16:34*	
Surrogate: 4-Bromofluorobenzene	*110 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 16:34*	
Surrogate: Dibromofluoromethane	*121 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 16:34*	
Surrogate: Toluene-d8	*112 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 16:34*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-20
Lab ID: 1303113-15

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-20
Lab ID: 1303113-15

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:01	D3
Surrogate: 1,2-Dichlorobenzene-d4	*90.9 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: 2,4,6-Tribromophenol	*123 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: 2-Chlorophenol-d4	*89.6 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: 2-Fluorobiphenyl	*105 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: 2-Fluorophenol	*95.6 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: 4-Terphenyl-d14	*171 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 17:01*	S1
Surrogate: Nitrobenzene-d5	*101 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 17:01*	
Surrogate: Phenol-d5	*94.1 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 17:01*	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Arsenic	**1.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Barium	**46**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:10	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Chromium	**11**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Cobalt	**5.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Copper	**7.6**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Lead	**2.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Nickel	**6.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Vanadium	**24**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	
Zinc	**29**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:30	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.87	NA	1	B3J0198	10/09/2013	10/09/13 13:42	
Surrogate: 4-Bromofluorobenzene	*98.0 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 13:42*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:34	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:34	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:34	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*105 %*		*55 - 153*		B3J0208	10/09/2013	*10/10/13 03:34*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
4,4´-DDE	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
4,4´-DDT	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Aldrin	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
alpha-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
beta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Chlordane	ND	26	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
delta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Dieldrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endosulfan I	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endosulfan II	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Endrin ketone	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
gamma-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Heptachlor	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Methoxychlor	ND	15	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Toxaphene	ND	150	NA	1	B3J0219	10/09/2013	10/09/13 20:09	D3
Surrogate: Decachlorobiphenyl	*73.4 %*		*32 - 113*		B3J0219	10/09/2013	*10/09/13 20:09*	
Surrogate: Tetrachloro-m-xylene	*80.3 %*		*32 - 101*		B3J0219	10/09/2013	*10/09/13 20:09*	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1221	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1232	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1242	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1248	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1254	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1260	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1262	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Aroclor 1268	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:08	D3
Surrogate: Decachlorobiphenyl	*111 %*	*39 - 128*			B3J0219	10/09/2013	*10/09/13 21:08*	D3
Surrogate: Tetrachloro-m-xylene	*87.9 %*	*38 - 122*			B3J0219	10/09/2013	*10/09/13 21:08*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1,1-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1,2,2-Tetrachloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1,2-Trichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,1-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2,3-Trichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2,3-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2,4-Trichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2,4-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2-Dibromo-3-chloropropane	ND	8.5	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2-Dibromoethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2-Dichloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,3,5-Trimethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,3-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,3-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
1,4-Dichlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
2,2-Dichloropropane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
4-Chlorotoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
4-Isopropyltoluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Benzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Bromobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Bromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Bromodichloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Bromoform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Bromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Carbon disulfide	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Carbon tetrachloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Chlorobenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Chloroethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Chloroform	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Chloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
cis-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
cis-1,3-Dichloropropene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Di-isopropyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Dibromochloromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Dibromomethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Dichlorodifluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Ethyl Acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Ethyl Ether	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Ethyl tert-butyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Ethylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Freon-113	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Hexachlorobutadiene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Isopropylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
m,p-Xylene	ND	8.5	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Methylene chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
MTBE	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
n-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
n-Propylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Naphthalene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
o-Xylene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
sec-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Styrene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
tert-Butanol	ND	85	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
tert-Butylbenzene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Tetrachloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Toluene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
trans-1,2-Dichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
trans-1,3-Dichloropropene	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Trichloroethene	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Trichlorofluoromethane	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Vinyl acetate	ND	43	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Vinyl chloride	ND	4.3	NA	1	B3J0224	10/10/2013	10/10/13 16:53	
Surrogate: 1,2-Dichloroethane-d4	*138 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 16:53*	
Surrogate: 4-Bromofluorobenzene	*110 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 16:53*	
Surrogate: Dibromofluoromethane	*120 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 16:53*	
Surrogate: Toluene-d8	*109 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 16:53*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-25
Lab ID: 1303113-16

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 17:28	D3
Surrogate: 1,2-Dichlorobenzene-d4	*85.8 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: 2,4,6-Tribromophenol	*115 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: 2-Chlorophenol-d4	*86.4 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: 2-Fluorobiphenyl	*98.9 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: 2-Fluorophenol	*91.2 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: 4-Terphenyl-d14	*152 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: Nitrobenzene-d5	*95.9 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 17:28*	
Surrogate: Phenol-d5	*89.8 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 17:28*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-W
Lab ID: 1303113-17

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Arsenic	ND	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Barium	**0.27**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:04	
Beryllium	ND	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:04	
Cadmium	ND	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Chromium	**0.058**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Cobalt	**0.034**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Copper	**0.038**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:04	
Lead	**0.0082**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Molybdenum	**0.011**	0.0050	NA	1	B3J0241	10/10/2013	10/11/13 11:44	
Nickel	**0.034**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Selenium	ND	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Silver	ND	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:04	
Thallium	ND	0.015	NA	1	B3J0241	10/10/2013	10/10/13 17:05	
Vanadium	**0.080**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:04	
Zinc	**0.10**	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:05	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: VV

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	NA	1	B3J0236	10/10/2013	10/11/13 13:06	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VN

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.20	NA	1	B3J0234	10/11/2013	10/11/13 12:31	
Surrogate: 4-Bromofluorobenzene	*90.2 %*	*70 - 130*			B3J0234	10/11/2013	*10/11/13 12:31*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**1.5**	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:35	
T/R Hydrocarbons: C23-C32	**0.31**	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:35	
T/R Hydrocarbons: >C32	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:35	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-W
Lab ID: 1303113-17

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*89.1 %*		*38 - 151*		B3J0157	10/08/2013	*10/09/13 22:35*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
4,4´-DDE	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
4,4´-DDT	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Aldrin	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
alpha-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
alpha-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
beta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Chlordane	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
delta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Dieldrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endosulfan I	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endosulfan II	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endosulfan sulfate	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endrin aldehyde	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Endrin ketone	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
gamma-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
gamma-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Heptachlor	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Heptachlor epoxide	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Methoxychlor	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Toxaphene	ND	2.5	NA	1	B3J0185	10/08/2013	10/09/13 00:00	
Surrogate: Decachlorobiphenyl	*80.8 %*		*37 - 129*		B3J0185	10/08/2013	*10/09/13 00:00*	
Surrogate: Tetrachloro-m-xylene	*93.7 %*		*50 - 118*		B3J0185	10/08/2013	*10/09/13 00:00*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP3-W
Lab ID: 1303113-17

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1221	ND	1.0	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1232	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1242	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1248	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1254	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1260	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1262	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Aroclor 1268	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:12	
Surrogate: Decachlorobiphenyl	*65.3 %*		*39 - 129*		B3J0185	10/08/2013	*10/08/13 19:12*	
Surrogate: Tetrachloro-m-xylene	*72.1 %*		*39 - 123*		B3J0185	10/08/2013	*10/08/13 19:12*	

Volatile Organic Compounds by EPA 8260

Analyst: DP/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,1-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2-Dibromoethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,3-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
2,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	

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Client Sample ID DP3-W

Lab ID: 1303113-17

Volatile Organic Compounds by EPA 8260 **Analyst: DP/**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chloroethyl vinyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
2-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
4-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
4-Isopropyltoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Benzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Bromobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Bromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Bromodichloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Bromoform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Bromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Carbon disulfide	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Carbon tetrachloride	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Chlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Chloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Chloroform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Chloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Di-isopropyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Dibromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Dibromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Dichlorodifluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Ethyl Acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Ethyl Ether	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Ethyl tert-butyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Ethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Freon-113	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Hexachlorobutadiene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Isopropylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
m,p-Xylene	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Methylene chloride	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
MTBE	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
n-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
n-Propylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Naphthalene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
o-Xylene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
sec-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	

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Client Sample ID DP3-W
Lab ID: 1303113-17

Volatile Organic Compounds by EPA 8260

Analyst: DP/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
tert-Amyl methyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
tert-Butanol	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
tert-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Tetrachloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Toluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
trans-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Trichloroethene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Trichlorofluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Vinyl acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Vinyl chloride	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:13	
Surrogate: 1,2-Dichloroethane-d4	*88.4 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:13*	
Surrogate: 4-Bromofluorobenzene	*89.8 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:13*	
Surrogate: Dibromofluoromethane	*99.0 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:13*	
Surrogate: Toluene-d8	*98.7 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:13*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
1,2-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
1,3-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
1,4-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4,5-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4,6-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4-Dichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4-Dimethylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4-Dinitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,4-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2,6-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2-Chloronaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2-Chlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2-Methylnaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
2-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	

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Client Sample ID DP3-W
Lab ID: 1303113-17

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Nitrophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
3,3´-Dichlorobenzidine	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
3-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4,6-Dinitro-2-methyphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Bromophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Chloro-3-methylphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Chloroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Chlorophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Nitroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
4-Nitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Acenaphthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Acenaphthylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzidine (M)	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzo(a)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzo(a)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzo(b)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzo(g,h,i)perylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzo(k)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzoic acid	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Benzyl alcohol	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
bis(2-chloroethoxy)methane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
bis(2-Chloroethyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
bis(2-chloroisopropyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
bis(2-ethylhexyl)phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Butylbenzylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Chrysene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Di-n-butylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Di-n-octylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Dibenz(a,h)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Dibenzofuran	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Diethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Dimethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Fluorene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Hexachlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	

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Client Sample ID DP3-W
Lab ID: 1303113-17

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorobutadiene	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Hexachlorocyclopentadiene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Hexachloroethane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Indeno(1,2,3-cd)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Isophorone	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
N-Nitroso-di-n propylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
N-Nitrosodiphenylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Naphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Nitrobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Pentachlorophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Phenanthrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Phenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Pyridine	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:28	
Surrogate: 1,2-Dichlorobenzene-d4	*60.7 %*		*36 - 117*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: 2,4,6-Tribromophenol	*97.3 %*		*33 - 149*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: 2-Chlorophenol-d4	*54.9 %*		*37 - 99*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: 2-Fluorobiphenyl	*70.8 %*		*52 - 126*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: 2-Fluorophenol	*36.6 %*		*17 - 69*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: 4-Terphenyl-d14	*134 %*		*40 - 165*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: Nitrobenzene-d5	*70.0 %*		*38 - 117*		B3J0174	10/08/2013	*10/08/13 17:28*	
Surrogate: Phenol-d5	*26.6 %*		*5 - 60*		B3J0174	10/08/2013	*10/08/13 17:28*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-5.0

Lab ID: 1303113-20

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Arsenic	**1.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Barium	**64**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:13	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Chromium	**10**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Cobalt	**6.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Copper	**11**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Lead	**7.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Nickel	**7.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Vanadium	**28**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	
Zinc	**32**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:14	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:32	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.95	NA	1	B3J0198	10/09/2013	10/09/13 13:58	
Surrogate: 4-Bromofluorobenzene	*120 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 13:58*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**12**	10	NA	1	B3J0208	10/09/2013	10/10/13 07:12	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 07:12	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 07:12	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*82.2 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 07:12*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 14:55	
Surrogate: Decachlorobiphenyl	*97.7 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 14:55*	
Surrogate: Tetrachloro-m-xylene	*82.8 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 14:55*	

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Client Sample ID DP2-5.0

Lab ID: 1303113-20

Polychlorinated Biphenyls by EPA 8082 — **Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 18:38	
Surrogate: Decachlorobiphenyl	*94.8 %*		*39 - 128*		B3J0231	10/10/2013	*10/10/13 18:38*	
Surrogate: Tetrachloro-m-xylene	*84.4 %*		*38 - 122*		B3J0231	10/10/2013	*10/10/13 18:38*	

Volatile Organic Compounds by EPA 5035/EPA 8260 — **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1,1-Trichloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1,2,2-Tetrachloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1,2-Trichloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1-Dichloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1-Dichloroethene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,1-Dichloropropene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2,3-Trichloropropane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2,3-Trichlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2,4-Trichlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2,4-Trimethylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2-Dibromoethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2-Dichlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2-Dichloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,2-Dichloropropane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,3,5-Trimethylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,3-Dichlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,3-Dichloropropane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
1,4-Dichlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
2,2-Dichloropropane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	

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Client Sample ID DP2-5.0

Lab ID: 1303113-20

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
4-Chlorotoluene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
4-Isopropyltoluene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Benzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Bromobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Bromochloromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Bromodichloromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Bromoform	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Bromomethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Carbon disulfide	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Carbon tetrachloride	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Chlorobenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Chloroethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Chloroform	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Chloromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
cis-1,2-Dichloroethene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
cis-1,3-Dichloropropene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Di-isopropyl ether	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Dibromochloromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Dibromomethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Dichlorodifluoromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Ethyl Acetate	ND	51	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Ethyl Ether	ND	51	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Ethyl tert-butyl ether	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Ethylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Freon-113	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Hexachlorobutadiene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Isopropylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
m,p-Xylene	ND	10	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Methylene chloride	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
MTBE	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
n-Butylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
n-Propylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Naphthalene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
o-Xylene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
sec-Butylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Styrene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	

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Lab ID: 1303113-20

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
tert-Butanol	ND	100	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
tert-Butylbenzene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Tetrachloroethene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Toluene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
trans-1,2-Dichloroethene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
trans-1,3-Dichloropropene	ND	51	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Trichloroethene	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Trichlorofluoromethane	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Vinyl acetate	ND	51	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Vinyl chloride	ND	5.1	NA	1	B3J0224	10/10/2013	10/10/13 17:12	
Surrogate: 1,2-Dichloroethane-d4	*135 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 17:12*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 17:12*	
Surrogate: Dibromofluoromethane	*115 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 17:12*	
Surrogate: Toluene-d8	*110 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 17:12*	

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	

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Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-5.0
Lab ID: 1303113-20

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 17:55	
Surrogate: 1,2-Dichlorobenzene-d4	*79.7 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: 2,4,6-Tribromophenol	*107 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: 2-Chlorophenol-d4	*80.0 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: 2-Fluorobiphenyl	*94.2 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: 2-Fluorophenol	*82.9 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: 4-Terphenyl-d14	*146 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: Nitrobenzene-d5	*88.7 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 17:55*	
Surrogate: Phenol-d5	*83.2 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 17:55*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Arsenic	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Barium	**19**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Beryllium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Cadmium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Chromium	**6.5**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Cobalt	**3.2**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Copper	**3.4**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Lead	**1.8**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Molybdenum	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Nickel	**3.9**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Selenium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Silver	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Thallium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Vanadium	**16**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	
Zinc	**16**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:17	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:38	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.98	NA	1	B3J0198	10/09/2013	10/09/13 14:14	
Surrogate: 4-Bromofluorobenzene	*119 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 14:14*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:50	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:50	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 03:50	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*106 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 03:50*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
4,4´-DDE	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
4,4´-DDT	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Aldrin	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
alpha-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
beta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Chlordane	ND	26	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
delta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Dieldrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endosulfan I	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endosulfan II	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Endrin ketone	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
gamma-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Heptachlor	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Methoxychlor	ND	15	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Toxaphene	ND	150	NA	1	B3J0219	10/09/2013	10/09/13 20:22	D3
Surrogate: Decachlorobiphenyl	*71.9 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 20:22*	
Surrogate: Tetrachloro-m-xylene	*80.7 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 20:22*	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1221	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1232	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1242	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1248	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1254	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1260	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1262	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Aroclor 1268	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 21:38	D3
Surrogate: Decachlorobiphenyl	*109 %*	*39 - 128*			B3J0219	10/09/2013	*10/09/13 21:38*	D3
Surrogate: Tetrachloro-m-xylene	*88.4 %*	*38 - 122*			B3J0219	10/09/2013	*10/09/13 21:38*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1,1-Trichloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1,2,2-Tetrachloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1,2-Trichloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1-Dichloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1-Dichloroethene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,1-Dichloropropene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2,3-Trichloropropane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2,3-Trichlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2,4-Trichlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2,4-Trimethylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2-Dibromo-3-chloropropane	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2-Dibromoethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2-Dichlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2-Dichloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,2-Dichloropropane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,3,5-Trimethylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,3-Dichlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,3-Dichloropropane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
1,4-Dichlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
2,2-Dichloropropane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
4-Chlorotoluene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
4-Isopropyltoluene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Benzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Bromobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Bromochloromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Bromodichloromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Bromoform	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Bromomethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Carbon disulfide	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Carbon tetrachloride	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Chlorobenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Chloroethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Chloroform	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Chloromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
cis-1,2-Dichloroethene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
cis-1,3-Dichloropropene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Di-isopropyl ether	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Dibromochloromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Dibromomethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Dichlorodifluoromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Ethyl Acetate	ND	53	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Ethyl Ether	ND	53	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Ethyl tert-butyl ether	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Ethylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Freon-113	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Hexachlorobutadiene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Isopropylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
m,p-Xylene	ND	11	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Methylene chloride	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
MTBE	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
n-Butylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
n-Propylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Naphthalene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
o-Xylene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
sec-Butylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Styrene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
tert-Butanol	ND	110	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
tert-Butylbenzene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Tetrachloroethene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Toluene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
trans-1,2-Dichloroethene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
trans-1,3-Dichloropropene	ND	53	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Trichloroethene	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Trichlorofluoromethane	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Vinyl acetate	ND	53	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Vinyl chloride	ND	5.3	NA	1	B3J0224	10/10/2013	10/10/13 17:30	
Surrogate: 1,2-Dichloroethane-d4	*142 %*		*56 - 159*		B3J0224	10/10/2013	*10/10/13 17:30*	
Surrogate: 4-Bromofluorobenzene	*108 %*		*69 - 131*		B3J0224	10/10/2013	*10/10/13 17:30*	
Surrogate: Dibromofluoromethane	*125 %*		*60 - 127*		B3J0224	10/10/2013	*10/10/13 17:30*	
Surrogate: Toluene-d8	*110 %*		*70 - 121*		B3J0224	10/10/2013	*10/10/13 17:30*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-10
Lab ID: 1303113-21

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:23	D3
Surrogate: 1,2-Dichlorobenzene-d4	*86.3 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: 2,4,6-Tribromophenol	*105 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: 2-Chlorophenol-d4	*86.0 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: 2-Fluorobiphenyl	*98.0 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: 2-Fluorophenol	*89.1 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: 4-Terphenyl-d14	*149 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: Nitrobenzene-d5	*95.9 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 18:23*	
Surrogate: Phenol-d5	*89.3 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 18:23*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Arsenic	**2.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Barium	**19**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Chromium	**5.0**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Cobalt	**2.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Copper	**7.9**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Lead	**1.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Nickel	**3.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Vanadium	**13**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	
Zinc	**22**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:20	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:40	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0198	10/09/2013	10/09/13 14:30	
Surrogate: 4-Bromofluorobenzene	*106 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 14:30*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:07	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:07	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:07	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*104 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 04:07*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
4,4´-DDE	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
4,4´-DDT	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Aldrin	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
alpha-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
beta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Chlordane	ND	26	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
delta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Dieldrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endosulfan I	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endosulfan II	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Endrin ketone	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
gamma-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Heptachlor	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Methoxychlor	ND	15	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Toxaphene	ND	150	NA	1	B3J0219	10/09/2013	10/09/13 20:35	D3
Surrogate: Decachlorobiphenyl	*72.5 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 20:35*	
Surrogate: Tetrachloro-m-xylene	*78.9 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 20:35*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1221	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1232	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1242	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1248	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1254	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1260	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1262	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Aroclor 1268	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:09	D3
Surrogate: Decachlorobiphenyl	*107 %*	*39 - 128*			B3J0219	10/09/2013	*10/09/13 22:09*	D3
Surrogate: Tetrachloro-m-xylene	*84.2 %*	*38 - 122*			B3J0219	10/09/2013	*10/09/13 22:09*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1,1-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1,2,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1,2-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,1-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2,3-Trichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2,3-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2,4-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2,4-Trimethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2-Dibromo-3-chloropropane	ND	9.0	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2-Dibromoethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,3,5-Trimethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,3-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,3-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
1,4-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
2,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
4-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
4-Isopropyltoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Benzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Bromobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Bromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Bromodichloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Bromoform	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Bromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Carbon disulfide	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Carbon tetrachloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Chlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Chloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Chloroform	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Chloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
cis-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
cis-1,3-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Di-isopropyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Dibromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Dibromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Dichlorodifluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Ethyl Acetate	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Ethyl Ether	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Ethyl tert-butyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Ethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Freon-113	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Hexachlorobutadiene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Isopropylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
m,p-Xylene	ND	9.0	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Methylene chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
MTBE	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
n-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
n-Propylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Naphthalene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
o-Xylene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
sec-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Styrene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
tert-Butanol	ND	90	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
tert-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Tetrachloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Toluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
trans-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
trans-1,3-Dichloropropene	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Trichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Trichlorofluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Vinyl acetate	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Vinyl chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 20:37	
Surrogate: 1,2-Dichloroethane-d4	*148 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 20:37*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 20:37*	
Surrogate: Dibromofluoromethane	*128 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 20:37*	S1
Surrogate: Toluene-d8	*110 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 20:37*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-20
Lab ID: 1303113-23

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 18:50	D3
Surrogate: 1,2-Dichlorobenzene-d4	*91.1 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: 2,4,6-Tribromophenol	*100 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: 2-Chlorophenol-d4	*89.5 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: 2-Fluorobiphenyl	*103 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: 2-Fluorophenol	*92.6 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: 4-Terphenyl-d14	*152 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: Nitrobenzene-d5	*101 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 18:50*	
Surrogate: Phenol-d5	*92.1 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 18:50*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Arsenic	**1.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Barium	**28**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:23	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Chromium	**11**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Cobalt	**3.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Copper	**4.8**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Lead	**1.4**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Nickel	**6.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Vanadium	**15**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	
Zinc	**16**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:24	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:42	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.88	NA	1	B3J0198	10/09/2013	10/09/13 14:46	
Surrogate: 4-Bromofluorobenzene	*110 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 14:46*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:24	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:24	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:24	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*94.6 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 04:24*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
4,4´-DDE	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
4,4´-DDT	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Aldrin	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
alpha-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
beta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Chlordane	ND	26	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
delta-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Dieldrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endosulfan I	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endosulfan II	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endrin	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Endrin ketone	ND	6.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
gamma-BHC	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Heptachlor	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Methoxychlor	ND	15	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Toxaphene	ND	150	NA	1	B3J0219	10/09/2013	10/09/13 20:49	D3
Surrogate: Decachlorobiphenyl	*69.6 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 20:49*	
Surrogate: Tetrachloro-m-xylene	*75.2 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 20:49*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1221	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1232	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1242	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1248	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1254	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1260	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1262	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Aroclor 1268	ND	48	NA	1	B3J0219	10/09/2013	10/09/13 22:40	D3
Surrogate: Decachlorobiphenyl	*108 %*	*39 - 128*			B3J0219	10/09/2013	*10/09/13 22:40*	D3
Surrogate: Tetrachloro-m-xylene	*85.3 %*	*38 - 122*			B3J0219	10/09/2013	*10/09/13 22:40*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
4-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Benzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Bromobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Bromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Bromodichloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Bromoform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Bromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Carbon disulfide	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Carbon tetrachloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Chlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Chloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Chloroform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Chloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
cis-1,2-Dichloroethene	**38**	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Di-isopropyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Dibromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Dibromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Ethyl Acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Ethyl Ether	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Ethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Freon-113	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Isopropylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
m,p-Xylene	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Methylene chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
MTBE	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
n-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
n-Propylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Naphthalene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
o-Xylene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
sec-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Styrene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
tert-Butanol	ND	88	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
tert-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Tetrachloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Toluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Trichloroethene	**7.4**	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Vinyl acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Vinyl chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 20:55	
Surrogate: 1,2-Dichloroethane-d4	*142 %*	*56 - 159*			B3J0233	10/10/2013	*10/10/13 20:55*	
Surrogate: 4-Bromofluorobenzene	*106 %*	*69 - 131*			B3J0233	10/10/2013	*10/10/13 20:55*	
Surrogate: Dibromofluoromethane	*124 %*	*60 - 127*			B3J0233	10/10/2013	*10/10/13 20:55*	
Surrogate: Toluene-d8	*110 %*	*70 - 121*			B3J0233	10/10/2013	*10/10/13 20:55*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-40
Lab ID: 1303113-26

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 19:18	D3
Surrogate: 1,2-Dichlorobenzene-d4	*94.4 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: 2,4,6-Tribromophenol	*123 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: 2-Chlorophenol-d4	*92.1 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: 2-Fluorobiphenyl	*106 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: 2-Fluorophenol	*97.2 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: 4-Terphenyl-d14	*169 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 19:18*	S1
Surrogate: Nitrobenzene-d5	*103 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 19:18*	
Surrogate: Phenol-d5	*95.2 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 19:18*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-W
Lab ID: 1303113-27

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Arsenic	**0.022**	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Barium	**0.52**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Beryllium	ND	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Cadmium	**0.0037**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Chromium	**0.25**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Cobalt	**0.063**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Copper	**0.14**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Lead	**0.029**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Molybdenum	**0.014**	0.0050	NA	1	B3J0241	10/10/2013	10/11/13 11:50	
Nickel	**0.13**	0.0050	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Selenium	ND	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Silver	ND	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Thallium	ND	0.015	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Vanadium	**0.29**	0.0030	NA	1	B3J0241	10/10/2013	10/10/13 17:16	
Zinc	**0.31**	0.010	NA	1	B3J0241	10/10/2013	10/10/13 17:16	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: VV

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	NA	1	B3J0236	10/10/2013	10/11/13 13:18	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VN

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	**0.33**	0.20	NA	1	B3J0234	10/11/2013	10/11/13 12:50	
Surrogate: 4-Bromofluorobenzene	*96.0 %*	*70 - 130*			B3J0234	10/11/2013	*10/11/13 12:50*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**0.21**	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:02	
T/R Hydrocarbons: C23-C32	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:02	
T/R Hydrocarbons: >C32	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:02	

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Client Sample ID DP2-W
Lab ID: 1303113-27

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*98.1 %*		*38 - 151*		B3J0157	10/08/2013	*10/09/13 22:02*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
4,4´-DDE	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
4,4´-DDT	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Aldrin	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
alpha-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
alpha-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
beta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Chlordane	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
delta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Dieldrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endosulfan I	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endosulfan II	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endosulfan sulfate	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endrin aldehyde	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Endrin ketone	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
gamma-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
gamma-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Heptachlor	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Heptachlor epoxide	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Methoxychlor	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Toxaphene	ND	2.5	NA	1	B3J0185	10/08/2013	10/09/13 00:13	
Surrogate: Decachlorobiphenyl	*75.5 %*		*37 - 129*		B3J0185	10/08/2013	*10/09/13 00:13*	
Surrogate: Tetrachloro-m-xylene	*88.6 %*		*50 - 118*		B3J0185	10/08/2013	*10/09/13 00:13*	

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Client Sample ID DP2-W
Lab ID: 1303113-27

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1221	ND	1.0	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1232	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1242	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1248	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1254	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1260	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1262	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Aroclor 1268	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 19:42	
Surrogate: Decachlorobiphenyl	*72.1 %*		*39 - 129*		B3J0185	10/08/2013	*10/08/13 19:42*	
Surrogate: Tetrachloro-m-xylene	*81.0 %*		*39 - 123*		B3J0185	10/08/2013	*10/08/13 19:42*	

Volatile Organic Compounds by EPA 8260

Analyst: DP/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1-Dichloroethene	**2.8**	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,1-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2-Dibromoethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2-Dichloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,3-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
2,2-Dichloropropane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	

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Client Sample ID DP2-W
Lab ID: 1303113-27

Volatile Organic Compounds by EPA 8260 **Analyst: DP/**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chloroethyl vinyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
2-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
4-Chlorotoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
4-Isopropyltoluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Benzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Bromobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Bromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Bromodichloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Bromoform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Bromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Carbon disulfide	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Carbon tetrachloride	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Chlorobenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Chloroethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Chloroform	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Chloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
cis-1,2-Dichloroethene	**370**	5.0	NA	10	B3J0223	10/10/2013	10/10/13 09:56	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Di-isopropyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Dibromochloromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Dibromomethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Dichlorodifluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Ethyl Acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Ethyl Ether	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Ethyl tert-butyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Ethylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Freon-113	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Hexachlorobutadiene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Isopropylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
m,p-Xylene	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Methylene chloride	ND	1.0	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
MTBE	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
n-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
n-Propylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Naphthalene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
o-Xylene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
sec-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	

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Client Sample ID DP2-W
Lab ID: 1303113-27

Volatile Organic Compounds by EPA 8260

Analyst: DP/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
tert-Amyl methyl ether	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
tert-Butanol	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
tert-Butylbenzene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Tetrachloroethene	**5.5**	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Toluene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
trans-1,2-Dichloroethene	**14**	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
trans-1,3-Dichloropropene	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Trichloroethene	**180**	5.0	NA	10	B3J0223	10/10/2013	10/10/13 09:56	
Trichlorofluoromethane	ND	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Vinyl acetate	ND	10	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Vinyl chloride	**11**	0.50	NA	1	B3J0193	10/09/2013	10/09/13 16:38	
Surrogate: 1,2-Dichloroethane-d4	*86.2 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:38*	
Surrogate: 1,2-Dichloroethane-d4	*87.8 %*		*70 - 130*		B3J0223	10/10/2013	*10/10/13 09:56*	
Surrogate: 4-Bromofluorobenzene	*88.9 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:38*	
Surrogate: 4-Bromofluorobenzene	*91.5 %*		*70 - 130*		B3J0223	10/10/2013	*10/10/13 09:56*	
Surrogate: Dibromofluoromethane	*105 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:38*	
Surrogate: Dibromofluoromethane	*98.5 %*		*70 - 130*		B3J0223	10/10/2013	*10/10/13 09:56*	
Surrogate: Toluene-d8	*97.5 %*		*70 - 130*		B3J0193	10/09/2013	*10/09/13 16:38*	
Surrogate: Toluene-d8	*98.9 %*		*70 - 130*		B3J0223	10/10/2013	*10/10/13 09:56*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
1,2-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
1,3-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
1,4-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4,5-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4,6-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4-Dichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4-Dimethylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4-Dinitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,4-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2,6-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2-Chloronaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	

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Lab ID: 1303113-27

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2-Methylnaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
2-Nitrophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
3,3´-Dichlorobenzidine	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
3-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4,6-Dinitro-2-methyphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Bromophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Chloro-3-methylphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Chloroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Chlorophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Nitroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
4-Nitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Acenaphthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Acenaphthylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzidine (M)	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzo(a)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzo(a)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzo(b)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzo(g,h,i)perylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzo(k)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzoic acid	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Benzyl alcohol	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
bis(2-chloroethoxy)methane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
bis(2-Chloroethyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
bis(2-chloroisopropyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
bis(2-ethylhexyl)phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Butylbenzylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Chrysene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Di-n-butylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Di-n-octylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Dibenz(a,h)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Dibenzofuran	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Diethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP2-W
Lab ID: 1303113-27

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dimethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Fluorene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Hexachlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Hexachlorobutadiene	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Hexachlorocyclopentadiene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Hexachloroethane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Indeno(1,2,3-cd)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Isophorone	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
N-Nitroso-di-n propylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
N-Nitrosodiphenylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Naphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Nitrobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Pentachlorophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Phenanthrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Phenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Pyridine	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 17:56	
Surrogate: 1,2-Dichlorobenzene-d4	*81.3 %*	*36 - 117*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: 2,4,6-Tribromophenol	*106 %*	*33 - 149*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: 2-Chlorophenol-d4	*73.4 %*	*37 - 99*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: 2-Fluorobiphenyl	*90.0 %*	*52 - 126*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: 2-Fluorophenol	*50.9 %*	*17 - 69*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: 4-Terphenyl-d14	*135 %*	*40 - 165*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: Nitrobenzene-d5	*88.9 %*	*38 - 117*			B3J0174	10/08/2013	*10/08/13 17:56*	
Surrogate: Phenol-d5	*36.2 %*	*5 - 60*			B3J0174	10/08/2013	*10/08/13 17:56*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0
Lab ID: 1303113-30

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Arsenic	**2.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Barium	**51**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:26	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Chromium	**13**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Cobalt	**5.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Copper	**12**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Lead	**4.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Nickel	**9.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Vanadium	**23**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	
Zinc	**30**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:44	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.88	NA	1	B3J0198	10/09/2013	10/09/13 15:02	
Surrogate: 4-Bromofluorobenzene	*95.7 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 15:02*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:38	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:38	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:38	

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Irvine , CA 92618		Reported :	11/01/2013

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*92.1 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 06:38*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 15:08	
Surrogate: Decachlorobiphenyl	*100 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 15:08*	
Surrogate: Tetrachloro-m-xylene	*85.2 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 15:08*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0
Lab ID: 1303113-30

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:09	
Surrogate: Decachlorobiphenyl	*94.8 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 19:09*	
Surrogate: Tetrachloro-m-xylene	*87.6 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 19:09*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1,1-Trichloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1,2,2-Tetrachloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1,2-Trichloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1-Dichloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1-Dichloroethene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,1-Dichloropropene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2,3-Trichloropropane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2,3-Trichlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2,4-Trichlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2,4-Trimethylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2-Dibromo-3-chloropropane	ND	8.7	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2-Dibromoethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2-Dichlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2-Dichloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,2-Dichloropropane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,3,5-Trimethylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,3-Dichlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,3-Dichloropropane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
1,4-Dichlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
2,2-Dichloropropane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0

Lab ID: 1303113-30

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
4-Chlorotoluene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
4-Isopropyltoluene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Benzene	**12**	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Bromobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Bromochloromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Bromodichloromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Bromoform	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Bromomethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Carbon disulfide	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Carbon tetrachloride	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Chlorobenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Chloroethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Chloroform	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Chloromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
cis-1,2-Dichloroethene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
cis-1,3-Dichloropropene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Di-isopropyl ether	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Dibromochloromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Dibromomethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Dichlorodifluoromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Ethyl Acetate	ND	43	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Ethyl Ether	ND	43	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Ethyl tert-butyl ether	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Ethylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Freon-113	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Hexachlorobutadiene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Isopropylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
m,p-Xylene	ND	8.7	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Methylene chloride	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
MTBE	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
n-Butylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
n-Propylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Naphthalene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
o-Xylene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
sec-Butylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Styrene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0
Lab ID: 1303113-30

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
tert-Butanol	ND	87	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
tert-Butylbenzene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Tetrachloroethene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Toluene	**13**	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
trans-1,2-Dichloroethene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
trans-1,3-Dichloropropene	ND	43	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Trichloroethene	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Trichlorofluoromethane	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Vinyl acetate	ND	43	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Vinyl chloride	ND	4.3	NA	1	B3J0233	10/10/2013	10/10/13 21:14	
Surrogate: 1,2-Dichloroethane-d4	*142 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 21:14*	
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 21:14*	
Surrogate: Dibromofluoromethane	*124 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 21:14*	
Surrogate: Toluene-d8	*110 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 21:14*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0

Lab ID: 1303113-30

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B9-5.0
Lab ID: 1303113-30

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 19:45	
Surrogate: 1,2-Dichlorobenzene-d4	*85.9 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: 2,4,6-Tribromophenol	*115 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: 2-Chlorophenol-d4	*84.8 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: 2-Fluorobiphenyl	*96.8 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: 2-Fluorophenol	*90.2 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: 4-Terphenyl-d14	*144 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: Nitrobenzene-d5	*94.2 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 19:45*	
Surrogate: Phenol-d5	*88.9 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 19:45*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B4-5.0
Lab ID: 1303113-33

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Arsenic	**1.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Barium	**51**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Chromium	**7.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Cobalt	**5.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Copper	**8.0**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Lead	**3.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Nickel	**5.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Vanadium	**20**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	
Zinc	**26**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:38	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0261	10/11/2013	10/14/13 12:46	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.98	NA	1	B3J0198	10/09/2013	10/09/13 15:18	
Surrogate: 4-Bromofluorobenzene	*130 %*		*59 - 160*		B3J0198	10/09/2013	*10/09/13 15:18*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:05	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:05	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:05	

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Irvine , CA 92618		Reported :	11/01/2013

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*97.0 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 06:05*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 15:21	
Surrogate: Decachlorobiphenyl	*99.9 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 15:21*	
Surrogate: Tetrachloro-m-xylene	*81.1 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 15:21*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B4-5.0
Lab ID: 1303113-33

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 19:39	
Surrogate: Decachlorobiphenyl	*95.6 %*		*39 - 128*		B3J0231	10/10/2013	*10/10/13 19:39*	
Surrogate: Tetrachloro-m-xylene	*83.2 %*		*38 - 122*		B3J0231	10/10/2013	*10/10/13 19:39*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1,1-Trichloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1,2,2-Tetrachloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1,2-Trichloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1-Dichloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1-Dichloroethene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,1-Dichloropropene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2,3-Trichloropropane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2,3-Trichlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2,4-Trichlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2,4-Trimethylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2-Dibromo-3-chloropropane	ND	11	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2-Dibromoethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2-Dichlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2-Dichloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,2-Dichloropropane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,3,5-Trimethylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,3-Dichlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,3-Dichloropropane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
1,4-Dichlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
2,2-Dichloropropane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	

Certificate of Analysis

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Client Sample ID B4-5.0

Lab ID: 1303113-33

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
4-Chlorotoluene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
4-Isopropyltoluene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Benzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Bromobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Bromochloromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Bromodichloromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Bromoform	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Bromomethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Carbon disulfide	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Carbon tetrachloride	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Chlorobenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Chloroethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Chloroform	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Chloromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
cis-1,2-Dichloroethene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
cis-1,3-Dichloropropene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Di-isopropyl ether	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Dibromochloromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Dibromomethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Dichlorodifluoromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Ethyl Acetate	ND	54	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Ethyl Ether	ND	54	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Ethyl tert-butyl ether	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Ethylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Freon-113	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Hexachlorobutadiene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Isopropylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
m,p-Xylene	ND	11	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Methylene chloride	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
MTBE	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
n-Butylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
n-Propylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Naphthalene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
o-Xylene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
sec-Butylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Styrene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B4-5.0
Lab ID: 1303113-33

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
tert-Butanol	ND	110	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
tert-Butylbenzene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Tetrachloroethene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Toluene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
trans-1,2-Dichloroethene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
trans-1,3-Dichloropropene	ND	54	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Trichloroethene	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Trichlorofluoromethane	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Vinyl acetate	ND	54	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Vinyl chloride	ND	5.4	NA	1	B3J0233	10/10/2013	10/10/13 21:32	
Surrogate: 1,2-Dichloroethane-d4	*148 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 21:32*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 21:32*	
Surrogate: Dibromofluoromethane	*130 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 21:32*	S1
Surrogate: Toluene-d8	*111 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 21:32*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B4-5.0
Lab ID: 1303113-33

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B4-5.0
Lab ID: 1303113-33

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:13	
Surrogate: 1,2-Dichlorobenzene-d4	*87.3 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: 2,4,6-Tribromophenol	*109 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: 2-Chlorophenol-d4	*86.7 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: 2-Fluorobiphenyl	*96.4 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: 2-Fluorophenol	*90.8 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: 4-Terphenyl-d14	*145 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: Nitrobenzene-d5	*95.5 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 20:13*	
Surrogate: Phenol-d5	*89.9 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 20:13*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Arsenic	**4.1**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Barium	**68**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:38	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Chromium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Cobalt	**6.0**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Copper	**50**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Lead	**110**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Nickel	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Vanadium	**29**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	
Zinc	**79**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:39	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.11**	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:23	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.0**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:20	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 12:52	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.90	NA	1	B3J0198	10/09/2013	10/09/13 15:34	
Surrogate: 4-Bromofluorobenzene	*121 %*	*59 - 160*			B3J0198	10/09/2013	*10/09/13 15:34*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**2200**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:44	
T/R Hydrocarbons: C23-C32	**4600**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:44	
T/R Hydrocarbons: >C32	**4100**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:44	
Surrogate: p-Terphenyl	*102 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 19:44*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1,1-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1,2,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1,2-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,1-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2,3-Trichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2,3-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2,4-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2,4-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2-Dibromo-3-chloropropane	ND	9.3	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2-Dibromoethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,3,5-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,3-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,3-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
1,4-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
2,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
4-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
4-Isopropyltoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Benzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Bromobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Bromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Bromodichloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Bromoform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Bromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Carbon disulfide	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Carbon tetrachloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Chlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Chloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Chloroform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Chloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
cis-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
cis-1,3-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Di-isopropyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Dibromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Dibromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Dichlorodifluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Ethyl Acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Ethyl Ether	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Ethyl tert-butyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Ethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Freon-113	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Hexachlorobutadiene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Isopropylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
m,p-Xylene	ND	9.3	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Methylene chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
MTBE	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
n-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
n-Propylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Naphthalene	**9.1**	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
o-Xylene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
sec-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Styrene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
tert-Butanol	ND	93	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
tert-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Tetrachloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Toluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
trans-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
trans-1,3-Dichloropropene	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Trichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Trichlorofluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Vinyl acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Vinyl chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 21:51	
Surrogate: 1,2-Dichloroethane-d4	*149 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 21:51*	
Surrogate: 4-Bromofluorobenzene	*112 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 21:51*	
Surrogate: Dibromofluoromethane	*126 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 21:51*	
Surrogate: Toluene-d8	*111 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 21:51*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
1,2-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
1,3-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
1,4-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4,5-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4,6-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4-Dichlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4-Dimethylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4-Dinitrophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,4-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2,6-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Chloronaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Chlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Methylnaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
2-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1

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Client Sample ID B3-2.0
Lab ID: 1303113-34

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
3-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4,6-Dinitro-2-methyphenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Bromophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Chloro-3-methylphenol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Chloroaniline	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Chlorophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
4-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Acenaphthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Acenaphthylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzidine (M)	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzo(a)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzo(a)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzo(b)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzo(g,h,i)perylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzo(k)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzoic acid	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Benzyl alcohol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
bis(2-chloroethoxy)methane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
bis(2-Chloroethyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
bis(2-chloroisopropyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
bis(2-ethylhexyl)phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Butylbenzylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Chrysene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Di-n-butylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Di-n-octylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Dibenz(a,h)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Dibenzofuran	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Diethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Dimethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Fluorene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Hexachlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Hexachlorobutadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Hexachloroethane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Indeno(1,2,3-cd)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Isophorone	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
N-Nitroso-di-n propylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
N-Nitrosodiphenylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Naphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Nitrobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Pentachlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Phenanthrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Phenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Pyridine	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 15:37	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 15:37*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 15:37*	S4, D1

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Acenaphthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Acenaphthylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Anthracene	**3600**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Benzo(a)anthracene	**2300**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Benzo(a)pyrene	**1600**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Benzo(b)fluoranthene	**2500**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Benzo(g,h,i)perylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Benzo(k)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Chrysene	**3400**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Dibenz(a,h)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-2.0
Lab ID: 1303113-34

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoranthene	**5100**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Fluorene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Indeno(1,2,3-cd)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Naphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Phenanthrene	**3200**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Pyrene	**7500**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:32	
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 17:32*	S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 17:32*	S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 17:32*	S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 17:32*	S4

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0
Lab ID: 1303113-35

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Arsenic	**3.2**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Barium	**57**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:41	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Chromium	**17**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Cobalt	**5.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Copper	**42**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Lead	**89**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Nickel	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Vanadium	**29**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	
Zinc	**67**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:42	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.7**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:23	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:04	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.89	NA	1	B3J0220	10/09/2013	10/09/13 17:42	
Surrogate: 4-Bromofluorobenzene	*68.9 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 17:42*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0
Lab ID: 1303113-35

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**1500**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:11	
T/R Hydrocarbons: C23-C32	**3100**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:11	
T/R Hydrocarbons: >C32	**2200**	100	NA	10	B3J0245	10/10/2013	10/10/13 19:11	
Surrogate: p-Terphenyl	*98.5 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 19:11*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
2-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
4-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Benzene	**4.4**	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Bromobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Bromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Bromodichloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0
Lab ID: 1303113-35

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromoform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Bromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Carbon disulfide	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Carbon tetrachloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Chlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Chloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Chloroform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Chloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Di-isopropyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Dibromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Dibromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Ethyl Acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Ethyl Ether	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Ethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Freon-113	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Isopropylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
m,p-Xylene	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Methylene chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
MTBE	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
n-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
n-Propylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Naphthalene	**7.1**	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
o-Xylene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
sec-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Styrene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
tert-Butanol	ND	88	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
tert-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Tetrachloroethene	**6.0**	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Toluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:09	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0
Lab ID: 1303113-35

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Trichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Vinyl acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Vinyl chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:09	
Surrogate: 1,2-Dichloroethane-d4	*140 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 22:09*	
Surrogate: 4-Bromofluorobenzene	*108 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 22:09*	
Surrogate: Dibromofluoromethane	*119 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 22:09*	
Surrogate: Toluene-d8	*109 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 22:09*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
1,2-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
1,3-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
1,4-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4,5-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4,6-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4-Dichlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4-Dimethylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4-Dinitrophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,4-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2,6-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Chloronaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Chlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Methylnaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
2-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
3,3´-Dichlorobenzidine	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
3-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4,6-Dinitro-2-methyphenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Bromophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Chloro-3-methylphenol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Chloroaniline	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Chlorophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0

Lab ID: 1303113-35

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
4-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Acenaphthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Acenaphthylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzidine (M)	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzo(a)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzo(a)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzo(b)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzo(g,h,i)perylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzo(k)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzoic acid	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Benzyl alcohol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
bis(2-chloroethoxy)methane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
bis(2-Chloroethyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
bis(2-chloroisopropyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
bis(2-ethylhexyl)phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Butylbenzylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Chrysene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Di-n-butylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Di-n-octylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Dibenz(a,h)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Dibenzofuran	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Diethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Dimethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Fluorene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Hexachlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Hexachlorobutadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Hexachlorocyclopentadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Hexachloroethane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Indeno(1,2,3-cd)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Isophorone	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
N-Nitroso-di-n propylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
N-Nitrosodiphenylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Naphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1

Certificate of Analysis

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Client Sample ID B3-3.0
Lab ID: 1303113-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Nitrobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Pentachlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Phenanthrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Phenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Pyridine	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 16:05	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 16:05*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Acenaphthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Acenaphthylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Anthracene	**2000**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Benzo(a)anthracene	**1700**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Benzo(a)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Benzo(b)fluoranthene	**1900**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Benzo(g,h,i)perylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Benzo(k)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Chrysene	**2300**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Dibenz(a,h)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Fluoranthene	**3400**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Fluorene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Indeno(1,2,3-cd)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Naphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Phenanthrene	**1700**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Pyrene	**4600**	1500	NA	100	B3J0354	10/16/2013	10/17/13 17:59	
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 17:59*	S4

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B3-3.0

Lab ID: 1303113-35

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: 2-Fluorobiphenyl	*0%*		*36 - 113*		B3J0354	10/16/2013	*10/17/13 17:59*	S4
Surrogate: Nitrobenzene-d5	*0%*		*29 - 106*		B3J0354	10/16/2013	*10/17/13 17:59*	S4
Surrogate: 4-Terphenyl-d14	*0%*		*39 - 138*		B3J0354	10/16/2013	*10/17/13 17:59*	S4

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-3.0
Lab ID: 1303113-38

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Arsenic	**3.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Barium	**51**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:44	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Chromium	**9.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Cobalt	**5.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Copper	**8.9**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Lead	**14**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Nickel	**6.9**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Vanadium	**26**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	
Zinc	**43**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:45	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:06	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.92	NA	1	B3J0220	10/09/2013	10/09/13 17:58	
Surrogate: 4-Bromofluorobenzene	*121 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 17:58*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**16**	10	NA	1	B3J0245	10/10/2013	10/10/13 17:14	
T/R Hydrocarbons: C23-C32	**24**	10	NA	1	B3J0245	10/10/2013	10/10/13 17:14	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 17:14	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*99.6 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 17:14*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
2-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
4-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Benzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Bromobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Bromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Bromodichloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Bromoform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Bromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Carbon disulfide	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	

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Client Sample ID B2-3.0

Lab ID: 1303113-38

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Chlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Chloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Chloroform	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Chloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Di-isopropyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Dibromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Dibromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Ethyl Acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Ethyl Ether	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Ethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Freon-113	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Isopropylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
m,p-Xylene	ND	8.8	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Methylene chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
MTBE	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
n-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
n-Propylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Naphthalene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
o-Xylene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
sec-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Styrene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
tert-Butanol	ND	88	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
tert-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Tetrachloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Toluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Trichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Vinyl acetate	ND	44	NA	1	B3J0233	10/10/2013	10/10/13 22:28	

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Client Sample ID B2-3.0
Lab ID: 1303113-38

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/10/13 22:28	
Surrogate: 1,2-Dichloroethane-d4	*130 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 22:28*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 22:28*	
Surrogate: Dibromofluoromethane	*116 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 22:28*	
Surrogate: Toluene-d8	*104 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 22:28*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	

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Lab ID: 1303113-38

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-3.0

Lab ID: 1303113-38

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 16:32	
Surrogate: 1,2-Dichlorobenzene-d4	*87.3 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: 2,4,6-Tribromophenol	*113 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: 2-Chlorophenol-d4	*88.8 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: 2-Fluorobiphenyl	*109 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: 2-Fluorophenol	*89.4 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: 4-Terphenyl-d14	*140 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: Nitrobenzene-d5	*102 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 16:32*	
Surrogate: Phenol-d5	*90.1 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 16:32*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-5.0
Lab ID: 1303113-39

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Arsenic	**2.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Barium	**41**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:41	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Chromium	**8.4**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Cobalt	**4.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Copper	**7.2**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Lead	**6.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Nickel	**5.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Vanadium	**22**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	
Zinc	**32**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:42	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:08	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.94	NA	1	B3J0220	10/09/2013	10/09/13 18:13	
Surrogate: 4-Bromofluorobenzene	*118 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 18:13*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:22	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:22	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:22	

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Client Sample ID B2-5.0
Lab ID: 1303113-39

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*91.3 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 06:22*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 15:35	
Surrogate: Decachlorobiphenyl	*98.0 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 15:35*	
Surrogate: Tetrachloro-m-xylene	*82.6 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 15:35*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-5.0
Lab ID: 1303113-39

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 20:10	
Surrogate: Decachlorobiphenyl	*94.8 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 20:10*	
Surrogate: Tetrachloro-m-xylene	*85.3 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 20:10*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1,1-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1,2,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1,2-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,1-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2,3-Trichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2,3-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2,4-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2,4-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2-Dibromo-3-chloropropane	ND	9.3	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2-Dibromoethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,3,5-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,3-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,3-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
1,4-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
2,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-5.0

Lab ID: 1303113-39

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
4-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
4-Isopropyltoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Benzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Bromobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Bromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Bromodichloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Bromoform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Bromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Carbon disulfide	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Carbon tetrachloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Chlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Chloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Chloroform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Chloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
cis-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
cis-1,3-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Di-isopropyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Dibromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Dibromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Dichlorodifluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Ethyl Acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Ethyl Ether	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Ethyl tert-butyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Ethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Freon-113	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Hexachlorobutadiene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Isopropylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
m,p-Xylene	ND	9.3	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Methylene chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
MTBE	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
n-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
n-Propylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Naphthalene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
o-Xylene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
sec-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Styrene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-5.0
Lab ID: 1303113-39

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
tert-Butanol	ND	93	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
tert-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Tetrachloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Toluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
trans-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
trans-1,3-Dichloropropene	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Trichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Trichlorofluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Vinyl acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Vinyl chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 22:46	
Surrogate: 1,2-Dichloroethane-d4	*125 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 22:46*	
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 22:46*	
Surrogate: Dibromofluoromethane	*112 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 22:46*	
Surrogate: Toluene-d8	*107 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 22:46*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	

Certificate of Analysis

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Client Sample ID B2-5.0

Lab ID: 1303113-39

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B2-5.0
Lab ID: 1303113-39

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 20:41	
Surrogate: 1,2-Dichlorobenzene-d4	*89.8 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: 2,4,6-Tribromophenol	*114 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: 2-Chlorophenol-d4	*90.2 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: 2-Fluorobiphenyl	*102 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: 2-Fluorophenol	*94.7 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: 4-Terphenyl-d14	*147 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: Nitrobenzene-d5	*99.3 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 20:41*	
Surrogate: Phenol-d5	*93.4 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 20:41*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0
Lab ID: 1303113-42

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Arsenic	**1.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Barium	**40**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:44	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Chromium	**7.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Cobalt	**5.0**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Copper	**6.8**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Lead	**2.4**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Nickel	**5.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Vanadium	**22**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	
Zinc	**26**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:45	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:10	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.90	NA	1	B3J0220	10/09/2013	10/09/13 18:29	
Surrogate: 4-Bromofluorobenzene	*118 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 18:29*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:41	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:41	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:41	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0
Lab ID: 1303113-42

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*95.1 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 04:41*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
4,4´-DDE	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
4,4´-DDT	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Aldrin	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
alpha-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
alpha-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
beta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Chlordane	ND	8.5	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
delta-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Dieldrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endosulfan I	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endosulfan II	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endosulfan sulfate	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endrin	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endrin aldehyde	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Endrin ketone	ND	2.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
gamma-BHC	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
gamma-Chlordane	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Heptachlor	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Heptachlor epoxide	ND	1.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Methoxychlor	ND	5.0	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Toxaphene	ND	50	NA	1	B3J0219	10/09/2013	10/09/13 21:02	
Surrogate: Decachlorobiphenyl	*71.2 %*	*32 - 113*			B3J0219	10/09/2013	*10/09/13 21:02*	
Surrogate: Tetrachloro-m-xylene	*78.3 %*	*32 - 101*			B3J0219	10/09/2013	*10/09/13 21:02*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0

Lab ID: 1303113-42

Polychlorinated Biphenyls by EPA 8082 **Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1221	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1232	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1242	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1248	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1254	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1260	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1262	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Aroclor 1268	ND	16	NA	1	B3J0219	10/09/2013	10/09/13 23:11	
Surrogate: Decachlorobiphenyl	*112 %*		*39 - 128*		B3J0219	10/09/2013	*10/09/13 23:11*	
Surrogate: Tetrachloro-m-xylene	*89.6 %*		*38 - 122*		B3J0219	10/09/2013	*10/09/13 23:11*	

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1,1-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1,2,2-Tetrachloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1,2-Trichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,1-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2,3-Trichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2,3-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2,4-Trichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2,4-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2-Dibromo-3-chloropropane	ND	9.1	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2-Dibromoethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2-Dichloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,3,5-Trimethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,3-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,3-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
1,4-Dichlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
2,2-Dichloropropane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0

Lab ID: 1303113-42

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
4-Chlorotoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
4-Isopropyltoluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Benzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Bromobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Bromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Bromodichloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Bromoform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Bromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Carbon disulfide	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Carbon tetrachloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Chlorobenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Chloroethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Chloroform	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Chloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
cis-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
cis-1,3-Dichloropropene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Di-isopropyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Dibromochloromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Dibromomethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Dichlorodifluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Ethyl Acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Ethyl Ether	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Ethyl tert-butyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Ethylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Freon-113	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Hexachlorobutadiene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Isopropylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
m,p-Xylene	ND	9.1	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Methylene chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
MTBE	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
n-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
n-Propylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Naphthalene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
o-Xylene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
sec-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Styrene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0
Lab ID: 1303113-42

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
tert-Butanol	ND	91	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
tert-Butylbenzene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Tetrachloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Toluene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
trans-1,2-Dichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
trans-1,3-Dichloropropene	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Trichloroethene	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Trichlorofluoromethane	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Vinyl acetate	ND	46	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Vinyl chloride	ND	4.6	NA	1	B3J0233	10/10/2013	10/10/13 23:05	
Surrogate: 1,2-Dichloroethane-d4	*129 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 23:05*	
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 23:05*	
Surrogate: Dibromofluoromethane	*114 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 23:05*	
Surrogate: Toluene-d8	*106 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 23:05*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4-Dimethylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Chloronaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Chlorophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Methylnaphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
2-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0

Lab ID: 1303113-42

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
3-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Chloroaniline	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Methylphenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Nitroaniline	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
4-Nitrophenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Acenaphthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Acenaphthylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzidine (M)	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzo(a)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzo(a)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzoic acid	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Benzyl alcohol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Butylbenzylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Chrysene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Di-n-butylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Di-n-octylphthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Dibenzofuran	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Diethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Dimethyl phthalate	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Fluoranthene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Fluorene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Hexachlorobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Hexachlorobutadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B1-5.0
Lab ID: 1303113-42

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Hexachloroethane	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Isophorone	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Naphthalene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Nitrobenzene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Pentachlorophenol	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Phenanthrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Phenol	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Pyrene	ND	330	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Pyridine	ND	1600	NA	1	B3J0239	10/10/2013	10/10/13 21:08	
Surrogate: 1,2-Dichlorobenzene-d4	*87.5 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: 2,4,6-Tribromophenol	*116 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: 2-Chlorophenol-d4	*87.2 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: 2-Fluorobiphenyl	*97.0 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: 2-Fluorophenol	*91.5 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: 4-Terphenyl-d14	*154 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: Nitrobenzene-d5	*96.0 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 21:08*	
Surrogate: Phenol-d5	*89.8 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 21:08*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Arsenic	**1.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Barium	**52**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:47	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:47	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Chromium	**19**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Cobalt	**4.9**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Copper	**21**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Lead	**31**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Molybdenum	**1.7**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Nickel	**20**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Silver	**1.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	
Vanadium	**32**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:47	
Zinc	**41**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:48	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:12	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0220	10/09/2013	10/09/13 18:45	
Surrogate: 4-Bromofluorobenzene	*100 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 18:45*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**1800**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:18	
T/R Hydrocarbons: C23-C32	**6500**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:18	
T/R Hydrocarbons: >C32	**7900**	100	NA	10	B3J0245	10/10/2013	10/10/13 20:18	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*121 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 20:18*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
4,4´-DDE	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
4,4´-DDT	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Aldrin	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
alpha-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
alpha-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
beta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Chlordane	ND	85	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
delta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Dieldrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endosulfan I	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endosulfan II	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endosulfan sulfate	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endrin aldehyde	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Endrin ketone	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
gamma-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
gamma-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Heptachlor	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Heptachlor epoxide	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Methoxychlor	ND	50	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Toxaphene	ND	500	NA	10	B3J0390	10/17/2013	10/18/13 13:50	D1
Surrogate: Decachlorobiphenyl	*45.4 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 13:50*	
Surrogate: Tetrachloro-m-xylene	*43.0 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 13:50*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 20:16	
Surrogate: Decachlorobiphenyl	*11.6 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 20:16*	S10
Surrogate: Tetrachloro-m-xylene	*56.1 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 20:16*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1,1-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1,2,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1,2-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,1-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2,3-Trichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2,3-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2,4-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2,4-Trimethylbenzene	**11**	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2-Dibromo-3-chloropropane	ND	9.0	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2-Dibromoethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,3,5-Trimethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,3-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,3-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
1,4-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
2,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
4-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
4-Isopropyltoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Benzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Bromobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Bromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Bromodichloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Bromoform	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Bromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Carbon disulfide	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Carbon tetrachloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Chlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Chloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Chloroform	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Chloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
cis-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
cis-1,3-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Di-isopropyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Dibromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Dibromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Dichlorodifluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Ethyl Acetate	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Ethyl Ether	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Ethyl tert-butyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Ethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Freon-113	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Hexachlorobutadiene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Isopropylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
m,p-Xylene	**10**	9.0	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Methylene chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
MTBE	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
n-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
n-Propylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Naphthalene	**4.7**	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
o-Xylene	**5.0**	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
sec-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Styrene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
tert-Butanol	ND	90	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
tert-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Tetrachloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Toluene	**6.2**	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
trans-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
trans-1,3-Dichloropropene	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Trichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Trichlorofluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Vinyl acetate	ND	45	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Vinyl chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/10/13 23:23	
Surrogate: 1,2-Dichloroethane-d4	*125 %*		*56 - 159*		B3J0233	10/10/2013	*10/10/13 23:23*	
Surrogate: 4-Bromofluorobenzene	*109 %*		*69 - 131*		B3J0233	10/10/2013	*10/10/13 23:23*	
Surrogate: Dibromofluoromethane	*115 %*		*60 - 127*		B3J0233	10/10/2013	*10/10/13 23:23*	
Surrogate: Toluene-d8	*106 %*		*70 - 121*		B3J0233	10/10/2013	*10/10/13 23:23*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
1,2-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
1,3-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
1,4-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4,5-Trichlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4,6-Trichlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4-Dichlorophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4-Dimethylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4-Dinitrophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,4-Dinitrotoluene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2,6-Dinitrotoluene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Chloronaphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Chlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Methylnaphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Methylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
2-Nitrophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
3-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4,6-Dinitro-2-methyphenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Bromophenyl-phenylether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Chloro-3-methylphenol	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Chloroaniline	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Chlorophenyl-phenylether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Methylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
4-Nitrophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Acenaphthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Acenaphthylene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzidine (M)	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzo(a)anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzo(a)pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzo(b)fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzo(g,h,i)perylene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzo(k)fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzoic acid	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Benzyl alcohol	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
bis(2-chloroethoxy)methane	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
bis(2-Chloroethyl)ether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
bis(2-chloroisopropyl)ether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
bis(2-ethylhexyl)phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Butylbenzylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Chrysene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Di-n-butylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Di-n-octylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Dibenz(a,h)anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Dibenzofuran	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Diethyl phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Dimethyl phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Fluorene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Hexachlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Hexachlorobutadiene	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5
Lab ID: 1303113-43

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Hexachloroethane	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Indeno(1,2,3-cd)pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Isophorone	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
N-Nitroso-di-n propylamine	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
N-Nitrosodiphenylamine	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Naphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Nitrobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Pentachlorophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Phenanthrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Phenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Pyridine	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 21:05	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 21:05*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Acenaphthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Acenaphthylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Benzo(a)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Benzo(a)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Benzo(b)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Benzo(g,h,i)perylene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Benzo(k)fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Chrysene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Dibenz(a,h)anthracene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-0.5

Lab ID: 1303113-43

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoranthene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Fluorene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Indeno(1,2,3-cd)pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Naphthalene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Phenanthrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Pyrene	ND	1500	NA	100	B3J0354	10/16/2013	10/17/13 18:24	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 18:24*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 18:24*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 18:24*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 18:24*	D1, S4

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0
Lab ID: 1303113-44

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Arsenic	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Barium	**22**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:50	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Chromium	**5.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Cobalt	**3.3**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Copper	**5.1**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Lead	**4.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Nickel	**4.7**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Vanadium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	
Zinc	**15**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:51	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:17	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	**4.0**	1.1	NA	1	B3J0254	10/11/2013	10/11/13 13:37	
Surrogate: 4-Bromofluorobenzene	*53.7 %*	*59 - 160*			B3J0254	10/11/2013	*10/11/13 13:37*	S2

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**3600**	100	NA	10	B3J0260	10/11/2013	10/11/13 21:22	
T/R Hydrocarbons: C23-C32	**4500**	100	NA	10	B3J0260	10/11/2013	10/11/13 21:22	
T/R Hydrocarbons: >C32	**2900**	100	NA	10	B3J0260	10/11/2013	10/11/13 21:22	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0
Lab ID: 1303113-44

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*100 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 21:22*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
2-Chlorotoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
4-Chlorotoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Benzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Bromobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Bromochloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Bromodichloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Bromoform	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Bromomethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Carbon disulfide	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0

Lab ID: 1303113-44

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Chlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Chloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Chloroform	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Chloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Di-isopropyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Dibromochloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Dibromomethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Ethyl Acetate	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Ethyl Ether	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Ethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Freon-113	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Isopropylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
m,p-Xylene	ND	8.8	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Methylene chloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
MTBE	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
n-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
n-Propylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Naphthalene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
o-Xylene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
sec-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Styrene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
tert-Butanol	ND	88	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
tert-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Tetrachloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Toluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Trichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Vinyl acetate	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 12:08	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0
Lab ID: 1303113-44

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 12:08	
Surrogate: 1,2-Dichloroethane-d4	*126 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 12:08*	
Surrogate: 4-Bromofluorobenzene	*95.5 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 12:08*	
Surrogate: Dibromofluoromethane	*116 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 12:08*	
Surrogate: Toluene-d8	*104 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 12:08*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
1,2-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
1,3-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
1,4-Dichlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4,5-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4,6-Trichlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4-Dichlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4-Dimethylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4-Dinitrophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,4-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2,6-Dinitrotoluene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Chloronaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Chlorophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Methylnaphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
2-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
3,3´-Dichlorobenzidine	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
3-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4,6-Dinitro-2-methyphenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Bromophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Chloro-3-methylphenol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Chloroaniline	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Chlorophenyl-phenylether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Methylphenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Nitroaniline	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
4-Nitrophenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0
Lab ID: 1303113-44

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Acenaphthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Acenaphthylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzidine (M)	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzo(a)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzo(a)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzo(b)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzo(g,h,i)perylene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzo(k)fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzoic acid	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Benzyl alcohol	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
bis(2-chloroethoxy)methane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
bis(2-Chloroethyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
bis(2-chloroisopropyl)ether	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
bis(2-ethylhexyl)phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Butylbenzylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Chrysene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Di-n-butylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Di-n-octylphthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Dibenz(a,h)anthracene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Dibenzofuran	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Diethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Dimethyl phthalate	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Fluoranthene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Fluorene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Hexachlorobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Hexachlorobutadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Hexachlorocyclopentadiene	ND	200000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Hexachloroethane	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Indeno(1,2,3-cd)pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Isophorone	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
N-Nitroso-di-n propylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
N-Nitrosodiphenylamine	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Naphthalene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Nitrobenzene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Pentachlorophenol	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Phenanthrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-3.0
Lab ID: 1303113-44

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Pyrene	ND	99000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Pyridine	ND	500000	NA	100	B3J0249	10/10/2013	10/11/13 17:00	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 17:00*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Acenaphthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Acenaphthylene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Benzo(a)anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Benzo(a)pyrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Benzo(b)fluoranthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Benzo(g,h,i)perylene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Benzo(k)fluoranthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Chrysene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Dibenz(a,h)anthracene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Fluoranthene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Fluorene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Indeno(1,2,3-cd)pyrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Naphthalene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Phenanthrene	ND	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Pyrene	**860**	750	NA	50	B3J0354	10/16/2013	10/17/13 18:51	
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/17/13 18:51*	S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/17/13 18:51*	S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/17/13 18:51*	S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/17/13 18:51*	S4

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-5.0
Lab ID: 1303113-45

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Barium	**37**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Chromium	**6.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Cobalt	**4.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Copper	**6.5**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Lead	**3.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Nickel	**5.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Vanadium	**18**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	
Zinc	**24**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:48	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:19	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	**3.8**	1.0	NA	1	B3J0254	10/11/2013	10/11/13 13:52	
Surrogate: 4-Bromofluorobenzene	*86.2 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 13:52*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**270**	10	NA	1	B3J0208	10/09/2013	10/10/13 07:29	
T/R Hydrocarbons: C23-C32	**280**	10	NA	1	B3J0208	10/09/2013	10/10/13 07:29	
T/R Hydrocarbons: >C32	**110**	10	NA	1	B3J0208	10/09/2013	10/10/13 07:29	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*101 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 07:29*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
4,4´-DDE	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
4,4´-DDT	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Aldrin	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
alpha-BHC	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
alpha-Chlordane	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
beta-BHC	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Chlordane	ND	17	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
delta-BHC	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Dieldrin	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endosulfan I	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endosulfan II	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endosulfan sulfate	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endrin	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endrin aldehyde	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Endrin ketone	ND	4.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
gamma-BHC	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
gamma-Chlordane	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Heptachlor	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Heptachlor epoxide	ND	2.0	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Methoxychlor	ND	10	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Toxaphene	ND	100	NA	2	B3J0231	10/10/2013	10/11/13 17:21	D1
Surrogate: Decachlorobiphenyl	*76.8 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 17:21*	D1
Surrogate: Tetrachloro-m-xylene	*82.3 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 17:21*	D1

Certificate of Analysis

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Client Sample ID DP4A-5.0
Lab ID: 1303113-45

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 02:18	
Surrogate: Decachlorobiphenyl	*58.7 %*	*39 - 128*			B3J0231	10/10/2013	*10/11/13 02:18*	
Surrogate: Tetrachloro-m-xylene	*65.2 %*	*38 - 122*			B3J0231	10/10/2013	*10/11/13 02:18*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1,1-Trichloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1,2,2-Tetrachloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1,2-Trichloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1-Dichloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1-Dichloroethene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,1-Dichloropropene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2,3-Trichloropropane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2,3-Trichlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2,4-Trichlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2,4-Trimethylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2-Dibromo-3-chloropropane	ND	9.6	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2-Dibromoethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2-Dichlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2-Dichloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,2-Dichloropropane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,3,5-Trimethylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,3-Dichlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,3-Dichloropropane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
1,4-Dichlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
2,2-Dichloropropane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-5.0

Lab ID: 1303113-45

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
4-Chlorotoluene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
4-Isopropyltoluene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Benzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Bromobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Bromochloromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Bromodichloromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Bromoform	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Bromomethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Carbon disulfide	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Carbon tetrachloride	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Chlorobenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Chloroethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Chloroform	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Chloromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
cis-1,2-Dichloroethene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
cis-1,3-Dichloropropene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Di-isopropyl ether	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Dibromochloromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Dibromomethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Dichlorodifluoromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Ethyl Acetate	ND	48	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Ethyl Ether	ND	48	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Ethyl tert-butyl ether	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Ethylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Freon-113	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Hexachlorobutadiene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Isopropylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
m,p-Xylene	ND	9.6	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Methylene chloride	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
MTBE	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
n-Butylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
n-Propylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Naphthalene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
o-Xylene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
sec-Butylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Styrene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-5.0
Lab ID: 1303113-45

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
tert-Butanol	ND	96	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
tert-Butylbenzene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Tetrachloroethene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Toluene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
trans-1,2-Dichloroethene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
trans-1,3-Dichloropropene	ND	48	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Trichloroethene	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Trichlorofluoromethane	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Vinyl acetate	ND	48	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Vinyl chloride	ND	4.8	NA	1	B3J0233	10/10/2013	10/11/13 00:00	
Surrogate: 1,2-Dichloroethane-d4	*123 %*	*56 - 159*			B3J0233	10/10/2013	*10/11/13 00:00*	
Surrogate: 4-Bromofluorobenzene	*145 %*	*69 - 131*			B3J0233	10/10/2013	*10/11/13 00:00*	S1
Surrogate: Dibromofluoromethane	*113 %*	*60 - 127*			B3J0233	10/10/2013	*10/11/13 00:00*	
Surrogate: Toluene-d8	*104 %*	*70 - 121*			B3J0233	10/10/2013	*10/11/13 00:00*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
1,2-Dichlorobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
1,3-Dichlorobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
1,4-Dichlorobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4,5-Trichlorophenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4,6-Trichlorophenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4-Dichlorophenol	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4-Dimethylphenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4-Dinitrophenol	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,4-Dinitrotoluene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2,6-Dinitrotoluene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Chloronaphthalene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Chlorophenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Methylnaphthalene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Methylphenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Nitroaniline	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
2-Nitrophenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1

Certificate of Analysis

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Client Sample ID DP4A-5.0
Lab ID: 1303113-45

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
3-Nitroaniline	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4,6-Dinitro-2-methyphenol	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Bromophenyl-phenylether	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Chloro-3-methylphenol	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Chloroaniline	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Chlorophenyl-phenylether	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Methylphenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Nitroaniline	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
4-Nitrophenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Acenaphthene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Acenaphthylene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Anthracene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzidine (M)	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzo(a)anthracene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzo(a)pyrene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzo(b)fluoranthene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzo(g,h,i)perylene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzo(k)fluoranthene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzoic acid	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Benzyl alcohol	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
bis(2-chloroethoxy)methane	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
bis(2-Chloroethyl)ether	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
bis(2-chloroisopropyl)ether	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
bis(2-ethylhexyl)phthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Butylbenzylphthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Chrysene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Di-n-butylphthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Di-n-octylphthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Dibenz(a,h)anthracene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Dibenzofuran	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Diethyl phthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Dimethyl phthalate	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Fluoranthene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Fluorene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Hexachlorobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Hexachlorobutadiene	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-5.0
Lab ID: 1303113-45

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	3300	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Hexachloroethane	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Indeno(1,2,3-cd)pyrene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Isophorone	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
N-Nitroso-di-n propylamine	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
N-Nitrosodiphenylamine	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Naphthalene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Nitrobenzene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Pentachlorophenol	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Phenanthrene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Phenol	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Pyrene	ND	1600	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Pyridine	ND	8200	NA	5	B3J0239	10/10/2013	10/10/13 23:25	D1
Surrogate: 1,2-Dichlorobenzene-d4	*62.3 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: 2,4,6-Tribromophenol	*67.0 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: 2-Chlorophenol-d4	*62.9 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: 2-Fluorobiphenyl	*58.8 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: 2-Fluorophenol	*70.4 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: 4-Terphenyl-d14	*85.1 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: Nitrobenzene-d5	*78.6 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 23:25*	D1
Surrogate: Phenol-d5	*69.1 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 23:25*	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Barium	**29**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:51	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Chromium	**7.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Cobalt	**4.0**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Copper	**4.8**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Lead	**1.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Nickel	**4.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Vanadium	**22**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	
Zinc	**20**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:52	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:21	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.85	NA	1	B3J0220	10/09/2013	10/09/13 19:33	
Surrogate: 4-Bromofluorobenzene	*106 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 19:33*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:57	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:57	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 04:57	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*107 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 04:57*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
4,4´-DDE	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
4,4´-DDT	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Aldrin	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
alpha-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
beta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Chlordane	ND	26	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
delta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Dieldrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endosulfan I	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endosulfan II	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Endrin ketone	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
gamma-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Heptachlor	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Methoxychlor	ND	15	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Toxaphene	ND	150	NA	1	B3J0231	10/10/2013	10/11/13 15:48	D3
Surrogate: Decachlorobiphenyl	*99.8 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 15:48*	D3
Surrogate: Tetrachloro-m-xylene	*87.6 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 15:48*	D3

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1221	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1232	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1242	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1248	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1254	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1260	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1262	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Aroclor 1268	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 20:41	D3
Surrogate: Decachlorobiphenyl	*93.3 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 20:41*	D3
Surrogate: Tetrachloro-m-xylene	*83.4 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 20:41*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1,1-Trichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1,2,2-Tetrachloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1,2-Trichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1-Dichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1-Dichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,1-Dichloropropene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2,3-Trichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2,3-Trichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2,4-Trichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2,4-Trimethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2-Dibromo-3-chloropropane	ND	8.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2-Dibromoethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2-Dichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,2-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,3,5-Trimethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,3-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,3-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
1,4-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
2,2-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10

Lab ID: 1303113-46

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
4-Chlorotoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
4-Isopropyltoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Benzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Bromobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Bromochloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Bromodichloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Bromoform	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Bromomethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Carbon disulfide	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Carbon tetrachloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Chlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Chloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Chloroform	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Chloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
cis-1,2-Dichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
cis-1,3-Dichloropropene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Di-isopropyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Dibromochloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Dibromomethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Dichlorodifluoromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Ethyl Acetate	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Ethyl Ether	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Ethyl tert-butyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Ethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Freon-113	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Hexachlorobutadiene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Isopropylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
m,p-Xylene	ND	8.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Methylene chloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
MTBE	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
n-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
n-Propylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Naphthalene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
o-Xylene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
sec-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Styrene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
tert-Butanol	ND	81	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
tert-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Tetrachloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Toluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
trans-1,2-Dichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
trans-1,3-Dichloropropene	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Trichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Trichlorofluoromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Vinyl acetate	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Vinyl chloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 00:19	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 00:19*	
Surrogate: 4-Bromofluorobenzene	*109 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 00:19*	
Surrogate: Dibromofluoromethane	*109 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 00:19*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 00:19*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-10
Lab ID: 1303113-46

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 21:35	D3
Surrogate: 1,2-Dichlorobenzene-d4	*89.0 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: 2,4,6-Tribromophenol	*113 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: 2-Chlorophenol-d4	*90.2 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: 2-Fluorobiphenyl	*99.4 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: 2-Fluorophenol	*94.8 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: 4-Terphenyl-d14	*154 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: Nitrobenzene-d5	*98.3 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 21:35*	
Surrogate: Phenol-d5	*92.9 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 21:35*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15
Lab ID: 1303113-47

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Barium	**21**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:54	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Chromium	**5.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Cobalt	**3.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Copper	**5.2**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Lead	**2.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Nickel	**4.0**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Vanadium	**18**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	
Zinc	**15**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 15:55	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:23	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.94	NA	1	B3J0220	10/09/2013	10/09/13 19:49	
Surrogate: 4-Bromofluorobenzene	*116 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 19:49*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:34	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:34	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:34	

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Irvine , CA 92618		Reported :	11/01/2013

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Lab ID: 1303113-47

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*97.0 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 15:34*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
4,4´-DDE	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
4,4´-DDT	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Aldrin	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
alpha-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
beta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Chlordane	ND	26	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
delta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Dieldrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endosulfan I	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endosulfan II	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Endrin ketone	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
gamma-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Heptachlor	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Methoxychlor	ND	15	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Toxaphene	ND	150	NA	1	B3J0231	10/10/2013	10/11/13 16:01	D3
Surrogate: Decachlorobiphenyl	*103 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 16:01*	D3
Surrogate: Tetrachloro-m-xylene	*88.1 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 16:01*	D3

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15
Lab ID: 1303113-47

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1221	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1232	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1242	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1248	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1254	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1260	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1262	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Aroclor 1268	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:11	D3
Surrogate: Decachlorobiphenyl	*95.9 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 21:11*	D3
Surrogate: Tetrachloro-m-xylene	*85.8 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 21:11*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1,1-Trichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1,2,2-Tetrachloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1,2-Trichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1-Dichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,1-Dichloropropene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2,3-Trichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2,3-Trichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2,4-Trichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2,4-Trimethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2-Dibromo-3-chloropropane	ND	9.3	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2-Dibromoethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2-Dichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,2-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,3,5-Trimethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,3-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,3-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
1,4-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
2,2-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15

Lab ID: 1303113-47

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
4-Chlorotoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
4-Isopropyltoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Benzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Bromobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Bromochloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Bromodichloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Bromoform	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Bromomethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Carbon disulfide	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Carbon tetrachloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Chlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Chloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Chloroform	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Chloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
cis-1,2-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
cis-1,3-Dichloropropene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Di-isopropyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Dibromochloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Dibromomethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Dichlorodifluoromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Ethyl Acetate	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Ethyl Ether	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Ethyl tert-butyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Ethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Freon-113	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Hexachlorobutadiene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Isopropylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
m,p-Xylene	ND	9.3	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Methylene chloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
MTBE	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
n-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
n-Propylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Naphthalene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
o-Xylene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
sec-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Styrene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15
Lab ID: 1303113-47

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
tert-Butanol	ND	93	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
tert-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Tetrachloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Toluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
trans-1,2-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
trans-1,3-Dichloropropene	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Trichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Trichlorofluoromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Vinyl acetate	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Vinyl chloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 00:37	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 00:37*	
Surrogate: 4-Bromofluorobenzene	*106 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 00:37*	
Surrogate: Dibromofluoromethane	*107 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 00:37*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 00:37*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15
Lab ID: 1303113-47

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-15
Lab ID: 1303113-47

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:03	D3
Surrogate: 1,2-Dichlorobenzene-d4	*88.4 %*		*48 - 113*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: 2,4,6-Tribromophenol	*114 %*		*14 - 162*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: 2-Chlorophenol-d4	*87.9 %*		*40 - 117*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: 2-Fluorobiphenyl	*98.4 %*		*52 - 126*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: 2-Fluorophenol	*92.6 %*		*26 - 124*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: 4-Terphenyl-d14	*153 %*		*36 - 163*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: Nitrobenzene-d5	*96.6 %*		*42 - 118*		B3J0239	10/10/2013	*10/10/13 22:03*	
Surrogate: Phenol-d5	*90.2 %*		*29 - 124*		B3J0239	10/10/2013	*10/10/13 22:03*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Arsenic	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Barium	**19**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Beryllium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:57	
Cadmium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Chromium	**4.4**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Cobalt	**2.1**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Copper	**3.6**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Lead	**2.1**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Molybdenum	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Nickel	**2.8**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Selenium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Silver	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Thallium	ND	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Vanadium	**12**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	
Zinc	**15**	0.99	NA	1	B3J0214	10/09/2013	10/10/13 15:58	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:29	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.91	NA	1	B3J0220	10/09/2013	10/09/13 20:04	
Surrogate: 4-Bromofluorobenzene	*121 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 20:04*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:51	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:51	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 15:51	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*96.1 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 15:51*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
4,4´-DDE	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
4,4´-DDT	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Aldrin	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
alpha-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
beta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Chlordane	ND	26	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
delta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Dieldrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endosulfan I	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endosulfan II	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Endrin ketone	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
gamma-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Heptachlor	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Methoxychlor	ND	15	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Toxaphene	ND	150	NA	1	B3J0231	10/10/2013	10/11/13 16:15	D3
Surrogate: Decachlorobiphenyl	*101 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 16:15*	D3
Surrogate: Tetrachloro-m-xylene	*89.0 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 16:15*	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1221	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1232	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1242	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1248	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1254	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1260	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1262	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Aroclor 1268	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 21:42	D3
Surrogate: Decachlorobiphenyl	*95.9 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 21:42*	D3
Surrogate: Tetrachloro-m-xylene	*85.7 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 21:42*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1,1-Trichloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1,2,2-Tetrachloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1,2-Trichloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1-Dichloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1-Dichloroethene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,1-Dichloropropene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2,3-Trichloropropane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2,3-Trichlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2,4-Trichlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2,4-Trimethylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2-Dibromo-3-chloropropane	ND	14	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2-Dibromoethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2-Dichlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2-Dichloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,2-Dichloropropane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,3,5-Trimethylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,3-Dichlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,3-Dichloropropane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
1,4-Dichlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
2,2-Dichloropropane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
4-Chlorotoluene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
4-Isopropyltoluene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Benzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Bromobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Bromochloromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Bromodichloromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Bromoform	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Bromomethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Carbon disulfide	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Carbon tetrachloride	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Chlorobenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Chloroethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Chloroform	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Chloromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
cis-1,2-Dichloroethene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
cis-1,3-Dichloropropene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Di-isopropyl ether	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Dibromochloromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Dibromomethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Dichlorodifluoromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Ethyl Acetate	ND	69	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Ethyl Ether	ND	69	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Ethyl tert-butyl ether	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Ethylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Freon-113	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Hexachlorobutadiene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Isopropylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
m,p-Xylene	ND	14	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Methylene chloride	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
MTBE	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
n-Butylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
n-Propylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Naphthalene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
o-Xylene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
sec-Butylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Styrene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
tert-Butanol	ND	140	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
tert-Butylbenzene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Tetrachloroethene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Toluene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
trans-1,2-Dichloroethene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
trans-1,3-Dichloropropene	ND	69	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Trichloroethene	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Trichlorofluoromethane	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Vinyl acetate	ND	69	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Vinyl chloride	ND	6.9	NA	1	B3J0233	10/10/2013	10/11/13 00:56	
Surrogate: 1,2-Dichloroethane-d4	*84.4 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 00:56*	
Surrogate: 4-Bromofluorobenzene	*122 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 00:56*	
Surrogate: Dibromofluoromethane	*101 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 00:56*	
Surrogate: Toluene-d8	*103 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 00:56*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-20
Lab ID: 1303113-48

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:30	D3
Surrogate: 1,2-Dichlorobenzene-d4	*90.3 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: 2,4,6-Tribromophenol	*110 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: 2-Chlorophenol-d4	*89.3 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: 2-Fluorobiphenyl	*104 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: 2-Fluorophenol	*92.0 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: 4-Terphenyl-d14	*159 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: Nitrobenzene-d5	*99.9 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 22:30*	
Surrogate: Phenol-d5	*92.5 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 22:30*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-25
Lab ID: 1303113-49

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Arsenic	**2.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Barium	**14**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Chromium	**5.9**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Cobalt	**2.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Copper	**10**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Lead	**2.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Nickel	**3.3**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Vanadium	**12**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	
Zinc	**12**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:01	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:31	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.96	NA	1	B3J0220	10/09/2013	10/09/13 20:20	
Surrogate: 4-Bromofluorobenzene	*111 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 20:20*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:07	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:07	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:07	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*98.3 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 16:07*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
4,4´-DDE	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
4,4´-DDT	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Aldrin	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
alpha-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
beta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Chlordane	ND	26	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
delta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Dieldrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endosulfan I	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endosulfan II	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Endrin ketone	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
gamma-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Heptachlor	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Methoxychlor	ND	15	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Toxaphene	ND	150	NA	1	B3J0231	10/10/2013	10/11/13 16:28	D3
Surrogate: Decachlorobiphenyl	*105 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 16:28*	D3
Surrogate: Tetrachloro-m-xylene	*90.9 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 16:28*	D3

Certificate of Analysis

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Client Sample ID DP4A-25
Lab ID: 1303113-49

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1221	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1232	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1242	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1248	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1254	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1260	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1262	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Aroclor 1268	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 22:13	D3
Surrogate: Decachlorobiphenyl	*99.6 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 22:13*	D3
Surrogate: Tetrachloro-m-xylene	*89.3 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 22:13*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1,1-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1,2,2-Tetrachloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1,2-Trichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,1-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2,3-Trichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2,3-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2,4-Trichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2,4-Trimethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2-Dibromo-3-chloropropane	ND	9.0	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2-Dibromoethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2-Dichloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,3,5-Trimethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,3-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,3-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
1,4-Dichlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
2,2-Dichloropropane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-25

Lab ID: 1303113-49

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
4-Chlorotoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
4-Isopropyltoluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Benzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Bromobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Bromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Bromodichloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Bromoform	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Bromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Carbon disulfide	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Carbon tetrachloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Chlorobenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Chloroethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Chloroform	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Chloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
cis-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
cis-1,3-Dichloropropene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Di-isopropyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Dibromochloromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Dibromomethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Dichlorodifluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Ethyl Acetate	ND	45	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Ethyl Ether	ND	45	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Ethyl tert-butyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Ethylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Freon-113	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Hexachlorobutadiene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Isopropylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
m,p-Xylene	ND	9.0	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Methylene chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
MTBE	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
n-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
n-Propylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Naphthalene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
o-Xylene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
sec-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Styrene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-25
Lab ID: 1303113-49

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
tert-Butanol	ND	90	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
tert-Butylbenzene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Tetrachloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Toluene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
trans-1,2-Dichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
trans-1,3-Dichloropropene	ND	45	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Trichloroethene	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Trichlorofluoromethane	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Vinyl acetate	ND	45	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Vinyl chloride	ND	4.5	NA	1	B3J0233	10/10/2013	10/11/13 01:14	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 01:14*	
Surrogate: 4-Bromofluorobenzene	*107 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 01:14*	
Surrogate: Dibromofluoromethane	*108 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 01:14*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 01:14*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
1,2-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
1,3-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
1,4-Dichlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4,5-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4,6-Trichlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4-Dichlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4-Dimethylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4-Dinitrophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,4-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2,6-Dinitrotoluene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Chloronaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Chlorophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Methylnaphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
2-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3

Certificate of Analysis

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Lab ID: 1303113-49

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
3-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4,6-Dinitro-2-methyphenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Bromophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Chloro-3-methylphenol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Chloroaniline	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Chlorophenyl-phenylether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Methylphenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Nitroaniline	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
4-Nitrophenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Acenaphthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Acenaphthylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzidine (M)	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzo(a)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzo(a)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzo(b)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzo(g,h,i)perylene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzo(k)fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzoic acid	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Benzyl alcohol	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
bis(2-chloroethoxy)methane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
bis(2-Chloroethyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
bis(2-chloroisopropyl)ether	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
bis(2-ethylhexyl)phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Butylbenzylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Chrysene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Di-n-butylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Di-n-octylphthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Dibenz(a,h)anthracene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Dibenzofuran	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Diethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Dimethyl phthalate	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Fluoranthene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Fluorene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Hexachlorobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Hexachlorobutadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-25
Lab ID: 1303113-49

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Hexachloroethane	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Indeno(1,2,3-cd)pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Isophorone	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
N-Nitroso-di-n propylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
N-Nitrosodiphenylamine	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Naphthalene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Nitrobenzene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Pentachlorophenol	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Phenanthrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Phenol	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Pyrene	ND	660	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Pyridine	ND	3300	NA	1	B3J0239	10/10/2013	10/10/13 22:57	D3
Surrogate: 1,2-Dichlorobenzene-d4	*97.4 %*	*48 - 113*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: 2,4,6-Tribromophenol	*119 %*	*14 - 162*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: 2-Chlorophenol-d4	*96.7 %*	*40 - 117*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: 2-Fluorobiphenyl	*115 %*	*52 - 126*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: 2-Fluorophenol	*102 %*	*26 - 124*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: 4-Terphenyl-d14	*155 %*	*36 - 163*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: Nitrobenzene-d5	*106 %*	*42 - 118*			B3J0239	10/10/2013	*10/10/13 22:57*	
Surrogate: Phenol-d5	*98.1 %*	*29 - 124*			B3J0239	10/10/2013	*10/10/13 22:57*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5
Lab ID: 1303113-50

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Arsenic	**1.7**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Barium	**70**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:53	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Chromium	**22**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Cobalt	**5.9**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Copper	**19**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Lead	**15**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Molybdenum	**4.2**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Nickel	**32**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Silver	**1.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Vanadium	**29**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	
Zinc	**35**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:33	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.2	NA	1	B3J0220	10/09/2013	10/09/13 20:36	
Surrogate: 4-Bromofluorobenzene	*95.0 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 20:36*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**480**	100	NA	10	B3J0260	10/11/2013	10/11/13 22:13	
T/R Hydrocarbons: C23-C32	**2800**	100	NA	10	B3J0260	10/11/2013	10/11/13 22:13	
T/R Hydrocarbons: >C32	**4900**	100	NA	10	B3J0260	10/11/2013	10/11/13 22:13	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5
Lab ID: 1303113-50

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*110 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 22:13*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
4,4´-DDE	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
4,4´-DDT	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Aldrin	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
alpha-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
alpha-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
beta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Chlordane	ND	85	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
delta-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Dieldrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endosulfan I	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endosulfan II	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endosulfan sulfate	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endrin	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endrin aldehyde	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Endrin ketone	ND	20	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
gamma-BHC	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
gamma-Chlordane	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Heptachlor	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Heptachlor epoxide	ND	10	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Methoxychlor	ND	50	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Toxaphene	ND	500	NA	10	B3J0390	10/17/2013	10/18/13 14:17	D1
Surrogate: Decachlorobiphenyl	*61.8 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 14:17*	
Surrogate: Tetrachloro-m-xylene	*49.0 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 14:17*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5
Lab ID: 1303113-50

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 21:18	
Surrogate: Decachlorobiphenyl	*11.6 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 21:18*	S10
Surrogate: Tetrachloro-m-xylene	*70.1 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 21:18*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1,1-Trichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1,2,2-Tetrachloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1,2-Trichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1-Dichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,1-Dichloropropene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2,3-Trichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2,3-Trichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2,4-Trichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2,4-Trimethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2-Dibromo-3-chloropropane	ND	9.3	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2-Dibromoethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2-Dichloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,2-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,3,5-Trimethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,3-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,3-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
1,4-Dichlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
2,2-Dichloropropane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5

Lab ID: 1303113-50

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
4-Chlorotoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
4-Isopropyltoluene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Benzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Bromobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Bromochloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Bromodichloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Bromoform	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Bromomethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Carbon disulfide	**6.2**	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Carbon tetrachloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Chlorobenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Chloroethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Chloroform	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Chloromethane	**14**	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
cis-1,2-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
cis-1,3-Dichloropropene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Di-isopropyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Dibromochloromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Dibromomethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Dichlorodifluoromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Ethyl Acetate	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Ethyl Ether	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Ethyl tert-butyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Ethylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Freon-113	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Hexachlorobutadiene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Isopropylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
m,p-Xylene	**13**	9.3	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Methylene chloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
MTBE	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
n-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
n-Propylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Naphthalene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
o-Xylene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
sec-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Styrene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5
Lab ID: 1303113-50

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
tert-Butanol	ND	93	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
tert-Butylbenzene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Tetrachloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Toluene	**17**	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
trans-1,2-Dichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
trans-1,3-Dichloropropene	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Trichloroethene	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Trichlorofluoromethane	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Vinyl acetate	ND	47	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Vinyl chloride	ND	4.7	NA	1	B3J0233	10/10/2013	10/11/13 01:33	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 01:33*	
Surrogate: 4-Bromofluorobenzene	*108 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 01:33*	
Surrogate: Dibromofluoromethane	*106 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 01:33*	
Surrogate: Toluene-d8	*107 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 01:33*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
1,2-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
1,3-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
1,4-Dichlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4,5-Trichlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4,6-Trichlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4-Dichlorophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4-Dimethylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4-Dinitrophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,4-Dinitrotoluene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2,6-Dinitrotoluene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Chloronaphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Chlorophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Methylnaphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Methylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
2-Nitrophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5

Lab ID: 1303113-50

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
3-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4,6-Dinitro-2-methyphenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Bromophenyl-phenylether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Chloro-3-methylphenol	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Chloroaniline	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Chlorophenyl-phenylether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Methylphenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Nitroaniline	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
4-Nitrophenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Acenaphthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Acenaphthylene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzidine (M)	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzo(a)anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzo(a)pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzo(b)fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzo(g,h,i)perylene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzo(k)fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzoic acid	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Benzyl alcohol	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
bis(2-chloroethoxy)methane	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
bis(2-Chloroethyl)ether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
bis(2-chloroisopropyl)ether	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
bis(2-ethylhexyl)phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Butylbenzylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Chrysene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Di-n-butylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Di-n-octylphthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Dibenz(a,h)anthracene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Dibenzofuran	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Diethyl phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Dimethyl phthalate	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Fluoranthene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Fluorene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Hexachlorobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Hexachlorobutadiene	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5

Lab ID: 1303113-50

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Hexachloroethane	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Indeno(1,2,3-cd)pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Isophorone	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
N-Nitroso-di-n propylamine	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
N-Nitrosodiphenylamine	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Naphthalene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Nitrobenzene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Pentachlorophenol	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Phenanthrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Phenol	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Pyrene	ND	330000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Pyridine	ND	1600000	NA	200	B3J0249	10/10/2013	10/11/13 20:38	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: 2,4,6-Tribromophenol	*0%*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: 2-Chlorophenol-d4	*0%*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: 2-Fluorophenol	*0%*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4
Surrogate: Phenol-d5	*0%*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 20:38*	D1, S4

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Acenaphthene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Acenaphthylene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Anthracene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Benzo(a)anthracene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Benzo(a)pyrene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Benzo(b)fluoranthene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Benzo(g,h,i)perylene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Benzo(k)fluoranthene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Chrysene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Dibenz(a,h)anthracene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-0.5
Lab ID: 1303113-50

Semivolatile Organic Compounds by EPA 8270/SIM **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Fluoranthene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Fluorene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Indeno(1,2,3-cd)pyrene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Naphthalene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Phenanthrene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Pyrene	ND	2500	NA	100	B3J0354	10/16/2013	10/18/13 09:44	D1
Surrogate: 1,2-Dichlorobenzene-d4	*0%*	*28 - 96*			B3J0354	10/16/2013	*10/18/13 09:44*	D1, S4
Surrogate: 2-Fluorobiphenyl	*0%*	*36 - 113*			B3J0354	10/16/2013	*10/18/13 09:44*	D1, S4
Surrogate: Nitrobenzene-d5	*0%*	*29 - 106*			B3J0354	10/16/2013	*10/18/13 09:44*	D1, S4
Surrogate: 4-Terphenyl-d14	*0%*	*39 - 138*			B3J0354	10/16/2013	*10/18/13 09:44*	D1, S4

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-3.0
Lab ID: 1303113-51

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Arsenic	**1.1**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Barium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Chromium	**4.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Cobalt	**2.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Copper	**5.1**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Lead	**2.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Nickel	**3.7**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Vanadium	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	
Zinc	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:57	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:35	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0220	10/09/2013	10/09/13 20:52	
Surrogate: 4-Bromofluorobenzene	*99.8 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 20:52*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 18:17	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 18:17	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 18:17	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-3.0

Lab ID: 1303113-51

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*111 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 18:17*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1,1-Trichloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1,2,2-Tetrachloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1,2-Trichloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1-Dichloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1-Dichloroethene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,1-Dichloropropene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2,3-Trichloropropane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2,3-Trichlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2,4-Trichlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2,4-Trimethylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2-Dibromo-3-chloropropane	ND	12	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2-Dibromoethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2-Dichlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2-Dichloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,2-Dichloropropane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,3,5-Trimethylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,3-Dichlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,3-Dichloropropane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
1,4-Dichlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
2,2-Dichloropropane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
2-Chlorotoluene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
4-Chlorotoluene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
4-Isopropyltoluene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Benzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Bromobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Bromochloromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Bromodichloromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Bromoform	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Bromomethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Carbon disulfide	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-3.0

Lab ID: 1303113-51

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Chlorobenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Chloroethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Chloroform	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Chloromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
cis-1,2-Dichloroethene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
cis-1,3-Dichloropropene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Di-isopropyl ether	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Dibromochloromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Dibromomethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Dichlorodifluoromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Ethyl Acetate	ND	61	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Ethyl Ether	ND	61	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Ethyl tert-butyl ether	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Ethylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Freon-113	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Hexachlorobutadiene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Isopropylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
m,p-Xylene	ND	12	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Methylene chloride	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
MTBE	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
n-Butylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
n-Propylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Naphthalene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
o-Xylene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
sec-Butylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Styrene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
tert-Amyl methyl ether	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
tert-Butanol	ND	120	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
tert-Butylbenzene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Tetrachloroethene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Toluene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
trans-1,2-Dichloroethene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
trans-1,3-Dichloropropene	ND	61	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Trichloroethene	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Trichlorofluoromethane	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Vinyl acetate	ND	61	NA	1	B3J0233	10/10/2013	10/11/13 01:51	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP5-3.0

Lab ID: 1303113-51

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	6.1	NA	1	B3J0233	10/10/2013	10/11/13 01:51	
Surrogate: 1,2-Dichloroethane-d4	*116 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 01:51*	
Surrogate: 4-Bromofluorobenzene	*106 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 01:51*	
Surrogate: Dibromofluoromethane	*105 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 01:51*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 01:51*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	

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Client Sample ID DP5-3.0

Lab ID: 1303113-51

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	

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Client Sample ID DP5-3.0

Lab ID: 1303113-51

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 17:26	
Surrogate: 1,2-Dichlorobenzene-d4	*93.6 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: 2,4,6-Tribromophenol	*120 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: 2-Chlorophenol-d4	*94.4 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: 2-Fluorobiphenyl	*120 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: 2-Fluorophenol	*94.7 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: 4-Terphenyl-d14	*162 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: Nitrobenzene-d5	*108 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 17:26*	
Surrogate: Phenol-d5	*95.4 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 17:26*	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-1.0
Lab ID: 1303113-52

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Arsenic	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Barium	**70**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 10:59	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Chromium	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Cobalt	**7.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Copper	**65**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Lead	**110**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Molybdenum	**1.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Nickel	**12**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Vanadium	**28**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	
Zinc	**79**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:00	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.25**	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:25	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.4**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:29	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:37	

Certificate of Analysis

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Client Sample ID B6-1.0
Lab ID: 1303113-52

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.86	NA	1	B3J0220	10/09/2013	10/09/13 21:08	
Surrogate: 4-Bromofluorobenzene	*122 %*	*59 - 160*			B3J0220	10/09/2013	*10/09/13 21:08*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**42**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:31	
T/R Hydrocarbons: C23-C32	**160**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:31	
T/R Hydrocarbons: >C32	**160**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:31	
Surrogate: p-Terphenyl	*96.5 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 20:31*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1,1-Trichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1,2,2-Tetrachloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1,2-Trichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1-Dichloroethane	**4.6**	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1-Dichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,1-Dichloropropene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2,3-Trichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2,3-Trichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2,4-Trichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2,4-Trimethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2-Dibromo-3-chloropropane	ND	8.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2-Dibromoethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2-Dichloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,2-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,3,5-Trimethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,3-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,3-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
1,4-Dichlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
2,2-Dichloropropane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-1.0
Lab ID: 1303113-52

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
4-Chlorotoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
4-Isopropyltoluene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Benzene	**6.3**	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Bromobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Bromochloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Bromodichloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Bromoform	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Bromomethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Carbon disulfide	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Carbon tetrachloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Chlorobenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Chloroethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Chloroform	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Chloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
cis-1,2-Dichloroethene	**62**	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
cis-1,3-Dichloropropene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Di-isopropyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Dibromochloromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Dibromomethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Dichlorodifluoromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Ethyl Acetate	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Ethyl Ether	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Ethyl tert-butyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Ethylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Freon-113	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Hexachlorobutadiene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Isopropylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
m,p-Xylene	ND	8.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Methylene chloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
MTBE	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
n-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
n-Propylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Naphthalene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
o-Xylene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
sec-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Styrene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-1.0
Lab ID: 1303113-52

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
tert-Butanol	ND	81	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
tert-Butylbenzene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Tetrachloroethene	**23000**	810	NA	200	B3J0253	10/10/2013	10/11/13 16:49	
Toluene	**6.2**	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
trans-1,2-Dichloroethene	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
trans-1,3-Dichloropropene	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Trichloroethene	**56**	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Trichlorofluoromethane	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Vinyl acetate	ND	41	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Vinyl chloride	ND	4.1	NA	1	B3J0233	10/10/2013	10/11/13 02:10	
Surrogate: 1,2-Dichloroethane-d4	*112 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 16:49*	
Surrogate: 1,2-Dichloroethane-d4	*114 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 02:10*	
Surrogate: 4-Bromofluorobenzene	*103 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 16:49*	
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 02:10*	
Surrogate: Dibromofluoromethane	*109 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 16:49*	
Surrogate: Dibromofluoromethane	*105 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 02:10*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 02:10*	
Surrogate: Toluene-d8	*108 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 16:49*	

TCLP Volatile Organic Compounds by EPA 1311/8260

Analyst: DP

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Tetrachloroethene	**0.06**	0.05	NA	10	B3J0692	10/31/2013	10/31/13 14:40	
Surrogate: 1,2-Dichloroethane-d4	*118 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 14:40*	
Surrogate: 4-Bromofluorobenzene	*113 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 14:40*	
Surrogate: Dibromofluoromethane	*125 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 14:40*	
Surrogate: Toluene-d8	*107 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 14:40*	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-1.0

Lab ID: 1303113-52

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4-Dichlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4-Dimethylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4-Dinitrophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,4-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2,6-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Chloronaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Chlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Methylnaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
2-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
3,3´-Dichlorobenzidine	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
3-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4,6-Dinitro-2-methyphenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Chloroaniline	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
4-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Acenaphthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Acenaphthylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzidine (M)	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzo(a)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzo(a)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Benzoic acid	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1

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Client Sample ID B6-1.0
Lab ID: 1303113-52

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
bis(2-Chloroethyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Butylbenzylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Chrysene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Di-n-butylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Di-n-octylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Dibenz(a,h)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Dibenzofuran	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Diethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Dimethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Fluorene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Hexachlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Hexachlorobutadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Hexachlorocyclopentadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Hexachloroethane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Isophorone	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Naphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Nitrobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Pentachlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Phenanthrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Phenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Pyridine	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 17:54	D1
Surrogate: 1,2-Dichlorobenzene-d4	*50.4 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 17:54*	D1
Surrogate: 2,4,6-Tribromophenol	*40.9 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 17:54*	D1
Surrogate: 2-Chlorophenol-d4	*52.4 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 17:54*	D1
Surrogate: 2-Fluorobiphenyl	*49.1 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 17:54*	D1, S10
Surrogate: 2-Fluorophenol	*58.7 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 17:54*	D1
Surrogate: 4-Terphenyl-d14	*55.0 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 17:54*	D1
Surrogate: Nitrobenzene-d5	*67.3 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 17:54*	D1

Certificate of Analysis

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Client Sample ID B6-1.0

Lab ID: 1303113-52

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	*54.8 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 17:54*	D1

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0
Lab ID: 1303113-53

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Arsenic	**18**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Barium	**55**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:02	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Chromium	**10**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Cobalt	**6.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Copper	**53**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Lead	**78**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Molybdenum	**1.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Nickel	**12**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Vanadium	**25**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	
Zinc	**73**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:03	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.6**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:31	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:38	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.93	NA	1	B3J0220	10/09/2013	10/09/13 21:24	
Surrogate: 4-Bromofluorobenzene	*111 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 21:24*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0
Lab ID: 1303113-53

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**20**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:48	
T/R Hydrocarbons: C23-C32	**97**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:48	
T/R Hydrocarbons: >C32	**130**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:48	
Surrogate: p-Terphenyl	*96.1 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 20:48*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2-Dibromo-3-chloropropane	ND	8.9	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
2-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
4-Chlorotoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Benzene	**18**	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Bromobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Bromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Bromodichloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0
Lab ID: 1303113-53

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromoform	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Bromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Carbon disulfide	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Carbon tetrachloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Chlorobenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Chloroethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Chloroform	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Chloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
cis-1,2-Dichloroethene	**110**	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Di-isopropyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Dibromochloromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Dibromomethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Ethyl Acetate	ND	44	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Ethyl Ether	ND	44	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Ethylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Freon-113	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Isopropylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
m,p-Xylene	ND	8.9	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Methylene chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
MTBE	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
n-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
n-Propylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Naphthalene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
o-Xylene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
sec-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Styrene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
tert-Butanol	ND	89	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
tert-Butylbenzene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Tetrachloroethene	**39000**	2200	NA	500	B3J0253	10/10/2013	10/11/13 17:08	
Toluene	**17**	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0233	10/10/2013	10/11/13 02:29	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0
Lab ID: 1303113-53

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Trichloroethene	**81**	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Vinyl acetate	ND	44	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Vinyl chloride	ND	4.4	NA	1	B3J0233	10/10/2013	10/11/13 02:29	
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 17:08*	
Surrogate: 1,2-Dichloroethane-d4	*112 %*		*56 - 159*		B3J0233	10/10/2013	*10/11/13 02:29*	
Surrogate: 4-Bromofluorobenzene	*102 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 17:08*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0233	10/10/2013	*10/11/13 02:29*	
Surrogate: Dibromofluoromethane	*104 %*		*60 - 127*		B3J0233	10/10/2013	*10/11/13 02:29*	
Surrogate: Dibromofluoromethane	*111 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 17:08*	
Surrogate: Toluene-d8	*104 %*		*70 - 121*		B3J0233	10/10/2013	*10/11/13 02:29*	
Surrogate: Toluene-d8	*109 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 17:08*	

TCLP Volatile Organic Compounds by EPA 1311/8260

Analyst: DP

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Tetrachloroethene	ND	0.05	NA	10	B3J0692	10/31/2013	10/31/13 15:05	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 15:05*	
Surrogate: 4-Bromofluorobenzene	*109 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 15:05*	
Surrogate: Dibromofluoromethane	*119 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 15:05*	
Surrogate: Toluene-d8	*104 %*		*70 - 130*		B3J0692	10/31/2013	*10/31/13 15:05*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4-Dichlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4-Dimethylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4-Dinitrophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2,4-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0

Lab ID: 1303113-53

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,6-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Chloronaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Chlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Methylnaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
2-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
3,3´-Dichlorobenzidine	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
3-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4,6-Dinitro-2-methyphenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Chloroaniline	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
4-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Acenaphthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Acenaphthylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzidine (M)	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzo(a)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzo(a)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzoic acid	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Benzyl alcohol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
bis(2-Chloroethyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Butylbenzylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Chrysene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Di-n-butylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Di-n-octylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Dibenz(a,h)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-3.0
Lab ID: 1303113-53

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibenzofuran	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Diethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Dimethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Fluorene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Hexachlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Hexachlorobutadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Hexachlorocyclopentadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Hexachloroethane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Isophorone	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Naphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Nitrobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Pentachlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Phenanthrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Phenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Pyridine	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 18:21	D1
Surrogate: 1,2-Dichlorobenzene-d4	*64.5 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: 2,4,6-Tribromophenol	*54.5 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: 2-Chlorophenol-d4	*69.1 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: 2-Fluorobiphenyl	*65.6 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: 2-Fluorophenol	*74.3 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: 4-Terphenyl-d14	*70.6 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: Nitrobenzene-d5	*88.5 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 18:21*	D1
Surrogate: Phenol-d5	*70.0 %*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 18:21*	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-5.0
Lab ID: 1303113-54

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Arsenic	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Barium	**35**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Chromium	**7.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Cobalt	**4.1**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Copper	**8.0**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	
Lead	**5.7**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Nickel	**4.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:05	
Vanadium	**16**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	
Zinc	**26**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:04	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:40	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.96	NA	1	B3J0220	10/09/2013	10/09/13 21:39	
Surrogate: 4-Bromofluorobenzene	*96.7 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 21:39*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:55	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:55	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 06:55	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*108 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 06:55*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 16:41	
Surrogate: Decachlorobiphenyl	*94.1 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 16:41*	
Surrogate: Tetrachloro-m-xylene	*81.2 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 16:41*	

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Lab ID: 1303113-54

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 22:43	
Surrogate: Decachlorobiphenyl	*98.9 %*		*39 - 128*		B3J0231	10/10/2013	*10/10/13 22:43*	
Surrogate: Tetrachloro-m-xylene	*88.1 %*		*38 - 122*		B3J0231	10/10/2013	*10/10/13 22:43*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1,1-Trichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1,2,2-Tetrachloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1,2-Trichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1-Dichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,1-Dichloropropene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2,3-Trichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2,3-Trichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2,4-Trichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2,4-Trimethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2-Dibromo-3-chloropropane	ND	9.8	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2-Dibromoethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2-Dichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,2-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,3,5-Trimethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,3-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,3-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
1,4-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
2,2-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	

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Client Sample ID B6-5.0

Lab ID: 1303113-54

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
4-Chlorotoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
4-Isopropyltoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Benzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Bromobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Bromochloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Bromodichloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Bromoform	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Bromomethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Carbon disulfide	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Carbon tetrachloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Chlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Chloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Chloroform	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Chloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
cis-1,2-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
cis-1,3-Dichloropropene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Di-isopropyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Dibromochloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Dibromomethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Dichlorodifluoromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Ethyl Acetate	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Ethyl Ether	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Ethyl tert-butyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Ethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Freon-113	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Hexachlorobutadiene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Isopropylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
m,p-Xylene	ND	9.8	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Methylene chloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
MTBE	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
n-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
n-Propylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Naphthalene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
o-Xylene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
sec-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Styrene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	

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Client Sample ID B6-5.0
Lab ID: 1303113-54

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
tert-Butanol	ND	98	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
tert-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Tetrachloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Toluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
trans-1,2-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
trans-1,3-Dichloropropene	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Trichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Trichlorofluoromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Vinyl acetate	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Vinyl chloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 12:27	
Surrogate: 1,2-Dichloroethane-d4	*132 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 12:27*	
Surrogate: 4-Bromofluorobenzene	*114 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 12:27*	
Surrogate: Dibromofluoromethane	*121 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 12:27*	
Surrogate: Toluene-d8	*104 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 12:27*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	

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Lab ID: 1303113-54

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B6-5.0
Lab ID: 1303113-54

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 18:49	
Surrogate: 1,2-Dichlorobenzene-d4	*78.4 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: 2,4,6-Tribromophenol	*105 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: 2-Chlorophenol-d4	*78.2 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: 2-Fluorobiphenyl	*99.1 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: 2-Fluorophenol	*80.4 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: 4-Terphenyl-d14	*147 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: Nitrobenzene-d5	*93.9 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 18:49*	
Surrogate: Phenol-d5	*79.7 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 18:49*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Arsenic	**3.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Barium	**74**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Chromium	**15**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Cobalt	**6.1**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Copper	**58**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Lead	**210**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Molybdenum	**1.0**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Nickel	**10**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Vanadium	**29**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	
Zinc	**78**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:12	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:28	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.2**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:42	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.89	NA	1	B3J0220	10/09/2013	10/09/13 21:55	
Surrogate: 4-Bromofluorobenzene	*101 %*	*59 - 160*			B3J0220	10/09/2013	*10/09/13 21:55*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**87**	10	NA	1	B3J0260	10/11/2013	10/11/13 21:05	
T/R Hydrocarbons: C23-C32	**220**	10	NA	1	B3J0260	10/11/2013	10/11/13 21:05	
T/R Hydrocarbons: >C32	**200**	10	NA	1	B3J0260	10/11/2013	10/11/13 21:05	
Surrogate: p-Terphenyl	*77.6 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 21:05*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
4,4´-DDE	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
4,4´-DDT	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Aldrin	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
alpha-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
alpha-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
beta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Chlordane	ND	42	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
delta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Dieldrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endosulfan I	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endosulfan II	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endosulfan sulfate	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endrin aldehyde	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Endrin ketone	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
gamma-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
gamma-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Heptachlor	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Heptachlor epoxide	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Methoxychlor	ND	25	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Toxaphene	ND	250	NA	5	B3J0390	10/17/2013	10/18/13 14:56	D1
Surrogate: Decachlorobiphenyl	*82.9 %*		*32 - 113*		B3J0390	10/17/2013	*10/18/13 14:56*	
Surrogate: Tetrachloro-m-xylene	*92.1 %*		*32 - 101*		B3J0390	10/17/2013	*10/18/13 14:56*	

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 13:32	
Surrogate: Decachlorobiphenyl	*101 %*		*39 - 128*		B3J0390	10/17/2013	*10/18/13 13:32*	
Surrogate: Tetrachloro-m-xylene	*86.4 %*		*38 - 122*		B3J0390	10/17/2013	*10/18/13 13:32*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1,1-Trichloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1,2,2-Tetrachloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1,2-Trichloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1-Dichloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1-Dichloroethene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,1-Dichloropropene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2,3-Trichloropropane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2,3-Trichlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2,4-Trichlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2,4-Trimethylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2-Dibromo-3-chloropropane	ND	9.5	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2-Dibromoethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2-Dichlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2-Dichloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,2-Dichloropropane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,3,5-Trimethylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,3-Dichlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,3-Dichloropropane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
1,4-Dichlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
2,2-Dichloropropane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
2-Chlorotoluene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
4-Chlorotoluene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
4-Isopropyltoluene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Benzene	**4.9**	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Bromobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Bromochloromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Bromodichloromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Bromoform	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Bromomethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Carbon disulfide	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Carbon tetrachloride	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Chlorobenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Chloroethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Chloroform	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Chloromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
cis-1,2-Dichloroethene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
cis-1,3-Dichloropropene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Di-isopropyl ether	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Dibromochloromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Dibromomethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Dichlorodifluoromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Ethyl Acetate	ND	48	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Ethyl Ether	ND	48	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Ethyl tert-butyl ether	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Ethylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Freon-113	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Hexachlorobutadiene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Isopropylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
m,p-Xylene	ND	9.5	NA	1	B3J0253	10/10/2013	10/11/13 12:46	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methylene chloride	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
MTBE	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
n-Butylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
n-Propylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Naphthalene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
o-Xylene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
sec-Butylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Styrene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
tert-Amyl methyl ether	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
tert-Butanol	ND	95	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
tert-Butylbenzene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Tetrachloroethene	**160**	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Toluene	**6.9**	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
trans-1,2-Dichloroethene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
trans-1,3-Dichloropropene	ND	48	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Trichloroethene	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Trichlorofluoromethane	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Vinyl acetate	ND	48	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Vinyl chloride	ND	4.8	NA	1	B3J0253	10/10/2013	10/11/13 12:46	
Surrogate: 1,2-Dichloroethane-d4	*124 %*	*56 - 159*			B3J0253	10/10/2013	*10/11/13 12:46*	
Surrogate: 4-Bromofluorobenzene	*107 %*	*69 - 131*			B3J0253	10/10/2013	*10/11/13 12:46*	
Surrogate: Dibromofluoromethane	*112 %*	*60 - 127*			B3J0253	10/10/2013	*10/11/13 12:46*	
Surrogate: Toluene-d8	*108 %*	*70 - 121*			B3J0253	10/10/2013	*10/11/13 12:46*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,4-Dichlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,4-Dimethylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,4-Dinitrophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2,4-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2,6-Dinitrotoluene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Chloronaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Chlorophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Methylnaphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
2-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
3,3´-Dichlorobenzidine	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
3-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4,6-Dinitro-2-methyphenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Chloroaniline	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Methylphenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Nitroaniline	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
4-Nitrophenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Acenaphthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Acenaphthylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzidine (M)	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzo(a)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzo(a)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzoic acid	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Benzyl alcohol	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
bis(2-Chloroethyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Butylbenzylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Chrysene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Di-n-butylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Di-n-octylphthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-1.0
Lab ID: 1303113-55

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibenz(a,h)anthracene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Dibenzofuran	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Diethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Dimethyl phthalate	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Fluoranthene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Fluorene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Hexachlorobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Hexachlorobutadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Hexachlorocyclopentadiene	ND	6600	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Hexachloroethane	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Isophorone	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Naphthalene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Nitrobenzene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Pentachlorophenol	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Phenanthrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Phenol	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Pyrene	ND	3300	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Pyridine	ND	16000	NA	10	B3J0249	10/10/2013	10/11/13 19:16	D1
Surrogate: 1,2-Dichlorobenzene-d4	*60.4 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: 2,4,6-Tribromophenol	*51.1 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: 2-Chlorophenol-d4	*60.9 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: 2-Fluorobiphenyl	*57.7 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: 2-Fluorophenol	*68.1 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: 4-Terphenyl-d14	*62.7 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: Nitrobenzene-d5	*79.8 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 19:16*	D1
Surrogate: Phenol-d5	*64.5 %*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 19:16*	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Arsenic	**5.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Barium	**83**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:14	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Chromium	**13**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Cobalt	**7.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Copper	**210**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Lead	**330**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Molybdenum	**1.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Nickel	**12**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Vanadium	**33**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	
Zinc	**68**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:15	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:34	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**28**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:35	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:44	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.95	NA	1	B3J0220	10/09/2013	10/09/13 22:11	
Surrogate: 4-Bromofluorobenzene	*102 %*	*59 - 160*			B3J0220	10/09/2013	*10/09/13 22:11*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**79**	20	NA	2	B3J0260	10/11/2013	10/11/13 21:56	
T/R Hydrocarbons: C23-C32	**240**	20	NA	2	B3J0260	10/11/2013	10/11/13 21:56	
T/R Hydrocarbons: >C32	**280**	20	NA	2	B3J0260	10/11/2013	10/11/13 21:56	
Surrogate: p-Terphenyl	*108 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 21:56*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1,1-Trichloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1,2,2-Tetrachloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1,2-Trichloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1-Dichloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1-Dichloroethene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,1-Dichloropropene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2,3-Trichloropropane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2,3-Trichlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2,4-Trichlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2,4-Trimethylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2-Dibromo-3-chloropropane	ND	9.4	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2-Dibromoethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2-Dichlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2-Dichloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,2-Dichloropropane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,3,5-Trimethylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,3-Dichlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,3-Dichloropropane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
1,4-Dichlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
2,2-Dichloropropane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
4-Chlorotoluene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
4-Isopropyltoluene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Benzene	**6.0**	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Bromobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Bromochloromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Bromodichloromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Bromoform	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Bromomethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Carbon disulfide	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Carbon tetrachloride	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Chlorobenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Chloroethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Chloroform	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Chloromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
cis-1,2-Dichloroethene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
cis-1,3-Dichloropropene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Di-isopropyl ether	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Dibromochloromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Dibromomethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Dichlorodifluoromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Ethyl Acetate	ND	47	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Ethyl Ether	ND	47	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Ethyl tert-butyl ether	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Ethylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Freon-113	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Hexachlorobutadiene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Isopropylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
m,p-Xylene	ND	9.4	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Methylene chloride	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
MTBE	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
n-Butylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
n-Propylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Naphthalene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
o-Xylene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
sec-Butylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Styrene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
tert-Butanol	ND	94	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
tert-Butylbenzene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Tetrachloroethene	**7.0**	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Toluene	**5.1**	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
trans-1,2-Dichloroethene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
trans-1,3-Dichloropropene	ND	47	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Trichloroethene	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Trichlorofluoromethane	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Vinyl acetate	ND	47	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Vinyl chloride	ND	4.7	NA	1	B3J0253	10/10/2013	10/11/13 13:05	
Surrogate: 1,2-Dichloroethane-d4	*122 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 13:05*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 13:05*	
Surrogate: Dibromofluoromethane	*109 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 13:05*	
Surrogate: Toluene-d8	*108 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 13:05*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
1,2-Dichlorobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
1,3-Dichlorobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
1,4-Dichlorobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4,5-Trichlorophenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4,6-Trichlorophenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4-Dichlorophenol	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4-Dimethylphenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4-Dinitrophenol	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,4-Dinitrotoluene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2,6-Dinitrotoluene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Chloronaphthalene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Chlorophenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Methylnaphthalene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Methylphenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Nitroaniline	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
2-Nitrophenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
3-Nitroaniline	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4,6-Dinitro-2-methyphenol	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Bromophenyl-phenylether	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Chloro-3-methylphenol	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Chloroaniline	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Chlorophenyl-phenylether	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Methylphenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Nitroaniline	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
4-Nitrophenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Acenaphthene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Acenaphthylene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Anthracene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzidine (M)	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzo(a)anthracene	**2000**	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzo(a)pyrene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzo(b)fluoranthene	**1900**	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzo(g,h,i)perylene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzo(k)fluoranthene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzoic acid	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Benzyl alcohol	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
bis(2-chloroethoxy)methane	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
bis(2-Chloroethyl)ether	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
bis(2-chloroisopropyl)ether	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
bis(2-ethylhexyl)phthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Butylbenzylphthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Chrysene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Di-n-butylphthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Di-n-octylphthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Dibenz(a,h)anthracene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Dibenzofuran	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Diethyl phthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Dimethyl phthalate	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Fluoranthene	**5000**	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Fluorene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Hexachlorobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Hexachlorobutadiene	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-3.0
Lab ID: 1303113-56

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	3300	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Hexachloroethane	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Indeno(1,2,3-cd)pyrene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Isophorone	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
N-Nitroso-di-n propylamine	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
N-Nitrosodiphenylamine	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Naphthalene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Nitrobenzene	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Pentachlorophenol	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Phenanthrene	**4700**	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Phenol	ND	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Pyrene	**3600**	1600	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Pyridine	ND	8200	NA	5	B3J0249	10/10/2013	10/11/13 19:43	
Surrogate: 1,2-Dichlorobenzene-d4	*61.7 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: 2,4,6-Tribromophenol	*61.1 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: 2-Chlorophenol-d4	*66.6 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: 2-Fluorobiphenyl	*63.0 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: 2-Fluorophenol	*72.2 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: 4-Terphenyl-d14	*67.8 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: Nitrobenzene-d5	*86.3 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 19:43*	
Surrogate: Phenol-d5	*70.6 %*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 19:43*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-5.0
Lab ID: 1303113-57

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Arsenic	**2.5**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Barium	**33**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Beryllium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:20	
Cadmium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Chromium	**6.4**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Cobalt	**4.2**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Copper	**4.2**	2.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Lead	**1.8**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Molybdenum	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Nickel	**4.6**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Selenium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Silver	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Thallium	ND	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Vanadium	**20**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	
Zinc	**19**	1.0	NA	1	B3J0214	10/09/2013	10/10/13 16:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0262	10/11/2013	10/14/13 13:46	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0220	10/09/2013	10/09/13 22:27	
Surrogate: 4-Bromofluorobenzene	*116 %*		*59 - 160*		B3J0220	10/09/2013	*10/09/13 22:27*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:15	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:15	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:15	

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Irvine , CA 92618		Reported :	11/01/2013

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Lab ID: 1303113-57

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*96.3 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 05:15*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 14:28	
Surrogate: Decachlorobiphenyl	*104 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 14:28*	
Surrogate: Tetrachloro-m-xylene	*84.9 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 14:28*	

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-5.0
Lab ID: 1303113-57

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/10/13 23:14	
Surrogate: Decachlorobiphenyl	*98.3 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 23:14*	
Surrogate: Tetrachloro-m-xylene	*85.5 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 23:14*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1,1-Trichloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1,2,2-Tetrachloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1,2-Trichloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1-Dichloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1-Dichloroethene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,1-Dichloropropene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2,3-Trichloropropane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2,3-Trichlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2,4-Trichlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2,4-Trimethylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2-Dibromo-3-chloropropane	ND	11	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2-Dibromoethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2-Dichlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2-Dichloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,2-Dichloropropane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,3,5-Trimethylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,3-Dichlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,3-Dichloropropane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
1,4-Dichlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
2,2-Dichloropropane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	

Certificate of Analysis

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Client Sample ID B5-5.0
Lab ID: 1303113-57

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
4-Chlorotoluene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
4-Isopropyltoluene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Benzene	**17**	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Bromobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Bromochloromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Bromodichloromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Bromoform	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Bromomethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Carbon disulfide	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Carbon tetrachloride	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Chlorobenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Chloroethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Chloroform	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Chloromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
cis-1,2-Dichloroethene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
cis-1,3-Dichloropropene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Di-isopropyl ether	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Dibromochloromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Dibromomethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Dichlorodifluoromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Ethyl Acetate	ND	53	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Ethyl Ether	ND	53	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Ethyl tert-butyl ether	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Ethylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Freon-113	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Hexachlorobutadiene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Isopropylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
m,p-Xylene	ND	11	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Methylene chloride	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
MTBE	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
n-Butylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
n-Propylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Naphthalene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
o-Xylene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
sec-Butylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Styrene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-5.0
Lab ID: 1303113-57

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
tert-Butanol	ND	110	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
tert-Butylbenzene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Tetrachloroethene	**14**	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Toluene	**17**	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
trans-1,2-Dichloroethene	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
trans-1,3-Dichloropropene	ND	53	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Trichloroethene	**5.9**	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Trichlorofluoromethane	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Vinyl acetate	ND	53	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Vinyl chloride	ND	5.3	NA	1	B3J0253	10/10/2013	10/11/13 13:23	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 13:23*	
Surrogate: 4-Bromofluorobenzene	*99.4 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 13:23*	
Surrogate: Dibromofluoromethane	*107 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 13:23*	
Surrogate: Toluene-d8	*105 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 13:23*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-5.0

Lab ID: 1303113-57

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B5-5.0
Lab ID: 1303113-57

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Phenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 10:51	
Surrogate: 1,2-Dichlorobenzene-d4	*111 %*	*48 - 113*			B3J0249	10/10/2013	*10/11/13 10:51*	
Surrogate: 2,4,6-Tribromophenol	*131 %*	*14 - 162*			B3J0249	10/10/2013	*10/11/13 10:51*	
Surrogate: 2-Chlorophenol-d4	*110 %*	*40 - 117*			B3J0249	10/10/2013	*10/11/13 10:51*	
Surrogate: 2-Fluorobiphenyl	*138 %*	*52 - 126*			B3J0249	10/10/2013	*10/11/13 10:51*	S1
Surrogate: 2-Fluorophenol	*117 %*	*26 - 124*			B3J0249	10/10/2013	*10/11/13 10:51*	
Surrogate: 4-Terphenyl-d14	*219 %*	*36 - 163*			B3J0249	10/10/2013	*10/11/13 10:51*	S1
Surrogate: Nitrobenzene-d5	*134 %*	*42 - 118*			B3J0249	10/10/2013	*10/11/13 10:51*	S1
Surrogate: Phenol-d5	*117 %*	*29 - 124*			B3J0249	10/10/2013	*10/11/13 10:51*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35
Lab ID: 1303113-58

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Arsenic	**1.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Barium	**20**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Chromium	**8.5**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Cobalt	**4.3**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Copper	**3.4**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Lead	**3.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Nickel	**4.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Vanadium	**31**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	
Zinc	**15**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:18	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 13:56	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.82	NA	1	B3J0220	10/09/2013	10/09/13 22:43	
Surrogate: 4-Bromofluorobenzene	*115 %*	*59 - 160*			B3J0220	10/09/2013	*10/09/13 22:43*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:24	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:24	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0245	10/10/2013	10/10/13 16:24	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35
Lab ID: 1303113-58

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*97.1 %*	*55 - 153*			B3J0245	10/10/2013	*10/10/13 16:24*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
4,4´-DDE	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
4,4´-DDT	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Aldrin	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
alpha-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
alpha-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
beta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Chlordane	ND	26	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
delta-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Dieldrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endosulfan I	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endosulfan II	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endosulfan sulfate	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endrin	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endrin aldehyde	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Endrin ketone	ND	6.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
gamma-BHC	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
gamma-Chlordane	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Heptachlor	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Heptachlor epoxide	ND	3.0	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Methoxychlor	ND	15	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Toxaphene	ND	150	NA	1	B3J0231	10/10/2013	10/11/13 16:55	D3
Surrogate: Decachlorobiphenyl	*105 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 16:55*	D3
Surrogate: Tetrachloro-m-xylene	*93.8 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 16:55*	D3

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35
Lab ID: 1303113-58

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1221	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1232	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1242	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1248	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1254	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1260	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1262	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Aroclor 1268	ND	48	NA	1	B3J0231	10/10/2013	10/10/13 23:45	D3
Surrogate: Decachlorobiphenyl	*102 %*	*39 - 128*			B3J0231	10/10/2013	*10/10/13 23:45*	D3
Surrogate: Tetrachloro-m-xylene	*87.4 %*	*38 - 122*			B3J0231	10/10/2013	*10/10/13 23:45*	D3

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1,1-Trichloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1,2,2-Tetrachloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1,2-Trichloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1-Dichloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1-Dichloroethene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,1-Dichloropropene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2,3-Trichloropropane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2,3-Trichlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2,4-Trichlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2,4-Trimethylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2-Dibromo-3-chloropropane	ND	9.0	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2-Dibromoethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2-Dichlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2-Dichloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,2-Dichloropropane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,3,5-Trimethylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,3-Dichlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,3-Dichloropropane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
1,4-Dichlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
2,2-Dichloropropane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35

Lab ID: 1303113-58

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
4-Chlorotoluene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
4-Isopropyltoluene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Benzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Bromobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Bromochloromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Bromodichloromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Bromoform	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Bromomethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Carbon disulfide	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Carbon tetrachloride	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Chlorobenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Chloroethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Chloroform	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Chloromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
cis-1,2-Dichloroethene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
cis-1,3-Dichloropropene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Di-isopropyl ether	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Dibromochloromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Dibromomethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Dichlorodifluoromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Ethyl Acetate	ND	45	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Ethyl Ether	ND	45	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Ethyl tert-butyl ether	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Ethylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Freon-113	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Hexachlorobutadiene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Isopropylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
m,p-Xylene	ND	9.0	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Methylene chloride	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
MTBE	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
n-Butylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
n-Propylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Naphthalene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
o-Xylene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
sec-Butylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Styrene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35
Lab ID: 1303113-58

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
tert-Butanol	ND	90	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
tert-Butylbenzene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Tetrachloroethene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Toluene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
trans-1,2-Dichloroethene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
trans-1,3-Dichloropropene	ND	45	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Trichloroethene	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Trichlorofluoromethane	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Vinyl acetate	ND	45	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Vinyl chloride	ND	4.5	NA	1	B3J0253	10/10/2013	10/11/13 13:42	
Surrogate: 1,2-Dichloroethane-d4	*121 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 13:42*	
Surrogate: 4-Bromofluorobenzene	*103 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 13:42*	
Surrogate: Dibromofluoromethane	*113 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 13:42*	
Surrogate: Toluene-d8	*106 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 13:42*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4-Dimethylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Chloronaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Chlorophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Methylnaphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
2-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35

Lab ID: 1303113-58

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
3-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Chloroaniline	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Methylphenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Nitroaniline	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
4-Nitrophenol	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Acenaphthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Acenaphthylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzidine (M)	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzo(a)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzo(a)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzoic acid	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Benzyl alcohol	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Butylbenzylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Chrysene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Di-n-butylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Di-n-octylphthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Dibenzofuran	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Diethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Dimethyl phthalate	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Fluoranthene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Fluorene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Hexachlorobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Hexachlorobutadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A-35
Lab ID: 1303113-58

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Hexachloroethane	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Isophorone	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Naphthalene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Nitrobenzene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Pentachlorophenol	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Phenanthrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Phenol	**950**	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Pyrene	ND	330	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Pyridine	ND	1600	NA	1	B3J0249	10/10/2013	10/11/13 20:11	
Surrogate: 1,2-Dichlorobenzene-d4	*92.4 %*		*48 - 113*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: 2,4,6-Tribromophenol	*115 %*		*14 - 162*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: 2-Chlorophenol-d4	*92.8 %*		*40 - 117*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: 2-Fluorobiphenyl	*113 %*		*52 - 126*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: 2-Fluorophenol	*95.0 %*		*26 - 124*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: 4-Terphenyl-d14	*154 %*		*36 - 163*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: Nitrobenzene-d5	*104 %*		*42 - 118*		B3J0249	10/10/2013	*10/11/13 20:11*	
Surrogate: Phenol-d5	*95.0 %*		*29 - 124*		B3J0249	10/10/2013	*10/11/13 20:11*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-1.0
Lab ID: 1303113-59

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Arsenic	**2.7**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Barium	**85**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Chromium	**18**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Cobalt	**7.5**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Copper	**30**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	
Lead	**91**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Molybdenum	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Nickel	**10**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:51	
Vanadium	**34**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	
Zinc	**86**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:50	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.6**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:37	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:04	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.99	NA	1	B3J0254	10/11/2013	10/11/13 14:08	
Surrogate: 4-Bromofluorobenzene	*84.2 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 14:08*	

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Client Sample ID B7-1.0
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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**21**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:24	
T/R Hydrocarbons: C23-C32	**72**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:24	
T/R Hydrocarbons: >C32	**61**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:24	
Surrogate: p-Terphenyl	*105 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 19:24*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
4,4´-DDE	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
4,4´-DDT	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Aldrin	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
alpha-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
alpha-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
beta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Chlordane	ND	42	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
delta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Dieldrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endosulfan I	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endosulfan II	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endosulfan sulfate	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endrin aldehyde	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Endrin ketone	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
gamma-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
gamma-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Heptachlor	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Heptachlor epoxide	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Methoxychlor	ND	25	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Toxaphene	ND	250	NA	5	B3J0390	10/17/2013	10/18/13 15:23	D1
Surrogate: Decachlorobiphenyl	*77.0 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 15:23*	
Surrogate: Tetrachloro-m-xylene	*83.2 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 15:23*	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-1.0

Lab ID: 1303113-59

Polychlorinated Biphenyls by EPA 8082 **Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 14:34	
Surrogate: Decachlorobiphenyl	*105 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 14:34*	
Surrogate: Tetrachloro-m-xylene	*87.6 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 14:34*	

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1,1-Trichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1-Dichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,1-Dichloropropene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2,3-Trichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2-Dibromoethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2-Dichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,2-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,3-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
2,2-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-1.0
Lab ID: 1303113-59

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
4-Chlorotoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
4-Isopropyltoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Benzene	**20**	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Bromobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Bromochloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Bromodichloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Bromoform	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Bromomethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Carbon disulfide	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Carbon tetrachloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Chlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Chloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Chloroform	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Chloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Di-isopropyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Dibromochloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Dibromomethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Dichlorodifluoromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Ethyl Acetate	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Ethyl Ether	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Ethyl tert-butyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Ethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Freon-113	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Hexachlorobutadiene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Isopropylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
m,p-Xylene	ND	10	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Methylene chloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
MTBE	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
n-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
n-Propylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Naphthalene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
o-Xylene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
sec-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Styrene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	

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Client Sample ID B7-1.0
Lab ID: 1303113-59

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
tert-Butanol	ND	100	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
tert-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Tetrachloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Toluene	**18**	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
trans-1,3-Dichloropropene	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Trichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Trichlorofluoromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Vinyl acetate	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Vinyl chloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:39	
Surrogate: 1,2-Dichloroethane-d4	*121 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 14:39*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 14:39*	
Surrogate: Dibromofluoromethane	*108 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 14:39*	
Surrogate: Toluene-d8	*109 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 14:39*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
1,2-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
1,3-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
1,4-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4,5-Trichlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4,6-Trichlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4-Dichlorophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4-Dimethylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4-Dinitrophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,4-Dinitrotoluene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2,6-Dinitrotoluene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Chloronaphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Chlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Methylnaphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Methylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
2-Nitrophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1

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Client Sample ID B7-1.0

Lab ID: 1303113-59

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
3-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4,6-Dinitro-2-methyphenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Bromophenyl-phenylether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Chloro-3-methylphenol	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Chloroaniline	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Chlorophenyl-phenylether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Methylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
4-Nitrophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Acenaphthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Acenaphthylene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzidine (M)	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzo(a)anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzo(a)pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzo(b)fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzo(g,h,i)perylene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzo(k)fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzoic acid	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Benzyl alcohol	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
bis(2-chloroethoxy)methane	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
bis(2-Chloroethyl)ether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
bis(2-chloroisopropyl)ether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
bis(2-ethylhexyl)phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Butylbenzylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Chrysene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Di-n-butylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Di-n-octylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Dibenz(a,h)anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Dibenzofuran	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Diethyl phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Dimethyl phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Fluorene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Hexachlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Hexachlorobutadiene	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-1.0
Lab ID: 1303113-59

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Hexachloroethane	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Indeno(1,2,3-cd)pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Isophorone	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
N-Nitroso-di-n propylamine	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
N-Nitrosodiphenylamine	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Naphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Nitrobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Pentachlorophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Phenanthrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Phenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Pyridine	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:04	D1
Surrogate: 1,2-Dichlorobenzene-d4	*67.8 %*	*48 - 113*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: 2,4,6-Tribromophenol	*62.9 %*	*14 - 162*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: 2-Chlorophenol-d4	*70.8 %*	*40 - 117*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: 2-Fluorobiphenyl	*86.1 %*	*52 - 126*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: 2-Fluorophenol	*118 %*	*26 - 124*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: 4-Terphenyl-d14	*88.1 %*	*36 - 163*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: Nitrobenzene-d5	*80.3 %*	*42 - 118*			B3J0263	10/11/2013	*10/15/13 16:04*	
Surrogate: Phenol-d5	*77.4 %*	*29 - 124*			B3J0263	10/11/2013	*10/15/13 16:04*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0
Lab ID: 1303113-60

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Arsenic	**3.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Barium	**80**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Chromium	**27**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Cobalt	**7.2**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Copper	**33**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Lead	**150**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Molybdenum	**1.1**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Nickel	**10**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Vanadium	**32**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	
Zinc	**110**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:53	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:36	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.9**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:40	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:06	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0
Lab ID: 1303113-60

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0254	10/11/2013	10/11/13 14:24	
Surrogate: 4-Bromofluorobenzene	*94.3 %*	*59 - 160*			B3J0254	10/11/2013	*10/11/13 14:24*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**28**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:41	
T/R Hydrocarbons: C23-C32	**100**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:41	
T/R Hydrocarbons: >C32	**93**	10	NA	1	B3J0260	10/11/2013	10/11/13 19:41	
Surrogate: p-Terphenyl	*103 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 19:41*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1,1-Trichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1-Dichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,1-Dichloropropene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2,3-Trichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2-Dibromoethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2-Dichloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,2-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,3-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
2,2-Dichloropropane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0
Lab ID: 1303113-60

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
4-Chlorotoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
4-Isopropyltoluene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Benzene	**11**	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Bromobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Bromochloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Bromodichloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Bromoform	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Bromomethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Carbon disulfide	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Carbon tetrachloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Chlorobenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Chloroethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Chloroform	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Chloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Di-isopropyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Dibromochloromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Dibromomethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Dichlorodifluoromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Ethyl Acetate	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Ethyl Ether	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Ethyl tert-butyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Ethylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Freon-113	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Hexachlorobutadiene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Isopropylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
m,p-Xylene	ND	10	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Methylene chloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
MTBE	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
n-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
n-Propylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Naphthalene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
o-Xylene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
sec-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Styrene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0
Lab ID: 1303113-60

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
tert-Butanol	ND	100	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
tert-Butylbenzene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Tetrachloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Toluene	**7.8**	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
trans-1,3-Dichloropropene	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Trichloroethene	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Trichlorofluoromethane	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Vinyl acetate	ND	50	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Vinyl chloride	ND	5.0	NA	1	B3J0253	10/10/2013	10/11/13 14:57	
Surrogate: 1,2-Dichloroethane-d4	*121 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 14:57*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 14:57*	
Surrogate: Dibromofluoromethane	*110 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 14:57*	
Surrogate: Toluene-d8	*108 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 14:57*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
1,2-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
1,3-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
1,4-Dichlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4,5-Trichlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4,6-Trichlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4-Dichlorophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4-Dimethylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4-Dinitrophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,4-Dinitrotoluene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2,6-Dinitrotoluene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Chloronaphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Chlorophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Methylnaphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Methylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
2-Nitrophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0

Lab ID: 1303113-60

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
3-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4,6-Dinitro-2-methyphenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Bromophenyl-phenylether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Chloro-3-methylphenol	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Chloroaniline	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Chlorophenyl-phenylether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Methylphenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Nitroaniline	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
4-Nitrophenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Acenaphthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Acenaphthylene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzidine (M)	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzo(a)anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzo(a)pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzo(b)fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzo(g,h,i)perylene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzo(k)fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzoic acid	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Benzyl alcohol	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
bis(2-chloroethoxy)methane	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
bis(2-Chloroethyl)ether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
bis(2-chloroisopropyl)ether	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
bis(2-ethylhexyl)phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Butylbenzylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Chrysene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Di-n-butylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Di-n-octylphthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Dibenz(a,h)anthracene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Dibenzofuran	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Diethyl phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Dimethyl phthalate	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Fluoranthene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Fluorene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Hexachlorobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Hexachlorobutadiene	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-3.0
Lab ID: 1303113-60

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	1300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Hexachloroethane	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Indeno(1,2,3-cd)pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Isophorone	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
N-Nitroso-di-n propylamine	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
N-Nitrosodiphenylamine	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Naphthalene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Nitrobenzene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Pentachlorophenol	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Phenanthrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Phenol	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Pyrene	ND	660	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Pyridine	ND	3300	NA	2	B3J0263	10/11/2013	10/15/13 16:29	D1
Surrogate: 1,2-Dichlorobenzene-d4	*67.7 %*	*48 - 113*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: 2,4,6-Tribromophenol	*63.4 %*	*14 - 162*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: 2-Chlorophenol-d4	*70.2 %*	*40 - 117*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: 2-Fluorobiphenyl	*86.6 %*	*52 - 126*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: 2-Fluorophenol	*148 %*	*26 - 124*			B3J0263	10/11/2013	*10/15/13 16:29*	S1
Surrogate: 4-Terphenyl-d14	*88.3 %*	*36 - 163*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: Nitrobenzene-d5	*79.3 %*	*42 - 118*			B3J0263	10/11/2013	*10/15/13 16:29*	
Surrogate: Phenol-d5	*73.2 %*	*29 - 124*			B3J0263	10/11/2013	*10/15/13 16:29*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Arsenic	**3.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Barium	**99**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Chromium	**27**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Cobalt	**6.9**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Copper	**39**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Lead	**210**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Molybdenum	**1.0**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Nickel	**11**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Vanadium	**33**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	
Zinc	**110**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:56	

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.050	NA	1	B3J0480	10/22/2013	10/23/13 08:39	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 12:49	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:08	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.78	NA	1	B3J0254	10/11/2013	10/11/13 14:40	
Surrogate: 4-Bromofluorobenzene	*101 %*	*59 - 160*			B3J0254	10/11/2013	*10/11/13 14:40*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**27**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:14	
T/R Hydrocarbons: C23-C32	**120**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:14	
T/R Hydrocarbons: >C32	**130**	10	NA	1	B3J0260	10/11/2013	10/11/13 20:14	
Surrogate: p-Terphenyl	*103 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 20:14*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1,1-Trichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1,2,2-Tetrachloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1,2-Trichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1-Dichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,1-Dichloropropene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2,3-Trichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2,3-Trichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2,4-Trichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2,4-Trimethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2-Dibromo-3-chloropropane	ND	9.7	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2-Dibromoethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2-Dichloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,2-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,3,5-Trimethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,3-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,3-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
1,4-Dichlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
2,2-Dichloropropane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
4-Chlorotoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
4-Isopropyltoluene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Benzene	**8.7**	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Bromobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Bromochloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Bromodichloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Bromoform	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Bromomethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Carbon disulfide	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Carbon tetrachloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Chlorobenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Chloroethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Chloroform	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Chloromethane	**6.4**	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
cis-1,2-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
cis-1,3-Dichloropropene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Di-isopropyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Dibromochloromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Dibromomethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Dichlorodifluoromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Ethyl Acetate	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Ethyl Ether	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Ethyl tert-butyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Ethylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Freon-113	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Hexachlorobutadiene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Isopropylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
m,p-Xylene	ND	9.7	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Methylene chloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
MTBE	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
n-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
n-Propylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Naphthalene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
o-Xylene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
sec-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Styrene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
tert-Butanol	ND	97	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
tert-Butylbenzene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Tetrachloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Toluene	**6.5**	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
trans-1,2-Dichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
trans-1,3-Dichloropropene	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Trichloroethene	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Trichlorofluoromethane	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Vinyl acetate	ND	49	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Vinyl chloride	ND	4.9	NA	1	B3J0253	10/10/2013	10/11/13 15:16	
Surrogate: 1,2-Dichloroethane-d4	*120 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 15:16*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 15:16*	
Surrogate: Dibromofluoromethane	*107 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 15:16*	
Surrogate: Toluene-d8	*106 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 15:16*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
1,2-Dichlorobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
1,3-Dichlorobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
1,4-Dichlorobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4,5-Trichlorophenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4,6-Trichlorophenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4-Dichlorophenol	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4-Dimethylphenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4-Dinitrophenol	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,4-Dinitrotoluene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2,6-Dinitrotoluene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Chloronaphthalene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Chlorophenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Methylnaphthalene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Methylphenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Nitroaniline	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
2-Nitrophenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
3-Nitroaniline	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4,6-Dinitro-2-methyphenol	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Bromophenyl-phenylether	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Chloro-3-methylphenol	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Chloroaniline	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Chlorophenyl-phenylether	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Methylphenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Nitroaniline	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
4-Nitrophenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Acenaphthene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Acenaphthylene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Anthracene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzidine (M)	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzo(a)anthracene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzo(a)pyrene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzo(b)fluoranthene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzo(g,h,i)perylene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzo(k)fluoranthene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzoic acid	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Benzyl alcohol	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
bis(2-chloroethoxy)methane	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
bis(2-Chloroethyl)ether	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
bis(2-chloroisopropyl)ether	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
bis(2-ethylhexyl)phthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Butylbenzylphthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Chrysene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Di-n-butylphthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Di-n-octylphthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Dibenz(a,h)anthracene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Dibenzofuran	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Diethyl phthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Dimethyl phthalate	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Fluoranthene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Fluorene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Hexachlorobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Hexachlorobutadiene	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B7-4.5
Lab ID: 1303113-61

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	3300	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Hexachloroethane	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Indeno(1,2,3-cd)pyrene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Isophorone	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
N-Nitroso-di-n propylamine	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
N-Nitrosodiphenylamine	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Naphthalene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Nitrobenzene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Pentachlorophenol	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Phenanthrene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Phenol	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Pyrene	ND	1600	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Pyridine	ND	8200	NA	5	B3J0263	10/11/2013	10/15/13 16:55	D1
Surrogate: 1,2-Dichlorobenzene-d4	*61.3 %*	*48 - 113*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: 2,4,6-Tribromophenol	*50.2 %*	*14 - 162*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: 2-Chlorophenol-d4	*59.1 %*	*40 - 117*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: 2-Fluorobiphenyl	*67.7 %*	*52 - 126*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: 2-Fluorophenol	*104 %*	*26 - 124*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: 4-Terphenyl-d14	*75.8 %*	*36 - 163*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: Nitrobenzene-d5	*68.8 %*	*42 - 118*			B3J0263	10/11/2013	*10/15/13 16:55*	
Surrogate: Phenol-d5	*60.6 %*	*29 - 124*			B3J0263	10/11/2013	*10/15/13 16:55*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0
Lab ID: 1303113-62

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Arsenic	**3.0**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Barium	**99**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Chromium	**14**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Cobalt	**4.3**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Copper	**23**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Lead	**77**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Molybdenum	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Nickel	**8.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Vanadium	**22**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	
Zinc	**85**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 11:59	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.7**	1.0	NA	20	B3J0499	10/23/2013	10/23/13 13:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:10	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0254	10/11/2013	10/11/13 14:56	
Surrogate: 4-Bromofluorobenzene	*91.1 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 14:56*	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0
Lab ID: 1303113-62

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	**180**	51	NA	5	B3J0260	10/11/2013	10/11/13 21:39	
T/R Hydrocarbons: C23-C32	**710**	51	NA	5	B3J0260	10/11/2013	10/11/13 21:39	
T/R Hydrocarbons: >C32	**830**	51	NA	5	B3J0260	10/11/2013	10/11/13 21:39	
Surrogate: p-Terphenyl	*96.3 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 21:39*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
4,4´-DDE	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
4,4´-DDT	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Aldrin	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
alpha-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
alpha-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
beta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Chlordane	ND	42	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
delta-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Dieldrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endosulfan I	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endosulfan II	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endosulfan sulfate	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endrin	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endrin aldehyde	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Endrin ketone	ND	10	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
gamma-BHC	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
gamma-Chlordane	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Heptachlor	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Heptachlor epoxide	ND	5.0	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Methoxychlor	ND	25	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Toxaphene	ND	250	NA	5	B3J0390	10/17/2013	10/18/13 15:49	D1
Surrogate: Decachlorobiphenyl	*82.3 %*	*32 - 113*			B3J0390	10/17/2013	*10/18/13 15:49*	
Surrogate: Tetrachloro-m-xylene	*82.0 %*	*32 - 101*			B3J0390	10/17/2013	*10/18/13 15:49*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0
Lab ID: 1303113-62

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1248	**110**	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1260	**90**	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 15:37	
Surrogate: Decachlorobiphenyl	*86.1 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 15:37*	
Surrogate: Tetrachloro-m-xylene	*74.1 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 15:37*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1,1-Trichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1,2,2-Tetrachloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1,2-Trichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1-Dichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,1-Dichloropropene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2,3-Trichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2,3-Trichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2,4-Trichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2,4-Trimethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2-Dibromo-3-chloropropane	ND	8.8	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2-Dibromoethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2-Dichloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,2-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,3,5-Trimethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,3-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,3-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
1,4-Dichlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
2,2-Dichloropropane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0

Lab ID: 1303113-62

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
4-Chlorotoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
4-Isopropyltoluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Benzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Bromobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Bromochloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Bromodichloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Bromoform	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Bromomethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Carbon disulfide	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Carbon tetrachloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Chlorobenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Chloroethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Chloroform	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Chloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
cis-1,2-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
cis-1,3-Dichloropropene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Di-isopropyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Dibromochloromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Dibromomethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Dichlorodifluoromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Ethyl Acetate	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Ethyl Ether	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Ethyl tert-butyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Ethylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Freon-113	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Hexachlorobutadiene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Isopropylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
m,p-Xylene	ND	8.8	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Methylene chloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
MTBE	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
n-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
n-Propylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Naphthalene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
o-Xylene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
sec-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Styrene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0
Lab ID: 1303113-62

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
tert-Butanol	ND	88	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
tert-Butylbenzene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Tetrachloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Toluene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
trans-1,2-Dichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
trans-1,3-Dichloropropene	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Trichloroethene	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Trichlorofluoromethane	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Vinyl acetate	ND	44	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Vinyl chloride	ND	4.4	NA	1	B3J0253	10/10/2013	10/11/13 15:35	
Surrogate: 1,2-Dichloroethane-d4	*127 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 15:35*	
Surrogate: 4-Bromofluorobenzene	*107 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 15:35*	
Surrogate: Dibromofluoromethane	*113 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 15:35*	
Surrogate: Toluene-d8	*107 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 15:35*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4-Dichlorophenol	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4-Dimethylphenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4-Dinitrophenol	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,4-Dinitrotoluene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2,6-Dinitrotoluene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Chloronaphthalene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Chlorophenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Methylnaphthalene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Methylphenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Nitroaniline	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
2-Nitrophenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-1.0

Lab ID: 1303113-62

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
3-Nitroaniline	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4,6-Dinitro-2-methyphenol	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Chloroaniline	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Methylphenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Nitroaniline	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
4-Nitrophenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Acenaphthene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Acenaphthylene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Anthracene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzidine (M)	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzo(a)anthracene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzo(a)pyrene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzoic acid	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Benzyl alcohol	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
bis(2-Chloroethyl)ether	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Butylbenzylphthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Chrysene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Di-n-butylphthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Di-n-octylphthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Dibenz(a,h)anthracene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Dibenzofuran	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Diethyl phthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Dimethyl phthalate	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Fluoranthene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Fluorene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Hexachlorobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Hexachlorobutadiene	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1

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Client Sample ID B8-1.0
Lab ID: 1303113-62

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	6600	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Hexachloroethane	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Isophorone	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Naphthalene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Nitrobenzene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Pentachlorophenol	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Phenanthrene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Phenol	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Pyrene	ND	3300	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Pyridine	ND	16000	NA	10	B3J0263	10/11/2013	10/15/13 17:20	D1
Surrogate: 1,2-Dichlorobenzene-d4	*53.2 %*	*48 - 113*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: 2,4,6-Tribromophenol	*20.9 %*	*14 - 162*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: 2-Chlorophenol-d4	*46.2 %*	*40 - 117*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: 2-Fluorobiphenyl	*57.2 %*	*52 - 126*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: 2-Fluorophenol	*56.5 %*	*26 - 124*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: 4-Terphenyl-d14	*69.7 %*	*36 - 163*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: Nitrobenzene-d5	*53.5 %*	*42 - 118*			B3J0263	10/11/2013	*10/15/13 17:20*	
Surrogate: Phenol-d5	*45.8 %*	*29 - 124*			B3J0263	10/11/2013	*10/15/13 17:20*	

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Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-3.0
Lab ID: 1303113-63

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Arsenic	**2.1**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Barium	**27**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Beryllium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:03	
Cadmium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Chromium	**3.8**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Cobalt	**2.1**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Copper	**7.7**	2.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Lead	**6.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Molybdenum	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Nickel	**2.6**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Selenium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Silver	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Thallium	ND	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Vanadium	**12**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	
Zinc	**120**	1.0	NA	1	B3J0244	10/10/2013	10/11/13 12:04	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:16	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	1.0	NA	1	B3J0254	10/11/2013	10/11/13 15:12	
Surrogate: 4-Bromofluorobenzene	*85.6 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 15:12*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 17:43	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 17:43	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0260	10/11/2013	10/11/13 17:43	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*90.2 %*	*55 - 153*			B3J0260	10/11/2013	*10/11/13 17:43*	

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1221	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1232	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1242	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1248	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1254	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1260	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1262	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Aroclor 1268	ND	16	NA	1	B3J0390	10/17/2013	10/18/13 16:08	
Surrogate: Decachlorobiphenyl	*110 %*	*39 - 128*			B3J0390	10/17/2013	*10/18/13 16:08*	
Surrogate: Tetrachloro-m-xylene	*92.4 %*	*38 - 122*			B3J0390	10/17/2013	*10/18/13 16:08*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1,1-Trichloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1,2,2-Tetrachloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1,2-Trichloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1-Dichloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1-Dichloroethene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,1-Dichloropropene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2,3-Trichloropropane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2,3-Trichlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2,4-Trichlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2,4-Trimethylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2-Dibromo-3-chloropropane	ND	12	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2-Dibromoethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2-Dichlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,2-Dichloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	

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Client Sample ID B8-3.0

Lab ID: 1303113-63

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2-Dichloropropane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,3,5-Trimethylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,3-Dichlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,3-Dichloropropane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
1,4-Dichlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
2,2-Dichloropropane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
2-Chlorotoluene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
4-Chlorotoluene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
4-Isopropyltoluene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Benzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Bromobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Bromochloromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Bromodichloromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Bromoform	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Bromomethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Carbon disulfide	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Carbon tetrachloride	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Chlorobenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Chloroethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Chloroform	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Chloromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
cis-1,2-Dichloroethene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
cis-1,3-Dichloropropene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Di-isopropyl ether	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Dibromochloromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Dibromomethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Dichlorodifluoromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Ethyl Acetate	ND	59	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Ethyl Ether	ND	59	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Ethyl tert-butyl ether	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Ethylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Freon-113	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Hexachlorobutadiene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Isopropylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
m,p-Xylene	ND	12	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Methylene chloride	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
MTBE	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	

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Client Sample ID B8-3.0

Lab ID: 1303113-63

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
n-Butylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
n-Propylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Naphthalene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
o-Xylene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
sec-Butylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Styrene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
tert-Amyl methyl ether	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
tert-Butanol	ND	120	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
tert-Butylbenzene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Tetrachloroethene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Toluene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
trans-1,2-Dichloroethene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
trans-1,3-Dichloropropene	ND	59	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Trichloroethene	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Trichlorofluoromethane	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Vinyl acetate	ND	59	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Vinyl chloride	ND	5.9	NA	1	B3J0253	10/10/2013	10/11/13 15:53	
Surrogate: 1,2-Dichloroethane-d4	*129 %*	*56 - 159*			B3J0253	10/10/2013	*10/11/13 15:53*	
Surrogate: 4-Bromofluorobenzene	*105 %*	*69 - 131*			B3J0253	10/10/2013	*10/11/13 15:53*	
Surrogate: Dibromofluoromethane	*114 %*	*60 - 127*			B3J0253	10/10/2013	*10/11/13 15:53*	
Surrogate: Toluene-d8	*107 %*	*70 - 121*			B3J0253	10/10/2013	*10/11/13 15:53*	

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4-Dimethylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	

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Client Sample ID B8-3.0

Lab ID: 1303113-63

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chloronaphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2-Chlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2-Methylnaphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2-Methylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
2-Nitrophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
3-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Chloroaniline	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Methylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
4-Nitrophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Acenaphthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Acenaphthylene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzidine (M)	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzo(a)anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzo(a)pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzoic acid	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Benzyl alcohol	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Butylbenzylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Chrysene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Di-n-butylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Di-n-octylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Dibenzofuran	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	

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Client Sample ID B8-3.0
Lab ID: 1303113-63

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Diethyl phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Dimethyl phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Fluorene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Hexachlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Hexachlorobutadiene	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Hexachloroethane	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Isophorone	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Naphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Nitrobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Pentachlorophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Phenanthrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Phenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Pyridine	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 14:23	
Surrogate: 1,2-Dichlorobenzene-d4	*78.5 %*		*48 - 113*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: 2,4,6-Tribromophenol	*81.1 %*		*14 - 162*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: 2-Chlorophenol-d4	*75.8 %*		*40 - 117*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: 2-Fluorobiphenyl	*95.4 %*		*52 - 126*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: 2-Fluorophenol	*71.6 %*		*26 - 124*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: 4-Terphenyl-d14	*120 %*		*36 - 163*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: Nitrobenzene-d5	*88.2 %*		*42 - 118*		B3J0263	10/11/2013	*10/15/13 14:23*	
Surrogate: Phenol-d5	*80.6 %*		*29 - 124*		B3J0263	10/11/2013	*10/15/13 14:23*	

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Lab ID: 1303113-64

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Arsenic	**2.4**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Barium	**79**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Beryllium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Cadmium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Chromium	**16**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Cobalt	**8.6**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Copper	**18**	2.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Lead	**6.8**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Molybdenum	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Nickel	**11**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Selenium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Silver	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Thallium	ND	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Vanadium	**40**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	
Zinc	**50**	1.0	NA	1	B3J0215	10/10/2013	10/11/13 11:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3J0264	10/11/2013	10/14/13 14:18	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VN

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C4-C12	ND	0.87	NA	1	B3J0254	10/11/2013	10/11/13 15:28	
Surrogate: 4-Bromofluorobenzene	*102 %*		*59 - 160*		B3J0254	10/11/2013	*10/11/13 15:28*	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:31	
T/R Hydrocarbons: C23-C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:31	
T/R Hydrocarbons: >C32	ND	10	NA	1	B3J0208	10/09/2013	10/10/13 05:31	

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Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*96.3 %*	*55 - 153*			B3J0208	10/09/2013	*10/10/13 05:31*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
4,4´-DDE	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
4,4´-DDT	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Aldrin	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
alpha-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
alpha-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
beta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Chlordane	ND	8.5	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
delta-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Dieldrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endosulfan I	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endosulfan II	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endosulfan sulfate	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endrin	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endrin aldehyde	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Endrin ketone	ND	2.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
gamma-BHC	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
gamma-Chlordane	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Heptachlor	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Heptachlor epoxide	ND	1.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Methoxychlor	ND	5.0	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Toxaphene	ND	50	NA	1	B3J0231	10/10/2013	10/11/13 17:08	
Surrogate: Decachlorobiphenyl	*102 %*	*32 - 113*			B3J0231	10/10/2013	*10/11/13 17:08*	
Surrogate: Tetrachloro-m-xylene	*88.1 %*	*32 - 101*			B3J0231	10/10/2013	*10/11/13 17:08*	

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Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1221	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1232	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1242	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1248	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1254	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1260	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1262	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Aroclor 1268	ND	16	NA	1	B3J0231	10/10/2013	10/11/13 00:15	
Surrogate: Decachlorobiphenyl	*99.4 %*	*39 - 128*			B3J0231	10/10/2013	*10/11/13 00:15*	
Surrogate: Tetrachloro-m-xylene	*85.7 %*	*38 - 122*			B3J0231	10/10/2013	*10/11/13 00:15*	

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1,1-Trichloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1,2,2-Tetrachloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1,2-Trichloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1-Dichloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1-Dichloroethene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,1-Dichloropropene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2,3-Trichloropropane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2,3-Trichlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2,4-Trichlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2,4-Trimethylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2-Dibromo-3-chloropropane	ND	8.5	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2-Dibromoethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2-Dichlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2-Dichloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,2-Dichloropropane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,3,5-Trimethylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,3-Dichlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,3-Dichloropropane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
1,4-Dichlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
2,2-Dichloropropane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-5.0
Lab ID: 1303113-64

Volatile Organic Compounds by EPA 5035/EPA 8260 **Analyst: TP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
4-Chlorotoluene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
4-Isopropyltoluene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Benzene	**13**	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Bromobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Bromochloromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Bromodichloromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Bromoform	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Bromomethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Carbon disulfide	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Carbon tetrachloride	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Chlorobenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Chloroethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Chloroform	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Chloromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
cis-1,2-Dichloroethene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
cis-1,3-Dichloropropene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Di-isopropyl ether	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Dibromochloromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Dibromomethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Dichlorodifluoromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Ethyl Acetate	ND	43	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Ethyl Ether	ND	43	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Ethyl tert-butyl ether	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Ethylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Freon-113	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Hexachlorobutadiene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Isopropylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
m,p-Xylene	ND	8.5	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Methylene chloride	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
MTBE	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
n-Butylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
n-Propylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Naphthalene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
o-Xylene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
sec-Butylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Styrene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-5.0
Lab ID: 1303113-64

Volatile Organic Compounds by EPA 5035/EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
tert-Butanol	ND	85	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
tert-Butylbenzene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Tetrachloroethene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Toluene	**12**	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
trans-1,2-Dichloroethene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
trans-1,3-Dichloropropene	ND	43	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Trichloroethene	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Trichlorofluoromethane	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Vinyl acetate	ND	43	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Vinyl chloride	ND	4.3	NA	1	B3J0253	10/10/2013	10/11/13 16:12	
Surrogate: 1,2-Dichloroethane-d4	*128 %*		*56 - 159*		B3J0253	10/10/2013	*10/11/13 16:12*	
Surrogate: 4-Bromofluorobenzene	*105 %*		*69 - 131*		B3J0253	10/10/2013	*10/11/13 16:12*	
Surrogate: Dibromofluoromethane	*109 %*		*60 - 127*		B3J0253	10/10/2013	*10/11/13 16:12*	
Surrogate: Toluene-d8	*109 %*		*70 - 121*		B3J0253	10/10/2013	*10/11/13 16:12*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
1,2-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
1,3-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
1,4-Dichlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4,5-Trichlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4,6-Trichlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4-Dichlorophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4-Dimethylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4-Dinitrophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,4-Dinitrotoluene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2,6-Dinitrotoluene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Chloronaphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Chlorophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Methylnaphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Methylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
2-Nitrophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-5.0

Lab ID: 1303113-64

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
3,3´-Dichlorobenzidine	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
3-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4,6-Dinitro-2-methyphenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Bromophenyl-phenylether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Chloro-3-methylphenol	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Chloroaniline	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Chlorophenyl-phenylether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Methylphenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Nitroaniline	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
4-Nitrophenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Acenaphthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Acenaphthylene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzidine (M)	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzo(a)anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzo(a)pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzo(b)fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzo(g,h,i)perylene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzo(k)fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzoic acid	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Benzyl alcohol	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
bis(2-chloroethoxy)methane	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
bis(2-Chloroethyl)ether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Butylbenzylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Chrysene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Di-n-butylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Di-n-octylphthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Dibenz(a,h)anthracene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Dibenzofuran	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Diethyl phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Dimethyl phthalate	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Fluoranthene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Fluorene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Hexachlorobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Hexachlorobutadiene	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID B8-5.0
Lab ID: 1303113-64

Semivolatile Organic Compounds by EPA 8270C **Analyst: BB**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorocyclopentadiene	ND	660	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Hexachloroethane	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Isophorone	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
N-Nitroso-di-n propylamine	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
N-Nitrosodiphenylamine	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Naphthalene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Nitrobenzene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Pentachlorophenol	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Phenanthrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Phenol	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Pyrene	ND	330	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Pyridine	ND	1600	NA	1	B3J0263	10/11/2013	10/15/13 07:34	
Surrogate: 1,2-Dichlorobenzene-d4	*75.9 %*		*48 - 113*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: 2,4,6-Tribromophenol	*76.3 %*		*14 - 162*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: 2-Chlorophenol-d4	*74.0 %*		*40 - 117*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: 2-Fluorobiphenyl	*95.9 %*		*52 - 126*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: 2-Fluorophenol	*127 %*		*26 - 124*		B3J0263	10/11/2013	*10/15/13 07:34*	S1
Surrogate: 4-Terphenyl-d14	*126 %*		*36 - 163*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: Nitrobenzene-d5	*84.3 %*		*42 - 118*		B3J0263	10/11/2013	*10/15/13 07:34*	
Surrogate: Phenol-d5	*78.3 %*		*29 - 124*		B3J0263	10/11/2013	*10/15/13 07:34*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-W
Lab ID: 1303113-65

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C13-C22	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:19	
T/R Hydrocarbons: C23-C32	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:19	
T/R Hydrocarbons: >C32	ND	0.20	NA	1	B3J0157	10/08/2013	10/09/13 22:19	
Surrogate: p-Terphenyl	*93.3 %*		*38 - 151*		B3J0157	10/08/2013	*10/09/13 22:19*	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
4,4´-DDE	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
4,4´-DDT	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Aldrin	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
alpha-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
alpha-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
beta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Chlordane	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
delta-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Dieldrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endosulfan I	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endosulfan II	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endosulfan sulfate	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endrin	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endrin aldehyde	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Endrin ketone	ND	0.05	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
gamma-BHC	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
gamma-Chlordane	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Heptachlor	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Heptachlor epoxide	ND	0.02	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Methoxychlor	ND	0.25	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Toxaphene	ND	2.5	NA	1	B3J0185	10/08/2013	10/09/13 00:26	
Surrogate: Decachlorobiphenyl	*71.0 %*		*37 - 129*		B3J0185	10/08/2013	*10/09/13 00:26*	
Surrogate: Tetrachloro-m-xylene	*91.7 %*		*50 - 118*		B3J0185	10/08/2013	*10/09/13 00:26*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-W
Lab ID: 1303113-65

Polychlorinated Biphenyls by EPA 8082

Analyst: PIL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1221	ND	1.0	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1232	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1242	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1248	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1254	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1260	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1262	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Aroclor 1268	ND	0.50	NA	1	B3J0185	10/08/2013	10/08/13 20:13	
Surrogate: Decachlorobiphenyl	*63.6 %*		*39 - 129*		B3J0185	10/08/2013	*10/08/13 20:13*	
Surrogate: Tetrachloro-m-xylene	*83.5 %*		*39 - 123*		B3J0185	10/08/2013	*10/08/13 20:13*	

Semivolatile Organic Compounds by EPA 8270C

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
1,2-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
1,3-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
1,4-Dichlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4,5-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4,6-Trichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4-Dichlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4-Dimethylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4-Dinitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,4-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2,6-Dinitrotoluene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Chloronaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Chlorophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Methylnaphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
2-Nitrophenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
3,3´-Dichlorobenzidine	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
3-Nitroaniline	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4,6-Dinitro-2-methyphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Bromophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-W
Lab ID: 1303113-65

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chloro-3-methylphenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Chloroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Chlorophenyl-phenylether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Methylphenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Nitroaniline	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
4-Nitrophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Acenaphthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Acenaphthylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzidine (M)	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzo(a)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzo(a)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzo(b)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzo(g,h,i)perylene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzo(k)fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzoic acid	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Benzyl alcohol	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
bis(2-chloroethoxy)methane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
bis(2-Chloroethyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
bis(2-chloroisopropyl)ether	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
bis(2-ethylhexyl)phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Butylbenzylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Chrysene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Di-n-butylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Di-n-octylphthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Dibenz(a,h)anthracene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Dibenzofuran	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Diethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Dimethyl phthalate	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Fluoranthene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Fluorene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Hexachlorobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Hexachlorobutadiene	ND	20	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Hexachlorocyclopentadiene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Hexachloroethane	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Indeno(1,2,3-cd)pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Isophorone	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP1-W
Lab ID: 1303113-65

Semivolatile Organic Compounds by EPA 8270C **Analyst: MFR**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
N-Nitroso-di-n propylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
N-Nitrosodiphenylamine	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Naphthalene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Nitrobenzene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Pentachlorophenol	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Phenanthrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Phenol	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Pyrene	ND	10	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Pyridine	ND	50	NA	1	B3J0174	10/08/2013	10/08/13 18:23	
Surrogate: 1,2-Dichlorobenzene-d4	*61.4 %*	*36 - 117*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: 2,4,6-Tribromophenol	*94.5 %*	*33 - 149*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: 2-Chlorophenol-d4	*57.8 %*	*37 - 99*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: 2-Fluorobiphenyl	*72.7 %*	*52 - 126*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: 2-Fluorophenol	*40.7 %*	*17 - 69*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: 4-Terphenyl-d14	*122 %*	*40 - 165*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: Nitrobenzene-d5	*70.5 %*	*38 - 117*			B3J0174	10/08/2013	*10/08/13 18:23*	
Surrogate: Phenol-d5	*30.7 %*	*5 - 60*			B3J0174	10/08/2013	*10/08/13 18:23*	

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Client Sample ID DP4A
Lab ID: 1303113-67

Title 22 Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.0050	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Arsenic	**0.027**	0.010	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Barium	**0.87**	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Beryllium	**0.0045**	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Cadmium	ND	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Chromium	**0.18**	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Cobalt	**0.055**	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Copper	**0.49**	0.0050	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Lead	**0.37**	0.0050	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Molybdenum	**0.0097**	0.0050	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Nickel	**0.15**	0.0050	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Selenium	ND	0.010	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Silver	ND	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Thallium	ND	0.015	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Vanadium	**0.46**	0.0030	NA	1	B3J0288	10/14/2013	10/14/13 12:32	
Zinc	**0.50**	0.010	NA	1	B3J0288	10/14/2013	10/14/13 12:32	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: VV

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	NA	1	B3J0291	10/14/2013	10/14/13 16:36	

Certificate of Analysis

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0214 - EPA 3050B									
Blank (B3J0214-BLK1)				Prepared: 10/9/2013 Analyzed: 10/10/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3J0214-BS1)				Prepared: 10/9/2013 Analyzed: 10/10/2013					
Antimony	49.9010	2.0	50.0000		99.8	80 - 120			
Arsenic	48.4858	1.0	50.0000		97.0	80 - 120			
Barium	51.4035	1.0	50.0000		103	80 - 120			
Beryllium	54.0817	1.0	50.0000		108	80 - 120			
Cadmium	49.0555	1.0	50.0000		98.1	80 - 120			
Chromium	52.3828	1.0	50.0000		105	80 - 120			
Cobalt	49.7335	1.0	50.0000		99.5	80 - 120			
Copper	51.4408	2.0	50.0000		103	80 - 120			
Lead	49.9108	1.0	50.0000		99.8	80 - 120			
Molybdenum	50.9250	1.0	50.0000		102	80 - 120			
Nickel	49.3359	1.0	50.0000		98.7	80 - 120			
Selenium	46.1979	1.0	50.0000		92.4	80 - 120			
Silver	48.6844	1.0	50.0000		97.4	80 - 120			
Thallium	50.1108	1.0	50.0000		100	80 - 120			
Vanadium	51.5068	1.0	50.0000		103	80 - 120			
Zinc	45.7252	1.0	50.0000		91.5	80 - 120			
Matrix Spike (B3J0214-MS1)		**Source: 1303113-54**		Prepared: 10/9/2013 Analyzed: 10/10/2013					
Antimony	103.646	2.0	125.000	ND	82.9	21 - 109			
Arsenic	109.344	1.0	125.000	ND	87.5	55 - 102			
Barium	157.916	1.0	125.000	35.4108	98.0	40 - 130			
Beryllium	115.141	1.0	125.000	ND	92.1	60 - 104			

Certificate of Analysis

Ninyo & Moore	Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200	Report To :	Summer Hansen-Rooks
Irvine , CA 92618	Reported :	11/01/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0214 - EPA 3050B (continued)									
Matrix Spike (B3J0214-MS1) - Continued		**Source: 1303113-54**		Prepared: 10/9/2013 Analyzed: 10/10/2013					
Cadmium	108.232	1.0	125.000	0.192155	86.4	52 - 100			
Chromium	120.123	1.0	125.000	7.54376	90.1	53 - 113			
Cobalt	113.811	1.0	125.000	4.12436	87.7	53 - 104			
Copper	121.994	2.0	125.000	7.97635	91.2	51 - 122			
Lead	114.518	1.0	125.000	5.71189	87.0	51 - 106			
Molybdenum	112.832	1.0	125.000	0.301375	90.0	55 - 103			
Nickel	111.866	1.0	125.000	4.80320	85.7	48 - 112			
Selenium	102.241	1.0	125.000	ND	81.8	53 - 104			
Silver	111.204	1.0	125.000	ND	89.0	61 - 109			
Thallium	101.560	1.0	125.000	ND	81.2	44 - 103			
Vanadium	130.496	1.0	125.000	15.9688	91.6	55 - 115			
Zinc	130.688	1.0	125.000	25.7750	83.9	24 - 130			
Matrix Spike Dup (B3J0214-MSD1)		**Source: 1303113-54**		Prepared: 10/9/2013 Analyzed: 10/10/2013					
Antimony	105.143	2.0	125.000	ND	84.1	21 - 109	1.43	20	
Arsenic	110.726	1.0	125.000	ND	88.6	55 - 102	1.26	20	
Barium	148.827	1.0	125.000	35.4108	90.7	40 - 130	5.93	20	
Beryllium	115.438	1.0	125.000	ND	92.4	60 - 104	0.257	20	
Cadmium	109.992	1.0	125.000	0.192155	87.8	52 - 100	1.61	20	
Chromium	121.310	1.0	125.000	7.54376	91.0	53 - 113	0.983	20	
Cobalt	114.985	1.0	125.000	4.12436	88.7	53 - 104	1.03	20	
Copper	123.575	2.0	125.000	7.97635	92.5	51 - 122	1.29	20	
Lead	116.163	1.0	125.000	5.71189	88.4	51 - 106	1.43	20	
Molybdenum	114.171	1.0	125.000	0.301375	91.1	55 - 103	1.18	20	
Nickel	113.241	1.0	125.000	4.80320	86.7	48 - 112	1.22	20	
Selenium	103.637	1.0	125.000	ND	82.9	53 - 104	1.36	20	
Silver	113.044	1.0	125.000	ND	90.4	61 - 109	1.64	20	
Thallium	103.393	1.0	125.000	ND	82.7	44 - 103	1.79	20	
Vanadium	132.774	1.0	125.000	15.9688	93.4	55 - 115	1.73	20	
Zinc	132.350	1.0	125.000	25.7750	85.3	24 - 130	1.26	20	
Batch B3J0215 - EPA 3050B									
Blank (B3J0215-BLK1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0215 - EPA 3050B (continued)									
Blank (B3J0215-BLK1) - Continued					Prepared: 10/10/2013 Analyzed: 10/11/2013				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3J0215-BS1)					Prepared: 10/10/2013 Analyzed: 10/11/2013				
Antimony	49.5371	2.0	50.0000		99.1	80 - 120			
Arsenic	46.5088	1.0	50.0000		93.0	80 - 120			
Barium	50.2509	1.0	50.0000		101	80 - 120			
Beryllium	52.3330	1.0	50.0000		105	80 - 120			
Cadmium	47.9963	1.0	50.0000		96.0	80 - 120			
Chromium	51.0914	1.0	50.0000		102	80 - 120			
Cobalt	48.9298	1.0	50.0000		97.9	80 - 120			
Copper	49.7514	2.0	50.0000		99.5	80 - 120			
Lead	47.6581	1.0	50.0000		95.3	80 - 120			
Molybdenum	48.7872	1.0	50.0000		97.6	80 - 120			
Nickel	48.5257	1.0	50.0000		97.1	80 - 120			
Selenium	44.1642	1.0	50.0000		88.3	80 - 120			
Silver	47.5542	1.0	50.0000		95.1	80 - 120			
Thallium	48.4912	1.0	50.0000		97.0	80 - 120			
Vanadium	50.0306	1.0	50.0000		100	80 - 120			
Zinc	44.3852	1.0	50.0000		88.8	80 - 120			
Matrix Spike (B3J0215-MS1)		**Source: 1303113-01**			Prepared: 10/10/2013 Analyzed: 10/11/2013				
Antimony	106.981	2.0	125.000	ND	85.6	21 - 109			
Arsenic	111.926	1.0	125.000	0.953768	88.8	55 - 102			
Barium	154.944	1.0	125.000	41.1914	91.0	40 - 130			
Beryllium	116.707	1.0	125.000	ND	93.4	60 - 104			
Cadmium	109.422	1.0	125.000	0.230338	87.4	52 - 100			
Chromium	125.060	1.0	125.000	9.53441	92.4	53 - 113			
Cobalt	115.906	1.0	125.000	5.17214	88.6	53 - 104			
Copper	131.280	2.0	125.000	9.54193	97.4	51 - 122			
Lead	121.004	1.0	125.000	14.0788	85.5	51 - 106			
Molybdenum	114.016	1.0	125.000	0.310666	91.0	55 - 103			
Nickel	115.715	1.0	125.000	5.55593	88.1	48 - 112			
Selenium	102.920	1.0	125.000	ND	82.3	53 - 104			
Silver	116.708	1.0	125.000	ND	93.4	61 - 109			

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0215 - EPA 3050B (continued)									
Matrix Spike (B3J0215-MS1) - Continued		**Source: 1303113-01**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Thallium	101.720	1.0	125.000	ND	81.4	44 - 103			
Vanadium	139.297	1.0	125.000	22.6337	93.3	55 - 115			
Zinc	140.340	1.0	125.000	37.6371	82.2	24 - 130			
Matrix Spike Dup (B3J0215-MSD1)		**Source: 1303113-01**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	106.641	2.0	125.000	ND	85.3	21 - 109	0.318	20	
Arsenic	110.423	1.0	125.000	0.953768	87.6	55 - 102	1.35	20	
Barium	150.774	1.0	125.000	41.1914	87.7	40 - 130	2.73	20	
Beryllium	116.161	1.0	125.000	ND	92.9	60 - 104	0.469	20	
Cadmium	108.023	1.0	125.000	0.230338	86.2	52 - 100	1.29	20	
Chromium	122.825	1.0	125.000	9.53441	90.6	53 - 113	1.80	20	
Cobalt	114.055	1.0	125.000	5.17214	87.1	53 - 104	1.61	20	
Copper	129.006	2.0	125.000	9.54193	95.6	51 - 122	1.75	20	
Lead	118.960	1.0	125.000	14.0788	83.9	51 - 106	1.70	20	
Molybdenum	112.647	1.0	125.000	0.310666	89.9	55 - 103	1.21	20	
Nickel	113.863	1.0	125.000	5.55593	86.6	48 - 112	1.61	20	
Selenium	102.085	1.0	125.000	ND	81.7	53 - 104	0.814	20	
Silver	114.998	1.0	125.000	ND	92.0	61 - 109	1.48	20	
Thallium	100.830	1.0	125.000	ND	80.7	44 - 103	0.878	20	
Vanadium	135.749	1.0	125.000	22.6337	90.5	55 - 115	2.58	20	
Zinc	137.460	1.0	125.000	37.6371	79.9	24 - 130	2.07	20	
Batch B3J0241 - EPA 3010A									
Blank (B3J0241-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Antimony	ND	0.0050			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0050			NR				
Lead	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	ND	0.010			NR				
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.010			NR				
Blank (B3J0241-BLK2)				Prepared: 10/10/2013 Analyzed: 10/11/2013					

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0241 - EPA 3010A (continued)									
Blank (B3J0241-BLK2) - Continued				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Molybdenum	ND	0.0050			NR				
LCS (B3J0241-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Antimony	0.962084	0.0050	1.00000		96.2	80 - 120			
Arsenic	0.933378	0.010	1.00000		93.3	80 - 120			
Barium	0.963163	0.0030	1.00000		96.3	80 - 120			
Beryllium	1.00158	0.0030	1.00000		100	80 - 120			
Cadmium	0.942896	0.0030	1.00000		94.3	80 - 120			
Chromium	0.970158	0.0030	1.00000		97.0	80 - 120			
Cobalt	0.943602	0.0030	1.00000		94.4	80 - 120			
Copper	0.948617	0.0050	1.00000		94.9	80 - 120			
Lead	0.942310	0.0050	1.00000		94.2	80 - 120			
Nickel	0.940128	0.0050	1.00000		94.0	80 - 120			
Selenium	0.899827	0.010	1.00000		90.0	80 - 120			
Silver	0.936988	0.0030	1.00000		93.7	80 - 120			
Thallium	0.958590	0.015	1.00000		95.9	80 - 120			
Vanadium	0.945965	0.0030	1.00000		94.6	80 - 120			
Zinc	0.882496	0.010	1.00000		88.2	80 - 120			
LCS (B3J0241-BS2)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Molybdenum	0.949946	0.0050	1.00000		95.0	80 - 120			
Matrix Spike (B3J0241-MS1)		**Source: 1303113-17**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
Antimony	2.43143	0.0050	2.50000	ND	97.3	78 - 117			
Arsenic	2.35940	0.010	2.50000	0.005717	94.1	78 - 113			
Barium	2.63753	0.0030	2.50000	0.272754	94.6	77 - 112			
Beryllium	2.41190	0.0030	2.50000	ND	96.5	82 - 112			
Cadmium	2.30295	0.0030	2.50000	0.001785	92.0	76 - 107			
Chromium	2.39348	0.0030	2.50000	0.058346	93.4	76 - 113			
Cobalt	2.31904	0.0030	2.50000	0.033503	91.4	75 - 110			
Copper	2.39749	0.0050	2.50000	0.037803	94.4	77 - 115			
Lead	2.34235	0.0050	2.50000	0.008194	93.4	76 - 109			
Nickel	2.29157	0.0050	2.50000	0.034315	90.3	67 - 121			
Selenium	2.27083	0.010	2.50000	ND	90.8	67 - 125			
Silver	2.39344	0.0030	2.50000	ND	95.7	68 - 129			
Thallium	2.08552	0.015	2.50000	ND	83.4	70 - 119			
Vanadium	2.43770	0.0030	2.50000	0.080231	94.3	80 - 113			
Zinc	2.35253	0.010	2.50000	0.104913	89.9	62 - 120			
Matrix Spike (B3J0241-MS2)		**Source: 1303113-17RE1**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Molybdenum	2.25310	0.0050	2.50000	0.011057	89.7	77 - 108			

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0241 - EPA 3010A (continued)									
Matrix Spike Dup (B3J0241-MSD1)		**Source: 1303113-17**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
Antimony	2.43225	0.0050	2.50000	ND	97.3	78 - 117	0.0338	20	
Arsenic	2.33601	0.010	2.50000	0.005717	93.2	78 - 113	0.996	20	
Barium	2.67497	0.0030	2.50000	0.272754	96.1	77 - 112	1.41	20	
Beryllium	2.39570	0.0030	2.50000	ND	95.8	82 - 112	0.674	20	
Cadmium	2.31539	0.0030	2.50000	0.001785	92.5	76 - 107	0.539	20	
Chromium	2.43409	0.0030	2.50000	0.058346	95.0	76 - 113	1.68	20	
Cobalt	2.34530	0.0030	2.50000	0.033503	92.5	75 - 110	1.13	20	
Copper	2.42462	0.0050	2.50000	0.037803	95.5	77 - 115	1.13	20	
Lead	2.35876	0.0050	2.50000	0.008194	94.0	76 - 109	0.698	20	
Nickel	2.31706	0.0050	2.50000	0.034315	91.3	67 - 121	1.11	20	
Selenium	2.24695	0.010	2.50000	ND	89.9	67 - 125	1.06	20	
Silver	2.42761	0.0030	2.50000	ND	97.1	68 - 129	1.42	20	
Thallium	2.09293	0.015	2.50000	ND	83.7	70 - 119	0.354	20	
Vanadium	2.47273	0.0030	2.50000	0.080231	95.7	80 - 113	1.43	20	
Zinc	2.35978	0.010	2.50000	0.104913	90.2	62 - 120	0.308	20	
Matrix Spike Dup (B3J0241-MSD2)		**Source: 1303113-17RE1**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Molybdenum	2.27274	0.0050	2.50000	0.011057	90.5	77 - 108	0.868	20	
Batch B3J0244 - EPA 3050B									
Blank (B3J0244-BLK1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B3J0244-BS1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	49.0245	2.0	50.0000		98.0	80 - 120			
Arsenic	45.9594	1.0	50.0000		91.9	80 - 120			

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0244 - EPA 3050B (continued)									
LCS (B3J0244-BS1) - Continued				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Barium	49.8183	1.0	50.0000		99.6	80 - 120			
Beryllium	51.9266	1.0	50.0000		104	80 - 120			
Cadmium	47.5182	1.0	50.0000		95.0	80 - 120			
Chromium	50.6434	1.0	50.0000		101	80 - 120			
Cobalt	48.3915	1.0	50.0000		96.8	80 - 120			
Copper	49.3744	2.0	50.0000		98.7	80 - 120			
Lead	47.3619	1.0	50.0000		94.7	80 - 120			
Molybdenum	48.2691	1.0	50.0000		96.5	80 - 120			
Nickel	48.0480	1.0	50.0000		96.1	80 - 120			
Selenium	43.6861	1.0	50.0000		87.4	80 - 120			
Silver	47.2614	1.0	50.0000		94.5	80 - 120			
Thallium	47.6864	1.0	50.0000		95.4	80 - 120			
Vanadium	49.7177	1.0	50.0000		99.4	80 - 120			
Zinc	44.0701	1.0	50.0000		88.1	80 - 120			
Matrix Spike (B3J0244-MS1)		**Source: 1303112-49**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	100.823	2.0	125.000	ND	80.7	21 - 109			
Arsenic	107.564	1.0	125.000	2.12692	84.3	55 - 102			
Barium	151.467	1.0	125.000	45.6503	84.7	40 - 130			
Beryllium	110.037	1.0	125.000	ND	88.0	60 - 104			
Cadmium	105.141	1.0	125.000	0.267891	83.9	52 - 100			
Chromium	122.836	1.0	125.000	12.6172	88.2	53 - 113			
Cobalt	111.475	1.0	125.000	5.33917	84.9	53 - 104			
Copper	124.556	2.0	125.000	11.5559	90.4	51 - 122			
Lead	109.538	1.0	125.000	5.21772	83.5	51 - 106			
Molybdenum	109.059	1.0	125.000	0.673907	86.7	55 - 103			
Nickel	112.531	1.0	125.000	7.10756	84.3	48 - 112			
Selenium	98.1885	1.0	125.000	ND	78.6	53 - 104			
Silver	110.495	1.0	125.000	ND	88.4	61 - 109			
Thallium	97.8030	1.0	125.000	ND	78.2	44 - 103			
Vanadium	133.498	1.0	125.000	23.2866	88.2	55 - 115			
Zinc	131.582	1.0	125.000	33.3754	78.6	24 - 130			
Matrix Spike Dup (B3J0244-MSD1)		**Source: 1303112-49**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Antimony	99.7401	2.0	125.000	ND	79.8	21 - 109	1.08	20	
Arsenic	106.882	1.0	125.000	2.12692	83.8	55 - 102	0.636	20	
Barium	156.900	1.0	125.000	45.6503	89.0	40 - 130	3.52	20	
Beryllium	110.840	1.0	125.000	ND	88.7	60 - 104	0.727	20	
Cadmium	104.291	1.0	125.000	0.267891	83.2	52 - 100	0.812	20	
Chromium	123.728	1.0	125.000	12.6172	88.9	53 - 113	0.724	20	
Cobalt	112.898	1.0	125.000	5.33917	86.0	53 - 104	1.27	20	
Copper	127.052	2.0	125.000	11.5559	92.4	51 - 122	1.98	20	

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0244 - EPA 3050B (continued)									
Matrix Spike Dup (B3J0244-MSD1) - Continued		**Source: 1303112-49**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Lead	109.337	1.0	125.000	5.21772	83.3	51 - 106	0.184	20	
Molybdenum	107.954	1.0	125.000	0.673907	85.8	55 - 103	1.02	20	
Nickel	114.234	1.0	125.000	7.10756	85.7	48 - 112	1.50	20	
Selenium	97.0123	1.0	125.000	ND	77.6	53 - 104	1.21	20	
Silver	110.459	1.0	125.000	ND	88.4	61 - 109	0.0328	20	
Thallium	96.0290	1.0	125.000	ND	76.8	44 - 103	1.83	20	
Vanadium	136.266	1.0	125.000	23.2866	90.4	55 - 115	2.05	20	
Zinc	135.205	1.0	125.000	33.3754	81.5	24 - 130	2.72	20	
Batch B3J0288 - EPA 3010A									
Blank (B3J0288-BLK1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Antimony	ND	0.0050			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0050			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	ND	0.010			NR				
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.010			NR				
LCS (B3J0288-BS1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Antimony	1.04565	0.0050	1.00000		105	80 - 120			
Arsenic	1.06651	0.010	1.00000		107	80 - 120			
Barium	1.07356	0.0030	1.00000		107	80 - 120			
Beryllium	1.11145	0.0030	1.00000		111	80 - 120			
Cadmium	1.07660	0.0030	1.00000		108	80 - 120			
Chromium	1.10032	0.0030	1.00000		110	80 - 120			
Cobalt	1.04782	0.0030	1.00000		105	80 - 120			
Copper	1.05254	0.0050	1.00000		105	80 - 120			
Lead	1.10326	0.0050	1.00000		110	80 - 120			
Molybdenum	1.09962	0.0050	1.00000		110	80 - 120			
Nickel	1.05034	0.0050	1.00000		105	80 - 120			

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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0288 - EPA 3010A (continued)									
LCS (B3J0288-BS1) - Continued				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Selenium	1.03564	0.010	1.00000		104	80 - 120			
Silver	1.03425	0.0030	1.00000		103	80 - 120			
Thallium	1.11563	0.015	1.00000		112	80 - 120			
Vanadium	1.03844	0.0030	1.00000		104	80 - 120			
Zinc	1.02599	0.010	1.00000		103	80 - 120			
LCS Dup (B3J0288-BSD1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Antimony	0.950372	0.0050	1.00000		95.0	80 - 120	9.55	20	
Arsenic	0.964632	0.010	1.00000		96.5	80 - 120	10.0	20	
Barium	0.989971	0.0030	1.00000		99.0	80 - 120	8.10	20	
Beryllium	1.05369	0.0030	1.00000		105	80 - 120	5.33	20	
Cadmium	0.991098	0.0030	1.00000		99.1	80 - 120	8.27	20	
Chromium	1.01284	0.0030	1.00000		101	80 - 120	8.28	20	
Cobalt	0.957303	0.0030	1.00000		95.7	80 - 120	9.03	20	
Copper	0.982497	0.0050	1.00000		98.2	80 - 120	6.88	20	
Lead	0.999724	0.0050	1.00000		100	80 - 120	9.85	20	
Molybdenum	0.994152	0.0050	1.00000		99.4	80 - 120	10.1	20	
Nickel	0.960161	0.0050	1.00000		96.0	80 - 120	8.97	20	
Selenium	0.942334	0.010	1.00000		94.2	80 - 120	9.43	20	
Silver	0.960601	0.0030	1.00000		96.1	80 - 120	7.38	20	
Thallium	1.01640	0.015	1.00000		102	80 - 120	9.31	20	
Vanadium	0.970982	0.0030	1.00000		97.1	80 - 120	6.71	20	
Zinc	0.935077	0.010	1.00000		93.5	80 - 120	9.27	20	

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TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0480 - EPA 3010A_SOIL									
Blank (B3J0480-BLK1)				Prepared: 10/22/2013 Analyzed: 10/23/2013					
Lead	ND	0.050			NR				
Blank (B3J0480-BLK2)				Prepared: 10/22/2013 Analyzed: 10/23/2013					
Lead	ND	0.050			NR				
LCS (B3J0480-BS1)				Prepared: 10/22/2013 Analyzed: 10/23/2013					
Lead	0.996362	0.050	1.00000		99.6	80 - 120			

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TCLP Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0480 - EPA 3010A_SOIL (continued)									
Duplicate (B3J0480-DUP1)			**Source: 1303113-08**		Prepared: 10/22/2013 Analyzed: 10/23/2013				
Lead	0.023193	0.050		0.010093	NR		78.7	20	R

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TCLP Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0480 - EPA 3010A_SOIL (continued)									
Matrix Spike (B3J0480-MS1)			**Source: 1303113-08**		Prepared: 10/22/2013 Analyzed: 10/23/2013				
Lead	2.13440	0.050	2.50000	0.010093	85.0	76 - 109			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

TCLP Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0480 - EPA 3010A_SOIL (continued)									
Matrix Spike Dup (B3J0480-MSD1)		**Source: 1303113-08**		Prepared: 10/22/2013 Analyzed: 10/23/2013					
Lead	2.26549	0.050	2.50000	0.010093	90.2	76 - 109	5.96	20	

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Irvine , CA 92618	Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction									
Blank (B3J0499-BLK1)				Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	ND	1.0			NR				

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Blank (B3J0499-BLK2)				Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	ND	1.0			NR				

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
LCS (B3J0499-BS1)				Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	2.01021	1.0	2.00000		101	80 - 120			

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Duplicate (B3J0499-DUP1)			**Source: 1303113-60**		Prepared: 10/23/2013 Analyzed: 10/23/2013				
Lead	9.05175	1.0		7.85539	NR		14.2	20	

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Duplicate (B3J0499-DUP2)		**Source: 1303172-31**		Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	4.54251	1.0		4.39627	NR		3.27	20	

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STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Matrix Spike (B3J0499-MS1)		**Source: 1303113-60**		Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	10.0175	1.0	2.50000	7.85539	86.5	33 - 131			

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Matrix Spike (B3J0499-MS2)		**Source: 1303172-31**		Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	6.61669	1.0	2.50000	4.39627	88.8	33 - 131			

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Irvine , CA 92618		Reported :	11/01/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0499 - STLC Extraction (continued)									
Matrix Spike Dup (B3J0499-MSD1)		**Source: 1303113-60**		Prepared: 10/23/2013 Analyzed: 10/23/2013					
Lead	9.41625	1.0	2.50000	7.85539	62.4	33 - 131	6.19	20	

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0236 - EPA 245.1/7470									
Blank (B3J0236-BLK1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Mercury	ND	0.20			NR				

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0236 - EPA 245.1/7470 (continued)									
LCS (B3J0236-BS1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Mercury	10.7327	0.20	10.0000		107	80 - 120			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0236 - EPA 245.1/7470 (continued)									
Matrix Spike (B3J0236-MS1)			**Source: 1303113-17**		Prepared: 10/10/2013 Analyzed: 10/11/2013				
Mercury	9.77435	0.20	10.0000	ND	97.7	70 - 130			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0236 - EPA 245.1/7470 (continued)									
Matrix Spike Dup (B3J0236-MSD1)		**Source: 1303113-17**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
Mercury	9.86415	0.20	10.0000	ND	98.6	70 - 130	0.915	20	

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0236 - EPA 245.1/7470 (continued)									
Post Spike (B3J0236-PS1)			**Source: 1303113-17**		Prepared: 10/10/2013 Analyzed: 10/11/2013				
Mercury	5.22810		5.00000	0.009869	104	85 - 115			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0291 - EPA 245.1/7470									
Blank (B3J0291-BLK1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Mercury	ND	0.20			NR				

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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0291 - EPA 245.1/7470 (continued)									
LCS (B3J0291-BS1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Mercury	10.2776	0.20	10.0000		103	80 - 120			

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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0291 - EPA 245.1/7470 (continued)									
LCS Dup (B3J0291-BSD1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Mercury	10.3446	0.20	10.0000		103	80 - 120	0.649	20	

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Mercury by AA (Cold Vapor) EPA 7470A - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0291 - EPA 245.1/7470 (continued)									
Post Spike (B3J0291-PS1)			**Source: 1303113-67**		Prepared: 10/14/2013 Analyzed: 10/14/2013				
Mercury	4.70602		5.00000	0.151851	91.1	85 - 115			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0261 - EPA 7471									
Blank (B3J0261-BLK1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	ND	0.10			NR				

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0261 - EPA 7471 (continued)									
LCS (B3J0261-BS1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.812702	0.10	0.833333		97.5	80 - 120			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0261 - EPA 7471 (continued)									
Matrix Spike (B3J0261-MS1)		**Source: 1303112-49**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.853572	0.10	0.833333	0.012461	101	70 - 130			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0261 - EPA 7471 (continued)									
Matrix Spike Dup (B3J0261-MSD1)		**Source: 1303112-49**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.843379	0.10	0.833333	0.012461	99.7	70 - 130	1.20	20	

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0261 - EPA 7471 (continued)									
Post Spike (B3J0261-PS1)			**Source: 1303112-49**		Prepared: 10/11/2013 Analyzed: 10/14/2013				
Mercury	0.005321		5.00000E-3	1.495E-4	103	85 - 115			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0262 - EPA 7471									
Blank (B3J0262-BLK1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	ND	0.10			NR				

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0262 - EPA 7471 (continued)									
LCS (B3J0262-BS1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.799726	0.10	0.833333		96.0	80 - 120			

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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0262 - EPA 7471 (continued)									
Matrix Spike (B3J0262-MS1)		**Source: 1303113-34**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.841553	0.10	0.833333	0.070903	92.5	70 - 130			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0262 - EPA 7471 (continued)									
Matrix Spike Dup (B3J0262-MSD1)		**Source: 1303113-34**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.851411	0.10	0.833333	0.070903	93.7	70 - 130	1.16	20	

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0262 - EPA 7471 (continued)									
Post Spike (B3J0262-PS1)		**Source: 1303113-34**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.005659		5.00000E-3	8.508E-4	96.2	85 - 115			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0264 - EPA 7471									
Blank (B3J0264-BLK1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	ND	0.10			NR				

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0264 - EPA 7471 (continued)									
LCS (B3J0264-BS1)				Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.807401	0.10	0.833333		96.9	80 - 120			

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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0264 - EPA 7471 (continued)									
Matrix Spike (B3J0264-MS1)		**Source: 1303113-58**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.840443	0.10	0.833333	ND	101	70 - 130			

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0264 - EPA 7471 (continued)									
Matrix Spike Dup (B3J0264-MSD1)		**Source: 1303113-58**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.812310	0.10	0.833333	ND	97.5	70 - 130	3.40	20	

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Irvine , CA 92618		Reported :	11/01/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0264 - EPA 7471 (continued)									
Post Spike (B3J0264-PS1)		**Source: 1303113-58**		Prepared: 10/11/2013 Analyzed: 10/14/2013					
Mercury	0.005412		5.00000E-3	0.000057	107	85 - 115			

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Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0234 - GCVOAW									
Blank (B3J0234-BLK1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	ND	0.20			NR				
Surrogate: 4-Bromofluorobenzene	*0.09579*		*0.100000*		*95.8*	*70 - 130*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0234 - GCVOAW (continued)									
LCS (B3J0234-BS1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	0.952000	0.20	1.00000		95.2	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.09526*		*0.100000*		*95.3*	*70 - 130*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0234 - GCVOAW (continued)									
LCS Dup (B3J0234-BSD1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	1.01300	0.20	1.00000		101	70 - 130	6.21	20	
Surrogate: 4-Bromofluorobenzene	*0.09533*		*0.100000*		*95.3*	*70 - 130*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0198 - GCVOAS									
Blank (B3J0198-BLK1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	*0.2240*		*0.200000*		*112*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0198 - GCVOAS (continued)									
LCS (B3J0198-BS1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	4.79800	1.0	5.00000		96.0	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.2225*		*0.200000*		*111*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0198 - GCVOAS (continued)									
LCS Dup (B3J0198-BSD1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	4.76800	1.0	5.00000		95.4	70 - 130	0.627	20	
Surrogate: 4-Bromofluorobenzene	*0.2193*		*0.200000*		*110*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0220 - GCVOAS									
Blank (B3J0220-BLK1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	*0.1970*		*0.200000*		*98.5*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0220 - GCVOAS (continued)									
LCS (B3J0220-BS1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	4.56000	1.0	5.00000		91.2	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.2275*		*0.200000*		*114*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0220 - GCVOAS (continued)									
LCS Dup (B3J0220-BSD1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
T/R Hydrocarbons: C4-C12	4.64300	1.0	5.00000		92.9	70 - 130	1.80	20	
Surrogate: 4-Bromofluorobenzene	*0.2121*		*0.200000*		*106*	*59 - 160*			

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS									
Blank (B3J0254-BLK1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	*0.2037*		*0.200000*		*102*	*59 - 160*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS (continued)									
LCS (B3J0254-BS1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	5.29000	1.0	5.00000		106	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.2090*		*0.200000*		*105*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS (continued)									
LCS Dup (B3J0254-BSD1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	5.05000	1.0	5.00000		101	70 - 130	4.64	20	
Surrogate: 4-Bromofluorobenzene	*0.2009*		*0.200000*		*100*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS (continued)									
Duplicate (B3J0254-DUP1)		**Source: 1303149-01**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	ND	1.0		ND	NR			20	
Surrogate: 4-Bromofluorobenzene	*0.1804*		*0.200000*		*90.2*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS (continued)									
Matrix Spike (B3J0254-MS1)		**Source: 1303149-01**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	5.10800	1.0	5.00000	ND	102	40 - 124			
Surrogate: 4-Bromofluorobenzene	*0.2249*		*0.200000*		*112*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0254 - GCVOAS (continued)									
Matrix Spike Dup (B3J0254-MSD1)		**Source: 1303149-01**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C4-C12	4.66000	1.0	5.00000	ND	93.2	40 - 124	9.17	20	
Surrogate: 4-Bromofluorobenzene	*0.1912*		*0.200000*		*95.6*	*59 - 160*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0157 - GCSEMI_DRO									
Blank (B3J0157-BLK1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
T/R Hydrocarbons: C13-C22	ND	0.20			NR				
T/R Hydrocarbons: C23-C32	ND	0.20			NR				
T/R Hydrocarbons: >C32	ND	0.20			NR				
Surrogate: p-Terphenyl	*0.07805*		*8.00000E-2*		*97.6*	*38 - 151*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0157 - GCSEMI_DRO (continued)									
LCS (B3J0157-BS1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
DRO	1.11628	0.20	1.00000		112	50 - 121			
Surrogate: p-Terphenyl	*0.06621*		*8.00000E-2*		*82.8*	*38 - 151*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0157 - GCSEMI_DRO (continued)									
LCS Dup (B3J0157-BSD1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
DRO	1.02866	0.20	1.00000		103	50 - 121	8.17	20	
Surrogate: p-Terphenyl	*0.05825*		*8.00000E-2*		*72.8*	*38 - 151*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0208 - GCSEMI_DRO									
Blank (B3J0208-BLK1)				Prepared: 10/9/2013 Analyzed: 10/10/2013					
T/R Hydrocarbons: C13-C22	ND	10			NR				
T/R Hydrocarbons: C23-C32	ND	10			NR				
T/R Hydrocarbons: >C32	ND	10			NR				
Surrogate: p-Terphenyl	*78.64*		*80.0000*		*98.3*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0208 - GCSEMI_DRO (continued)									
LCS (B3J0208-BS1)				Prepared: 10/9/2013 Analyzed: 10/10/2013					
DRO	1010.85	10	1000.00		101	65 - 151			
Surrogate: p-Terphenyl	*80.04*		*80.0000*		*100*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0208 - GCSEMI_DRO (continued)									
Matrix Spike (B3J0208-MS1)		**Source: 1303113-33**		Prepared: 10/9/2013 Analyzed: 10/10/2013					
DRO	1026.24	10	1000.00	ND	103	45 - 168			
Surrogate: p-Terphenyl	*78.63*		*80.0000*		*98.3*	*55 - 153*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0208 - GCSEMI_DRO (continued)									
Matrix Spike Dup (B3J0208-MSD1)		**Source: 1303113-33**		Prepared: 10/9/2013 Analyzed: 10/10/2013					
DRO	1002.09	10	1000.00	ND	100	45 - 168	2.38	20	
Surrogate: p-Terphenyl	*75.93*		*80.0000*		*94.9*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0245 - GCSEMI_DRO									
Blank (B3J0245-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
T/R Hydrocarbons: C13-C22	ND	10			NR				
T/R Hydrocarbons: C23-C32	ND	10			NR				
T/R Hydrocarbons: >C32	ND	10			NR				
Surrogate: p-Terphenyl	*78.73*		*80.0000*		*98.4*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0245 - GCSEMI_DRO (continued)									
LCS (B3J0245-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
DRO	992.530	10	1000.00		99.3	65 - 151			
Surrogate: p-Terphenyl	*78.77*		*80.0000*		*98.5*	*55 - 153*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0245 - GCSEMI_DRO (continued)									
Matrix Spike (B3J0245-MS1)		**Source: 1303137-03**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
DRO	1005.43	10	1000.00	41.0900	96.4	45 - 168			
Surrogate: p-Terphenyl	*76.11*		*80.0000*		*95.1*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0245 - GCSEMI_DRO (continued)									
Matrix Spike Dup (B3J0245-MSD1)		**Source: 1303137-03**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
DRO	997.710	10	1000.00	41.0900	95.7	45 - 168	0.771	20	
Surrogate: p-Terphenyl	*76.18*		*80.0000*		*95.2*	*55 - 153*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0260 - GCSEMI_DRO									
Blank (B3J0260-BLK1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
T/R Hydrocarbons: C13-C22	ND	10			NR				
T/R Hydrocarbons: C23-C32	ND	10			NR				
T/R Hydrocarbons: >C32	ND	10			NR				
Surrogate: p-Terphenyl	*88.55*		*80.0000*		*111*	*55 - 153*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0260 - GCSEMI_DRO (continued)									
LCS (B3J0260-BS1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
DRO	1000.99	10	1000.00		100	65 - 151			
Surrogate: p-Terphenyl	*79.29*		*80.0000*		*99.1*	*55 - 153*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0260 - GCSEMI_DRO (continued)									
Duplicate (B3J0260-DUP1)		**Source: 1303149-04**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
DRO	58.0800	10		53.5600	NR		8.10	20	
Surrogate: p-Terphenyl	*76.96*		*80.0000*		*96.2*	*55 - 153*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0260 - GCSEMI_DRO (continued)									
Matrix Spike (B3J0260-MS1)		**Source: 1303149-04**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
DRO	1079.35	10	1000.00	53.5600	103	45 - 168			
Surrogate: p-Terphenyl	*75.44*		*80.0000*		*94.3*	*55 - 153*			

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Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0260 - GCSEMI_DRO (continued)									
Matrix Spike Dup (B3J0260-MSD1)		**Source: 1303149-04**		Prepared: 10/11/2013 Analyzed: 10/11/2013					
DRO	1042.29	10	1000.00	53.5600	98.9	45 - 168	3.49	20	
Surrogate: p-Terphenyl	*70.84*		*80.0000*		*88.6*	*55 - 153*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST									
Blank (B3J0185-BLK1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
4,4´-DDD	ND	0.05			NR				
4,4´-DDD [2C]	ND	0.05			NR				
4,4´-DDE	ND	0.05			NR				
4,4´-DDE [2C]	ND	0.05			NR				
4,4´-DDT	ND	0.05			NR				
4,4´-DDT [2C]	ND	0.05			NR				
Aldrin	ND	0.02			NR				
Aldrin [2C]	ND	0.02			NR				
alpha-BHC	ND	0.02			NR				
alpha-BHC [2C]	ND	0.02			NR				
alpha-Chlordane	ND	0.02			NR				
alpha-Chlordane [2C]	ND	0.02			NR				
beta-BHC	ND	0.02			NR				
beta-BHC [2C]	ND	0.02			NR				
Chlordane	ND	0.25			NR				
Chlordane [2C]	ND	0.25			NR				
delta-BHC	ND	0.02			NR				
delta-BHC [2C]	ND	0.02			NR				
Dieldrin	ND	0.05			NR				
Dieldrin [2C]	ND	0.05			NR				
Endosulfan I	ND	0.02			NR				
Endosulfan I [2C]	ND	0.02			NR				
Endosulfan II	ND	0.05			NR				
Endosulfan II [2C]	ND	0.05			NR				
Endosulfan sulfate	ND	0.05			NR				
Endosulfan Sulfate [2C]	ND	0.05			NR				
Endrin	ND	0.05			NR				
Endrin [2C]	ND	0.05			NR				
Endrin aldehyde	ND	0.05			NR				
Endrin aldehyde [2C]	ND	0.05			NR				
Endrin ketone	ND	0.05			NR				
Endrin ketone [2C]	ND	0.05			NR				
gamma-BHC	ND	0.02			NR				
gamma-BHC [2C]	ND	0.02			NR				
gamma-Chlordane	ND	0.02			NR				
gamma-Chlordane [2C]	ND	0.02			NR				
Heptachlor	ND	0.02			NR				
Heptachlor [2C]	ND	0.02			NR				
Heptachlor epoxide	ND	0.02			NR				
Heptachlor epoxide [2C]	ND	0.02			NR				
Methoxychlor	ND	0.25			NR				

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST (continued)									
Blank (B3J0185-BLK1) - Continued				Prepared: 10/8/2013 Analyzed: 10/8/2013					
Methoxychlor [2C]	ND	0.25			NR				
Toxaphene	ND	2.5			NR				
Toxaphene [2C]	ND	2.5			NR				
Surrogate: Decachlorobiphenyl	*0.3510*		*0.500000*		*70.2*	*37 - 129*			
Surrogate: Decachlorobiphenyl [2C]	*0.3653*		*0.500000*		*73.1*	*37 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.4074*		*0.500000*		*81.5*	*50 - 118*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.4100*		*0.500000*		*82.0*	*50 - 118*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0185-BS1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
4,4´-DDT	0.381160	0.05	0.500000		76.2	56 - 111			
4,4´-DDT [2C]	0.383545	0.05	0.500000		76.7	56 - 111			
Aldrin	0.402280	0.02	0.500000		80.5	56 - 113			
Aldrin [2C]	0.365030	0.02	0.500000		73.0	56 - 113			
Dieldrin	0.361510	0.05	0.500000		72.3	55 - 113			
Dieldrin [2C]	0.365765	0.05	0.500000		73.2	55 - 113			
Endrin	0.343370	0.05	0.500000		68.7	55 - 101			
Endrin [2C]	0.342845	0.05	0.500000		68.6	55 - 101			
gamma-BHC	0.428360	0.02	0.500000		85.7	61 - 110			
gamma-BHC [2C]	0.416060	0.02	0.500000		83.2	61 - 110			
Heptachlor	0.549330	0.02	0.500000		110	67 - 110			
Heptachlor [2C]	0.535755	0.02	0.500000		107	67 - 110			
Surrogate: Decachlorobiphenyl	*0.3510*		*0.500000*		*70.2*	*37 - 129*			
Surrogate: Decachlorobiphenyl [2C]	*0.3684*		*0.500000*		*73.7*	*37 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.4084*		*0.500000*		*81.7*	*50 - 118*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.4145*		*0.500000*		*82.9*	*50 - 118*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST (continued)									
LCS Dup (B3J0185-BSD1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
4,4´-DDT	0.392155	0.05	0.500000		78.4	56 - 111	2.84	20	
4,4´-DDT [2C]	0.397325	0.05	0.500000		79.5	56 - 111	3.53	20	
Aldrin	0.405845	0.02	0.500000		81.2	56 - 113	0.882	20	
Aldrin [2C]	0.378775	0.02	0.500000		75.8	56 - 113	3.70	20	
Dieldrin	0.369840	0.05	0.500000		74.0	55 - 113	2.28	20	
Dieldrin [2C]	0.383685	0.05	0.500000		76.7	55 - 113	4.78	20	
Endrin	0.335945	0.05	0.500000		67.2	55 - 101	2.19	20	
Endrin [2C]	0.343190	0.05	0.500000		68.6	55 - 101	0.101	20	
gamma-BHC	0.430455	0.02	0.500000		86.1	61 - 110	0.488	20	
gamma-BHC [2C]	0.428480	0.02	0.500000		85.7	61 - 110	2.94	20	
Heptachlor	0.546880	0.02	0.500000		109	67 - 110	0.447	20	
Heptachlor [2C]	0.545545	0.02	0.500000		109	67 - 110	1.81	20	
Surrogate: Decachlorobiphenyl	*0.3661*		*0.500000*		*73.2*	*37 - 129*			
Surrogate: Decachlorobiphenyl [2C]	*0.3784*		*0.500000*		*75.7*	*37 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.3952*		*0.500000*		*79.0*	*50 - 118*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.4135*		*0.500000*		*82.7*	*50 - 118*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST									
Blank (B3J0219-BLK1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
Blank (B3J0219-BLK1) - Continued				Prepared: 10/9/2013 Analyzed: 10/9/2013					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*10.11*		*16.6667*		*60.6*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*8.906*		*16.6667*		*53.4*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.25*		*16.6667*		*73.5*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.98*		*16.6667*		*71.9*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0219-BS1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
4,4´-DDT	11.9378	2.0	16.6667		71.6	60 - 108			
4,4´-DDT [2C]	11.7043	2.0	16.6667		70.2	60 - 108			
Aldrin	11.4838	1.0	16.6667		68.9	57 - 111			
Aldrin [2C]	11.3087	1.0	16.6667		67.9	57 - 111			
Dieldrin	10.6625	2.0	16.6667		64.0	61 - 106			
Dieldrin [2C]	10.8823	2.0	16.6667		65.3	61 - 106			
Endrin	10.3338	2.0	16.6667		62.0	57 - 97			
Endrin [2C]	10.3630	2.0	16.6667		62.2	57 - 97			
gamma-BHC	12.2262	1.0	16.6667		73.4	61 - 109			
gamma-BHC [2C]	11.9508	1.0	16.6667		71.7	61 - 109			
Heptachlor	13.7510	1.0	16.6667		82.5	58 - 115			
Heptachlor [2C]	13.6427	1.0	16.6667		81.9	58 - 115			
Surrogate: Decachlorobiphenyl	*10.45*		*16.6667*		*62.7*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*9.023*		*16.6667*		*54.1*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*11.93*		*16.6667*		*71.6*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.89*		*16.6667*		*71.3*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0219-MS1)		**Source: 1303113-03**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
4,4´-DDT	11.6940	2.0	16.6667	ND	70.2	26 - 133			
4,4´-DDT [2C]	14.2030	2.0	16.6667	ND	85.2	26 - 133			
Aldrin	13.5025	1.0	16.6667	ND	81.0	38 - 119			
Aldrin [2C]	13.6330	1.0	16.6667	ND	81.8	38 - 119			
Dieldrin	12.4995	2.0	16.6667	ND	75.0	30 - 120			
Dieldrin [2C]	13.1175	2.0	16.6667	ND	78.7	30 - 120			
Endrin	11.9807	2.0	16.6667	ND	71.9	30 - 114			
Endrin [2C]	11.9973	2.0	16.6667	ND	72.0	30 - 114			
gamma-BHC	14.4555	1.0	16.6667	ND	86.7	31 - 122			
gamma-BHC [2C]	14.5777	1.0	16.6667	ND	87.5	31 - 122			
Heptachlor	13.5607	1.0	16.6667	ND	81.4	38 - 123			
Heptachlor [2C]	13.0960	1.0	16.6667	ND	78.6	38 - 123			
Surrogate: Decachlorobiphenyl	*11.43*		*16.6667*		*68.6*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*10.69*		*16.6667*		*64.1*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.86*		*16.6667*		*77.2*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.24*		*16.6667*		*79.5*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0219-MSD1)		**Source: 1303113-03**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
4,4´-DDT	12.4822	2.0	16.6667	ND	74.9	26 - 133	6.52	20	
4,4´-DDT [2C]	14.8460	2.0	16.6667	ND	89.1	26 - 133	4.43	20	
Aldrin	13.9023	1.0	16.6667	ND	83.4	38 - 119	2.92	20	
Aldrin [2C]	14.1340	1.0	16.6667	ND	84.8	38 - 119	3.61	20	
Dieldrin	13.0385	2.0	16.6667	ND	78.2	30 - 120	4.22	20	
Dieldrin [2C]	13.5817	2.0	16.6667	ND	81.5	30 - 120	3.48	20	
Endrin	12.6225	2.0	16.6667	ND	75.7	30 - 114	5.22	20	
Endrin [2C]	12.5003	2.0	16.6667	ND	75.0	30 - 114	4.11	20	
gamma-BHC	15.0555	1.0	16.6667	ND	90.3	31 - 122	4.07	20	
gamma-BHC [2C]	15.1752	1.0	16.6667	ND	91.1	31 - 122	4.02	20	
Heptachlor	14.3350	1.0	16.6667	ND	86.0	38 - 123	5.55	20	
Heptachlor [2C]	13.5452	1.0	16.6667	ND	81.3	38 - 123	3.37	20	
Surrogate: Decachlorobiphenyl	*11.90*		*16.6667*		*71.4*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*11.27*		*16.6667*		*67.6*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.53*		*16.6667*		*81.2*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.74*		*16.6667*		*82.5*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST									
Blank (B3J0231-BLK1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
Blank (B3J0231-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/11/2013					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.94*		*16.6667*		*89.7*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.53*		*16.6667*		*99.2*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*12.96*		*16.6667*		*77.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.30*		*16.6667*		*79.8*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0231-BS1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
4,4´-DDT	15.2530	2.0	16.6667		91.5	60 - 108			
4,4´-DDT [2C]	17.6775	2.0	16.6667		106	60 - 108			
Aldrin	14.5752	1.0	16.6667		87.5	57 - 111			
Aldrin [2C]	15.2358	1.0	16.6667		91.4	57 - 111			
Dieldrin	14.3907	2.0	16.6667		86.3	61 - 106			
Dieldrin [2C]	15.6908	2.0	16.6667		94.1	61 - 106			
Endrin	12.9753	2.0	16.6667		77.9	57 - 97			
Endrin [2C]	13.5852	2.0	16.6667		81.5	57 - 97			
gamma-BHC	14.7602	1.0	16.6667		88.6	61 - 109			
gamma-BHC [2C]	14.9763	1.0	16.6667		89.9	61 - 109			
Heptachlor	20.8610	1.0	16.6667		125	58 - 115			L5
Heptachlor [2C]	22.1045	1.0	16.6667		133	58 - 115			L5
Surrogate: Decachlorobiphenyl	*14.79*		*16.6667*		*88.8*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.10*		*16.6667*		*96.6*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.07*		*16.6667*		*78.4*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.55*		*16.6667*		*81.3*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0231-MS1)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
4,4´-DDT	16.5875	2.0	16.6667	ND	99.5	26 - 133			
4,4´-DDT [2C]	21.0072	2.0	16.6667	ND	126	26 - 133			
Aldrin	15.8708	1.0	16.6667	ND	95.2	38 - 119			
Aldrin [2C]	16.8512	1.0	16.6667	ND	101	38 - 119			
Dieldrin	15.8612	2.0	16.6667	ND	95.2	30 - 120			
Dieldrin [2C]	17.5850	2.0	16.6667	ND	106	30 - 120			
Endrin	14.9315	2.0	16.6667	ND	89.6	30 - 114			
Endrin [2C]	12.3173	2.0	16.6667	ND	73.9	30 - 114			
gamma-BHC	16.0285	1.0	16.6667	ND	96.2	31 - 122			
gamma-BHC [2C]	16.8753	1.0	16.6667	ND	101	31 - 122			
Heptachlor	21.9413	1.0	16.6667	ND	132	38 - 123			M1
Heptachlor [2C]	24.5763	1.0	16.6667	ND	147	38 - 123			M1
Surrogate: Decachlorobiphenyl	*16.74*		*16.6667*		*100*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*18.77*		*16.6667*		*113*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.57*		*16.6667*		*81.4*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.58*		*16.6667*		*87.5*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0231-MSD1)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
4,4´-DDT	17.0698	2.0	16.6667	ND	102	26 - 133	2.87	20	
4,4´-DDT [2C]	21.2368	2.0	16.6667	ND	127	26 - 133	1.09	20	
Aldrin	15.9627	1.0	16.6667	ND	95.8	38 - 119	0.577	20	
Aldrin [2C]	16.9028	1.0	16.6667	ND	101	38 - 119	0.306	20	
Dieldrin	15.7940	2.0	16.6667	ND	94.8	30 - 120	0.424	20	
Dieldrin [2C]	17.5382	2.0	16.6667	ND	105	30 - 120	0.267	20	
Endrin	14.7453	2.0	16.6667	ND	88.5	30 - 114	1.25	20	
Endrin [2C]	12.1662	2.0	16.6667	ND	73.0	30 - 114	1.23	20	
gamma-BHC	16.3335	1.0	16.6667	ND	98.0	31 - 122	1.88	20	
gamma-BHC [2C]	17.0342	1.0	16.6667	ND	102	31 - 122	0.937	20	
Heptachlor	21.9968	1.0	16.6667	ND	132	38 - 123	0.253	20	M1
Heptachlor [2C]	24.7432	1.0	16.6667	ND	148	38 - 123	0.677	20	M1
Surrogate: Decachlorobiphenyl	*16.69*		*16.6667*		*100*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*18.75*		*16.6667*		*112*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.45*		*16.6667*		*80.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.72*		*16.6667*		*88.3*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST									
Blank (B3J0390-BLK1)				Prepared: 10/17/2013 Analyzed: 10/18/2013					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
Blank (B3J0390-BLK1) - Continued				Prepared: 10/17/2013 Analyzed: 10/18/2013					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*15.32*		*16.6667*		*91.9*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*15.61*		*16.6667*		*93.7*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.28*		*16.6667*		*85.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.65*		*16.6667*		*87.9*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0390-BS1)				Prepared: 10/17/2013 Analyzed: 10/18/2013					
4,4´-DDT	16.5787	2.0	16.6667		99.5	60 - 108			
4,4´-DDT [2C]	16.0965	2.0	16.6667		96.6	60 - 108			
Aldrin	15.9835	1.0	16.6667		95.9	57 - 111			
Aldrin [2C]	14.3862	1.0	16.6667		86.3	57 - 111			
Dieldrin	14.7987	2.0	16.6667		88.8	61 - 106			
Dieldrin [2C]	15.0058	2.0	16.6667		90.0	61 - 106			
Endrin	15.3012	2.0	16.6667		91.8	57 - 97			
Endrin [2C]	14.9978	2.0	16.6667		90.0	57 - 97			
gamma-BHC	15.7987	1.0	16.6667		94.8	61 - 109			
gamma-BHC [2C]	14.7830	1.0	16.6667		88.7	61 - 109			
Heptachlor	16.5967	1.0	16.6667		99.6	58 - 115			
Heptachlor [2C]	17.4560	1.0	16.6667		105	58 - 115			
Surrogate: Decachlorobiphenyl	*16.26*		*16.6667*		*97.6*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*16.56*		*16.6667*		*99.4*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.96*		*16.6667*		*83.7*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.40*		*16.6667*		*86.4*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0390-MS1)		**Source: 1303113-01**		Prepared: 10/17/2013 Analyzed: 10/18/2013					
4,4´-DDT	17.7282	2.0	16.6667	ND	106	26 - 133			
4,4´-DDT [2C]	17.0862	2.0	16.6667	ND	103	26 - 133			
Aldrin	16.3390	1.0	16.6667	ND	98.0	38 - 119			
Aldrin [2C]	15.0817	1.0	16.6667	ND	90.5	38 - 119			
Dieldrin	14.8523	2.0	16.6667	ND	89.1	30 - 120			
Dieldrin [2C]	15.2258	2.0	16.6667	ND	91.4	30 - 120			
Endrin	16.7082	2.0	16.6667	ND	100	30 - 114			
Endrin [2C]	16.4242	2.0	16.6667	ND	98.5	30 - 114			
gamma-BHC	16.4643	1.0	16.6667	ND	98.8	31 - 122			
gamma-BHC [2C]	15.7353	1.0	16.6667	ND	94.4	31 - 122			
Heptachlor	19.7008	1.0	16.6667	ND	118	38 - 123			
Heptachlor [2C]	21.6160	1.0	16.6667	ND	130	38 - 123			M2
Surrogate: Decachlorobiphenyl	*15.34*		*16.6667*		*92.0*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*15.24*		*16.6667*		*91.5*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*13.91*		*16.6667*		*83.5*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.45*		*16.6667*		*86.7*	*32 - 101*			

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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0390-MSD1)		**Source: 1303113-01**		Prepared: 10/17/2013 Analyzed: 10/18/2013					
4,4´-DDT	17.7995	2.0	16.6667	ND	107	26 - 133	0.402	20	
4,4´-DDT [2C]	17.6137	2.0	16.6667	ND	106	26 - 133	3.04	20	
Aldrin	17.3038	1.0	16.6667	ND	104	38 - 119	5.74	20	
Aldrin [2C]	15.7248	1.0	16.6667	ND	94.3	38 - 119	4.18	20	
Dieldrin	15.2442	2.0	16.6667	ND	91.5	30 - 120	2.60	20	
Dieldrin [2C]	15.7580	2.0	16.6667	ND	94.5	30 - 120	3.44	20	
Endrin	17.1760	2.0	16.6667	ND	103	30 - 114	2.76	20	
Endrin [2C]	16.8262	2.0	16.6667	ND	101	30 - 114	2.42	20	
gamma-BHC	17.5475	1.0	16.6667	ND	105	31 - 122	6.37	20	
gamma-BHC [2C]	16.6782	1.0	16.6667	ND	100	31 - 122	5.82	20	
Heptachlor	22.2968	1.0	16.6667	ND	134	38 - 123	12.4	20	M2
Heptachlor [2C]	24.8405	1.0	16.6667	ND	149	38 - 123	13.9	20	M2
Surrogate: Decachlorobiphenyl	*15.14*		*16.6667*		*90.8*	*32 - 113*			
Surrogate: Decachlorobiphenyl [2C]	*15.41*		*16.6667*		*92.5*	*32 - 113*			
Surrogate: Tetrachloro-m-xylene	*14.83*		*16.6667*		*89.0*	*32 - 101*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.44*		*16.6667*		*92.6*	*32 - 101*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST									
Blank (B3J0185-BLK2)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	*0.4434*		*0.500000*		*88.7*	*39 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.4614*		*0.500000*		*92.3*	*39 - 123*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0185-BS2)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
Aroclor 1016	3.96414	0.50	5.00000		79.3	64 - 102			
Aroclor 1260	3.81067	0.50	5.00000		76.2	68 - 100			
Surrogate: Decachlorobiphenyl	*0.4420*		*0.500000*		*88.4*	*39 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.4514*		*0.500000*		*90.3*	*39 - 123*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0185 - GCSEMI_PCB/PEST (continued)									
LCS Dup (B3J0185-BSD2)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
Aroclor 1016	4.02184	0.50	5.00000		80.4	64 - 102	1.45	20	
Aroclor 1260	3.85398	0.50	5.00000		77.1	68 - 100	1.13	20	
Surrogate: Decachlorobiphenyl	*0.4447*		*0.500000*		*88.9*	*39 - 129*			
Surrogate: Tetrachloro-m-xylene	*0.4569*		*0.500000*		*91.4*	*39 - 123*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST									
Blank (B3J0219-BLK2)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*16.04*		*16.6667*		*96.2*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*14.12*		*16.6667*		*84.7*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0219-BS2)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
Aroclor 1016	126.326	16	166.667		75.8	64 - 100			
Aroclor 1260	127.783	16	166.667		76.7	68 - 100			
Surrogate: Decachlorobiphenyl	*16.63*		*16.6667*		*99.8*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*14.50*		*16.6667*		*87.0*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0219-MS2)		**Source: 1303113-42**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
Aroclor 1016	137.491	16	166.667	ND	82.5	48 - 126			
Aroclor 1260	142.086	16	166.667	ND	85.3	46 - 130			
Surrogate: Decachlorobiphenyl	*18.27*		*16.6667*		*110*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*14.50*		*16.6667*		*87.0*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0219 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0219-MSD2)		**Source: 1303113-42**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
Aroclor 1016	137.397	16	166.667	ND	82.4	48 - 126	0.0681	20	
Aroclor 1260	142.479	16	166.667	ND	85.5	46 - 130	0.276	20	
Surrogate: Decachlorobiphenyl	*18.29*		*16.6667*		*110*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*14.53*		*16.6667*		*87.2*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST									
Blank (B3J0231-BLK2)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*13.79*		*16.6667*		*82.7*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*13.29*		*16.6667*		*79.7*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0231-BS2)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Aroclor 1016	121.972	16	166.667		73.2	64 - 100			
Aroclor 1260	139.933	16	166.667		84.0	68 - 100			
Surrogate: Decachlorobiphenyl	*13.57*		*16.6667*		*81.4*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*13.01*		*16.6667*		*78.0*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0231-MS2)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
Aroclor 1016	136.723	16	166.667	ND	82.0	48 - 126			
Aroclor 1260	153.434	16	166.667	ND	92.1	46 - 130			
Surrogate: Decachlorobiphenyl	*14.95*		*16.6667*		*89.7*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*13.28*		*16.6667*		*79.7*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0231 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0231-MSD2)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
Aroclor 1016	135.266	16	166.667	ND	81.2	48 - 126	1.07	20	
Aroclor 1260	153.436	16	166.667	ND	92.1	46 - 130	0.00162	20	
Surrogate: Decachlorobiphenyl	*15.04*		*16.6667*		*90.2*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*13.12*		*16.6667*		*78.7*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST									
Blank (B3J0390-BLK2)				Prepared: 10/17/2013 Analyzed: 10/18/2013					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*15.80*		*16.6667*		*94.8*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*14.18*		*16.6667*		*85.1*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
LCS (B3J0390-BS2)				Prepared: 10/17/2013 Analyzed: 10/18/2013					
Aroclor 1016	127.094	16	166.667		76.3	64 - 100			
Aroclor 1260	133.900	16	166.667		80.3	68 - 100			
Surrogate: Decachlorobiphenyl	*15.61*		*16.6667*		*93.6*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*13.95*		*16.6667*		*83.7*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3J0390-MS2)		**Source: 1303113-02**		Prepared: 10/17/2013 Analyzed: 10/18/2013					
Aroclor 1016	142.975	16	166.667	ND	85.8	48 - 126			
Aroclor 1260	149.472	16	166.667	ND	89.7	46 - 130			
Surrogate: Decachlorobiphenyl	*17.73*		*16.6667*		*106*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*15.00*		*16.6667*		*90.0*	*38 - 122*			

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Polychlorinated Biphenyls by EPA 8082 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0390 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3J0390-MSD2)		**Source: 1303113-02**		Prepared: 10/17/2013 Analyzed: 10/18/2013					
Aroclor 1016	144.611	16	166.667	ND	86.8	48 - 126	1.14	20	
Aroclor 1260	152.044	16	166.667	ND	91.2	46 - 130	1.71	20	
Surrogate: Decachlorobiphenyl	*17.96*		*16.6667*		*108*	*39 - 128*			
Surrogate: Tetrachloro-m-xylene	*15.21*		*16.6667*		*91.3*	*38 - 122*			

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Volatile Organic Compounds by EPA 8260 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0193 - MSVOAW_LL									
Blank (B3J0193-BLK1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chloroethyl vinyl ether	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromochloromethane	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon disulfide	ND	1.0			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Di-isopropyl ether	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0193 - MSVOAW_LL (continued)									
Blank (B3J0193-BLK1) - Continued				Prepared: 10/9/2013 Analyzed: 10/9/2013					
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethyl Acetate	ND	10			NR				
Ethyl Ether	ND	10			NR				
Ethyl tert-butyl ether	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Freon-113	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
MTBE	ND	0.50			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Amyl methyl ether	ND	0.50			NR				
tert-Butanol	ND	10			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
trans-1,3-Dichloropropene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl acetate	ND	10			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*21.30*		*25.0000*		*85.2*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21.91*		*25.0000*		*87.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26.71*		*25.0000*		*107*	*70 - 130*			
Surrogate: Toluene-d8	*24.24*		*25.0000*		*97.0*	*70 - 130*			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0193 - MSVOAW_LL (continued)									
LCS (B3J0193-BS1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	18.2400	0.50	20.0000		91.2	70 - 130			
Benzene	36.7200	0.50	40.0000		91.8	70 - 130			
Chlorobenzene	19.2800	0.50	20.0000		96.4	70 - 130			
MTBE	15.4100	0.50	20.0000		77.0	70 - 130			
Toluene	34.8800	0.50	40.0000		87.2	70 - 130			
Trichloroethene	21.1500	0.50	20.0000		106	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*20.90*		*25.0000*		*83.6*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22.82*		*25.0000*		*91.3*	*70 - 130*			
Surrogate: Dibromofluoromethane	*27.65*		*25.0000*		*111*	*70 - 130*			
Surrogate: Toluene-d8	*24.80*		*25.0000*		*99.2*	*70 - 130*			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0193 - MSVOAW_LL (continued)									
LCS Dup (B3J0193-BSD1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	19.6200	0.50	20.0000		98.1	70 - 130	7.29	20	
Benzene	38.0200	0.50	40.0000		95.0	70 - 130	3.48	20	
Chlorobenzene	19.4700	0.50	20.0000		97.4	70 - 130	0.981	20	
MTBE	16.2400	0.50	20.0000		81.2	70 - 130	5.24	20	
Toluene	35.6200	0.50	40.0000		89.0	70 - 130	2.10	20	
Trichloroethene	21.5800	0.50	20.0000		108	70 - 130	2.01	20	
Surrogate: 1,2-Dichloroethane-d4	*21.20*		*25.0000*		*84.8*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23.32*		*25.0000*		*93.3*	*70 - 130*			
Surrogate: Dibromofluoromethane	*23.28*		*25.0000*		*93.1*	*70 - 130*			
Surrogate: Toluene-d8	*24.95*		*25.0000*		*99.8*	*70 - 130*			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0223 - MSVOAW_LL									
Blank (B3J0223-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chloroethyl vinyl ether	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromochloromethane	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon disulfide	ND	1.0			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Di-isopropyl ether	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0223 - MSVOAW_LL (continued)									
Blank (B3J0223-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethyl Acetate	ND	10			NR				
Ethyl Ether	ND	10			NR				
Ethyl tert-butyl ether	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Freon-113	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
MTBE	ND	0.50			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Amyl methyl ether	ND	0.50			NR				
tert-Butanol	ND	10			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
trans-1,3-Dichloropropene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl acetate	ND	10			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*22.02*		*25.0000*		*88.1*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22.86*		*25.0000*		*91.4*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25.00*		*25.0000*		*100*	*70 - 130*			
Surrogate: Toluene-d8	*25.40*		*25.0000*		*102*	*70 - 130*			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0223 - MSVOAW_LL (continued)									
LCS (B3J0223-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	16.8700		20.0000		84.4	70 - 130			
Benzene	36.6200		40.0000		91.6	70 - 130			
Chlorobenzene	19.6400		20.0000		98.2	70 - 130			
MTBE	16.2400		20.0000		81.2	70 - 130			
Toluene	35.8700		40.0000		89.7	70 - 130			
Trichloroethene	21.2700		20.0000		106	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*21.14*		*25.0000*		*84.6*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22.25*		*25.0000*		*89.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*22.90*		*25.0000*		*91.6*	*70 - 130*			
Surrogate: Toluene-d8	*25.09*		*25.0000*		*100*	*70 - 130*			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0223 - MSVOAW_LL (continued)									
LCS Dup (B3J0223-BSD1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	17.0300		20.0000		85.2	70 - 130	0.944	20	
Benzene	35.1200		40.0000		87.8	70 - 130	4.18	20	
Chlorobenzene	18.7400		20.0000		93.7	70 - 130	4.69	20	
MTBE	16.2000		20.0000		81.0	70 - 130	0.247	20	
Toluene	34.2900		40.0000		85.7	70 - 130	4.50	20	
Trichloroethene	20.3900		20.0000		102	70 - 130	4.22	20	
Surrogate: 1,2-Dichloroethane-d4	*21.78*		*25.0000*		*87.1*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22.96*		*25.0000*		*91.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*22.72*		*25.0000*		*90.9*	*70 - 130*			
Surrogate: Toluene-d8	*25.35*		*25.0000*		*101*	*70 - 130*			

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Irvine , CA 92618		Reported :	11/01/2013

Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS									
Blank (B3J0204-BLK1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS (continued)									
Blank (B3J0204-BLK1) - Continued				Prepared: 10/9/2013 Analyzed: 10/9/2013					
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	50			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*61.84*		*50.0000*		*124*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*53.51*		*50.0000*		*107*	*69 - 131*			
Surrogate: Dibromofluoromethane	*57.57*		*50.0000*		*115*	*60 - 127*			
Surrogate: Toluene-d8	*55.92*		*50.0000*		*112*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS (continued)									
LCS (B3J0204-BS1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	55.9100	5.0	50.0000		112	70 - 130			
Benzene	116.560	5.0	100.000		117	70 - 130			
Chlorobenzene	55.0500	5.0	50.0000		110	70 - 130			
MTBE	62.3700	5.0	50.0000		125	70 - 130			
Toluene	115.440	5.0	100.000		115	70 - 130			
Trichloroethene	52.1000	5.0	50.0000		104	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*60.78*		*50.0000*		*122*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*53.34*		*50.0000*		*107*	*69 - 131*			
Surrogate: Dibromofluoromethane	*57.40*		*50.0000*		*115*	*60 - 127*			
Surrogate: Toluene-d8	*54.88*		*50.0000*		*110*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS (continued)									
LCS Dup (B3J0204-BSD1)				Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	56.3300	5.0	50.0000		113	70 - 130	0.748	20	
Benzene	119.230	5.0	100.000		119	70 - 130	2.26	20	
Chlorobenzene	58.2400	5.0	50.0000		116	70 - 130	5.63	20	
MTBE	61.8000	5.0	50.0000		124	70 - 130	0.918	20	
Toluene	118.760	5.0	100.000		119	70 - 130	2.84	20	
Trichloroethene	52.7900	5.0	50.0000		106	70 - 130	1.32	20	
Surrogate: 1,2-Dichloroethane-d4	*59.56*		*50.0000*		*119*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*55.26*		*50.0000*		*111*	*69 - 131*			
Surrogate: Dibromofluoromethane	*56.89*		*50.0000*		*114*	*60 - 127*			
Surrogate: Toluene-d8	*55.59*		*50.0000*		*111*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS (continued)									
Matrix Spike (B3J0204-MS1)		**Source: 1303112-49**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	54.1900	5.0	50.0000	ND	108	70 - 130			
Benzene	110.730	5.0	100.000	ND	111	70 - 130			
Chlorobenzene	52.6800	5.0	50.0000	ND	105	70 - 130			
MTBE	57.6400	5.0	50.0000	ND	115	70 - 130			
Toluene	111.970	5.0	100.000	ND	112	70 - 130			
Trichloroethene	51.2100	5.0	50.0000	ND	102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*60.60*		*50.0000*		*121*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*55.52*		*50.0000*		*111*	*69 - 131*			
Surrogate: Dibromofluoromethane	*57.90*		*50.0000*		*116*	*60 - 127*			
Surrogate: Toluene-d8	*56.41*		*50.0000*		*113*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0204 - MSVOAS (continued)									
Matrix Spike Dup (B3J0204-MSD1)		**Source: 1303112-49**		Prepared: 10/9/2013 Analyzed: 10/9/2013					
1,1-Dichloroethene	51.5800	5.0	50.0000	ND	103	70 - 130	4.94	20	
Benzene	108.430	5.0	100.000	ND	108	70 - 130	2.10	20	
Chlorobenzene	51.9700	5.0	50.0000	ND	104	70 - 130	1.36	20	
MTBE	56.0700	5.0	50.0000	ND	112	70 - 130	2.76	20	
Toluene	111.130	5.0	100.000	ND	111	70 - 130	0.753	20	
Trichloroethene	51.3000	5.0	50.0000	ND	103	70 - 130	0.176	20	
Surrogate: 1,2-Dichloroethane-d4	*58.42*		*50.0000*		*117*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*54.79*		*50.0000*		*110*	*69 - 131*			
Surrogate: Dibromofluoromethane	*56.51*		*50.0000*		*113*	*60 - 127*			
Surrogate: Toluene-d8	*55.58*		*50.0000*		*111*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0224 - MSVOAS									
Blank (B3J0224-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0224 - MSVOAS (continued)									
Blank (B3J0224-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	50			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*61.48*		*50.0000*		*123*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*51.53*		*50.0000*		*103*	*69 - 131*			
Surrogate: Dibromofluoromethane	*58.17*		*50.0000*		*116*	*60 - 127*			
Surrogate: Toluene-d8	*54.64*		*50.0000*		*109*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0224 - MSVOAS (continued)									
LCS (B3J0224-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	53.0500	5.0	50.0000		106	70 - 130			
Benzene	124.610	5.0	100.000		125	70 - 130			
Chlorobenzene	57.8000	5.0	50.0000		116	70 - 130			
MTBE	59.5700	5.0	50.0000		119	70 - 130			
Toluene	124.620	5.0	100.000		125	70 - 130			
Trichloroethene	52.5700	5.0	50.0000		105	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*64.15*		*50.0000*		*128*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*53.65*		*50.0000*		*107*	*69 - 131*			
Surrogate: Dibromofluoromethane	*59.82*		*50.0000*		*120*	*60 - 127*			
Surrogate: Toluene-d8	*56.77*		*50.0000*		*114*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0224 - MSVOAS (continued)									
Matrix Spike (B3J0224-MS1)		**Source: 1303139-01**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	43.2700	5.0	50.0000	ND	86.5	70 - 130			
Benzene	117.390	5.0	100.000	ND	117	70 - 130			
Chlorobenzene	54.2800	5.0	50.0000	ND	109	70 - 130			
MTBE	60.6400	5.0	50.0000	ND	121	70 - 130			
Toluene	116.460	5.0	100.000	ND	116	70 - 130			
Trichloroethene	53.1400	5.0	50.0000	ND	106	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*60.36*		*50.0000*		*121*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*55.58*		*50.0000*		*111*	*69 - 131*			
Surrogate: Dibromofluoromethane	*57.32*		*50.0000*		*115*	*60 - 127*			
Surrogate: Toluene-d8	*54.88*		*50.0000*		*110*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0224 - MSVOAS (continued)									
Matrix Spike Dup (B3J0224-MSD1)		**Source: 1303139-01**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	41.2500	5.0	50.0000	ND	82.5	70 - 130	4.78	20	
Benzene	113.190	5.0	100.000	ND	113	70 - 130	3.64	20	
Chlorobenzene	52.0600	5.0	50.0000	ND	104	70 - 130	4.18	20	
MTBE	59.1100	5.0	50.0000	ND	118	70 - 130	2.56	20	
Toluene	112.420	5.0	100.000	ND	112	70 - 130	3.53	20	
Trichloroethene	51.6300	5.0	50.0000	ND	103	70 - 130	2.88	20	
Surrogate: 1,2-Dichloroethane-d4	*60.57*		*50.0000*		*121*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*55.06*		*50.0000*		*110*	*69 - 131*			
Surrogate: Dibromofluoromethane	*57.75*		*50.0000*		*116*	*60 - 127*			
Surrogate: Toluene-d8	*55.46*		*50.0000*		*111*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0233 - MSVOAS									
Blank (B3J0233-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0233 - MSVOAS (continued)									
Blank (B3J0233-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/10/2013					
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	50			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*64.27*		*50.0000*		*129*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*51.94*		*50.0000*		*104*	*69 - 131*			
Surrogate: Dibromofluoromethane	*59.78*		*50.0000*		*120*	*60 - 127*			
Surrogate: Toluene-d8	*54.44*		*50.0000*		*109*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0233 - MSVOAS (continued)									
LCS (B3J0233-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	50.9700	5.0	50.0000		102	70 - 130			
Benzene	116.290	5.0	100.000		116	70 - 130			
Chlorobenzene	57.0400	5.0	50.0000		114	70 - 130			
MTBE	61.8800	5.0	50.0000		124	70 - 130			
Toluene	115.490	5.0	100.000		115	70 - 130			
Trichloroethene	52.2600	5.0	50.0000		105	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*58.74*		*50.0000*		*117*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*54.36*		*50.0000*		*109*	*69 - 131*			
Surrogate: Dibromofluoromethane	*56.19*		*50.0000*		*112*	*60 - 127*			
Surrogate: Toluene-d8	*54.51*		*50.0000*		*109*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0233 - MSVOAS (continued)									
LCS Dup (B3J0233-BSD1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,1-Dichloroethene	56.7500	5.0	50.0000		114	70 - 130	10.7	20	
Benzene	118.430	5.0	100.000		118	70 - 130	1.82	20	
Chlorobenzene	57.0300	5.0	50.0000		114	70 - 130	0.0175	20	
MTBE	59.4600	5.0	50.0000		119	70 - 130	3.99	20	
Toluene	119.340	5.0	100.000		119	70 - 130	3.28	20	
Trichloroethene	52.4100	5.0	50.0000		105	70 - 130	0.287	20	
Surrogate: 1,2-Dichloroethane-d4	*58.19*		*50.0000*		*116*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*56.64*		*50.0000*		*113*	*69 - 131*			
Surrogate: Dibromofluoromethane	*56.69*		*50.0000*		*113*	*60 - 127*			
Surrogate: Toluene-d8	*56.60*		*50.0000*		*113*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0253 - MSVOAS									
Blank (B3J0253-BLK1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0253 - MSVOAS (continued)									
Blank (B3J0253-BLK1) - Continued				Prepared: 10/11/2013 Analyzed: 10/11/2013					
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	50			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*54.14*		*50.0000*		*108*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*51.20*		*50.0000*		*102*	*69 - 131*			
Surrogate: Dibromofluoromethane	*53.70*		*50.0000*		*107*	*60 - 127*			
Surrogate: Toluene-d8	*52.23*		*50.0000*		*104*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0253 - MSVOAS (continued)									
LCS (B3J0253-BS1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
1,1-Dichloroethene	49.5000	5.0	50.0000		99.0	70 - 130			
Benzene	109.720	5.0	100.000		110	70 - 130			
Chlorobenzene	56.1000	5.0	50.0000		112	70 - 130			
MTBE	53.7900	5.0	50.0000		108	70 - 130			
Toluene	111.790	5.0	100.000		112	70 - 130			
Trichloroethene	55.4400	5.0	50.0000		111	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*51.43*		*50.0000*		*103*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*52.04*		*50.0000*		*104*	*69 - 131*			
Surrogate: Dibromofluoromethane	*51.78*		*50.0000*		*104*	*60 - 127*			
Surrogate: Toluene-d8	*53.40*		*50.0000*		*107*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0253 - MSVOAS (continued)									
LCS Dup (B3J0253-BSD1)				Prepared: 10/11/2013 Analyzed: 10/11/2013					
1,1-Dichloroethene	49.6700	5.0	50.0000		99.3	70 - 130	0.343	20	
Benzene	104.400	5.0	100.000		104	70 - 130	4.97	20	
Chlorobenzene	53.9100	5.0	50.0000		108	70 - 130	3.98	20	
MTBE	52.9200	5.0	50.0000		106	70 - 130	1.63	20	
Toluene	106.330	5.0	100.000		106	70 - 130	5.01	20	
Trichloroethene	52.3300	5.0	50.0000		105	70 - 130	5.77	20	
Surrogate: 1,2-Dichloroethane-d4	*51.97*		*50.0000*		*104*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*54.56*		*50.0000*		*109*	*69 - 131*			
Surrogate: Dibromofluoromethane	*52.11*		*50.0000*		*104*	*60 - 127*			
Surrogate: Toluene-d8	*53.60*		*50.0000*		*107*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS									
Blank (B3J0282-BLK1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS (continued)									
Blank (B3J0282-BLK1) - Continued				Prepared: 10/14/2013 Analyzed: 10/14/2013					
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	50			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*59.63*		*50.0000*		*119*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*50.80*		*50.0000*		*102*	*69 - 131*			
Surrogate: Dibromofluoromethane	*56.99*		*50.0000*		*114*	*60 - 127*			
Surrogate: Toluene-d8	*52.90*		*50.0000*		*106*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS (continued)									
LCS (B3J0282-BS1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
1,1-Dichloroethene	47.2500	5.0	50.0000		94.5	70 - 130			
Benzene	103.620	5.0	100.000		104	70 - 130			
Chlorobenzene	55.0700	5.0	50.0000		110	70 - 130			
MTBE	52.8500	5.0	50.0000		106	70 - 130			
Toluene	103.710	5.0	100.000		104	70 - 130			
Trichloroethene	53.2100	5.0	50.0000		106	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*51.37*		*50.0000*		*103*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*53.28*		*50.0000*		*107*	*69 - 131*			
Surrogate: Dibromofluoromethane	*52.90*		*50.0000*		*106*	*60 - 127*			
Surrogate: Toluene-d8	*52.73*		*50.0000*		*105*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS (continued)									
LCS Dup (B3J0282-BSD1)				Prepared: 10/14/2013 Analyzed: 10/14/2013					
1,1-Dichloroethene	48.1000	5.0	50.0000		96.2	70 - 130	1.78	20	
Benzene	105.170	5.0	100.000		105	70 - 130	1.48	20	
Chlorobenzene	56.6800	5.0	50.0000		113	70 - 130	2.88	20	
MTBE	54.7800	5.0	50.0000		110	70 - 130	3.59	20	
Toluene	104.920	5.0	100.000		105	70 - 130	1.16	20	
Trichloroethene	54.2000	5.0	50.0000		108	70 - 130	1.84	20	
Surrogate: 1,2-Dichloroethane-d4	*52.65*		*50.0000*		*105*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*54.57*		*50.0000*		*109*	*69 - 131*			
Surrogate: Dibromofluoromethane	*53.02*		*50.0000*		*106*	*60 - 127*			
Surrogate: Toluene-d8	*52.85*		*50.0000*		*106*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS (continued)									
Matrix Spike (B3J0282-MS1)		**Source: 1303147-01**		Prepared: 10/14/2013 Analyzed: 10/14/2013					
1,1-Dichloroethene	43.9500	5.0	50.0000	ND	87.9	70 - 130			
Benzene	98.6700	5.0	100.000	ND	98.7	70 - 130			
Chlorobenzene	52.0100	5.0	50.0000	ND	104	70 - 130			
MTBE	52.8200	5.0	50.0000	ND	106	70 - 130			
Toluene	99.5300	5.0	100.000	ND	99.5	70 - 130			
Trichloroethene	53.6700	5.0	50.0000	ND	107	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*52.93*		*50.0000*		*106*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*53.23*		*50.0000*		*106*	*69 - 131*			
Surrogate: Dibromofluoromethane	*53.16*		*50.0000*		*106*	*60 - 127*			
Surrogate: Toluene-d8	*52.38*		*50.0000*		*105*	*70 - 121*			

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Volatile Organic Compounds by EPA 5035/EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0282 - MSVOAS (continued)									
Matrix Spike Dup (B3J0282-MSD1)		**Source: 1303147-01**		Prepared: 10/14/2013 Analyzed: 10/14/2013					
1,1-Dichloroethene	37.0700	5.0	50.0000	ND	74.1	70 - 130	17.0	20	
Benzene	95.6700	5.0	100.000	ND	95.7	70 - 130	3.09	20	
Chlorobenzene	50.8700	5.0	50.0000	ND	102	70 - 130	2.22	20	
MTBE	51.7500	5.0	50.0000	ND	104	70 - 130	2.05	20	
Toluene	97.3500	5.0	100.000	ND	97.4	70 - 130	2.21	20	
Trichloroethene	51.9700	5.0	50.0000	ND	104	70 - 130	3.22	20	
Surrogate: 1,2-Dichloroethane-d4	*53.12*		*50.0000*		*106*	*56 - 159*			
Surrogate: 4-Bromofluorobenzene	*54.33*		*50.0000*		*109*	*69 - 131*			
Surrogate: Dibromofluoromethane	*53.24*		*50.0000*		*106*	*60 - 127*			
Surrogate: Toluene-d8	*53.09*		*50.0000*		*106*	*70 - 121*			

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TCLP Volatile Organic Compounds by EPA 1311/8260 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0692 - MSVOAS									
Blank (B3J0692-BLK1)				Prepared: 10/31/2013 Analyzed: 10/31/2013					
Tetrachloroethene	ND	0.005			NR				
Surrogate: 1,2-Dichloroethane-d4	*29.74*		*25.0000*		*119*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*29.16*		*25.0000*		*117*	*70 - 130*			
Surrogate: Dibromofluoromethane	*31.75*		*25.0000*		*127*	*70 - 130*			
Surrogate: Toluene-d8	*27.50*		*25.0000*		*110*	*70 - 130*			

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TCLP Volatile Organic Compounds by EPA 1311/8260 - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0692 - MSVOAS (continued)									
Blank (B3J0692-BLK2)				Prepared: 10/31/2013 Analyzed: 10/31/2013					
Tetrachloroethene	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*30.46*		*25.0000*		*122*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*28.89*		*25.0000*		*116*	*70 - 130*			
Surrogate: Dibromofluoromethane	*31.89*		*25.0000*		*128*	*70 - 130*			
Surrogate: Toluene-d8	*28.08*		*25.0000*		*112*	*70 - 130*			

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TCLP Volatile Organic Compounds by EPA 1311/8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0692 - MSVOAS (continued)									
LCS (B3J0692-BS1)				Prepared: 10/31/2013 Analyzed: 10/31/2013					
1,1-Dichloroethene	18.3600		20.0000		91.8	70 - 130			
Benzene	42.0400		40.0000		105	70 - 130			
Chlorobenzene	20.2200		20.0000		101	70 - 130			
MTBE	16.2800		20.0000		81.4	70 - 130			
Toluene	42.5200		40.0000		106	70 - 130			
Trichloroethene	21.3200		20.0000		107	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*24.58*		*25.0000*		*98.3*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*26.39*		*25.0000*		*106*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25.48*		*25.0000*		*102*	*70 - 130*			
Surrogate: Toluene-d8	*25.63*		*25.0000*		*103*	*70 - 130*			

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TCLP Volatile Organic Compounds by EPA 1311/8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0692 - MSVOAS (continued)									
LCS Dup (B3J0692-BSD1)				Prepared: 10/31/2013 Analyzed: 10/31/2013					
1,1-Dichloroethene	18.6500		20.0000		93.2	70 - 130	1.57	20	
Benzene	41.3800		40.0000		103	70 - 130	1.58	20	
Chlorobenzene	21.0500		20.0000		105	70 - 130	4.02	20	
MTBE	19.2200		20.0000		96.1	70 - 130	16.6	20	
Toluene	41.4600		40.0000		104	70 - 130	2.52	20	
Trichloroethene	20.8300		20.0000		104	70 - 130	2.33	20	
Surrogate: 1,2-Dichloroethane-d4	*24.92*		*25.0000*		*99.7*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*26.63*		*25.0000*		*107*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25.96*		*25.0000*		*104*	*70 - 130*			
Surrogate: Toluene-d8	*25.27*		*25.0000*		*101*	*70 - 130*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0174 - MSSEMI									
Blank (B3J0174-BLK1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
1,2,4-Trichlorobenzene	ND	10			NR				
1,2-Dichlorobenzene	ND	10			NR				
1,3-Dichlorobenzene	ND	10			NR				
1,4-Dichlorobenzene	ND	10			NR				
2,4,5-Trichlorophenol	ND	10			NR				
2,4,6-Trichlorophenol	ND	10			NR				
2,4-Dichlorophenol	ND	10			NR				
2,4-Dimethylphenol	ND	10			NR				
2,4-Dinitrophenol	ND	50			NR				
2,4-Dinitrotoluene	ND	10			NR				
2,6-Dinitrotoluene	ND	10			NR				
2-Chloronaphthalene	ND	10			NR				
2-Chlorophenol	ND	10			NR				
2-Methylnaphthalene	ND	10			NR				
2-Methylphenol	ND	10			NR				
2-Nitroaniline	ND	50			NR				
2-Nitrophenol	ND	10			NR				
3,3´-Dichlorobenzidine	ND	20			NR				
3-Nitroaniline	ND	50			NR				
4,6-Dinitro-2-methyphenol	ND	50			NR				
4-Bromophenyl-phenylether	ND	10			NR				
4-Chloro-3-methylphenol	ND	50			NR				
4-Chloroaniline	ND	20			NR				
4-Chlorophenyl-phenylether	ND	10			NR				
4-Methylphenol	ND	10			NR				
4-Nitroaniline	ND	20			NR				
4-Nitrophenol	ND	50			NR				
Acenaphthene	ND	10			NR				
Acenaphthylene	ND	10			NR				
Anthracene	ND	10			NR				
Benzidine (M)	ND	50			NR				
Benzo(a)anthracene	ND	10			NR				
Benzo(a)pyrene	ND	10			NR				
Benzo(b)fluoranthene	ND	10			NR				
Benzo(g,h,i)perylene	ND	10			NR				
Benzo(k)fluoranthene	ND	10			NR				
Benzoic acid	ND	50			NR				
Benzyl alcohol	ND	20			NR				
bis(2-chloroethoxy)methane	ND	10			NR				
bis(2-Chloroethyl)ether	ND	10			NR				
bis(2-chloroisopropyl)ether	ND	10			NR				

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0174 - MSSEMI (continued)									
Blank (B3J0174-BLK1) - Continued				Prepared: 10/8/2013 Analyzed: 10/8/2013					
bis(2-ethylhexyl)phthalate	ND	10			NR				
Butylbenzylphthalate	ND	10			NR				
Chrysene	ND	10			NR				
Di-n-butylphthalate	ND	10			NR				
Di-n-octylphthalate	ND	10			NR				
Dibenz(a,h)anthracene	ND	10			NR				
Dibenzofuran	ND	10			NR				
Diethyl phthalate	ND	10			NR				
Dimethyl phthalate	ND	10			NR				
Fluoranthene	ND	10			NR				
Fluorene	ND	10			NR				
Hexachlorobenzene	ND	10			NR				
Hexachlorobutadiene	ND	20			NR				
Hexachlorocyclopentadiene	ND	10			NR				
Hexachloroethane	ND	10			NR				
Indeno(1,2,3-cd)pyrene	ND	10			NR				
Isophorone	ND	10			NR				
N-Nitroso-di-n propylamine	ND	10			NR				
N-Nitrosodiphenylamine	ND	10			NR				
Naphthalene	ND	10			NR				
Nitrobenzene	ND	10			NR				
Pentachlorophenol	ND	50			NR				
Phenanthrene	ND	10			NR				
Phenol	ND	10			NR				
Pyrene	ND	10			NR				
Pyridine	ND	50			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*72.12*		*100.000*		*72.1*	*36 - 117*			
Surrogate: 2,4,6-Tribromophenol	*97.52*		*100.000*		*97.5*	*33 - 149*			
Surrogate: 2-Chlorophenol-d4	*70.20*		*100.000*		*70.2*	*37 - 99*			
Surrogate: 2-Fluorobiphenyl	*85.43*		*100.000*		*85.4*	*52 - 126*			
Surrogate: 2-Fluorophenol	*50.27*		*100.000*		*50.3*	*17 - 69*			
Surrogate: 4-Terphenyl-d14	*143.8*		*100.000*		*144*	*40 - 165*			
Surrogate: Nitrobenzene-d5	*87.90*		*100.000*		*87.9*	*38 - 117*			
Surrogate: Phenol-d5	*35.52*		*100.000*		*35.5*	*5 - 60*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0174 - MSSEMI (continued)									
LCS (B3J0174-BS1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
1,2,4-Trichlorobenzene	83.1000	10	100.000		83.1	61 - 108			
1,4-Dichlorobenzene	74.6200	10	100.000		74.6	54 - 98			
2,4-Dinitrotoluene	90.4500	10	100.000		90.4	79 - 130			
2-Chlorophenol	78.3300	10	100.000		78.3	54 - 91			
4-Chloro-3-methylphenol	95.7500	50	100.000		95.8	75 - 109			
4-Nitrophenol	47.0400	50	100.000		47.0	31 - 69			
Acenaphthene	91.4200	10	100.000		91.4	76 - 118			
N-Nitroso-di-n propylamine	90.3100	10	100.000		90.3	52 - 119			
Pentachlorophenol	93.4600	50	100.000		93.5	74 - 128			
Phenol	38.7300	10	100.000		38.7	23 - 49			
Pyrene	99.6600	10	100.000		99.7	75 - 135			
Surrogate: 1,2-Dichlorobenzene-d4	*79.46*		*100.000*		*79.5*	*36 - 117*			
Surrogate: 2,4,6-Tribromophenol	*104.8*		*100.000*		*105*	*33 - 149*			
Surrogate: 2-Chlorophenol-d4	*74.07*		*100.000*		*74.1*	*37 - 99*			
Surrogate: 2-Fluorobiphenyl	*91.44*		*100.000*		*91.4*	*52 - 126*			
Surrogate: 2-Fluorophenol	*47.84*		*100.000*		*47.8*	*17 - 69*			
Surrogate: 4-Terphenyl-d14	*106.3*		*100.000*		*106*	*40 - 165*			
Surrogate: Nitrobenzene-d5	*89.96*		*100.000*		*90.0*	*38 - 117*			
Surrogate: Phenol-d5	*35.39*		*100.000*		*35.4*	*5 - 60*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0174 - MSSEMI (continued)									
LCS Dup (B3J0174-BSD1)				Prepared: 10/8/2013 Analyzed: 10/8/2013					
1,2,4-Trichlorobenzene	78.9400	10	100.000		78.9	61 - 108	5.13	20	
1,4-Dichlorobenzene	70.6100	10	100.000		70.6	54 - 98	5.52	20	
2,4-Dinitrotoluene	93.7100	10	100.000		93.7	79 - 130	3.54	20	
2-Chlorophenol	76.3100	10	100.000		76.3	54 - 91	2.61	20	
4-Chloro-3-methylphenol	95.6900	50	100.000		95.7	75 - 109	0.0627	20	
4-Nitrophenol	50.1600	50	100.000		50.2	31 - 69	6.42	20	
Acenaphthene	93.4500	10	100.000		93.4	76 - 118	2.20	20	
N-Nitroso-di-n propylamine	89.1700	10	100.000		89.2	52 - 119	1.27	20	
Pentachlorophenol	94.2600	50	100.000		94.3	74 - 128	0.852	20	
Phenol	39.3300	10	100.000		39.3	23 - 49	1.54	20	
Pyrene	101.630	10	100.000		102	75 - 135	1.96	20	
Surrogate: 1,2-Dichlorobenzene-d4	*72.57*		*100.000*		*72.6*	*36 - 117*			
Surrogate: 2,4,6-Tribromophenol	*98.62*		*100.000*		*98.6*	*33 - 149*			
Surrogate: 2-Chlorophenol-d4	*69.19*		*100.000*		*69.2*	*37 - 99*			
Surrogate: 2-Fluorobiphenyl	*89.44*		*100.000*		*89.4*	*52 - 126*			
Surrogate: 2-Fluorophenol	*46.39*		*100.000*		*46.4*	*17 - 69*			
Surrogate: 4-Terphenyl-d14	*103.8*		*100.000*		*104*	*40 - 165*			
Surrogate: Nitrobenzene-d5	*86.15*		*100.000*		*86.2*	*38 - 117*			
Surrogate: Phenol-d5	*35.18*		*100.000*		*35.2*	*5 - 60*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0239 - MSSEMI									
Blank (B3J0239-BLK1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,2,4-Trichlorobenzene	ND	330			NR				
1,2-Dichlorobenzene	ND	330			NR				
1,3-Dichlorobenzene	ND	330			NR				
1,4-Dichlorobenzene	ND	330			NR				
2,4,5-Trichlorophenol	ND	330			NR				
2,4,6-Trichlorophenol	ND	330			NR				
2,4-Dichlorophenol	ND	1600			NR				
2,4-Dimethylphenol	ND	330			NR				
2,4-Dinitrophenol	ND	1600			NR				
2,4-Dinitrotoluene	ND	330			NR				
2,6-Dinitrotoluene	ND	330			NR				
2-Chloronaphthalene	ND	330			NR				
2-Chlorophenol	ND	330			NR				
2-Methylnaphthalene	ND	330			NR				
2-Methylphenol	ND	330			NR				
2-Nitroaniline	ND	1600			NR				
2-Nitrophenol	ND	330			NR				
3,3´-Dichlorobenzidine	ND	660			NR				
3-Nitroaniline	ND	1600			NR				
4,6-Dinitro-2-methyphenol	ND	1600			NR				
4-Bromophenyl-phenylether	ND	330			NR				
4-Chloro-3-methylphenol	ND	660			NR				
4-Chloroaniline	ND	660			NR				
4-Chlorophenyl-phenylether	ND	330			NR				
4-Methylphenol	ND	330			NR				
4-Nitroaniline	ND	1600			NR				
4-Nitrophenol	ND	330			NR				
Acenaphthene	ND	330			NR				
Acenaphthylene	ND	330			NR				
Anthracene	ND	330			NR				
Benzidine (M)	ND	1600			NR				
Benzo(a)anthracene	ND	330			NR				
Benzo(a)pyrene	ND	330			NR				
Benzo(b)fluoranthene	ND	330			NR				
Benzo(g,h,i)perylene	ND	330			NR				
Benzo(k)fluoranthene	ND	330			NR				
Benzoic acid	ND	1600			NR				
Benzyl alcohol	ND	660			NR				
bis(2-chloroethoxy)methane	ND	330			NR				
bis(2-Chloroethyl)ether	ND	330			NR				
bis(2-chloroisopropyl)ether	ND	330			NR				

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0239 - MSSEMI (continued)									
Blank (B3J0239-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/10/2013					
bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*3496*		*3333.33*		*105*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3838*		*3333.33*		*115*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*3457*		*3333.33*		*104*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*4006*		*3333.33*		*120*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3764*		*3333.33*		*113*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*6118*		*3333.33*		*184*	*36 - 163*			S1
Surrogate: Nitrobenzene-d5	*3833*		*3333.33*		*115*	*42 - 118*			
Surrogate: Phenol-d5	*3618*		*3333.33*		*109*	*29 - 124*			

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475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0239 - MSSEMI (continued)									
LCS (B3J0239-BS1)				Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,2,4-Trichlorobenzene	2915.67	330	3333.33		87.5	62 - 101			
1,4-Dichlorobenzene	2739.33	330	3333.33		82.2	58 - 93			
2,4-Dinitrotoluene	2702.67	330	3333.33		81.1	67 - 133			
2-Chlorophenol	2921.00	330	3333.33		87.6	63 - 100			
4-Chloro-3-methylphenol	3210.00	660	3333.33		96.3	70 - 120			
4-Nitrophenol	3047.33	330	3333.33		91.4	55 - 137			
Acenaphthene	2922.00	330	3333.33		87.7	73 - 112			
N-Nitroso-di-n propylamine	2881.67	330	3333.33		86.5	56 - 114			
Pentachlorophenol	2672.67	1600	3333.33		80.2	61 - 125			
Phenol	2994.00	330	3333.33		89.8	61 - 106			
Pyrene	3077.33	330	3333.33		92.3	66 - 122			
Surrogate: 1,2-Dichlorobenzene-d4	*2833*		*3333.33*		*85.0*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3159*		*3333.33*		*94.8*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2758*		*3333.33*		*82.8*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3281*		*3333.33*		*98.4*	*52 - 126*			
Surrogate: 2-Fluorophenol	*2815*		*3333.33*		*84.5*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3156*		*3333.33*		*94.7*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*2992*		*3333.33*		*89.8*	*42 - 118*			
Surrogate: Phenol-d5	*2858*		*3333.33*		*85.7*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0239 - MSSEMI (continued)									
Matrix Spike (B3J0239-MS1)		**Source: 1303113-03**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,2,4-Trichlorobenzene	3417.67	330	3333.33	ND	103	52 - 111			
1,4-Dichlorobenzene	3244.67	330	3333.33	ND	97.3	47 - 101			
2,4-Dinitrotoluene	3344.67	330	3333.33	ND	100	66 - 134			
2-Chlorophenol	3459.00	330	3333.33	ND	104	55 - 107			
4-Chloro-3-methylphenol	3757.00	660	3333.33	ND	113	64 - 129			
4-Nitrophenol	3726.00	330	3333.33	ND	112	56 - 144			
Acenaphthene	3592.67	330	3333.33	ND	108	63 - 121			
N-Nitroso-di-n propylamine	3411.00	330	3333.33	ND	102	45 - 123			
Pentachlorophenol	3083.33	1600	3333.33	ND	92.5	51 - 144			
Phenol	3557.33	330	3333.33	ND	107	50 - 116			
Pyrene	3855.67	330	3333.33	ND	116	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	*3132*		*3333.33*		*94.0*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3637*		*3333.33*		*109*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*3003*		*3333.33*		*90.1*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3776*		*3333.33*		*113*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3039*		*3333.33*		*91.2*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3397*		*3333.33*		*102*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3261*		*3333.33*		*97.8*	*42 - 118*			
Surrogate: Phenol-d5	*3147*		*3333.33*		*94.4*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0239 - MSSEMI (continued)									
Matrix Spike Dup (B3J0239-MSD1)		**Source: 1303113-03**		Prepared: 10/10/2013 Analyzed: 10/10/2013					
1,2,4-Trichlorobenzene	3747.00	330	3333.33	ND	112	52 - 111	9.19	20	M2
1,4-Dichlorobenzene	3447.00	330	3333.33	ND	103	47 - 101	6.05	20	M2
2,4-Dinitrotoluene	3511.33	330	3333.33	ND	105	66 - 134	4.86	20	
2-Chlorophenol	3727.33	330	3333.33	ND	112	55 - 107	7.47	20	M2
4-Chloro-3-methylphenol	4175.67	660	3333.33	ND	125	64 - 129	10.6	20	
4-Nitrophenol	3925.33	330	3333.33	ND	118	56 - 144	5.21	20	
Acenaphthene	3817.67	330	3333.33	ND	115	63 - 121	6.07	20	
N-Nitroso-di-n propylamine	3604.67	330	3333.33	ND	108	45 - 123	5.52	20	
Pentachlorophenol	3300.33	1600	3333.33	ND	99.0	51 - 144	6.80	20	
Phenol	3714.67	330	3333.33	ND	111	50 - 116	4.33	20	
Pyrene	4021.67	330	3333.33	ND	121	65 - 127	4.21	20	
Surrogate: 1,2-Dichlorobenzene-d4	*3311*		*3333.33*		*99.3*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*4039*		*3333.33*		*121*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*3193*		*3333.33*		*95.8*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*4035*		*3333.33*		*121*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3162*		*3333.33*		*94.9*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3664*		*3333.33*		*110*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3494*		*3333.33*		*105*	*42 - 118*			
Surrogate: Phenol-d5	*3309*		*3333.33*		*99.3*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0249 - MSSEMI									
Blank (B3J0249-BLK1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
1,2,4-Trichlorobenzene	ND	330			NR				
1,2-Dichlorobenzene	ND	330			NR				
1,3-Dichlorobenzene	ND	330			NR				
1,4-Dichlorobenzene	ND	330			NR				
2,4,5-Trichlorophenol	ND	330			NR				
2,4,6-Trichlorophenol	ND	330			NR				
2,4-Dichlorophenol	ND	1600			NR				
2,4-Dimethylphenol	ND	330			NR				
2,4-Dinitrophenol	ND	1600			NR				
2,4-Dinitrotoluene	ND	330			NR				
2,6-Dinitrotoluene	ND	330			NR				
2-Chloronaphthalene	ND	330			NR				
2-Chlorophenol	ND	330			NR				
2-Methylnaphthalene	ND	330			NR				
2-Methylphenol	ND	330			NR				
2-Nitroaniline	ND	1600			NR				
2-Nitrophenol	ND	330			NR				
3,3´-Dichlorobenzidine	ND	660			NR				
3-Nitroaniline	ND	1600			NR				
4,6-Dinitro-2-methyphenol	ND	1600			NR				
4-Bromophenyl-phenylether	ND	330			NR				
4-Chloro-3-methylphenol	ND	660			NR				
4-Chloroaniline	ND	660			NR				
4-Chlorophenyl-phenylether	ND	330			NR				
4-Methylphenol	ND	330			NR				
4-Nitroaniline	ND	1600			NR				
4-Nitrophenol	ND	330			NR				
Acenaphthene	ND	330			NR				
Acenaphthylene	ND	330			NR				
Anthracene	ND	330			NR				
Benzidine (M)	ND	1600			NR				
Benzo(a)anthracene	ND	330			NR				
Benzo(a)pyrene	ND	330			NR				
Benzo(b)fluoranthene	ND	330			NR				
Benzo(g,h,i)perylene	ND	330			NR				
Benzo(k)fluoranthene	ND	330			NR				
Benzoic acid	ND	1600			NR				
Benzyl alcohol	ND	660			NR				
bis(2-chloroethoxy)methane	ND	330			NR				
bis(2-Chloroethyl)ether	ND	330			NR				
bis(2-chloroisopropyl)ether	ND	330			NR				

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0249 - MSSEMI (continued)									
Blank (B3J0249-BLK1) - Continued				Prepared: 10/10/2013 Analyzed: 10/11/2013					
bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*2840*		*3333.33*		*85.2*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*2991*		*3333.33*		*89.7*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2803*		*3333.33*		*84.1*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3177*		*3333.33*		*95.3*	*52 - 126*			
Surrogate: 2-Fluorophenol	*2966*		*3333.33*		*89.0*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*5245*		*3333.33*		*157*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3229*		*3333.33*		*96.9*	*42 - 118*			
Surrogate: Phenol-d5	*2866*		*3333.33*		*86.0*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0249 - MSSEMI (continued)									
LCS (B3J0249-BS1)				Prepared: 10/10/2013 Analyzed: 10/11/2013					
1,2,4-Trichlorobenzene	3067.00	330	3333.33		92.0	62 - 101			
1,4-Dichlorobenzene	2975.67	330	3333.33		89.3	58 - 93			
2,4-Dinitrotoluene	2853.67	330	3333.33		85.6	67 - 133			
2-Chlorophenol	3168.00	330	3333.33		95.0	63 - 100			
4-Chloro-3-methylphenol	3454.67	660	3333.33		104	70 - 120			
4-Nitrophenol	3277.33	330	3333.33		98.3	55 - 137			
Acenaphthene	3177.00	330	3333.33		95.3	73 - 112			
N-Nitroso-di-n propylamine	3138.00	330	3333.33		94.1	56 - 114			
Pentachlorophenol	2863.33	1600	3333.33		85.9	61 - 125			
Phenol	3360.67	330	3333.33		101	61 - 106			
Pyrene	3522.33	330	3333.33		106	66 - 122			
Surrogate: 1,2-Dichlorobenzene-d4	*3021*		*3333.33*		*90.6*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3373*		*3333.33*		*101*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2875*		*3333.33*		*86.3*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3591*		*3333.33*		*108*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3035*		*3333.33*		*91.0*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3185*		*3333.33*		*95.5*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3218*		*3333.33*		*96.5*	*42 - 118*			
Surrogate: Phenol-d5	*3101*		*3333.33*		*93.0*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0249 - MSSEMI (continued)									
Matrix Spike (B3J0249-MS1)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
1,2,4-Trichlorobenzene	3154.00	330	3333.33	ND	94.6	52 - 111			
1,4-Dichlorobenzene	2967.00	330	3333.33	ND	89.0	47 - 101			
2,4-Dinitrotoluene	3356.00	330	3333.33	ND	101	66 - 134			
2-Chlorophenol	3226.00	330	3333.33	ND	96.8	55 - 107			
4-Chloro-3-methylphenol	3924.00	660	3333.33	ND	118	64 - 129			
4-Nitrophenol	3945.00	330	3333.33	ND	118	56 - 144			
Acenaphthene	3656.67	330	3333.33	ND	110	63 - 121			
N-Nitroso-di-n propylamine	3416.00	330	3333.33	ND	102	45 - 123			
Pentachlorophenol	3180.33	1600	3333.33	ND	95.4	51 - 144			
Phenol	3564.67	330	3333.33	ND	107	50 - 116			
Pyrene	4365.00	330	3333.33	ND	131	65 - 127			M2
Surrogate: 1,2-Dichlorobenzene-d4	*2843*		*3333.33*		*85.3*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3637*		*3333.33*		*109*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2776*		*3333.33*		*83.3*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3746*		*3333.33*		*112*	*52 - 126*			
Surrogate: 2-Fluorophenol	*2927*		*3333.33*		*87.8*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3473*		*3333.33*		*104*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3250*		*3333.33*		*97.5*	*42 - 118*			
Surrogate: Phenol-d5	*3117*		*3333.33*		*93.5*	*29 - 124*			

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0249 - MSSEMI (continued)									
Matrix Spike Dup (B3J0249-MSD1)		**Source: 1303113-57**		Prepared: 10/10/2013 Analyzed: 10/11/2013					
1,2,4-Trichlorobenzene	3237.67	330	3333.33	ND	97.1	52 - 111	2.62	20	
1,4-Dichlorobenzene	2990.33	330	3333.33	ND	89.7	47 - 101	0.783	20	
2,4-Dinitrotoluene	3350.00	330	3333.33	ND	100	66 - 134	0.179	20	
2-Chlorophenol	3223.67	330	3333.33	ND	96.7	55 - 107	0.0723	20	
4-Chloro-3-methylphenol	4016.00	660	3333.33	ND	120	64 - 129	2.32	20	
4-Nitrophenol	3937.00	330	3333.33	ND	118	56 - 144	0.203	20	
Acenaphthene	3669.00	330	3333.33	ND	110	63 - 121	0.337	20	
N-Nitroso-di-n propylamine	3402.00	330	3333.33	ND	102	45 - 123	0.411	20	
Pentachlorophenol	3247.67	1600	3333.33	ND	97.4	51 - 144	2.10	20	
Phenol	3575.33	330	3333.33	ND	107	50 - 116	0.299	20	
Pyrene	4368.33	330	3333.33	ND	131	65 - 127	0.0763	20	M2
Surrogate: 1,2-Dichlorobenzene-d4	*2843*		*3333.33*		*85.3*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3551*		*3333.33*		*107*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2772*		*3333.33*		*83.2*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3733*		*3333.33*		*112*	*52 - 126*			
Surrogate: 2-Fluorophenol	*2909*		*3333.33*		*87.3*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3370*		*3333.33*		*101*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3338*		*3333.33*		*100*	*42 - 118*			
Surrogate: Phenol-d5	*3106*		*3333.33*		*93.2*	*29 - 124*			

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Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0263 - MSSEMI									
Blank (B3J0263-BLK1)				Prepared: 10/11/2013 Analyzed: 10/15/2013					
1,2,4-Trichlorobenzene	ND	330			NR				
1,2-Dichlorobenzene	ND	330			NR				
1,3-Dichlorobenzene	ND	330			NR				
1,4-Dichlorobenzene	ND	330			NR				
2,4,5-Trichlorophenol	ND	330			NR				
2,4,6-Trichlorophenol	ND	330			NR				
2,4-Dichlorophenol	ND	1600			NR				
2,4-Dimethylphenol	ND	330			NR				
2,4-Dinitrophenol	ND	1600			NR				
2,4-Dinitrotoluene	ND	330			NR				
2,6-Dinitrotoluene	ND	330			NR				
2-Chloronaphthalene	ND	330			NR				
2-Chlorophenol	ND	330			NR				
2-Methylnaphthalene	ND	330			NR				
2-Methylphenol	ND	330			NR				
2-Nitroaniline	ND	1600			NR				
2-Nitrophenol	ND	330			NR				
3,3´-Dichlorobenzidine	ND	660			NR				
3-Nitroaniline	ND	1600			NR				
4,6-Dinitro-2-methyphenol	ND	1600			NR				
4-Bromophenyl-phenylether	ND	330			NR				
4-Chloro-3-methylphenol	ND	660			NR				
4-Chloroaniline	ND	660			NR				
4-Chlorophenyl-phenylether	ND	330			NR				
4-Methylphenol	ND	330			NR				
4-Nitroaniline	ND	1600			NR				
4-Nitrophenol	ND	330			NR				
Acenaphthene	ND	330			NR				
Acenaphthylene	ND	330			NR				
Anthracene	ND	330			NR				
Benzidine (M)	ND	1600			NR				
Benzo(a)anthracene	ND	330			NR				
Benzo(a)pyrene	ND	330			NR				
Benzo(b)fluoranthene	ND	330			NR				
Benzo(g,h,i)perylene	ND	330			NR				
Benzo(k)fluoranthene	ND	330			NR				
Benzoic acid	ND	1600			NR				
Benzyl alcohol	ND	660			NR				
bis(2-chloroethoxy)methane	ND	330			NR				
bis(2-Chloroethyl)ether	ND	330			NR				
bis(2-chloroisopropyl)ether	ND	330			NR				

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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0263 - MSSEMI (continued)									
Blank (B3J0263-BLK1) - Continued				Prepared: 10/11/2013 Analyzed: 10/15/2013					
bis(2-ethylhexyl)phthalate	ND	330			NR				
Butylbenzylphthalate	ND	330			NR				
Chrysene	ND	330			NR				
Di-n-butylphthalate	ND	330			NR				
Di-n-octylphthalate	ND	330			NR				
Dibenz(a,h)anthracene	ND	330			NR				
Dibenzofuran	ND	330			NR				
Diethyl phthalate	ND	330			NR				
Dimethyl phthalate	ND	330			NR				
Fluoranthene	ND	330			NR				
Fluorene	ND	330			NR				
Hexachlorobenzene	ND	330			NR				
Hexachlorobutadiene	ND	660			NR				
Hexachlorocyclopentadiene	ND	660			NR				
Hexachloroethane	ND	330			NR				
Indeno(1,2,3-cd)pyrene	ND	330			NR				
Isophorone	ND	330			NR				
N-Nitroso-di-n propylamine	ND	330			NR				
N-Nitrosodiphenylamine	ND	330			NR				
Naphthalene	ND	330			NR				
Nitrobenzene	ND	330			NR				
Pentachlorophenol	ND	1600			NR				
Phenanthrene	ND	330			NR				
Phenol	ND	330			NR				
Pyrene	ND	330			NR				
Pyridine	ND	1600			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*3227*		*3333.33*		*96.8*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*2593*		*3333.33*		*77.8*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*3229*		*3333.33*		*96.9*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3931*		*3333.33*		*118*	*52 - 126*			
Surrogate: 2-Fluorophenol	*4602*		*3333.33*		*138*	*26 - 124*			S1
Surrogate: 4-Terphenyl-d14	*4904*		*3333.33*		*147*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*3629*		*3333.33*		*109*	*42 - 118*			
Surrogate: Phenol-d5	*3402*		*3333.33*		*102*	*29 - 124*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0263 - MSSEMI (continued)									
LCS (B3J0263-BS1)				Prepared: 10/11/2013 Analyzed: 10/15/2013					
1,2,4-Trichlorobenzene	2616.67	330	3333.33		78.5	62 - 101			
1,4-Dichlorobenzene	2580.67	330	3333.33		77.4	58 - 93			
2,4-Dinitrotoluene	3113.67	330	3333.33		93.4	67 - 133			
2-Chlorophenol	2747.00	330	3333.33		82.4	63 - 100			
4-Chloro-3-methylphenol	3000.00	660	3333.33		90.0	70 - 120			
4-Nitrophenol	3437.67	330	3333.33		103	55 - 137			
Acenaphthene	3276.33	330	3333.33		98.3	73 - 112			
N-Nitroso-di-n propylamine	2905.00	330	3333.33		87.2	56 - 114			
Pentachlorophenol	2669.00	1600	3333.33		80.1	61 - 125			
Phenol	2949.00	330	3333.33		88.5	61 - 106			
Pyrene	3197.00	330	3333.33		95.9	66 - 122			
Surrogate: 1,2-Dichlorobenzene-d4	*2539*		*3333.33*		*76.2*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*2910*		*3333.33*		*87.3*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2483*		*3333.33*		*74.5*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*2914*		*3333.33*		*87.4*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3642*		*3333.33*		*109*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3254*		*3333.33*		*97.6*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*2538*		*3333.33*		*76.1*	*42 - 118*			
Surrogate: Phenol-d5	*2652*		*3333.33*		*79.6*	*29 - 124*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0263 - MSSEMI (continued)									
Matrix Spike (B3J0263-MS1)		**Source: 1303113-64**		Prepared: 10/11/2013 Analyzed: 10/15/2013					
1,2,4-Trichlorobenzene	2457.67	330	3333.33	ND	73.7	52 - 111			
1,4-Dichlorobenzene	2330.67	330	3333.33	ND	69.9	47 - 101			
2,4-Dinitrotoluene	3218.00	330	3333.33	ND	96.5	66 - 134			
2-Chlorophenol	2557.00	330	3333.33	ND	76.7	55 - 107			
4-Chloro-3-methylphenol	3098.33	660	3333.33	ND	93.0	64 - 129			
4-Nitrophenol	3521.33	330	3333.33	ND	106	56 - 144			
Acenaphthene	3289.67	330	3333.33	ND	98.7	63 - 121			
N-Nitroso-di-n propylamine	2694.00	330	3333.33	ND	80.8	45 - 123			
Pentachlorophenol	2732.00	1600	3333.33	ND	82.0	51 - 144			
Phenol	2746.00	330	3333.33	ND	82.4	50 - 116			
Pyrene	3394.67	330	3333.33	ND	102	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	*2255*		*3333.33*		*67.7*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3078*		*3333.33*		*92.3*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2265*		*3333.33*		*68.0*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3021*		*3333.33*		*90.6*	*52 - 126*			
Surrogate: 2-Fluorophenol	*3463*		*3333.33*		*104*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3238*		*3333.33*		*97.1*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*2504*		*3333.33*		*75.1*	*42 - 118*			
Surrogate: Phenol-d5	*2441*		*3333.33*		*73.2*	*29 - 124*			

Certificate of Analysis

Ninyo & Moore	Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200	Report To :	Summer Hansen-Rooks
Irvine , CA 92618	Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0263 - MSSEMI (continued)									
Matrix Spike Dup (B3J0263-MSD1)		**Source: 1303113-64**		Prepared: 10/11/2013 Analyzed: 10/15/2013					
1,2,4-Trichlorobenzene	2805.00	330	3333.33	ND	84.2	52 - 111	13.2	20	
1,4-Dichlorobenzene	2687.33	330	3333.33	ND	80.6	47 - 101	14.2	20	
2,4-Dinitrotoluene	3314.33	330	3333.33	ND	99.4	66 - 134	2.95	20	
2-Chlorophenol	2891.33	330	3333.33	ND	86.7	55 - 107	12.3	20	
4-Chloro-3-methylphenol	3183.00	660	3333.33	ND	95.5	64 - 129	2.70	20	
4-Nitrophenol	3670.00	330	3333.33	ND	110	56 - 144	4.13	20	
Acenaphthene	3569.00	330	3333.33	ND	107	63 - 121	8.15	20	
N-Nitroso-di-n propylamine	2845.33	330	3333.33	ND	85.4	45 - 123	5.46	20	
Pentachlorophenol	2868.67	1600	3333.33	ND	86.1	51 - 144	4.88	20	
Phenol	3003.67	330	3333.33	ND	90.1	50 - 116	8.96	20	
Pyrene	3575.67	330	3333.33	ND	107	65 - 127	5.19	20	
Surrogate: 1,2-Dichlorobenzene-d4	*2620*		*3333.33*		*78.6*	*48 - 113*			
Surrogate: 2,4,6-Tribromophenol	*3181*		*3333.33*		*95.4*	*14 - 162*			
Surrogate: 2-Chlorophenol-d4	*2562*		*3333.33*		*76.9*	*40 - 117*			
Surrogate: 2-Fluorobiphenyl	*3169*		*3333.33*		*95.1*	*52 - 126*			
Surrogate: 2-Fluorophenol	*4008*		*3333.33*		*120*	*26 - 124*			
Surrogate: 4-Terphenyl-d14	*3232*		*3333.33*		*97.0*	*36 - 163*			
Surrogate: Nitrobenzene-d5	*2750*		*3333.33*		*82.5*	*42 - 118*			
Surrogate: Phenol-d5	*2657*		*3333.33*		*79.7*	*29 - 124*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0354 - MSSEMI									
Blank (B3J0354-BLK1)				Prepared: 10/16/2013 Analyzed: 10/17/2013					
2-Methylnaphthalene	ND	5.0			NR				
Acenaphthene	ND	5.0			NR				
Acenaphthylene	ND	5.0			NR				
Anthracene	ND	5.0			NR				
Benzo(a)anthracene	ND	5.0			NR				
Benzo(a)pyrene	ND	5.0			NR				
Benzo(b)fluoranthene	ND	5.0			NR				
Benzo(g,h,i)perylene	ND	5.0			NR				
Benzo(k)fluoranthene	ND	5.0			NR				
Chrysene	ND	5.0			NR				
Dibenz(a,h)anthracene	ND	5.0			NR				
Fluoranthene	ND	5.0			NR				
Fluorene	ND	5.0			NR				
Indeno(1,2,3-cd)pyrene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
Phenanthrene	ND	5.0			NR				
Pyrene	ND	5.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*21.83*		*33.3333*		*65.5*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*23.35*		*33.3333*		*70.1*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*15.30*		*33.3333*		*45.9*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*32.64*		*33.3333*		*97.9*	*39 - 138*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
475 Goddard Suite 200		Report To :	Summer Hansen-Rooks
Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0354 - MSSEMI (continued)									
LCS (B3J0354-BS1)				Prepared: 10/16/2013 Analyzed: 10/17/2013					
Acenaphthene	20.3930	5.0	33.3333		61.2	50 - 93			
Phenanthrene	21.9203	5.0	33.3333		65.8	46 - 98			
Pyrene	27.5600	5.0	33.3333		82.7	52 - 112			
Surrogate: 1,2-Dichlorobenzene-d4	*20.72*		*33.3333*		*62.2*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*21.90*		*33.3333*		*65.7*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*17.95*		*33.3333*		*53.8*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*29.52*		*33.3333*		*88.6*	*39 - 138*			

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Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0354 - MSSEMI (continued)									
Duplicate (B3J0354-DUP1)		**Source: 1303160-02**		Prepared: 10/16/2013 Analyzed: 10/17/2013					
Acenaphthene	0.654667	5.0		1.29133	NR		65.4	20	R
Phenanthrene	10.6723	5.0		14.2180	NR		28.5	20	R
Pyrene	35.2283	5.0		57.7980	NR		48.5	20	R
Surrogate: 1,2-Dichlorobenzene-d4	*18.99*		*33.3333*		*57.0*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*24.06*		*33.3333*		*72.2*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*14.67*		*33.3333*		*44.0*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*19.23*		*33.3333*		*57.7*	*39 - 138*			

Certificate of Analysis

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Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0354 - MSSEMI (continued)									
Matrix Spike (B3J0354-MS1)		**Source: 1303160-03**		Prepared: 10/16/2013 Analyzed: 10/17/2013					
Acenaphthene	26.9927	5.0	33.3333	0.602000	79.2	45 - 103			
Phenanthrene	33.7993	5.0	33.3333	6.76733	81.1	43 - 115			
Pyrene	44.7970	5.0	33.3333	19.1313	77.0	49 - 125			
Surrogate: 1,2-Dichlorobenzene-d4	*21.58*		*33.3333*		*64.8*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*26.45*		*33.3333*		*79.3*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*23.93*		*33.3333*		*71.8*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*27.59*		*33.3333*		*82.8*	*39 - 138*			

Certificate of Analysis

Ninyo & Moore		Project Number :	AECOM-Mt. Vernon Avenue, 205732003
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Irvine , CA 92618		Reported :	11/01/2013

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3J0354 - MSSEMI (continued)									
Matrix Spike Dup (B3J0354-MSD1)		**Source: 1303160-03**		Prepared: 10/16/2013 Analyzed: 10/17/2013					
Acenaphthene	25.8160	5.0	33.3333	0.602000	75.6	45 - 103	4.46	20	
Phenanthrene	33.4153	5.0	33.3333	6.76733	79.9	43 - 115	1.14	20	
Pyrene	41.7957	5.0	33.3333	19.1313	68.0	49 - 125	6.93	20	
Surrogate: 1,2-Dichlorobenzene-d4	*20.37*		*33.3333*		*61.1*	*28 - 96*			
Surrogate: 2-Fluorobiphenyl	*25.37*		*33.3333*		*76.1*	*36 - 113*			
Surrogate: Nitrobenzene-d5	*19.24*		*33.3333*		*57.7*	*29 - 106*			
Surrogate: 4-Terphenyl-d14	*28.79*		*33.3333*		*86.4*	*39 - 138*			

Certificate of Analysis

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Notes and Definitions

S7	Surrogate recovery was outside of laboratory acceptance limit. Chromatogram shows high concentration of heavy hydrocarbons.
S4	Surrogate was diluted out.
S2	Surrogate recovery was below laboratory acceptance limit. Reextraction and/or reanalysisconfirms low recovery caused by matrix effects.
S10	Surrogate recovery outside of laboratory acceptance limit possibly due to matrix interference.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
H4	Change order analysis requested past the sample holding time.
D3	Sample required dilution due to insufficient sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attention: Rachelle Arada

Number of Pages 13
Date Received 10/08/2013
Date Reported 10/15/2013

Job Number	Order Date	Client
70909	10/08/2013	ATL

Project ID: 1303113
Project Name: PO# SC08223

Enclosed please find results of analyses of 2 water and 24 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
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Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attention: Rachelle Arada

Project ID: 1303113
Date Received 10/08/2013
Date Reported 10/15/2013

Job Number	Order Date	Client
70909	10/08/2013	ATL

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 48 samples with the following specification on 10/08/2013.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
70909.14	1303113-17	10/02/2013	Aqueous	1
70909.19	1303113-27	10/02/2013	Aqueous	1

Method ^ Submethod	Req Date	Priority	TAT	Units
8151A	10/15/2013	2	Normal	ug/L

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
70909.01	1303113-01	10/01/2013	Soil	1
70909.02	1303113-02	10/01/2013	Soil	1
70909.07	1303113-08	10/02/2013	Soil	1
70909.08	1303113-09	10/02/2013	Soil	1
70909.09	1303113-10	10/02/2013	Soil	1
70909.10	1303113-11	10/02/2013	Soil	1
70909.22	1303113-34	10/03/2013	Soil	1
70909.23	1303113-35	10/03/2013	Soil	1
70909.24	1303113-38	10/03/2013	Soil	1
70909.27	1303113-43	10/03/2013	Soil	1
70909.28	1303113-44	10/03/2013	Soil	1
70909.34	1303113-50	10/03/2013	Soil	1
70909.35	1303113-51	10/03/2013	Soil	1
70909.36	1303113-52	10/04/2013	Soil	1
70909.37	1303113-53	10/04/2013	Soil	1
70909.39	1303113-55	10/04/2013	Soil	1
70909.40	1303113-56	10/04/2013	Soil	1
70909.43	1303113-59	10/04/2013	Soil	1
70909.44	1303113-60	10/04/2013	Soil	1
70909.45	1303113-61	10/04/2013	Soil	1

Continued

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Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Project ID: 1303113
Date Received 10/08/2013
Date Reported 10/15/2013

Telephone: (562)989-4045
Attention: Rachelle Arada

Job Number	Order Date	Client
70909	10/08/2013	ATL

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

70909.46	1303113-62	10/04/2013	Soil	1
70909.47	1303113-63	10/04/2013	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	10/15/2013	2	Normal	--

70909.03	1303113-03	10/01/2013	Soil	1
70909.04	1303113-04	10/01/2013	Soil	1
70909.05	1303113-05	10/01/2013	Soil	1
70909.06	1303113-06	10/01/2013	Soil	1
70909.11	1303113-12	10/02/2013	Soil	1
70909.12	1303113-15	10/02/2013	Soil	1
70909.13	1303113-16	10/02/2013	Soil	1
70909.15	1303113-20	10/02/2013	Soil	1
70909.16	1303113-21	10/02/2013	Soil	1
70909.17	1303113-23	10/02/2013	Soil	1
70909.18	1303113-26	10/02/2013	Soil	1
70909.20	1303113-30	10/03/2013	Soil	1
70909.21	1303113-33	10/03/2013	Soil	1
70909.25	1303113-39	10/03/2013	Soil	1
70909.26	1303113-42	10/03/2013	Soil	1
70909.29	1303113-45	10/03/2013	Soil	1
70909.30	1303113-46	10/03/2013	Soil	1
70909.31	1303113-47	10/03/2013	Soil	1
70909.32	1303113-48	10/03/2013	Soil	1
70909.33	1303113-49	10/03/2013	Soil	1
70909.38	1303113-54	10/04/2013	Soil	1
70909.41	1303113-57	10/04/2013	Soil	1
70909.42	1303113-58	10/04/2013	Soil	1
70909.48	1303113-64	10/04/2013	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8151A)	10/15/2013	2	Normal	ug/Kg

Continued

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Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Project ID: 1303113
Date Received 10/08/2013
Date Reported 10/15/2013

Telephone: (562)989-4045
Attention: Rachelle Arada

Job Number	Order Date	Client
70909	10/08/2013	ATL

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Dire

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ANALYTICAL RESULTS

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 100913

Our Lab I.D.			Method Blank	**70909.03**	**70909.04**	**70909.05**	**70909.06**
Client Sample I.D.				1303113-03	1303113-04	1303113-05	1303113-06
Date Sampled				10/01/2013	10/01/2013	10/01/2013	10/01/2013
Date Prepared			10/09/2013	10/09/2013	10/09/2013	10/09/2013	10/09/2013
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			10/09/2013	10/09/2013	10/09/2013	10/09/2013	10/09/2013
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acifluorfen	20	20	ND	ND	ND	ND	ND
Bentazon	10	10	ND	ND	ND	ND	ND
Chloramben	10	10	ND	ND	ND	ND	ND
2,4-D	10	10	ND	ND	ND	ND	ND
Dalapon	20	20	ND	ND	ND	ND	ND
2,4-DB	10	10	ND	ND	ND	ND	ND
DCPA diacid	20	20	ND	ND	ND	ND	ND
Dicamba	10	10	ND	ND	ND	ND	ND
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND	ND	ND
Dichloroprop	10	10	ND	ND	ND	ND	ND
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND	ND	ND
MCPA	2000	2000	ND	ND	ND	ND	ND
MCPP	2000	2000	ND	ND	ND	ND	ND
4-Nitrophenol	10	10	ND	ND	ND	ND	ND
Pentachlorophenol (PCP)	10	10	ND	ND	ND	ND	ND
Picloram	10	10	ND	ND	ND	ND	ND
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND	ND	ND
2,4,5-TP	10	10	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**70909.03**	**70909.04**	**70909.05**	**70909.06**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
DCAA	50-150		77.3	77.5	108	99.4	82.4

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 100913

Our Lab I.D.			**70909.11**				
Client Sample I.D.			1303113-12				
Date Sampled			10/02/2013				
Date Prepared			10/09/2013				
Preparation Method			3550B				
Date Analyzed			10/09/2013				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			5				
Analytes	**MDL**	**PQL**	**Results**				
Acifluorfen	100	100	ND				
Bentazon	50	50	ND				
Chloramben	50	50	ND				
2,4-D	50	50	ND				
Dalapon	100	100	ND				
2,4-DB	50	50	ND				
DCPA diacid	100	100	ND				
Dicamba	50	50	ND				
3,5-Dichlorobenzoic acid	50	50	ND				
Dichloroprop	50	50	ND				
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	100	100	ND				
MCPA	10000	10000	ND				
MCPP	10000	10000	ND				
4-Nitrophenol	50	50	ND				
Pentachlorophenol (PCP)	50	50	ND				
Picloram	50	50	ND				
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50	50	ND				
2,4,5-TP	50	50	ND				

Comment(s):
70909.11: Analyzed under dilution due to matrix interference

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ANALYTICAL RESULTS

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

Our Lab I.D.			70909.11				
Surrogates	%Rec.Limit		% Rec.				
DCAA	50-150		56.3				

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 100913

Our Lab I.D.			70909.12	70909.13			
Client Sample I.D.			1303113-15	1303113-16			
Date Sampled			10/02/2013	10/02/2013			
Date Prepared			10/09/2013	10/09/2013			
Preparation Method			3550B	3550B			
Date Analyzed			10/09/2013	10/09/2013			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acifluorfen	20	20	ND	ND			
Bentazon	10	10	ND	ND			
Chloramben	10	10	ND	ND			
2,4-D	10	10	ND	ND			
Dalapon	20	20	ND	ND			
2,4-DB	10	10	ND	ND			
DCPA diacid	20	20	ND	ND			
Dicamba	10	10	ND	ND			
3,5-Dichlorobenzoic acid	10	10	ND	ND			
Dichloroprop	10	10	ND	ND			
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND			
MCPA	2000	2000	ND	ND			
MCPP	2000	2000	ND	ND			
4-Nitrophenol	10	10	ND	ND			
Pentachlorophenol (PCP)	10	10	ND	ND			
Picloram	10	10	ND	ND			
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND			
2,4,5-TP	10	10	ND	ND			
Our Lab I.D.			**70909.12**	**70909.13**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
DCAA	50-150		57.8	50.2			

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101013-2

Our Lab I.D.			Method Blank	**70909.15**	**70909.16**	**70909.17**	**70909.18**
Client Sample I.D.				1303113-20	1303113-21	1303113-23	1303113-26
Date Sampled				10/02/2013	10/02/2013	10/02/2013	10/02/2013
Date Prepared			10/10/2013	10/10/2013	10/10/2013	10/10/2013	10/10/2013
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			10/11/2013	10/11/2013	10/11/2013	10/11/2013	10/11/2013
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acifluorfen	20	20	ND	ND	ND	ND	ND
Bentazon	10	10	ND	ND	ND	ND	ND
Chloramben	10	10	ND	ND	ND	ND	ND
2,4-D	10	10	ND	ND	ND	ND	ND
Dalapon	20	20	ND	ND	ND	ND	ND
2,4-DB	10	10	ND	ND	ND	ND	ND
DCPA diacid	20	20	ND	ND	ND	ND	ND
Dicamba	10	10	ND	ND	ND	ND	ND
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND	ND	ND
Dichloroprop	10	10	ND	ND	ND	ND	ND
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND	ND	ND
MCPA	2000	2000	ND	ND	ND	ND	ND
MCPP	2000	2000	ND	ND	ND	ND	ND
4-Nitrophenol	10	10	ND	ND	ND	ND	ND
Pentachlorophenol (PCP)	10	10	ND	ND	ND	ND	ND
Picloram	10	10	ND	ND	ND	ND	ND
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND	ND	ND
2,4,5-TP	10	10	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	**70909.15**	**70909.16**	**70909.17**	**70909.18**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
DCAA	50-150		90.9	80.8	56.2	60.9	51.4

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101013-2

Our Lab I.D.			**70909.20**	**70909.21**	**70909.25**	**70909.26**	**70909.29**
Client Sample I.D.			1303113-30	1303113-33	1303113-39	1303113-42	1303113-45
Date Sampled			10/03/2013	10/03/2013	10/03/2013	10/03/2013	10/03/2013
Date Prepared			10/10/2013	10/10/2013	10/10/2013	10/10/2013	10/10/2013
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			10/11/2013	10/11/2013	10/11/2013	10/11/2013	10/11/2013
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acifluorfen	20	20	ND	ND	ND	ND	ND
Bentazon	10	10	ND	ND	ND	ND	ND
Chloramben	10	10	ND	ND	ND	ND	ND
2,4-D	10	10	ND	ND	ND	ND	ND
Dalapon	20	20	ND	ND	ND	ND	ND
2,4-DB	10	10	ND	ND	ND	ND	ND
DCPA diacid	20	20	ND	ND	ND	ND	ND
Dicamba	10	10	ND	ND	ND	ND	ND
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND	ND	ND
Dichloroprop	10	10	ND	ND	ND	ND	ND
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND	ND	ND
MCPA	2000	2000	ND	ND	ND	ND	ND
MCPP	2000	2000	ND	ND	ND	ND	ND
4-Nitrophenol	10	10	ND	ND	ND	ND	ND
Pentachlorophenol (PCP)	10	10	ND	ND	ND	ND	ND
Picloram	10	10	ND	ND	ND	ND	ND
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND	ND	ND
2,4,5-TP	10	10	ND	ND	ND	ND	ND
Our Lab I.D.			**70909.20**	**70909.21**	**70909.25**	**70909.26**	**70909.29**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
DCAA	50-150		73.9	65.1	71.3	75.6	66.2

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101013-2

Our Lab I.D.			70909.30	70909.31	70909.32	70909.33	70909.38
Client Sample I.D.			1303113-46	1303113-47	1303113-48	1303113-49	1303113-54
Date Sampled			10/03/2013	10/03/2013	10/03/2013	10/03/2013	10/04/2013
Date Prepared			10/10/2013	10/10/2013	10/10/2013	10/10/2013	10/10/2013
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			10/11/2013	10/11/2013	10/11/2013	10/11/2013	10/11/2013
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acifluorfen	20	20	ND	ND	ND	ND	ND
Bentazon	10	10	ND	ND	ND	ND	ND
Chloramben	10	10	ND	ND	ND	ND	ND
2,4-D	10	10	ND	ND	ND	ND	ND
Dalapon	20	20	ND	ND	ND	ND	ND
2,4-DB	10	10	ND	ND	ND	ND	ND
DCPA diacid	20	20	ND	ND	ND	ND	ND
Dicamba	10	10	ND	ND	ND	ND	ND
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND	ND	ND
Dichloroprop	10	10	ND	ND	ND	ND	ND
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND	ND	ND
MCPA	2000	2000	ND	ND	ND	ND	ND
MCPP	2000	2000	ND	ND	ND	ND	ND
4-Nitrophenol	10	10	ND	ND	ND	ND	ND
Pentachlorophenol (PCP)	10	10	ND	ND	ND	ND	ND
Picloram	10	10	ND	ND	ND	ND	ND
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND	ND	ND
2,4,5-TP	10	10	ND	ND	ND	ND	ND
Our Lab I.D.			**70909.30**	**70909.31**	**70909.32**	**70909.33**	**70909.38**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
DCAA	50-150		56.5	50.4	54.8	52.0	68.4

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101013-2

Our Lab I.D.			**70909.41**	**70909.42**	**70909.48**		
Client Sample I.D.			1303113-57	1303113-58	1303113-64		
Date Sampled			10/04/2013	10/04/2013	10/04/2013		
Date Prepared			10/10/2013	10/10/2013	10/10/2013		
Preparation Method			3550B	3550B	3550B		
Date Analyzed			10/11/2013	10/11/2013	10/11/2013		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acifluorfen	20	20	ND	ND	ND		
Bentazon	10	10	ND	ND	ND		
Chloramben	10	10	ND	ND	ND		
2,4-D	10	10	ND	ND	ND		
Dalapon	20	20	ND	ND	ND		
2,4-DB	10	10	ND	ND	ND		
DCPA diacid	20	20	ND	ND	ND		
Dicamba	10	10	ND	ND	ND		
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND		
Dichloroprop	10	10	ND	ND	ND		
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND		
MCPA	2000	2000	ND	ND	ND		
MCPP	2000	2000	ND	ND	ND		
4-Nitrophenol	10	10	ND	ND	ND		
Pentachlorophenol (PCP)	10	10	ND	ND	ND		
Picloram	10	10	ND	ND	ND		
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND		
2,4,5-TP	10	10	ND	ND	ND		
Our Lab I.D.			**70909.41**	**70909.42**	**70909.48**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
DCAA	50-150		69.1	51.6	75.0		

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: 8151A, Chlorinated Herbicides by GC/ECD

QC Batch No: 100913

Our Lab I.D.			Method Blank	**70909.14**	**70909.19**		
Client Sample I.D.				1303113-17	1303113-27		
Date Sampled				10/02/2013	10/02/2013		
Date Prepared			10/09/2013	10/09/2013	10/09/2013		
Preparation Method			3510C	3510C	3510C		
Date Analyzed			10/09/2013	10/09/2013	10/09/2013		
Matrix			Aqueous	Aqueous	Aqueous		
Units			ug/L	ug/L	ug/L		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acifluorfen	1.0	1.0	ND	ND	ND		
Bentazon	0.5	0.5	ND	ND	ND		
Chloramben	0.5	0.5	ND	ND	ND		
2,4-D	0.5	0.5	ND	ND	ND		
Dalapon	1.0	1.0	ND	ND	ND		
2,4-DB	0.5	0.5	ND	ND	ND		
DCPA diacid	1.0	1.0	ND	ND	ND		
Dicamba	0.5	0.5	ND	ND	ND		
3,5-Dichlorobenzoic acid	0.5	0.5	ND	ND	ND		
Dichloroprop	0.5	0.5	ND	ND	ND		
Dinoseb	0.5	0.5	ND	ND	ND		
MCPA	100	100	ND	ND	ND		
MCPP	100	100	ND	ND	ND		
4-Nitrophenol	0.5	0.5	ND	ND	ND		
Pentachlorophenol (PCP)	0.5	0.5	ND	ND	ND		
Picloram	0.5	0.5	ND	ND	ND		
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.5	0.5	ND	ND	ND		
2,4,5-TP	0.5	0.5	ND	ND	ND		
Our Lab I.D.			Method Blank	**70909.14**	**70909.19**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
DCAA	50-150		55.1	85.2	78.9		

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QUALITY CONTROL RESULTS

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Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: 8151A, Chlorinated Herbicides by GC/ECD

QC Batch No: 100913; LCS: Clean Water; LCS Prepared: 10/09/2013; LCS Analyzed: 10/09/2013; Units: ug/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
2,4-D	50.0	40.6	81.2	50.0	59.5	119	37.8	50-150	<50	
Dalapon	50.0	69.0	138	50.0	49.4	98.8	33.1	50-150	<50	
2,4-DB	50.0	34.9	69.8	50.0	43.7	87.4	22.4	50-150	<50	
Dicamba	50.0	39.2	78.4	50.0	29.0	58.0	29.9	50-150	<50	
Dinoseb	50.0	42.4	84.8	50.0	48.7	97.4	13.8	50-150	<50	
MCPA	5,000	4,620	92.4	5,000	7,000	140	41.0	50-150	<50	
MCPP	5,000	3,130	62.6	5,000	4,370	87.3	33.0	50-150	<50	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50.0	41.7	83.3	50.0	28.6	57.2	37.2	50-150	<50	
2,4,5-TP	50.0	45.5	91.0	50.0	42.8	85.6	6.1	50-150	<50	
Surrogates										
DCAA	100	70.3	70.3	100	67.2	67.2	4.5	50-150	<20	

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QUALITY CONTROL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attn: Rachelle Arada
Page: 12

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 100913; LCS: Clean Sand; LCS Prepared: 10/09/2013; LCS Analyzed: 10/09/2013; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
2,4-D	50.0	29.3	58.6	50.0	26.5	53.0	10.0	50-150	<40	
Dalapon	50.0	36.1	72.2	50.0	40.9	81.8	12.5	50-150	<40	
2,4-DB	50.0	28.4	56.8	50.0	34.3	68.6	18.8	50-150	<40	
Dicamba	50.0	34.3	68.6	50.0	38.9	77.8	12.6	50-150	<40	
Dichloroprop	50.0	38.8	77.6	50.0	40.4	80.8	4.0	50-150	<40	
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	50.0	40.8	81.6	50.0	40.0	79.9	2.1	50-150	<40	
MCPA	5,000	4,740	94.8	5,000	5,050	101	6.3	50-150	<40	
MCPP	5,000	5,100	102	5,000	5,700	114	11.1	50-150	<40	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50.0	30.9	61.8	50.0	29.4	58.8	5.0	50-150	<40	
2,4,5-TP	50.0	35.0	70.0	50.0	38.7	77.4	10.0	50-150	<40	
Surrogates										
DCAA	100	64.2	64.2	100	77.7	77.7	19.0	50-150	<40	

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QUALITY CONTROL RESULTS

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Telephone: (562)989-4045
Attn: Rachelle Arada
Page: 13

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
70909	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101013-2; Dup or Spiked Sample: 70909.41; LCS: Clean Sand; QC Prepared: 10/10/2013; QC Analyzed: 10/11/2013; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
2,4-D	0.00	50.0	29.7	59.4	50.0	28.5	57.0	4.1	50-150	<40
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	0.00	50.0	34.1	68.2	50.0	34.2	68.4	<1	50-150	<40
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.00	50.0	28.1	56.2	50.0	27.6	55.2	1.8	50-150	<40
Surrogates										
DCAA	0.00	100	80.2	80.2	100	70.6	70.6	12.7	50-150	<40

QC Batch No: 101013-2; Dup or Spiked Sample: 70909.41; LCS: Clean Sand; QC Prepared: 10/10/2013; QC Analyzed: 10/11/2013; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
2,4-D	50.0	37.9	75.8	50.0	33.6	67.2	12.0	50-150	<40	
Dalapon	50.0	70.5	141	50.0	68.5	137	2.9	50-150	<40	
2,4-DB	50.0	32.8	65.6	50.0	31.4	62.8	4.4	50-150	<40	
Dicamba	50.0	48.3	96.6	50.0	47.0	94.0	2.7	50-150	<40	
Dichloroprop	50.0	43.4	86.8	50.0	41.0	82.0	5.7	50-150	<40	
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	50.0	51.0	102	50.0	49.5	99.0	3.0	50-150	<40	
MCPA	5,000	5,450	109	5,000	5,150	103	5.7	50-150	<40	
MCPP	5,000	6,350	127	5,000	6,150	123	3.2	50-150	<40	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50.0	37.8	75.6	50.0	36.4	72.8	3.8	50-150	<40	
2,4,5-TP	50.0	51.0	102	50.0	47.4	94.8	7.3	50-150	<40	
Surrogates										
DCAA	100	102	102	100	101	101	<1	50-150	<40	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

70909
70909

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

AETL
2834 North Naomi Street
Burbank, CA 91504
Phone :(818) 845-8200
Fax: (818) 845-8840
PO#: SC08223-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-01	**/ DP1-0.5**		**Soil**	**10/01/13 08:42**	70909.01
8151	**10/15/13 17:00**	10/15/13 08:42			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-02	**/ DP1-3.0**		**Soil**	**10/01/13 08:49**	70909.02
8151	**10/15/13 17:00**	10/15/13 08:49			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-03	**/ DP1-5.0**		**Soil**	**10/01/13 08:52**	70909.03
8151	**10/15/13 17:00**	10/15/13 08:52			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-04	**/ DP1-10**		**Soil**	**10/01/13 09:25**	70909.04
8151	**10/15/13 17:00**	10/15/13 09:25			
[Chlorinated Herbicides by GC]					

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558		10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

70909

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-05	**/ DP1-15**		**Soil**	**10/01/13 09:55**	70909.05
8151	**10/15/13 17:00**	10/15/13 09:55			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-06	**/ DP1-20**		**Soil**	**10/01/13 09:37**	70909.06
8151	**10/15/13 17:00**	10/15/13 09:37			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-08	**/ DP4-0.5**		**Soil**	**10/02/13 08:46**	70909.07
8151	**10/15/13 17:00**	10/16/13 08:46			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-09	**/ DP4-3.0**		**Soil**	**10/02/13 09:27**	70909.08
8151	**10/15/13 17:00**	10/16/13 09:27			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-10	**/ DP3-0.5**		**Soil**	**10/02/13 10:26**	70909.09
8151	**10/15/13 17:00**	10/16/13 10:26			
[Chlorinated Herbicides by GC]					

	10/8/13 1429			10/8/13	1429
Released By	Date		Received By	Date	
	10/8/13	1558	Jean Claude	10/08/13	1558
Released By	Date		Received By	Date	

70909

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-11	**/ DP3-3.0**	**Soil**	**10/02/13 10:46**	70909.10
8151	**10/15/13 17:00**	10/16/13 10:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-12	**/ DP3-5.0**	**Soil**	**10/02/13 10:51**	70909.11
8151	**10/15/13 17:00**	10/16/13 10:51		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-15	**/ DP3-20**	**Soil**	**10/02/13 11:27**	70909.12
8151	**10/15/13 17:00**	10/16/13 11:27		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-16	**/ DP3-25**	**Soil**	**10/02/13 11:37**	70909.13
8151	**10/15/13 17:00**	10/16/13 11:37		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-17	**/ DP3-W**	**Groundwater**	**10/02/13 12:25**	70909.14
8151	**10/15/13 17:00**	10/09/13 12:25		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
[signature]	10/8/13 1429	[signature]	10/8/13 1429
[signature]	10/8/13 1558	Jean Claude	10/08/13 1558

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-20	**/ DP2-5.0**	**Soil**	**10/02/13 13:46**	70909.15
8151	**10/15/13 17:00**	10/16/13 13:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-21	**/ DP2-10**	**Soil**	**10/02/13 13:56**	70909.16
8151	**10/15/13 17:00**	10/16/13 13:56		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-23	**/ DP2-20**	**Soil**	**10/02/13 14:10**	70909.17
8151	**10/15/13 17:00**	10/16/13 14:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-26	**/ DP2-40**	**Soil**	**10/02/13 15:04**	70909.18
8151	**10/15/13 17:00**	10/16/13 15:04		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-27	**/ DP2-W**	**Groundwater**	**10/02/13 15:57**	70909.19
8151	**10/15/13 17:00**	10/09/13 15:57		
[Chlorinated Herbicides by GC]				

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Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558	Jean Claude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

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SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-30 / **B9-5.0**		**Soil**	**10/03/13 09:40**	70909.20
8151	**10/15/13 17:00**	10/17/13 09:40		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-33 / **B4-5.0**		**Soil**	**10/03/13 11:05**	70909.21
8151	**10/15/13 17:00**	10/17/13 11:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-34 / **B3-2.0**		**Soil**	**10/03/13 12:46**	70909.22
8151	**10/15/13 17:00**	10/17/13 12:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-35 / **B3-3.0**		**Soil**	**10/03/13 12:52**	70909.23
8151	**10/15/13 17:00**	10/17/13 12:52		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-38 / **B2-3.0**		**Soil**	**10/03/13 14:26**	70909.24
8151	**10/15/13 17:00**	10/17/13 14:26		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558	Jeanclaude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

70909

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-39	**/ B2-5.0**	**Soil**	**10/03/13 14:31**	70909.25
8151	**10/15/13 17:00**	10/17/13 14:31		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-42	**/ B1-5.0**	**Soil**	**10/03/13 15:17**	70909.26
8151	**10/15/13 17:00**	10/17/13 15:17		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-43	**/ DP4A-0.5**	**Soil**	**10/03/13 08:45**	70909.27
8151	**10/15/13 17:00**	10/17/13 08:45		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-44	**/ DP4A-3.0**	**Soil**	**10/03/13 09:05**	70909.28
8151	**10/15/13 17:00**	10/17/13 09:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-45	**/ DP4A-5.0**	**Soil**	**10/03/13 10:00**	70909.29
8151	**10/15/13 17:00**	10/17/13 10:00		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558	Jean claude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

70909

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-46	**/ DP4A-10**	**Soil**	**10/03/13 09:25**	70909.30
8151	**10/15/13 17:00**	10/17/13 09:25		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-47	**/ DP4A-15**	**Soil**	**10/03/13 10:42**	70909.31
8151	**10/15/13 17:00**	10/17/13 10:42		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-48	**/ DP4A-20**	**Soil**	**10/03/13 10:54**	70909.32
8151	**10/15/13 17:00**	10/17/13 10:54		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-49	**/ DP4A-25**	**Soil**	**10/03/13 11:10**	70909.33
8151	**10/15/13 17:00**	10/17/13 11:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-50	**/ DP5-0.5**	**Soil**	**10/03/13 14:30**	70909.34
8151	**10/15/13 17:00**	10/17/13 14:30		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
[signature]	10/8/13 1429	[signature]	10/8/13 1429
[signature]	10/8/13 1558	Jean Claude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

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SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-51	**/ DP5-3.0**	**Soil**	**10/03/13 14:50**	70909.35
8151	**10/15/13 17:00**	10/17/13 14:50		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-52	**/ B6-1.0**	**Soil**	**10/04/13 09:15**	70909.36
8151	**10/15/13 17:00**	10/18/13 09:15		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-53	**/ B6-3.0**	**Soil**	**10/04/13 09:41**	70909.37
8151	**10/15/13 17:00**	10/18/13 09:41		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-54	**/ B6-5.0**	**Soil**	**10/04/13 09:46**	70909.38
8151	**10/15/13 17:00**	10/18/13 09:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-55	**/ B5-1.0**	**Soil**	**10/04/13 10:37**	70909.39
8151	**10/15/13 17:00**	10/18/13 10:37		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558	Jean Claude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

70909

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-56	**/ B5-3.0**	**Soil**	**10/04/13 10:50**	70909.40
8151	**10/15/13 17:00**	10/18/13 10:50		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-57	**/ B5-5.0**	**Soil**	**10/04/13 11:16**	70909.41
8151	**10/15/13 17:00**	10/18/13 11:16		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-58	**/ DP4A-35**	**Soil**	**10/04/13 09:55**	70909.42
8151	**10/15/13 17:00**	10/18/13 09:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-59	**/ B7-1.0**	**Soil**	**10/04/13 12:26**	70909.43
8151	**10/15/13 17:00**	10/18/13 12:26		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-60	**/ B7-3.0**	**Soil**	**10/04/13 12:32**	70909.44
8151	**10/15/13 17:00**	10/18/13 12:32		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558	Jeanclaude	10/08/13 1558

ADVANCED TECHNOLOGY LABORATORIES

70909

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-61	**/ B7-4.5**	**Soil**	**10/04/13 12:55**	70909.45
8151	**10/15/13 17:00**	10/18/13 12:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-62	**/ B8-1.0**	**Soil**	**10/04/13 14:03**	70909.46
8151	**10/15/13 17:00**	10/18/13 14:03		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-63	**/ B8-3.0**	**Soil**	**10/04/13 14:20**	70909.47
8151	**10/15/13 17:00**	10/18/13 14:20		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-64	**/ B8-5.0**	**Soil**	**10/04/13 14:28**	70909.48
8151	**10/15/13 17:00**	10/18/13 14:28		
[Chlorinated Herbicides by GC]				

	10/8/13	1429		10/8/13	1429
Released By	Date		Received By	Date	
	10/8/13	1558	Leon Claude	10/08/13	1558
Released By	Date		Received By	Date	

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

SENDING LABORATORY:	RECEIVING LABORATORY:
Advanced Technology Laboratories	AETL
3275 Walnut Avenue	2834 North Naomi Street
Signal Hill, CA 90755	Burbank, CA 91504
Phone: 562.989.4045	Phone :(818) 845-8200
Fax: 562.989.6348	Fax: (818) 845-8840
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)	PO#: SC08223-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-01	**/ DP1-0.5** – HOLD		**Soil**	**10/01/13 08:42**	
8151	**10/15/13 17:00**	10/15/13 08:42			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-02	**/ DP1-3.0** – HOLD		**Soil**	**10/01/13 08:49**	
8151	**10/15/13 17:00**	10/15/13 08:49			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-03	**/ DP1-5.0**		**Soil**	**10/01/13 08:52**	
8151	**10/15/13 17:00**	10/15/13 08:52			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-04	**/ DP1-10**		**Soil**	**10/01/13 09:25**	
8151	**10/15/13 17:00**	10/15/13 09:25			
[Chlorinated Herbicides by GC]					

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-05	**/ DP1-15**	**Soil**	**10/01/13 09:55**	
8151	**10/15/13 17:00**	10/15/13 09:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-06	**/ DP1-20**	**Soil**	**10/01/13 09:37**	
8151	**10/15/13 17:00**	10/15/13 09:37		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-08	**/ DP4-0.5** - HOLD	**Soil**	**10/02/13 08:46**	
8151	**10/15/13 17:00**	10/16/13 08:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-09	**/ DP4-3.0** - HOLD	**Soil**	**10/02/13 09:27**	
8151	**10/15/13 17:00**	10/16/13 09:27		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-10	**/ DP3-0.5** - HOLD	**Soil**	**10/02/13 10:26**	
8151	**10/15/13 17:00**	10/16/13 10:26		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-11	**/ DP3-3.0**		**Soil**	**10/02/13 10:46**	
8151	**10/15/13 17:00**	10/16/13 10:46			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-12	**/ DP3-5.0**		**Soil**	**10/02/13 10:51**	
8151	**10/15/13 17:00**	10/16/13 10:51			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-15	**/ DP3-20**		**Soil**	**10/02/13 11:27**	
8151	**10/15/13 17:00**	10/16/13 11:27			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-16	**/ DP3-25**		**Soil**	**10/02/13 11:37**	
8151	**10/15/13 17:00**	10/16/13 11:37			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-17	**/ DP3-W**		**Groundwater**	**10/02/13 12:25**	
8151	**10/15/13 17:00**	10/09/13 12:25			
[Chlorinated Herbicides by GC]					

Released By	Date	Received By	Date	
	10/8/13 1429		10/8/13	1429
Released By	Date	Received By	Date	

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-20	**/ DP2-5.0**	**Soil**	**10/02/13 13:46**	
8151	**10/15/13 17:00**	10/16/13 13:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-21	**/ DP2-10**	**Soil**	**10/02/13 13:56**	
8151	**10/15/13 17:00**	10/16/13 13:56		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-23	**/ DP2-20**	**Soil**	**10/02/13 14:10**	
8151	**10/15/13 17:00**	10/16/13 14:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-26	**/ DP2-40**	**Soil**	**10/02/13 15:04**	
8151	**10/15/13 17:00**	10/16/13 15:04		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-27	**/ DP2-W**	**Groundwater**	**10/02/13 15:57**	
8151	**10/15/13 17:00**	10/09/13 15:57		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date	
	10/8/13 1429		10/8/13	1429
Released By	Date	Received By	Date	

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-30	**/ B9-5.0**	**Soil**	**10/03/13 09:40**	
8151	**10/15/13 17:00**	10/17/13 09:40		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-33	**/ B4-5.0**	**Soil**	**10/03/13 11:05**	
8151	**10/15/13 17:00**	10/17/13 11:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-34	**/ B3-2.0** -1400	**Soil**	**10/03/13 12:46**	
8151	**10/15/13 17:00**	10/17/13 12:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-35	**/ B3-3.0** - 1400	**Soil**	**10/03/13 12:52**	
8151	**10/15/13 17:00**	10/17/13 12:52		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-38	**/ B2-3.0** - 1400	**Soil**	**10/03/13 14:26**	
8151	**10/15/13 17:00**	10/17/13 14:26		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-39	**/ B2-5.0**	**Soil**	**10/03/13 14:31**	
8151	**10/15/13 17:00**	10/17/13 14:31		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-42	**/ B1-5.0**	**Soil**	**10/03/13 15:17**	
8151	**10/15/13 17:00**	10/17/13 15:17		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-43	**/ DP4A-0.5** – KTWO	**Soil**	**10/03/13 08:45**	
8151	**10/15/13 17:00**	10/17/13 08:45		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-44	**/ DP4A-3.0** – KTWO	**Soil**	**10/03/13 09:05**	
8151	**10/15/13 17:00**	10/17/13 09:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-45	**/ DP4A-5.0**	**Soil**	**10/03/13 10:00**	
8151	**10/15/13 17:00**	10/17/13 10:00		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-46	**/ DP4A-10**	**Soil**	**10/03/13 09:25**	
8151	**10/15/13 17:00**	10/17/13 09:25		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-47	**/ DP4A-15**	**Soil**	**10/03/13 10:42**	
8151	**10/15/13 17:00**	10/17/13 10:42		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-48	**/ DP4A-20**	**Soil**	**10/03/13 10:54**	
8151	**10/15/13 17:00**	10/17/13 10:54		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-49	**/ DP4A-25**	**Soil**	**10/03/13 11:10**	
8151	**10/15/13 17:00**	10/17/13 11:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-50	**/ ~~DP5-0.5~~** – HOLD	**Soil**	**10/03/13 14:30**	
8151	**10/15/13 17:00**	10/17/13 14:30		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-51 / **DP5-3.0** HOLD		**Soil**	**10/03/13 14:50**	
8151	**10/15/13 17:00**	10/17/13 14:50		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-52 / **B6-1.0** HOLD		**Soil**	**10/04/13 09:15**	
8151	**10/15/13 17:00**	10/18/13 09:15		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-53 / **B6-3.0** HOLD		**Soil**	**10/04/13 09:41**	
8151	**10/15/13 17:00**	10/18/13 09:41		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-54 / **B6-5.0**		**Soil**	**10/04/13 09:46**	
8151	**10/15/13 17:00**	10/18/13 09:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-55 / **B5-1.0** HOLD		**Soil**	**10/04/13 10:37**	
8151	**10/15/13 17:00**	10/18/13 10:37		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-56	**/ B5-3.0** – HOLD		**Soil**	**10/04/13 10:50**	
8151	**10/15/13 17:00**	10/18/13 10:50			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-57	**/ B5-5.0**		**Soil**	**10/04/13 11:16**	
8151	**10/15/13 17:00**	10/18/13 11:16			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-58	**/ DP4A-35**		**Soil**	**10/04/13 09:55**	
8151	**10/15/13 17:00**	10/18/13 09:55			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-59	**/ B7-1.0** – HOLD		**Soil**	**10/04/13 12:26**	
8151	**10/15/13 17:00**	10/18/13 12:26			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-60	**/ B7-3.0** – HOLD		**Soil**	**10/04/13 12:32**	
8151	**10/15/13 17:00**	10/18/13 12:32			
[Chlorinated Herbicides by GC]					

	10/8/13 1429		10/8/13	1429
Released By	Date	Received By	Date	
Released By	Date	Received By	Date	

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-61 / B7-4.5 – HOLD		Soil	10/04/13 12:55	
8151	10/15/13 17:00	10/18/13 12:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-62 / B8-1.0 – HOLD		Soil	10/04/13 14:03	
8151	10/15/13 17:00	10/18/13 14:03		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-63 / B8-3.0 – HOLD		Soil	10/04/13 14:20	
8151	10/15/13 17:00	10/18/13 14:20		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-64 / B8-5.0		Soil	10/04/13 14:28	
8151	10/15/13 17:00	10/18/13 14:28		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
Released By	Date	Received By	Date

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Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attention: Rachelle Arada

Number of Pages 8
Date Received 10/08/2013
Date Reported 10/23/2013

Job Number	Order Date	Client
71006	10/17/2013	ATL

Project ID: 1303113
Project Name: PO# SC08223

Enclosed please find results of analyses of 9 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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Telephone: (562)989-4045
Attention: Rachelle Arada

Project ID: 1303113
Date Received 10/08/2013
Date Reported 10/23/2013

Job Number	Order Date	Client
71006	10/17/2013	ATL

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 19 samples with the following specification on 10/17/2013.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
71006.01	1303113-01	10/01/2013	Soil	1
71006.03	1303113-08	10/02/2013	Soil	1
71006.05	1303113-10	10/02/2013	Soil	1
71006.09	1303113-43	10/03/2013	Soil	1
71006.11	1303113-50	10/03/2013	Soil	1
71006.14	1303113-55	10/04/2013	Soil	1
71006.16	1303113-59	10/04/2013	Soil	1
71006.18	1303113-62	10/04/2013	Soil	1
71006.19	1303113-63	10/04/2013	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8151A)	10/24/2013	2	Normal	ug/Kg

71006.02	1303113-02	10/01/2013	Soil	1
71006.04	1303113-09	10/02/2013	Soil	1
71006.06	1303113-11	10/02/2013	Soil	1
71006.07	1303113-34	10/03/2013	Soil	1
71006.08	1303113-38	10/03/2013	Soil	1
71006.10	1303113-44	10/03/2013	Soil	1
71006.12	1303113-51	10/03/2013	Soil	1
71006.13	1303113-53	10/04/2013	Soil	1
71006.15	1303113-56	10/04/2013	Soil	1
71006.17	1303113-60	10/04/2013	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
3550B	10/24/2013	2	Normal	--

Continued

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Ordered By

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3275 Walnut Avenue
Signal Hill, CA 90755-5225

Project ID: 1303113
Date Received 10/08/2013
Date Reported 10/23/2013

Telephone: (562)989-4045
Attention: Rachelle Arada

Job Number	Order Date	Client
71006	10/17/2013	ATL

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Dire

American Environmental Testing Laboratory Inc.
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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attn: Rachelle Arada
Page: 2

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101813

Our Lab I.D.			Method Blank	**71006.01**			
Client Sample I.D.				1303113-01			
Date Sampled				10/01/2013			
Date Prepared			10/18/2013	10/18/2013			
Preparation Method			3550B	3550B			
Date Analyzed			10/22/2013	10/22/2013			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acifluorfen	20	20	ND	ND			
Bentazon	10	10	ND	ND			
Chloramben	10	10	ND	ND			
2,4-D	10	10	ND	ND			
Dalapon	20	20	ND	ND			
2,4-DB	10	10	ND	ND			
DCPA diacid	20	20	ND	ND			
Dicamba	10	10	ND	ND			
3,5-Dichlorobenzoic acid	10	10	ND	ND			
Dichloroprop	10	10	ND	ND			
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND			
MCPA	2000	2000	ND	ND			
MCPP	2000	2000	ND	ND			
4-Nitrophenol	10	10	ND	ND			
Pentachlorophenol (PCP)	10	10	ND	ND			
Picloram	10	10	ND	ND			
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND			
2,4,5-TP	10	10	ND	ND			
Our Lab I.D.			Method Blank	**71006.01**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
DCAA	50-150		64.2	81.0			

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ANALYTICAL RESULTS

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Attn: Rachelle Arada
Page: 3

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101813

Our Lab I.D.			**71006.03**				
Client Sample I.D.			1303113-08				
Date Sampled			10/02/2013				
Date Prepared			10/18/2013				
Preparation Method			3550B				
Date Analyzed			10/22/2013				
Matrix			Soil				
Units			ug/Kg				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
Acifluorfen	40	40	ND				
Bentazon	20	20	ND				
Chloramben	20	20	ND				
2,4-D	20	20	ND				
Dalapon	40	40	ND				
2,4-DB	20	20	ND				
DCPA diacid	40	40	ND				
Dicamba	20	20	ND				
3,5-Dichlorobenzoic acid	20	20	ND				
Dichloroprop	20	20	ND				
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	40	40	ND				
MCPA	4000	4000	ND				
MCPP	4000	4000	ND				
4-Nitrophenol	20	20	ND				
Pentachlorophenol (PCP)	20	20	ND				
Picloram	20	20	ND				
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	20	20	ND				
2,4,5-TP	20	20	ND				

Comment(s):
71006.03: Analyzed under dilution due to matrix interference

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ANALYTICAL RESULTS

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

Our Lab I.D.			**71006.03**				
Surrogates	**%Rec.Limit**		**% Rec.**				
DCAA	50-150		52.6				

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ANALYTICAL RESULTS

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Page: 5

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101813

Our Lab I.D.			71006.05	71006.09	71006.11		
Client Sample I.D.			1303113-10	1303113-43	1303113-50		
Date Sampled			10/02/2013	10/03/2013	10/03/2013		
Date Prepared			10/18/2013	10/18/2013	10/18/2013		
Preparation Method			3550B	3550B	3550B		
Date Analyzed			10/22/2013	10/22/2013	10/22/2013		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			5	5	5		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acifluorfen	100	100	ND	ND	ND		
Bentazon	50	50	ND	ND	ND		
Chloramben	50	50	ND	ND	ND		
2,4-D	50	50	ND	ND	ND		
Dalapon	100	100	ND	ND	ND		
2,4-DB	50	50	ND	ND	ND		
DCPA diacid	100	100	ND	ND	ND		
Dicamba	50	50	ND	ND	ND		
3,5-Dichlorobenzoic acid	50	50	ND	ND	ND		
Dichloroprop	50	50	ND	ND	ND		
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	100	100	ND	ND	ND		
MCPA	10000	10000	ND	ND	ND		
MCPP	10000	10000	ND	ND	ND		
4-Nitrophenol	50	50	ND	ND	ND		
Pentachlorophenol (PCP)	50	50	ND	ND	ND		
Picloram	50	50	ND	ND	ND		
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50	50	ND	ND	ND		
2,4,5-TP	50	50	ND	ND	ND		

Comment(s):
71006.05: Analyzed under dilution due to matrix interference 71006.09: Analyzed under dilution due to matrix interference 71006.11: Analyzed under dilution due to matrix interference

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ANALYTICAL RESULTS

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

Our Lab I.D.			71006.05	71006.09	71006.11		
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.		
DCAA	50-150		19.3 S6	36.4 S6	38.0 S6		

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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attn: Rachelle Arada
Page: **7**

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101813

Our Lab I.D.			**71006.14**	**71006.16**	**71006.18**	**71006.19**	
Client Sample I.D.			1303113-55	1303113-59	1303113-62	1303113-63	
Date Sampled			10/04/2013	10/04/2013	10/04/2013	10/04/2013	
Date Prepared			10/18/2013	10/18/2013	10/18/2013	10/18/2013	
Preparation Method			3550B	3550B	3550B	3550B	
Date Analyzed			10/22/2013	10/22/2013	10/22/2013	10/22/2013	
Matrix			Soil	Soil	Soil	Soil	
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	
Dilution Factor			1	1	1	1	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
Acifluorfen	20	20	ND	ND	ND	ND	
Bentazon	10	10	ND	ND	ND	ND	
Chloramben	10	10	ND	ND	ND	ND	
2,4-D	10	10	ND	ND	ND	ND	
Dalapon	20	20	ND	ND	ND	ND	
2,4-DB	10	10	ND	ND	ND	ND	
DCPA diacid	20	20	ND	ND	ND	ND	
Dicamba	10	10	ND	ND	ND	ND	
3,5-Dichlorobenzoic acid	10	10	ND	ND	ND	ND	
Dichloroprop	10	10	ND	ND	ND	ND	
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	20	20	ND	ND	ND	ND	
MCPA	2000	2000	ND	ND	ND	ND	
MCPP	2000	2000	ND	ND	ND	ND	
4-Nitrophenol	10	10	ND	ND	ND	ND	
Pentachlorophenol (PCP)	10	10	ND	ND	16.5	ND	
Picloram	10	10	ND	ND	ND	ND	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	10	10	ND	ND	ND	ND	
2,4,5-TP	10	10	ND	ND	ND	ND	
Our Lab I.D.			**71006.14**	**71006.16**	**71006.18**	**71006.19**	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
DCAA	50-150		57.6	72.8	69.2	51.9	

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QUALITY CONTROL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045
Attn: Rachelle Arada
Page: 8

Project ID: 1303113
Project Name: PO# SC08223

AETL Job Number	Submitted	Client
71006	10/08/2013	ATL

Method: (8151A), Chlorinated Herbicides by GC/ECD

QC Batch No: 101813; LCS: Clean Sand; LCS Prepared: 10/18/2013; LCS Analyzed: 10/22/2013; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
2,4-D	50.0	25.0	50.0	50.0	41.4	82.8	49.4	50-150	<40	
Dalapon	50.0	34.0	67.9	50.0	34.0	68.0	<1	50-150	<40	
2,4-DB	50.0	33.1	66.2	50.0	33.9	67.8	2.4	50-150	<40	
Dicamba	50.0	26.9	53.8	50.0	27.8	55.6	3.3	50-150	<40	
Dichloroprop	50.0	26.7	53.4	50.0	27.1	54.2	1.5	50-150	<40	
Dinoseb (DNBP, 2-sec-Butyl-4, 6-dinitrophenol)	50.0	26.9	53.8	50.0	27.2	54.4	1.1	50-150	<40	
MCPA	5,000	3,860	77.2	5,000	3,850	77.0	<1	50-150	<40	
MCPP	5,000	5,850	117	5,000	6,700	134	13.5	50-150	<40	
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	50.0	31.2	62.4	50.0	36.4	72.8	15.4	50-150	<40	
2,4,5-TP	50.0	25.4	50.8	50.0	25.8	51.6	1.6	50-150	<40	
Surrogates										
DCAA	100	61.7	61.7	100	82.2	82.2	28.5	50-150	<40	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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~~70909~~

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

SENDING LABORATORY:	RECEIVING LABORATORY:
Advanced Technology Laboratories	ABTL
3275 Walnut Avenue	2834 North Naomi Street
Signal Hill, CA 90755	Burbank, CA 91504
Phone: 562.989.4045	Phone :(818) 845-8200
Fax: 562.989.6348	Fax: (818) 845-8840
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)	PO#: SC08223-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-01	/ DP1-0.5	– Analyze @ 10/17/13	Soil	10/01/13 08:42	71006.01 ~~70909.01~~
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/15/13 08:42			
ATL Lab#: 1303113-02	/ DP1-3.0	– Extract @ 10/17/13	Soil	10/01/13 08:49	71006.02 ~~70909.02~~
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/15/13 08:49			
ATL Lab#: 1303113-03	/ DP1-5.0		Soil	10/01/13 08:52	70909.03
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/15/13 08:52			
ATL Lab#: 1303113-04	/ DP1-10		Soil	10/01/13 09:25	70909.04
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/15/13 09:25			

Released By	Date	Received By	Date
	10/8/13 1429		10/8/13 1429
	10/8/13 1558		10/09/13 1558

71006

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-05 / **DP1-15**		**Soil**	**10/01/13 09:55**	70909.05
8151	**10/15/13 17:00**	10/15/13 09:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-06 / **DP1-20**		**Soil**	**10/01/13 09:37**	70909.06
8151	**10/15/13 17:00**	10/15/13 09:37		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-08 / **DP4-0.5** – Analyze RA 10/17/13		**Soil**	**10/02/13 08:46**	71006.03 ~~70909.07~~
8151	**10/15/13 17:00**	10/16/13 08:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-09 / **DP4-3.0** – Extract RA 10/17/13		**Soil**	**10/02/13 09:27**	71006.04 ~~70909.08~~
8151	**10/15/13 17:00**	10/16/13 09:27		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-10 / **DP3-0.5** – Analyze RA 10/17/13		**Soil**	**10/02/13 10:26**	71006.05 ~~70909.09~~
8151	**10/15/13 17:00**	10/16/13 10:26		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date	
	10/8/13 1429		10/8/13	
Released By	Date	Received By	Date	
	10/8/13 1558	Jean Claude	10/8/13	1558

71006
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ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-11 / DP3-3.0 -extract (RR 10/17/13)		Soil	10/02/13 10:46	71006,06 ~~70909.10~~
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/16/13 10:46		
ATL Lab#: 1303113-12 / DP3-5.0		Soil	10/02/13 10:51	70909.11
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/16/13 10:51		
ATL Lab#: 1303113-15 / DP3-20		Soil	10/02/13 11:27	70909.12
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/16/13 11:27		
ATL Lab#: 1303113-16 / DP3-25		Soil	10/02/13 11:37	70909.13
8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/16/13 11:37		
ATL Lab#: 1303113-17 / DP3-W		Groundwater	10/02/13 12:25	70909.14
K 8151 [Chlorinated Herbicides by GC]	10/15/13 17:00	10/09/13 12:25		

Released By	Date	Received By	Date
[signature]	10/8/13 1429	[signature]	10/8/13 1429
[signature]	10/8/13 1558	Jean Claude	10/08/13 1558

70909

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-20	**/ DP2-5.0**	**Soil**	**10/02/13 13:46**	70909.15
8151	**10/15/13 17:00**	10/16/13 13:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-21	**/ DP2-10**	**Soil**	**10/02/13 13:56**	70909.16
8151	**10/15/13 17:00**	10/16/13 13:56		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-23	**/ DP2-20**	**Soil**	**10/02/13 14:10**	70909.17
8151	**10/15/13 17:00**	10/16/13 14:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-26	**/ DP2-40**	**Soil**	**10/02/13 15:04**	70909.18
8151	**10/15/13 17:00**	10/16/13 15:04		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-27	**/ DP2-W**	**Groundwater**	**10/02/13 15:57**	70909.19
8151	**10/15/13 17:00**	10/09/13 15:57		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
[signature]	10/8/13 1429	[signature]	10/8/13 1429
[signature]	10/8/13 1558	Jean Claude	10/08/13 1808

71006

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-30	**/ B9-5.0**	**Soil**	**10/03/13 09:40**	70909.20
8151	**10/15/13 17:00**	10/17/13 09:40		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-33	**/ B4-5.0**	**Soil**	**10/03/13 11:05**	70909.21
8151	**10/15/13 17:00**	10/17/13 11:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-34	**/ B3-2.0** - EXTRACT RA 10/17/13	**Soil**	**10/03/13 12:46**	71006.07 ~~70909.22~~
8151	**10/15/13 17:00**	10/17/13 12:46		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-35	**/ B3-3.0**	**Soil**	**10/03/13 12:52**	70909.23
8151	**10/15/13 17:00**	10/17/13 12:52		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-38	**/ B2-3.0** - EXTRACT RA 10/17/13	**Soil**	**10/03/13 14:26**	71006.08 ~~70909.24~~
8151	**10/15/13 17:00**	10/17/13 14:26		
[Chlorinated Herbicides by GC]				

Released By	Date		Received By	Date	
	10/8/13	1429		10/8/13	1429
Released By	Date		Received By	Date	
	10/8/13	1558		10/08/13	1558

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-39 / B2-5.0		Soil	10/03/13 14:31	70909.25
8151	10/15/13 17:00	10/17/13 14:31		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-42 / B1-5.0		Soil	10/03/13 15:17	70909.26
8151	10/15/13 17:00	10/17/13 15:17		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-43 / DP4A-0.5 - Analyze RR 10/17/13		Soil	10/03/13 08:45	71006.09 ~~70909.27~~
8151	10/15/13 17:00	10/17/13 08:45		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-44 / DP4A-3.0 - Extract RR 10/17/13		Soil	10/03/13 09:05	71006.10 ~~70909.28~~
8151	10/15/13 17:00	10/17/13 09:05		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-45 / DP4A-5.0		Soil	10/03/13 10:00	70909.29
8151	10/15/13 17:00	10/17/13 10:00		
[Chlorinated Herbicides by GC]				

Released By	Date		Received By	Date	
	10/8/13 1429			10/8/13	1429
Released By	Date		Received By	Date	
	10/8/13	1558	Jean claude	10/08/13	1558

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-46 / DP4A-10		Soil	10/03/13 09:25	70909.30
8151	10/15/13 17:00	10/17/13 09:25		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-47 / DP4A-15		Soil	10/03/13 10:42	70909.31
8151	10/15/13 17:00	10/17/13 10:42		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-48 / DP4A-20		Soil	10/03/13 10:54	70909.32
8151	10/15/13 17:00	10/17/13 10:54		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-49 / DP4A-25		Soil	10/03/13 11:10	70909.33
8151	10/15/13 17:00	10/17/13 11:10		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-50 / DP5-0.5 – Analyze @ 10/17/13		Soil	10/03/13 14:30	71006.11 ~~70909.34~~
8151	10/15/13 17:00	10/17/13 14:30		
[Chlorinated Herbicides by GC]				

Released By	Date	Received By	Date
[signature]	10/8/13 1429	[signature]	10/8/13 1429
[signature]	10/8/13 1558	Jean Claude	10/08/13 1558

71006 ~~70909~~

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-51	/ DP5-3.0	Extract RA 10/17/13	Soil	10/03/13 14:50	71006.12 ~~70909.35~~
8151	10/15/13 17:00	10/17/13 14:50			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-52	/ B6-1.0		Soil	10/04/13 09:15	70909.36
8151	10/15/13 17:00	10/18/13 09:15			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-53	/ B6-3.0	Extract RA 10/17/13	Soil	10/04/13 09:41	71006.13 ~~70909.37~~
8151	10/15/13 17:00	10/18/13 09:41			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-54	/ B6-5.0		Soil	10/04/13 09:46	70909.38
8151	10/15/13 17:00	10/18/13 09:46			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-55	/ B5-1.0	Analyze RA 10/17/13	Soil	10/04/13 10:37	71006.14 ~~70909.39~~
8151	10/15/13 17:00	10/18/13 10:37			
[Chlorinated Herbicides by GC]					

Released By	Date		Received By	Date	
[signature]	10/8/13 1429		[signature]	10/8/13	1429
[signature]	10/8/13	1558	Jean Claude	10/08/13	1558

71006
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ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires		Sampled	Comments
ATL Lab#: 1303113-56	**/ B5-3.0** ~~EXTRACT~~ @ 10/17/13		**Soil**	**10/04/13 10:50**	71006.15 ~~70909.40~~
8151	**10/15/13 17:00**	10/18/13 10:50			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-57	**/ B5-5.0**		**Soil**	**10/04/13 11:16**	70909.41
8151	**10/15/13 17:00**	10/18/13 11:16			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-58	**/ DP4A-35**		**Soil**	**10/04/13 09:55**	70909.42
8151	**10/15/13 17:00**	10/18/13 09:55			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-59	**/ B7-1.0** - Analyze @ 10/17/13		**Soil**	**10/04/13 12:26**	71006.16 ~~70909.43~~
8151	**10/15/13 17:00**	10/18/13 12:26			
[Chlorinated Herbicides by GC]					
ATL Lab#: 1303113-60	**/ B7-3.0** - EXTRACT @ 10/17/13		**Soil**	**10/04/13 12:32**	71006.17 ~~70909.44~~
8151	**10/15/13 17:00**	10/18/13 12:32			
[Chlorinated Herbicides by GC]					

[signature]	10/8/13 1429		[signature]	10/8/13	1429
Released By	Date		Received By	Date	
[signature]	10/8/13	1558	Jean-Claude	10/08/13	1558
Released By	Date		Received By	Date	

71006

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ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303113

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303113-61 / B7-4.5		Soil	10/04/13 12:55	~~71006.18~~ 70909.45 (2)
8151	10/15/13 17:00	10/18/13 12:55		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-62 / B8-1.0	- Analyze @ 10/17/13	Soil	10/04/13 14:03	71006.18 ~~70909.46~~
8151	10/15/13 17:00	10/18/13 14:03		
[Chlorinated Herbicides by GC]				
ATL Lab#: 1303113-63 / B8-3.0	~~EXTRACT~~ @ 10/17/13	Soil	10/04/13 14:20	71006.19 ~~70909.47~~
8151	10/15/13 17:00	10/18/13 14:20		
[Chlorinated Herbicides by GC]	Analyze 10/24 RA			
ATL Lab#: 1303113-64 / B8-5.0		Soil	10/04/13 14:28	70909.48
8151	10/15/13 17:00	10/18/13 14:28		
[Chlorinated Herbicides by GC]				

Released By	Date		Received By	Date	
[signature]	10/8/13	1429	[signature]	10/8/13	1429
[signature]	10/8/13	1557	Leon Claude	10/08/13	1558

JIM LIN

From: Rachelle Arada [Rachelle@atlglobal.com]
Sent: Thursday, October 17, 2013 10:48 AM
To: JIM LIN
Cc: customer.relations@atlglobal.com; christine@aetlab.com
Subject: RE: PDF of result for Work Order 1303113
Attachments: SKMBT_C45413101710380.pdf

Importance: High

Hi Jim,

Please run the following samples for 8151:
DP1-0.5, DP4-0.5, DP3-0.5, DP4A-0.5, DP5-0.5, B5-1.0, B7-1.0, AND B8-1.0

The following will be extracted:
DP1-3.0, DP4-3.0, DP3-3.0, B3-2.0, B2-3.0, DP4A-3.0, DP5-3.0, B6-3.0, B5-3.0, B7-3.0, AND B8-3.0.

Attached is the COC for your reference.

Rachelle

From: JIM LIN [mailto:jiml@aetlab.com]
Sent: Tuesday, October 15, 2013 4:35 PM
To: Rachelle Arada
Subject: PDF of result for Work Order 1303113

Hi Rachelle,

Results for AETL job number 70909.

(Original will be in the mail)

Thank you.

Should you have additional question, please feel free to contact us.

Jim Lin
Operations Manager
AETL
818-845-8200

JIM LIN

From: Rachelle Arada [Rachelle@atlglobal.com]
Sent: Thursday, October 24, 2013 8:36 AM
To: JIM LIN
Cc: customer.relations@atlglobal.com; christine@aetlab.com
Subject: Additional request for Work Order 1303113

Hi Jim,

Please analyze sample 1303113-63/B8-3.0 for EPA 8151.

Rachelle

From: JIM LIN [mailto:jiml@aetlab.com]
Sent: Wednesday, October 23, 2013 5:05 PM
To: Rachelle Arada
Subject: PDF of result for Work Order 1303113 (Additional request)

Hi Rachelle,

Preliminary Results for AETL job number 71006.

(Pending QC review)(If you have additions, please feel free to contact us for release)

Thank you.

Should you have additional question, please feel free to contact us.

Jim Lin
Operations Manager
AETL
818-845-8200

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C: 1.8, 2.0		
☐ Other:	4. SEALED	☐	☐	3.7		

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard
City: Irvine State: CA Zip: 92618
Tel: 949-753-7070 Fax: 949-753-7071

SEND REPORT TO:
Attn: Summer Hansen-Rooks Email:
Company: Ninyo & Moore
Address: 475 Goddard
City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc ~~C5-C8~~ C4 - C12, C13-C22 C23-C32, >C32

Encircle or Write Requested Analysis

Encircle Sample Matrix

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles) TOXS	8015(GRO) TPHcc	8015(DRO)	8270(Semi-volatiles) AB 167	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000 Title 22 Metals) 747110	TO-15	Chlorinated Herbicides 8151	SOIL/SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Ziplar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1		DPI-0.5	10/1/13	0842	X	X	X	X	X	X	X		X	X					5	7	5	1		MeOH/ Na2S2O4
2		DPI-3.0	10/1/13	0849															5	7	5	1		
3		DPI-5.0	10/1/13	0852															5	7	5	1		
4		DPI-10	10/1/13	0925															5	7	1	2		
5		DPI-15	10/1/13	0955															5	7	1	2		
6		DPI-20	10/1/13	0937															5	7	1	2		
7		Trip Blank	10/1/13	—	X																			
8																								
9																								
10																								

TERMS

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8. Hard copy reports will be disposed of after 45 calendar days from report date.
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   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Andrew Luong — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Andrew Luong	10/7/13	3:34pm	Edward Rodriguez	10-7-13	15:34
Edward Rodriguez	10-7-13	17:35	FEDEX	10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
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CHAIN OF CUSTODY RECORD

Page 2 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other: _____

Sample Conditions Upon Receipt					
Condition	Y	N	Condition	Y	N
1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618
Tel: 949-753-7070 Fax: 949-753-7071

SEND REPORT TO:
Attn: Summer Hansen-Rooks Email: shansenrooks@ninyoandmoore.com
Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc C4-C12, C13-C22, C23-C32, >C32

Encircle or Write Requested Analysis: 8260/624 (Volatiles) toxy; 8015(GRO) TPHcc; 8015(DRO); 8270(Semi-volatiles) SIM 1,4-Dioxane; 8081(Organochlorine Pesticides); 8082(PCBs); 6010/7000(Title 22 Metals); TO-15; TPHcc; Chlorinated Herbicide 8151

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260/624 (Volatiles) toxy	8015(GRO) TPHcc	8015(DRO)	8270(Semi-volatiles) SIM 1,4-Dioxane	8081(Organochlorine Pesticides)	8082(PCBs)	6010/7000(Title 22 Metals)	TO-15	TPHcc	Chlorinated Herbicide 8151	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1		DP4-0.5	10/2/13	0846	X	X	X	X	X	X	X		X	X	X					5	7	2/5	1	M	OH/NaHS
2		DP4-3.0	10/2/13	0927			X													5	7	2/5	1	M	OH/NaHS
3		DP3-0.5	10/2/13	1026			X													5	7	2/5	1		
4		DP3-3.0	10/2/13	1046			X													5	7	2/5	1		
5		DP3-5.0	10/2/13	1051			X													5	7	2/5	1		
6		DP3-10	10/2/13	1115			X													5	7	1/5	2/1		hold
7		DP3-15	10/2/13	1120			X													5	7	1/5	2/1		hold
8		DP3-20	10/2/13	1127			X													5	7	1/5	2/1		
9		DP3-25	10/2/13	1137			X										X			5	11	2/5	1/2	7	1/5; 2/1
10		DP3-W	10/2/13	1225			X										X			5	11	2/5	1/2		

TERMS

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Andrew Luong — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Andrew Luong	10/7/13	15:34	Edward Rodriguez	10-7-13	15:34
Edward Rodriguez	10-7-13	1735		10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
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CHAIN OF CUSTODY RECORD

Page 3 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt: Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618
Tel: 949-753-7070 Fax: 949-753-7071

SEND REPORT TO:
Attn: Summer Hansen-Rooks Email: shansenrooks@ninyoandmoore.com
Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc: C4-C12, C13-C22, C23-C32, Σ32

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles) + Oxys; 8015(GRO) TPHcc; 8015(DRO); 8270(Semi-volatiles) SIM; ~~8081(Organochlorine Pesticides)~~ 4D 151; 8082(PCBs); 6010 / ~~7000~~(Title 22 Metals) 747+4; TO-15; TPHcc; Chlorinated Herbicides 8151

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (IAc)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles) + Oxys	8015(GRO) TPHcc	8015(DRO)	8270(Semi-volatiles) SIM	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals) 747+4	TO-15	TPHcc	Chlorinated Herbicides 8151	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1		DP2-0.5	10/2/13	1330	X	X	X	X	X	X	X		X	X	X					5	7	2/5	1	MeOH/NaHS	hold
2		DP2-3.0	10/2/13	1339																					hold
3		DP2-5.0	10/2/13	1346																					
4		DP2-10	10/2/13	1350																					
5		DP2-15	10/2/13	1404																					hold
6		DP2-20	10/2/13	1410																					
7		DP2-25	10/2/13	1417																					hold
8		DP2-30	10/2/13	1429																					hold
9		DP2-40	10/2/13	1504																					
10		DP2-W	10/2/13	1557													X				11	2/6	1/2		

TERMS

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Andrew Luong — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Andrew Luong	10/7/13	1534	Edward Rodriguez	10-7-13	1534
Edward Rodriguez	10-7-13	17:35		10/7/13	1735

ADVANCED ATECHNOLOGY LABORATORIES
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CHAIN OF CUSTODY RECORD

Page 4 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
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SEND INVOICE TO: ☐ same as SEND REPORT TO
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Company:
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PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc C4-C12 C13-C22 C23-C32 >C32

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles) ~~TOXIC~~; 8015 ~~(GRO)~~ ~~TPHcc~~; 8015(DRO); 8270(Semi-volatiles); ~~8081~~ (Organochlorine Pesticides) 8015; 8082(PCBs); 6010 / ~~7000~~ (Title 22 Metals) 7471A; TO-15; Chlorinate Herbicides 8151

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

ITEM	Lab No.	Sample ID / Location	Date	Time	8260	8015	8015	8270	8082	6010	TO-15	Chlorinate Herbicides	SOIL	TAT	Container #	Type	Material	REMARKS
1		B9 - 1.0	10/3/13	0901	X	X		X	X	X		X	X	5	7	5	1	MeOH/ NaHSO4
2		B9 - 3.0	10/3/13	0930	X	X		X	X	X		X	X					hold
3		B9 - 5.0	10/3/13	0940	X	X		X	X	X		X	X					
4		B4 - 1.0	10/3/13	1045	X	X		X	X	X		X	X					hold
5		B4 - 3.0	10/3/13	1053	X	X		X	X	X		X	X					hold
6		B4 - 5.0	10/3/13	1105	X	X		X	X	X		X	X					
7		B3 - 2.0	10/3/13	1246	X	X		X	X	X		X	X					
8		B3 - 3.0	10/3/13	1252	X	X		X	X	X		X	X					
9		B3 - 5.0	10/3/13	1306	X	X		X	X	X		X	X					hold
10		B2 - 2.0	10/3/13	1420	X	X		X	X	X		X	X					hold

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NAZS2O3

TERMS

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Andrew Luong — Submitter Print Name — Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
Andrew Luong	10/7/13	1534	Edward Rodriguez	10-7-13	1534
Edward Rodriguez	10-7-13	1735	FPDiaz	10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip 92618
Tel: 949-753-7070 Fax: 949-753-7071

SEND REPORT TO:
Attn: Summer Hansen - Rooks Email: shansenrooks@ninyoandmoore.com
Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc C4-C12 C13-C22 C23-C32 >C32

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles) TOXIS; ~~8015(GRO)~~ TPHcc; 8015(DRO); 8270(Semi-volatiles) APIS; ~~8081(Organochlorine~~ Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Chlorinated Herbs 8015

Encircle Sample Matrix: SOILS SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NAZS2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles) TOXIS	8015(GRO) TPHcc	8015(DRO)	8270(Semi-volatiles) APIS	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Chlorinated Herbs 8015	SOILS SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1		B2-3.0	10/3/13	1426	X	X		X	X	X	X		X	X					5	7	5	1		MeOH/ NaHSO4
2		B2-5.0	10/3/13	1431	X	X		X	X	X	X		X	X										
3		B1-1.0	10/3/13	1500	X	X		X	X	X	X		X	X										hold
4		B1-3.0	10/3/13	1511	X	X		X	X	X	X		X	X										hold
5		B1-5.0	10/3/13	1517	X	X		X	X	X	X		X	X										
6		DP4A-0.5	10/3/13	0845	X	X		X	X	X	X		X	X										
7		DP4A-3.0	10/3/13	0905	X	X		X	X	X	X		X	X										
8		DP4A-5.0	10/3/13	1000	X	X		X	X	X	X		X	X										
9		DP4A-10	10/3/13	0925	X	X		X	X	X	X		X	X							1	2		
10		DP4A-15	10/3/13	1042	X	X		X	X	X	X		X	X							5	1		

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
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7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
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   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
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10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Andrew Luong — Submitter Print Name — Signature

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Edward Rodriguez	10-7-13	1735	Edward Rodriguez FPOwen	10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES

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CHAIN OF CUSTODY RECORD

Page 6 of 8

Instruction: Complete all shaded areas.

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Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard
City: Irvine State: CA Zip: 92618
Tel: 949-753-7070
Fax: 949-753-7071

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Attn: Summer Hausen-Rooks Email: shausenrooks@ninyoandmoore.com
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City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcl C_4-C_{12}, C_{13}-C_{22}, C_{23}-C_{32}, $>C_{32}$

Encircle or Write Requested Analysis

Encircle Sample Matrix: SOIL/ SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister / Material: 1=Glass; 2=Plastic; 3=Metal / Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles) TOXS	8015(GRO) TPHcl	8015(DRO)	8270(Semi-volatiles) ADS	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals) 7471A	TO-15	Chlorinated Herbs	TAT	#	Type	Material	Preservative	REMARKS
1		DP4A-20	10/3/13	1054	X	X		X	X	X	X		X	5	7	5	1		MeOH/ NaHSO4
2		DP4A-25	10/3/13	1110	X	X		X	X	X	X		X	5	7	5	1		
3		DP5-0.5	10/3/13	1430	X	X		X	X	X	X		X	5	7	5	1		
4		DP5-3.0	10/3/13	1450	X	X		X	X	X	X		X	5	7	5	1		
5																			
6																			
7																			
8																			
9																			
10																			

TERMS

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Andrew Luong — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Andrew Luong	10/7/13	1534	Edward Rodriguez	10-7-13	1534
Edward Rodriguez	10-7-13	1735	FEDEX	10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES
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CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt: Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
	4. SEALED	☐	☐			

CUSTOMER

Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618
Tel: 949-753-7070 Fax: 949-753-7071

SEND REPORT TO:
Attn: Summer Hansen-Rooks Email: shansenrooks@ninyoandmoore.com
Company: Ninyo & Moore
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip: 92618

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon avenue
Project No.: 205732003
Sampler: Andrew Luong
Quote No:
PO #:
Special Instructions/Comments: TPHcc C4-C12, C13-C22, C23-C32, >C32

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015 (TPHcc); 8015(DRO); 8270(Semi-volatiles); ~~8081 (Organochlorine Pesticides)~~ APST; 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Chlor. Herb. 8151

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015 (TPHcc)	8015(DRO)	8270(Semi-volatiles)	8082(PCBs)	6010 / 7000(Title 22 Metals)	Chlor. Herb. 8151	SOIL / SEDIMENT / SLUDGE	TAT	Container #	Type	Material	Preservative	REMARKS
1		B6-1.0	10/4/13	0915	X	X		X	X	X	X	X	5	7	5	1		MeOH/ NaHSO4
2		B6-3.0	10/4/13	0941	X	X		X	X	X	X	X						
3		B6-5.0	10/4/13	0946	X	X		X	X	X	X	X						
4		B5-1.0	10/4/13	1037	X	X		X	X	X	X	X						
5		B5-3.0	10/4/13	1050	X	X		X	X	X	X	X						
6		B5-5.0	10/4/13	1116	X	X		X	X	X	X	X						
7		~~DP4Ha-35~~ DP4A-35	10/4/13	0955	X	X		X	X	X	X	X			1	2		
8		B7-1.0	10/4/13	1226	X	X		X	X	X	X	X			5	1		
9		B7-3.0	10/4/13	1232	X	X		X	X	X	X	X						
10		B7-4.5	10/4/13	1255	X	X		X	X	X	X	X						

TERMS

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CUSTODY

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Edward Rodriguez	10-7-13	1735	Edward	10/7/13	1735

ADVANCED TECHNOLOGY LABORATORIES
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CHAIN OF CUSTODY RECORD

Page 8 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

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PROJECT SAMPLES

Project Name: AECOM - Mt. Vernon Avenue
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Special Instructions/Comments: TPHcc: C4-C12, C13-C22, C23-C32, ΣC32

Encircle or Write Requested Analysis

ITEM	Lab No.	Sample ID / Location	Date	Time	8260 / 624 (Volatiles) TOXS	8015(GRO) TPHcc	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000 (Title 22 Metals) 7471A	TO-15	Chlor. Herb. 8151	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1		B8-1.0	10/4/13	1403	X	X		X	X	X	X		X	X					5	7	5	1		MeOH/
2		B8-3.0	10/4/13	1420	X	X		X	X	X	X		X	X					5	7	5	1		
3		B8-5.0	10/4/13	1428	X	X		X	X	X	X		X	X					5	7	5	1		
4		DP1-W	10/4/13	1402																				
5		DP4A-35	10/4/13	0955	X	X		X	X	X	X		X	X					5	7	1	2		
6																								
7																								
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