

FUGRO WEST, INC.

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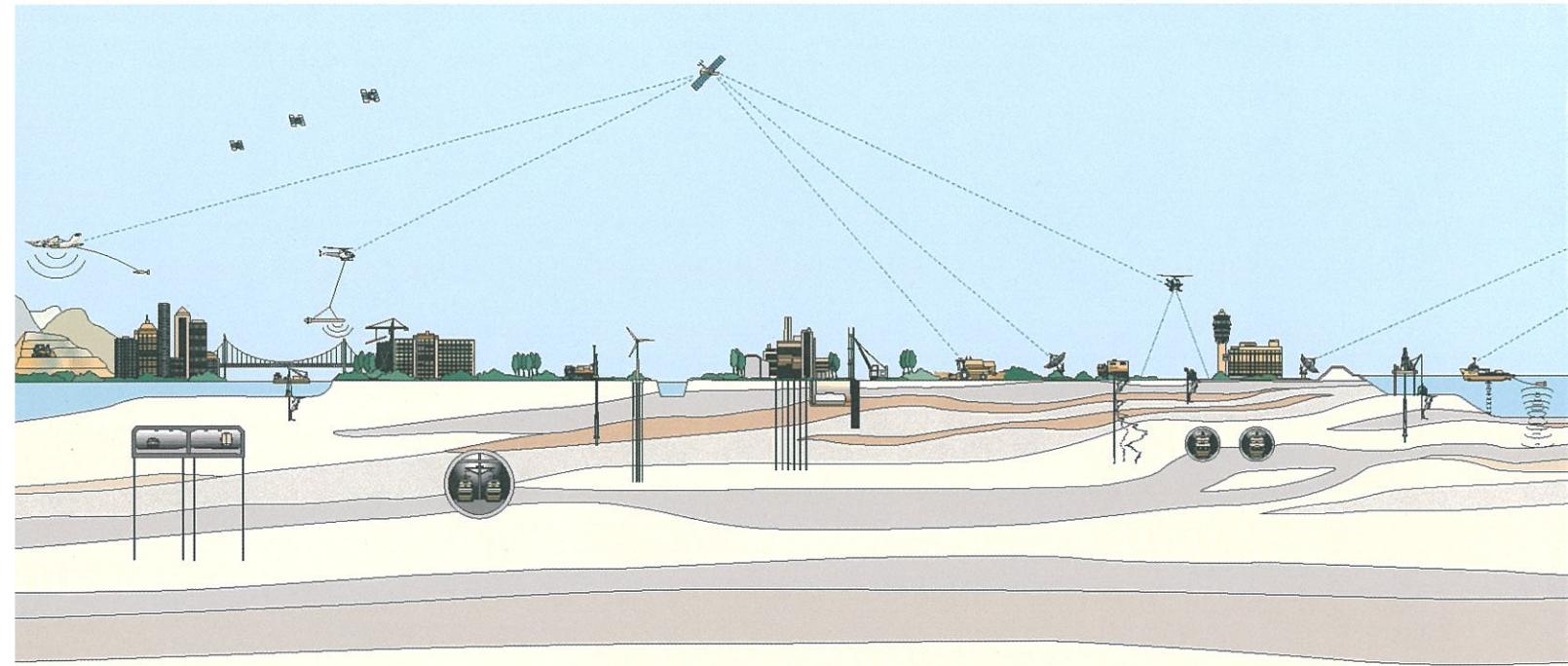
**PHASE 2 ENVIRONMENTAL SITE ASSESSMENT  
CHESTNUT PARCELS  
1715 – 1763 CHESTNUT STREET  
217 AND 242 NORTH N STREET  
AND 241 NORTH M STREET  
LIVERMORE, CALIFORNIA**

Prepared for:  
**LIVERMORE REDEVELOPMENT AGENCY**

**JANUARY 2008**

**Fugro Project No. 1121.014**

**Under the USEPA Brownfield Grant  
(Assistance ID No. BF-04-476)**





## FUGRO WEST, INC.

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January 29, 2008  
Project No. 1121.014

U.S. Environmental Protection Agency  
75 Hawthorne Street, SFD-1  
San Francisco, California 94105

Attention: Ms. Gail Jones

Subject: Phase 2 Environmental Site Assessment – Chestnut Parcels,  
1715 - 1763 Chestnut Street, 217 and 242 North N Street, and 241 North M Street,  
Livermore, California

Dear Ms. Jones:

Please find attached one copy of the Phase 2 Environmental Site Assessment report for the Chestnut Parcels Site in Livermore, California. Fugro West, Inc., (Fugro) completed the assessment and prepared this report on behalf of the Livermore Redevelopment Agency. The purpose of the environmental site assessment was to evaluate the potential presence of hazardous materials in soil and groundwater at the subject site. Results of this assessment will assist the Agency with implementing its Downtown Specific Plan and the Livermore Redevelopment 5-Year Implementation Plan, dated October 23, 2004.

This investigation was completed in accordance with the Sampling and Analysis Plan (SAP) dated August 4, 2005, and the SAP Amendment dated November 27, 2007. The SAP and SAP Amendment were prepared by Fugro and approved by the United States Environmental Protection Agency prior to implementation. The results of Fugro's site assessment activities are, in our professional judgment, representative of the soil and groundwater conditions at the subject site.

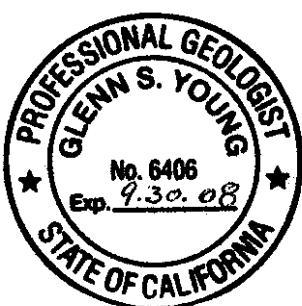
Should you have any questions, comments, or require additional information, please contact the undersigned at (510) 268-0461.

Sincerely,  
FUGRO WEST, INC.

A handwritten signature in black ink that reads "Karen A. Emery".

Karen A. Emery  
Staff Geologist

A handwritten signature in black ink that reads "Glenn S. Young, P.G.". Below the signature, the text "Principal Geologist" is written in a smaller, printed-style font.



KAE/GSY:ej

Copies Submitted: (1 hardcopy and CD) Addressee  
(3 hardcopies and CD) Ms. Chris Davidson, Livermore Redevelopment Agency  
(1 hardcopy) Mr. Wyman Hong, Livermore-Amador Valley Zone 7 Water Agency



## CONTENTS

	Page
EXECUTIVE SUMMARY .....	1
1.0 INTRODUCTION.....	1
2.0 LIMITATIONS.....	1
3.0 SITE DESCRIPTION.....	2
4.0 HISTORICAL SITE USE AND RECOGNIZED ENVIRONMENTAL CONDITIONS .....	2
5.0 SITE ASSESSMENT ACTIVITIES .....	3
5.1 Deviations from the SAP Amendment.....	3
5.2 Sampling Activities .....	3
6.0 CHEMICAL TESTING PROGRAM .....	4
6.1 Soil Samples .....	5
6.2 Groundwater Samples.....	5
6.3 Field Quality Control Samples .....	5
7.0 SUBSURFACE CONDITIONS .....	5
8.0 RESULTS OF ANALYSES.....	6
8.1 Quality Control and Data Validation .....	6
8.1.1 Laboratory QA/QC Samples.....	6
8.1.2 Field Quality Control Samples .....	7
8.2 Results of Chemical Analysis - Soil.....	7
8.3 Results of Chemical Analysis - Groundwater .....	7
9.0 CONCLUSIONS.....	8
9.1 Subsurface Conditions .....	8
9.2 Chemical Findings.....	8
10.0 RECOMMENDATIONS.....	9
11.0 REFERENCES.....	10

## TABLES

	Table
Summary of Quality Control Sample Results.....	1
Summary of Analytical Data - Soil .....	2
Summary of Analytical Data - Groundwater.....	3



## CONTENTS - CONTINUED

### PLATES

	Plate
Vicinity Map.....	1
Site Plan.....	2

### APPENDICES

APPENDIX A	DRILLING PERMITS
APPENDIX B	USCS CLASSIFICATION KEY AND LOGS OF BORINGS
APPENDIX C	ANALYTICAL REPORTS
APPENDIX D	LIMITED SUBSURFACE ASSESSMENT REPORT DATED MAY 22, 2006



## LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Materials
Agency	Livermore Redevelopment Agency
bgs	Below ground surface
DQI	Data Quality Indicators
ESA	Environmental Site Assessment
ESLs	Environmental Screening Levels
Fugro	Fugro West, Inc.
HSP	Health and Safety Plan
LBP	Lead Based Paint
MCL	Maximum Contaminant Levels
µg/kg	Micrograms per kilogram
µg/l	Micrograms per liter
mg/kg	Milligrams per kilogram
MTBE	methyl tertiary butyl ether
OVM	Organic Vapor Meter
PCE	Tetrachloroethene
ppm	Parts per million
PRG	Preliminary Remedial Goals
QA/QC	Quality Assurance/Quality Control
RPD	Relative Percent Difference
RWQCB	Regional Water Quality Control Board
SAP	Sampling and Analysis Plan
Site	Chestnut Parcels – 1715 - 1763 Chestnut Street, 217 and 242 North N Street, and 241 North M Street, Livermore, California
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
TPHg	Total Petroleum Hydrocarbons as gasoline
TPHd	Total Petroleum Hydrocarbons as diesel fuel
TPHmo	Total Petroleum Hydrocarbons as motor oil
TRPH	Total Recoverable Petroleum Hydrocarbons
USA	Underground Services Alert
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
USCS	Unified Soil Classification System
VOCs	Volatile Organic Compounds



## EXECUTIVE SUMMARY

With this report, Fugro West, Inc., (Fugro) presents the results of environmental site assessment activities completed at the Chestnut Parcels located at 1715 – 1763 Chestnut Street, 217 and 242 North N Street, and 241 North M Street in Livermore California (Site). This Phase 2 Environmental Site Assessment (ESA) was conducted on behalf of the Livermore Redevelopment Agency (Agency), which received funding for this work from a U.S. Environmental Protection Agency (USEPA) Brownfield Grant (Assistance ID No. BF-04-476). The purpose of this ESA was to evaluate the potential presence of hazardous materials in soil and groundwater at the subject site. Results of this investigation will be used to assist the Agency with proposed redevelopment in the downtown Livermore area, and general implementation of their Downtown Specific Plan and the Livermore Redevelopment 5-Year Implementation Plan dated October 23, 2004.

Fugro's Phase 1 ESA dated November 30, 2007, identified historical site uses that included the presence of a machine shop at 241 North M Street, as well as recognized environmental conditions that included the following:

- The material threat of a release of chlorinated solvents to soil and groundwater resulting from the machine shop operations.
- Potential petroleum hydrocarbons and volatile organic compounds (VOCs) impacts to groundwater from a former oil storage building with oil underground tanks located adjacent and east of the Site.
- Potential impacts associated with the railroad tracks located south of the Site.
- Potential petroleum hydrocarbons and VOCs impacts to groundwater from a release at 2008 First Street, which is upgradient from the Site.

Based on findings of the Phase 1 ESA, Fugro compiled the Sampling and Analysis Plan (SAP) Amendment dated November 2007. The SAP Amendment was approved by the USEPA in their letter dated December 3, 2007. The Phase 2 ESA was completed in general conformance with the SAP with the following deviations:

- Borings A1-1 and A1-2 were advanced to 55 feet rather than 50 feet because groundwater was deeper than anticipated (approximately 49 to 53.5 feet below ground surface).
- Surface soil samples collected from borings A1-2 and DP1-6 were submitted for CAM 17 metal analysis rather than arsenic and lead as cited in the SAP due to the close proximity to the railroad tracks south of the Site.
- Analytical results were compared to the recently issued San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels – Interim Final November 2007, rather than the ESLs issued in February 2005.

Subsurface conditions generally comprised 6 inches of asphalt underlain by loose to medium dense, brown sandy silt with gravel to silty clay with gravel to depths of up to 25 feet, which was underlain by dense, sandy gravel to clayey gravel. Groundwater was encountered at

depths ranging from 49 to 53.5 feet below ground surface (bgs). Fugro's field geologist encountered no hydrocarbon or solvent odors in any of the soil samples screened. The highest OVM reading in any of the samples was approximately 1.1 parts per million (ppm). No odors or free phase hydrocarbons were detected or observed in any of the grab groundwater samples collected.

Sampling and laboratory services were completed in general conformance with the Data Quality Objectives stated in the SAP Amendment. Laboratory reports were 100 percent complete and analysis detected no contaminants in the trip blanks. Duplicate groundwater results were within acceptable relative percent difference (RPD) criteria (20 percent). Chemical data generated during this investigation is considered to be complete, accurate, representative, and suitable for the purposes of this Phase 2 ESA.

Except for acetone, chemical analysis detected no other VOC in any of the soil samples tested. Analyses detected acetone concentrations of 84 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) within the surface sample collected from boring DP1-4. Sample DP1-4 was collected in the paved parking area immediately north of the vacant lot at 217 North N Street. The source of the detected acetone is unknown at this time; however, concentrations were below the Environmental Screening Criteria (ESL) for residential and commercial land use. Additionally, no concentrations of total petroleum hydrocarbons as gas, diesel, or motor oil (TPHg, TPHd, or TPHmo) were detected in soil samples A1-2 @2 and A1-2 @ 7.5, collected near the machine shop property. We note that we were unable to access the machine shop nor take soil or groundwater samples from that property. A Limited Subsurface Assessment was performed by others inside the machine shop in May 2006. No detectable concentrations of VOCs and low concentrations of TRPH were reported in the soil samples collected. No groundwater was collected during the assessment.

Except for arsenic, detected metal concentrations, including lead, were similar to anticipated background concentrations and below their respective ESLs for residential and commercial land use. It is generally accepted that arsenic concentrations within the San Francisco Bay Region are higher than the ESLs for commercial and residential scenarios. Typically, arsenic concentrations less than 20 milligrams per kilogram ( $\text{mg}/\text{kg}$ ) are considered to be background concentrations. Total arsenic and lead concentrations in soil samples did not exceed TTLC criteria, one of the criteria used to classify a soil as hazardous waste in the State of California.

For groundwater, analysis of grab groundwater samples detected concentrations of PCE ranging from 1.9 micrograms per liter ( $\mu\text{g}/\text{l}$ ) in sample A1-2 to 16  $\mu\text{g}/\text{l}$  in sample A1-1. Analysis also detected 2.2  $\mu\text{g}/\text{l}$  of tert-Butylbenzene in the grab groundwater sample collected from boring A1-2. No other VOCs were detected in the groundwater samples. PCE concentrations detected in the grab groundwater sample collected from boring A1-1 exceeded the drinking water Maximum Contaminant Level (MCLs) but were below the ESLs for the protection of indoor air for both commercial and residential scenarios. No ESLs have been established for tert-Butylbenzene; however, detected concentrations of tert-Butylbenzene were well below the Preliminary Remedial Goal (PRG) of 240  $\mu\text{g}/\text{l}$ . The source of detected VOCs is unknown.



In Fugro's opinion, detected VOC concentrations in groundwater do not pose a significant risk to human health for the current or anticipated site users.



## 1.0 INTRODUCTION

This report presents the results of Phase 2 Environmental Site Assessment (ESA) activities conducted by Fugro West, Inc., (Fugro) at the Chestnut Parcels site located at 1715 – 1763 Chestnut Street, 217 and 242 North N Street, and 241 North M Street in Livermore California (Site). This ESA was conducted on behalf of the Livermore Redevelopment Agency (Agency), which received funding from a USEPA Brownfield Grant (Assistance ID No. BF-04-476).

This investigation was conducted based on findings in a recent Phase 1 ESA conducted by Fugro (November 2007) and was completed in accordance with Fugro's Sampling and Analysis Plan (SAP) dated August 2005, and SAP Amendment dated November 2007. The SAP Amendment was approved by the United States Environmental Protection Agency (USEPA), prior to implementation. As described in the Phase I ESA and SAP Amendment, historical site uses included a machine shop at 241 North M Street. In addition, a railroad spur followed by railroad tracks is located south of the Site. No known leaks, spills, or releases were identified at the Site in our review of historical environmental databases.

The purpose of this Phase 2 ESA was to evaluate existing soil and groundwater conditions; to determine whether hazardous materials from historical operations have impacted the Site; evaluate the potential for VOC impact from the machine shop onsite; evaluate whether metals are present within the shallow fill/soil; and, if contaminants are present, evaluate whether detected contaminants represent a significant risk to current and/or anticipated future site users, including construction workers, commercial users, and residents at the planned development. Results of this report will be used to assist the Agency with their Downtown Specific Plan and the Livermore Redevelopment 5-year Implementation Plan dated October 23, 2004.

## 2.0 LIMITATIONS

Fugro has prepared this report in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Fugro shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. Fugro also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report. Fugro believes that conclusions stated herein to be factual, but no guarantee is made or implied. This report has been prepared for the benefit of the Livermore Redevelopment Agency.

The information contained in this report, including all exhibits and attachments, may not be used by any party other than the Agency, without the express written consent of Fugro West, Inc.

### 3.0 SITE DESCRIPTION

The Site is situated on five parcels located within Livermore's Downtown Redevelopment Area. The Site is comprised of three commercial/retail buildings [Building 1 (1715 – 1759 Chestnut Street); Building 2 (1763 Chestnut Street); and Building 3 (241 North M Street)], paved parking lots, and vacant land. The Site parcels are located on both sides of N Street and form an irregularly shaped area containing approximately 2.59 acres (Plate 1). Existing improvements on the Site include three one-story commercial/retail buildings housing various tenants. The remainder of the Site consisted of paved parking and three vacant lots. Occupants of the three buildings include:

- Super Nails, a nail shop, at 1715 Chestnut Street (Building 1);
- A vacant barber shop at 1721 Chestnut Street (Building 1);
- Brite and Clean, a laundromat at 1725-1737 Chestnut Street (Building 1);
- FE Oriental Grocery, an Asian grocery store at 1759 Chestnut Street (Building 1);
- Lifestyle Fitness at 1763 Chestnut Street (Building 2); and
- D & M Auto Parts, an auto parts machine shop, at 241 North M Street (Building 3).

### 4.0 HISTORICAL SITE USE AND RECOGNIZED ENVIRONMENTAL CONDITIONS

Details regarding historical site uses and recognized environmental conditions are detailed in Fugro's Phase1 ESA dated November 21, 2007.

Based on information obtained during the Phase 1 ESA, this property was undeveloped until sometime after 1917. From 1917 up until the present, multiple railroad tracks ran immediately south of the Site. The City Directory contained records for various occupants from 1965 through 1972, including residential and retail/commercial users.

A Limited Subsurface Assessment was conducted by others in May 2006 (Engeo 2006). Shallow soil samples were collected inside the machine shop and analyzed for VOCs and total recoverable petroleum hydrocarbons (TRPH). No groundwater samples were collected during that assessment. Chemical analyses reported no concentrations of VOCs and low concentrations of TRPH (140 mg/kg to 230 mg/kg) in two of the eight shallow soil samples tested. A copy of the report is included in Appendix D.

In general, available historical information indicates that properties in and around the subject site have been used as residential, light industrial, and commercial sites since the late 1800s. Use of surrounding properties consisted of commercial and light industrial use, including: numerous markets, beauty salons, barbershops, clothiers, dry cleaners, and pressers. Currently, the adjacent properties are primarily used for residential and retail/commercial purposes. No environmentally sensitive businesses, such as service stations, dry cleaners, or manufacturing facilities, were identified for the immediately adjacent properties.



A former oil storage building was noted in a 1917 Sanborn Map located adjacent and southeast of the Site. Because this building was located in the upgradient direction, it is considered to represent a recognized environmental condition.

In summary, based on the findings of the Phase 1 ESA, Fugro's experience with similar sites in urbanized areas, including Livermore, the historical uses of the Downtown Area and results of previous investigations at nearby properties indicate that soil and/or groundwater in portions of the Downtown Area have been impacted to some degree with lead, petroleum hydrocarbons, and/or dry cleaner solvents such as PCE.

## 5.0 SITE ASSESSMENT ACTIVITIES

Fugro conducted this soil and groundwater investigation in conformance with the SAP dated August 2005, and the SAP Amendment dated November 2007.

### 5.1 DEVIATIONS FROM THE SAP AMENDMENT

Deviations from the SAP Amendment include the following:

- Borings A1-1 and A1-2 were advanced to 55 feet rather than 50 feet because groundwater was deeper than anticipated (approximately 49 to 53.5 feet below ground surface).
- Surface soil samples collected from borings A1-2 and DP1-6 were submitted for CAM 17 metal analysis rather than arsenic and lead as cited in the SAP due to the close proximity to the railroad tracks south of the Site.
- Analytical results were compared to the recently issued San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels – Interim Final November 2007, rather than the ESLs issued in February 2005.

Fugro considers these deviations to be appropriate and consistent with the intent of the Phase 2 ESA.

### 5.2 SAMPLING ACTIVITIES

Fugro's site assessment activities focused on evaluating existing soil and groundwater conditions to determine whether hazardous materials are present and, if so, whether they represent a significant risk to current and/or anticipated site users, including construction workers, commercial, and residential users. In general, soil assessment focused on the presence of metals and VOCs in surface and near-surface soil that may be excavated during the redevelopment activities. Groundwater assessment activities focused on evaluating VOC concentrations near the machine shop at the Site.

Prior to commencement of fieldwork, Fugro obtained a drilling permit from the Livermore-Amador Valley Zone 7 Water Agency. A copy of the permit is presented in Appendix A. Fugro also retained a private utility locator to clear all proposed sampling locations

and alerted the Underground Service Alert (USA) at least 48 hours prior to intrusive field activities.

Field activities were conducted on December 3 and 4, 2007, using standard industry practices regarding worker health and safety. Precision Sampling Inc., a State of California licensed drilling contractor, conducted drilling activities at the Site using hollow-stem-auger and direct push drilling methods. Fieldwork included the completion of two hollow-stem-auger borings (A1-1 and A1-2) to 55 feet bgs as well as six direct push borings (DP1-1 through DP1-6) to 15 feet bgs. Boring locations are presented on Plate 2.

Because we could not access the 241 North M Street property, grab groundwater samples were collected from two offsite locations (A1-1 and A1-2). Boring A1-2 was completed southeast (upgradient) of the existing machine shop at 241 North M Street and was completed in tandem with Boring A1-1, located downgradient of the machine shop. Groundwater sampling was completed at both up- and downgradient locations to aid in the determination of whether solvents in groundwater originated as a result of the machine shop activities. Borings DP1-1 through DP1-6 were completed at various locations around Buildings 1 and 2 to evaluate whether metals and/or VOCs were present in the surface and near surface soil.

Drilling and sampling activities were conducted under the supervision of Fugro's field personnel. Fugro's field geologist logged each boring in accordance with the Unified Soil Classification System (USCS) and screened soil samples in the field using an Organic Vapor Meter (OVM). Discrete soil samples were collected from a variety of depths from each boring depending on field sample recovery. In general, soil samples were collected from 0.0, 0.5, 2, 5, 7.5, 10 and 15 feet within the direct push borings. Discrete soil samples collected from A1-1 and A1-2 were collected at the depths listed above as well as every five feet thereafter until groundwater was encountered.

At Borings A1-1 and A1-2, groundwater was encountered at depths of 49 to 53.5 feet bgs, respectively. The borings were completed to 55 feet; and 2-inch PVC casing, slotted between 50 to 55 feet, was installed to facilitate collection of grab groundwater samples. Grab groundwater samples were collected using a clean disposable bailer. PVC casing was removed once the grab groundwater samples were collected. All borings were backfilled with neat cement grout and capped with an asphalt patch upon completion.

Soil cuttings were placed in Department of Transportation-approved and labeled 55-gallon drums, which were stored at the City of Livermore's Water Resources Division, pending chemical classification and offsite disposal.

## 6.0 CHEMICAL TESTING PROGRAM

Soil and groundwater samples were stored in ice-chilled coolers and transported under chain-of-custody documentation to Test America Laboratories (formerly STL), a State of California-certified testing laboratory. Results of chemical analyses are discussed in Section 8.0.

## 6.1 SOIL SAMPLES

A total of 24 soil samples were submitted for chemical analyses. In accordance with our SAP, samples were analyzed for some or all of the following:

- Total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8015m;
- Total petroleum hydrocarbons as diesel (TPHd) and motor oil (TPHmo) using EPA Method 8015m with silica gel cleanup;
- Volatile Organic Compounds (VOCs) using EPA Method 8260;
- 17 Title 22 metals using EPA Methods 6010/7000 series;
- Total Arsenic using EPA Method 6010/7000; and
- Total Lead using EPA Method 6010/7000.

## 6.2 GROUNDWATER SAMPLES

A total of two grab groundwater samples were submitted for chemical analysis, not including two duplicate samples and two trip blank samples collected for QA/QC purposes. The two samples were analyzed for the following:

- VOCs using EPA Method 8260.

## 6.3 FIELD QUALITY CONTROL SAMPLES

Fugro implemented QA/QC procedures during this field investigation in accordance with the SAP and SAP Amendment. A total of two duplicate groundwater samples were collected and analyzed as quality control samples in accordance with the SAP.

The duplicate groundwater samples were collected at a rate of one per day and were tested for VOCs. Groundwater sampling was conducted using new disposable Teflon bailers; therefore, no equipment blanks were collected during the groundwater portion of the investigation.

Fugro also tested two trip blanks samples for VOCs to confirm that no sample contamination occurred during sample transport. Samples were submitted along with grab groundwater samples that were collected during drilling activities at another project Site (2044 and 2048 First Street), and are also included with a report for that project.

## 7.0 SUBSURFACE CONDITIONS

Subsurface conditions generally comprised 6 inches of asphalt underlain by loose to medium dense, brown sandy silt with gravel to silty clay with gravel to depths of up to 25 feet, which was underlain by dense, sandy gravel to clayey gravel. Fugro's field geologist encountered no hydrocarbon or solvent odors in any of the soil samples screened. The highest OVM reading in any of the samples was approximately 1.1 ppm. Logs of borings are presented in Appendix B.

Groundwater was encountered at depths ranging from 49 to 53.5 feet bgs, approximately 10 feet deeper than observed at nearby properties in the recent past. No odors or free phase hydrocarbons were detected or observed in any of the grab groundwater samples collected.

## 8.0 RESULTS OF ANALYSES

This Section presents results of analyses, including a discussion of the data validation and QA/QC program as well as summaries, and findings of the soil and groundwater sampling. As described in the SAP, results of analyses were compared to ESLs established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) or PRGs established by the USEPA.

### 8.1 QUALITY CONTROL AND DATA VALIDATION

Fugro implemented QA/QC and conducted data validation in accordance with the SAP. The objectives of the QA/QC and data validation were to obtain and present accurate, precise, and complete data. Based on our review of the overall field and laboratory QA/QC protocols, data validation and findings, Fugro judges that soil and groundwater sampling conformed with the objectives stated in the SAP, and that the samples and resulting chemical analyses are representative of site conditions. In Fugro's opinion, the analytical data are considered acceptable for the purposes of this Phase 2 ESA. Laboratory and field QC sampling and analyses are discussed below.

#### 8.1.1 Laboratory QA/QC Samples

To assess the accuracy of the laboratory data, Fugro reviewed the laboratory reports to confirm compliance with the laboratory's own QA/QC limits. For the soil and groundwater samples, Test America's QA/QC reports indicated no exceptions to compliance with their own QA/QC limits. In general, Test America noted no QA/QC problems for EPA Methods 6010/7000, however, because sediment filled half of the vial from the sample collected from Boring A1-1, there was not enough sample to test without dilution; therefore, the reporting limit for Method 8260B was raised. The increased reporting limits for Method 8260 were still below the USEPA's Data Quality Indicators (DQIs) presented in the SAP Amendment.

With respect to the laboratories matrix spike and matrix spike duplicate samples, Test America noted that with Method 6010B the matrix spike/matrix spike duplicate recoveries for batch 29319 were outside control limits. The associated laboratory control standard met acceptance criteria. Test America also noted the same for Method 8260B and batch 30066. Fugro's review of the QA/QC reports noted no exceptions to these conclusions. Therefore, results of laboratory QA/QC analyses are considered to be accurate and precise for the purposes of this investigation.

To assess the completeness of the data, Fugro checked 100 percent of the laboratory reports for soil, and groundwater samples, and found that all requested tests were completed. Therefore, the chemical reports are considered to be complete.

### 8.1.2 Field Quality Control Samples

To assess field procedures and laboratory accuracy, Fugro collected two duplicate groundwater samples. These duplicate samples were tested for VOCs. For the duplicate samples, analyses detected PCE concentrations with a RPD ranging from 10 to 11.8 percent. Analyses also detected tert-Butylbenzene concentrations with a RPD of 20.4 percent. Results of the RPD calculations are presented in Table 1. With the exception of tert-Butylbenzene at 20.4 percent, which is considered to be minor and therefore does not warrant a corrective action, the calculated RPD values are consistent with the specified RPD of 20 percent.

Fugro also tested two trip blank samples for VOCs during this investigation. The sample submitted on December 4, 2007 was submitted along with grab groundwater samples that were collected during drilling activities at 2044 and 2048 First Street and are also included with that report. Results of chemical analysis detected no VOCs in either trip blank, confirming that samples were not contaminated during sample transport.

## 8.2 RESULTS OF CHEMICAL ANALYSIS - SOIL

Analytical reports from Test America are presented in Appendix C. Results of chemical analyses for soil samples are summarized in Table 2 and are discussed below.

Except for acetone, chemical analysis detected no VOCs in any of the soil samples tested. Analyses detected acetone concentrations of 84 µg/kg within the surface sample collected from Boring DP1-4. Sample DP1-4 was collected in the paved parking area immediately north of the vacant lot at 217 North N Street. The source of the detected acetone is unknown at this time; however, concentrations were below the ESL residential and commercial land use. Additionally, no concentrations of TPHg, TPHd, or TPHmo were detected in soil samples A1-2 @2 and A1-2 @ 7.5, collected near the machine shop property.

Except for arsenic, detected metal concentrations, including lead, were similar to anticipated background concentrations and below their respective ESLs for commercial and residential land use. Analyses indicated arsenic concentrations within all soil samples collected from the Site ranging from 2.6 mg/kg to 5.4 mg/kg. It is generally accepted that arsenic concentrations within the San Francisco Bay Region are higher than the ESLs for commercial and residential scenarios, and typically arsenic concentrations less than 20 mg/kg are considered to be background concentrations.

## 8.3 RESULTS OF CHEMICAL ANALYSIS - GROUNDWATER

Results of chemical analysis conducted for groundwater samples during this investigation are summarized in Table 3 and are discussed below.

Analyses detected concentrations of PCE ranging from 1.9 µg/l in Sample A1-2 to 16 µg/l in Sample A1-1. Analysis also detected 2.2 µg/l of tert-Butylbenzene in the grab groundwater sample collected from Boring A1-2. No other VOCs were detected in the grab groundwater samples. PCE concentrations detected in the grab groundwater sample collected

from Boring A1-1 exceed the drinking water MCLs but are below the ESLs for the protection of indoor air for both commercial and residential land uses. Since ESLs have not been established, detected concentrations of tert-Butylbenzene were compared to PRGs established by the USEPA. The detected tert-Butylbenzene concentration is well below the residential PRG criteria of 240 µg/l. The source of the detected VOCs is unknown.

## 9.0 CONCLUSIONS

Fugro concludes that the site investigation was completed in general conformance with the SAP. In our opinion, the resulting findings adequately characterize site conditions. The following summarizes the historical site uses, subsurface conditions, and results of analyses for this investigation.

### 9.1 SUBSURFACE CONDITIONS

Subsurface conditions generally comprised 6 inches of asphalt underlain by loose to medium dense, brown sandy silt with gravel to silty clay with gravel to depths of up to 25 feet, which was underlain by dense, sandy gravel to clayey gravel. Groundwater was encountered at depths ranging from 49 to 53.5 feet below ground surface. Fugro's field geologist encountered no hydrocarbon or solvent odors in any of the soil samples screened. The highest OVM reading in any of the samples was approximately 1.1 ppm. No odors or free phase hydrocarbons were detected or observed in any of the grab groundwater samples collected.

### 9.2 CHEMICAL FINDINGS

For soil, analyses detected concentrations of acetone within the surface sample collected from DP1-4, located in the paved parking area immediately north of the vacant lot at 217 North N Street. The source of the detected acetone is unknown at this time; however, concentrations were below the ESL for residential and commercial land use. Except for acetone, chemical analysis detected no other VOC in any of the soil samples tested. Additionally, no concentrations of TPHg, TPHd, or TPHmo were detected in soil samples A1-2 @2 and A1-2 @ 7.5 collected near the machine shop.

Analysis detected various heavy metals in all samples tested. Except for arsenic, detected metal concentrations, including lead, were below their respective ESLs for residential and commercial land use. Additionally, detected metals concentrations were similar to anticipated background concentrations. Total arsenic and lead concentrations do not exceed TTLC criteria, one of the criteria used to classify a soil as hazardous waste in the State of California.

For groundwater, analysis of grab groundwater samples detected concentrations of PCE ranging from 1.9 µg/l in Sample A1-2 to 16 µg/l in Sample A1-1. Analysis also detected 2.2 µg/l of tert-Butylbenzene in the grab groundwater sample collected from boring A1-2. No other VOCs were detected in the groundwater samples.



PCE concentrations detected in the grab groundwater sample collected from boring A1-1 exceed the drinking water MCLs but are below the ESLs for the protection of indoor air for both commercial and residential scenarios. Since ESLs have not been established, detected concentrations of tert-Butylbenzene were compared to PRGs established by the USEPA. The detected tert-Butylbenzene concentration is well below the residential PRG criteria of 240 µg/l. The source of the detected VOCs is unknown.

## 10.0 RECOMMENDATIONS

Fugro recommends no further investigation at this time. However, due to the historical machine shop uses, a reconnaissance and subsurface investigation is recommended prior to redevelopment of the 241 North M Street property. As indicated in the Phase 1 ESA, there is a potential that asbestos containing materials (ACM) and lead-based paint (LBP) are present on the Site based on the age of the existing buildings. Fugro recommends that ACM and LBP surveys be conducted prior to demolition of the buildings.

We recommend that development plans should incorporate standard dust control measures during construction to reduce the nuisance exposure to construction workers and the general public during intrusive activities. Copies of this report should be provided to the contractor performing construction at the Site.

Based on results of analyses and our experience at similar sites, with similar conditions, soil excavated from the Site will likely be considered a non-hazardous waste and will be suitable for disposal at a Class 2 or Class 3 landfill. However, soil sampling at the 241 North M Street property is recommended to confirm that conclusion prior to redevelopment.

If staining, chemical odors, underground storage tanks (USTs), or other signs of contamination and/or contaminated material are encountered during construction, the contractor should notify the Agency of those conditions and appropriate precautions, investigation, and/or mitigation should be implemented.

If proposed redevelopment involves dewatering and/or groundwater handling, appropriate planning, permitting, and likely treatment of that groundwater will be required prior to discharge. Any dewatering planned for the Site should consider the presence of PCE in groundwater as well as the proximity to hydrocarbon contamination at the nearby 2008 First Street property.



## 11.0 REFERENCES

Engeo Incorporated, Limited Subsurface Assessment, M Street Parcel, 241 North M Street, Livermore, California, dated May 22, 2006

Fugro West Inc, Sampling and Analysis Plan, Hazardous Materials Properties Downtown Redevelopment Area, Livermore, California, dated August 4, 2005

Fugro West Inc, Amendment to Sampling and Analysis Plan, Hazardous Materials Properties Downtown Redevelopment Area, Livermore, California, dated November 27, 2007

Fugro West Inc, Phase I Environmental Site Assessment, 1715 - 1779 Chestnut Street, 217 and 242 North N Street, and 241 North M Street, Livermore, California, dated November 30, 2007

San Francisco Bay Regional Water Quality Control Board, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater-Interim Final – November 2007.



## **TABLES**

**Table 1**  
**Summary of Quality Control Sample Results**  
**Chestnut Parcels**  
**Livermore California**  
**Fugro Project No. 1121.014**

**Duplicate Groundwater Samples**

Analyte	Units	Sample ID		RPD (%)	RPD Goal (%)	Sample ID		RPD (%)	RPD Goal (%)
		A1-1	A1-1 Dup			A1-2	A1-2 Dup		
PCE	ug/l	16	18	11.8	< 20	1.9	2.1	10	< 20
tert-Butylbenzene	ug/l	NA	NA	NA	< 20	2.2	2.7	20.4	< 20

**Trip Blanks**

Analyte	Units	Sample ID	
		Trip Blank 12/3/07	Trip Blank 12/4/07
VOCs	ug/l	ND	ND

**Notes**

VOCs = Volatile Organic Compounds

PCE = Tetrachloroethene

ug/L = micrograms per liter

NA = Not applicable

ND = Not detected

RPD = Relative percentage difference



**Table 2**  
**Summary of Analytical Data - Soil**  
**Chestnut Parcels**  
**Livermore, California**  
**Fugro Project No. 1121.014**

Analyte	Units	Soil Sample ID and Depth in Feet																				Environmental Screening Levels						
		A1-1 @0	A1-1 @2	A1-1 @7.5	A1-2 @0	A1-2 @2	A1-2 @7.5	DP1-1 @0	DP1-1 @2	DP1-1 @7.5	DP1-2 @0	DP1-2 @2	DP1-2 @7.5	DP1-3 @0	DP1-3 @2	DP1-3 @7.5	DP1-4 @0	DP1-4 @2	DP1-4 @7.5	DP1-5 @0	DP1-5 @2	DP1-5 @7.5	DP1-6 @0	DP1-6 @2	DP1-6 @7.5	Residential Land Use*	Commercial Land Use*	Construction Worker Direct Contact**
<b>Metals</b>																												
Antimony	mg/kg	--	--	--	<2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.0	--	--	6.1	77	280		
Arsenic	mg/kg	3.4	3.7	2.8	3.9	3.9	2.6	3.5	3.6	2.6	3.8	4.0	3.5	3.9	4.6	3.4	2.7	3.6	5.0	5.4	3.5	3.2	4.5	4.2	4.4	0.38	1.5	14
Barium	mg/kg	--	--	--	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	210	--	--	2900	32000	2600		
Beryllium	mg/kg	--	--	--	<0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.54	--	--	30	370	98		
Cadmium	mg/kg	--	--	--	<0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.5	--	--	1.7	7.4	39		
Chromium <sup>1</sup>	mg/kg	--	--	--	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63	--	--	23000	290,000	1,100,000		
Cobalt	mg/kg	--	--	--	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	--	--	270	1900	94		
Copper	mg/kg	--	--	--	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33	--	--	6100	77000	28000		
Lead	mg/kg	4.5	4.6	3.8	5.6	4.8	2.3	4.8	4.2	2.9	5.3	5.6	4.5	5.2	5.4	2.9	8.9	4.9	4.1	44	4.8	3.3	6.2	5.6	5.5	200	750	750
Molybdenum	mg/kg	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	76	960	3600		
Mercury	mg/kg	--	--	--	<0.049	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.051	--	--	1.0	11	33			
Nickel	mg/kg	--	--	--	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	120	--	--	300	3400	260		
Selenium	mg/kg	--	--	--	<2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<2.0	--	--	76	960	3600			
Silver	mg/kg	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	76	960	3600			
Thallium	mg/kg	--	--	--	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<1.0	--	--	1.2	15	57			
Vanadium	mg/kg	--	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29	--	--	15	190	710			
Zinc	mg/kg	--	--	--	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	42	--	--	4600	58000	210000			
<b>Hydrocarbons</b>																												
TPHg	mg/kg	--	--	--	--	<0.21	<0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	450	4200000		
TPHd	mg/kg	--	--	--	--	<0.99	<0.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	150	150000		
TPHmo	mg/kg	--	--	--	--	<50	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	410	4600	15000000		
<b>VOCs</b>																												
Acetone	ug/kg	<50	<49	<48	<49	<49	<49	<49	<50	<48	<48	<49	<50	<48	<49	<49	84	<48	<49	<49	<49	<49	<49	<48	<50	2,600,000	10,000,000	100,000,000
Remaining VOCs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	

**Notes**

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

VOCs = Volatile Organic Compounds

<25 = Not detected above laboratory detection limit

ND = Not detected except for chemicals listed below

NA = Not applicable

<sup>1</sup> Assumes Chromium III

-- = Not analyzed

ESL = Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board

\* = Table A: ESL for Residential and Commercial Land Use Interim Final - November 2007

\*\* = Table K-3: ESL for Direct Exposure for Construction Worker Exposure Scenario

Interim Final - November 2007



**Table 3**  
**Summary of Analytical Data - Groundwater**  
**Chestnut Parcels**  
**Livermore, California**  
**Fugro Project No. 1121.014**

		Sample ID		Environmental Screening Levels			PRGs
Analyte	Units	A1-1	A1-2	Drinking Water*	Residential Indoor Air**	Commercial Indoor Air***	Residential
<b>VOCs</b>							
PCE tert-Butylbenzene	ug/l ug/l	16 <2.0	1.9 2.2	5 NE	120 NE	420 NE	NA 240

**Notes**

VOCs = Volatile organic compounds

PCE = Tetrachloroethene

ug/l = Micrograms per liter

<25 = Not detected above laboratory detection limit

NA = Not applicable

NE = Not established

PRGs = Preliminary Remediation Goals established by the USEPA Region IX, October 2004.

ESL = Environmental Screening Levels established by the SFBRWQCB

SFRWQCB = San Francisco Bay Regional Water Quality Control Board

\* = Table F-1: Groundwater Screening Levels where groundwater is a potential drinking water source  
(Maximum Contaminant Levels)

\*\* = Table E-1: Groundwater Screening Levels for Evaluation for Potential Vapor Intrusion Concerns

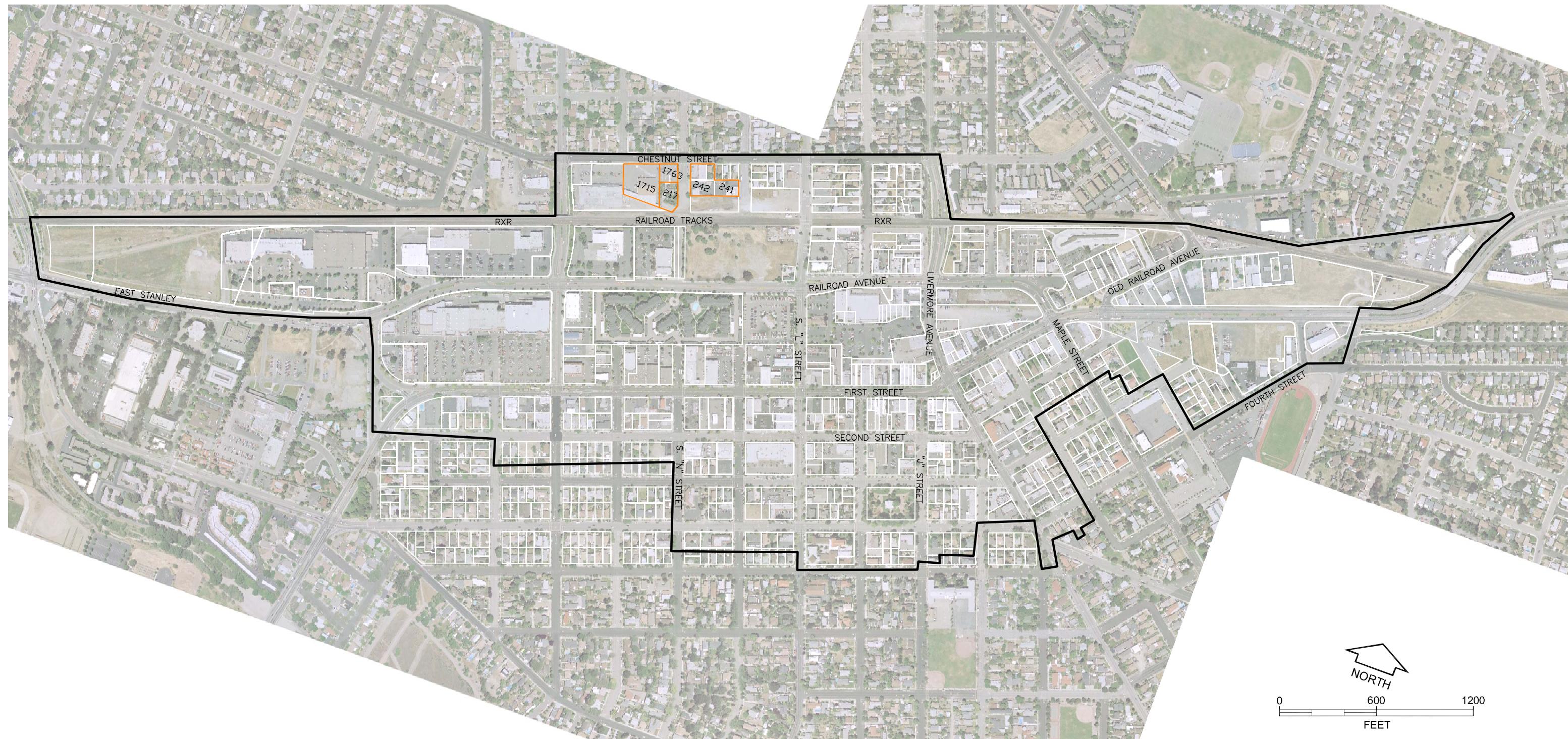
- Residential, Interim Final - November 2007

\*\*\* = Table E-1: Groundwater Screening Levels for Evaluation for Evaluation of Potential Vapor Intrusion Concerns

- Commercial, Interim Final November 2007



## **PLATES**



**VICINITY MAP**  
Chestnut Parcels  
Livermore, California



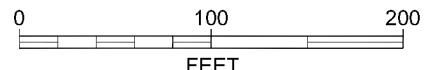
SOURCE: This Aerial Photo obtained from Google Earth Pro.

Legend

Approximate Location of Direct Push Boring

Approximate Location of Hollow Stem Auger Boring

Property Boundary



**SITE PLAN**  
Chestnut Parcels  
Livermore, California

**APPENDIX A  
DRILLING PERMITS**



# ZONE 7 WATER AGENCY

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

## DRILLING PERMIT APPLICATION

### FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1715-176 Chestnut St.  
& Street right of way on S. M St. and S. N St.  
Livermore CA

California Coordinates Source \_\_\_\_\_ ft. Accuracy \_\_\_\_\_ ft.  
CCN ft. CCE ft.  
APN 98-249-1-3, 98-249-1-4, 98-249-1-5

CLIENT  
Name City of Livermore  
Address 1052 S. Livermore Ave Phone (925) 460-4443  
City Livermore, CA Zip 94550

APPLICANT  
Name Karen Emery / Fugro West Inc.  
Email Verenyc@fugro.com Fax 510-269-0345  
Address 100 Broadway Ste 440 Phone 510-261-4432  
City Oakland, CA Zip 94607

### TYPE OF PROJECT:

Well Construction  Geotechnical Investigation   
Well Destruction  Contamination Investigation   
Cathodic Protection  Other

### PROPOSED WELL USE:

Domestic  Irrigation   
Municipal  Remediation   
Industrial  Groundwater Monitoring   
Dewatering  Other

### DRILLING METHOD:

Mud Rotary  Air Rotary  Hollow Stem Auger   
Cable Tool  Direct Push  Other

DRILLING COMPANY Precision Sampling  
Richmond, CA

DRILLER'S LICENSE NO. CS7 636387

### WELL SPECIFICATIONS:

Drill Hole Diameter \_\_\_\_\_ in. Maximum \_\_\_\_\_  
Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Number \_\_\_\_\_

### SOIL BORINGS:

Number of Borings 8 Maximum \_\_\_\_\_  
Hole Diameter 2" + 8" in. Depth 50 ft.

ESTIMATED STARTING DATE 12/3/07  
ESTIMATED COMPLETION DATE 12/4/07

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

APPLICANT'S SIGNATURE Karen Emery Date 11/13/07

ATTACH SITE PLAN OR SKETCH

### FOR OFFICE USE

PERMIT NUMBER 27207

WELL NUMBER \_\_\_\_\_

APN 098-0249-001-03, 04 & 05

### PERMIT CONDITIONS

(Circled Permit Requirements Apply)

A.

#### GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B.

#### WATER SUPPLY WELLS

1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C.

#### GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D.

GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E.

CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F.

WELL DESTRUCTION. See attached.

G.

SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved \_\_\_\_\_

*Wyman Hong*  
Wyman Hong

Date 11/19/07

**APPENDIX B**  
**USCS KEY AND LOGS OF BORINGS**

MAJOR DIVISIONS			GROUP NAMES			
COARSE-GRAINED SOILS  More than 50% retained on the No. 200 sieve	GRAVELS	Clean gravels less than 5% fines	GW		Well-Graded Gravel	
			GP		Poorly Graded Gravel	
		Gravels with more than 12% fines	GM		Silty Gravel	
			GC		Clayey Gravel	
	SANDS	Clean sand less than 5% fines	SW		Well-Graded Sand	
			SP		Poorly Graded Sand	
		Sands with more than 12% fines	SM		Silty Sand	
			SC		Clayey Sand	
	SILTS AND CLAYS  Liquid Limit Less than 50%		ML		Silt	
			CL		Lean Clay	
			OL		Organic Silt	
FINE-GRAINED SOILS  50% or more passes the No. 200 sieve	SILTS AND CLAYS  Liquid Limit Greater than 50%		MH		Elastic Silt	
			CH		Fat Clay	
			OH		Organic Clay	
	HIGHLY ORGANIC SOILS		PT		Peat or Highly Organic Soils	
			FILL		Debris or Mixed Fill	
			AC		Asphalt Concrete Pavement with Aggregate Base	

SAMPLER TYPE AND RECOVERY													SOIL STRUCTURE											
	2		3		4		5		6		7		8		9		10		11		12		13	
Samplers and sampler dimensions (unless otherwise noted in report text) are as follows:																								
1	SPT Sampler, driven 1 3/8" ID, 2" OD	7	Lexan Sample	Fissured: Containing shrinkage or relief cracks, often filled with fine sand or silt, usually more or less vertical.																				
2	MOD CA Liner Sampler 2 3/8" ID, 3" OD	8	Pitcher Sample	Pocket: Inclusion of material of different texture that is smaller than the diameter of the sample.																				
3	CA Liner Sampler 1 7/8" ID, 2.5" OD	9	Vibracore Sample	Parting: Inclusion less than 1/8 inch thick extending through the sample.																				
4	Thin-walled Tube, pushed 2 7/8" ID, 3" OD	10	No Sample Recovered	Seam: Inclusion 1/8 inch to 3 inches thick extending through the sample.																				
5	Bulk Bag Sample (from cuttings)	11	Rock Core	Layer: Inclusion greater than 3 inches thick extending through the sample.																				
6	Hand Auger Sample	12	Direct Push	Laminated: Soil sample composed of alternating partings or seams of different soil types.																				
Retained samples listed in sample No. column																								
CONSISTENCY (1)																								
Clays	Blows/Foot SPT	Undrained Shear Strength (ksf)	RELATIVE DENSITY (1)																					
Very Soft	0 - 2	0 - 0.25	Very Loose	0 - 4	INCREASING VISUAL MOISTURE CONTENT																			
Soft	2 - 4	0.25 - 0.5	Loose	4 - 10	Dry																			
Firm	4 - 8	0.5 - 1	Medium Dense	10 - 30	Moist																			
Stiff	8 - 15	1 - 2	Dense	30 - 50	Wet																			
Very Stiff	15 - 30	2 - 4	Very Dense	Over 50																				
Hard	Over 30	Over 4																						

Information on each boring log is a compilation of subsurface conditions and soil or rock classifications obtained from the field as well as from laboratory testing of samples. Strata have been interpreted by commonly accepted procedures. The stratum lines on the logs may be transitional and approximate in nature. Water level measurements refer only to those observed at the time and places indicated, and can vary with time, geologic condition, or construction activity.

(1) Terzaghi and Peck 1967

## TERMS AND SYMBOLS USED ON BORING LOGS

DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 242 North N Street	OTHER TESTS
						MATERIAL DESCRIPTION	
0	A1-1@0				0	Silty, clayey GRAVEL (GC-GM): medium dense, brown, dry, No odor, some small organics present in clay matrix. Gravel 1/4 to 1/2 in size and sub-angular to sub-rounded - Slight increase in gravel concentration - dry to moist	
5	A1-1@5				0	- Slight increase in gravel size, sub-rounded. Occasional 1 and larger pieces of gravel	
7.5	A1-1@7.5			(50/2")	0.3	- dense	
10	A1-1@10			(50/5")	0.4	Silty SAND with gravel (SM): dense to very dense, light brown, dry to moist	
15	A1-1@15			(50/5")	0	- Gravel poorly sorted	
20	A1-1@20			(50/5")	0	Silty, clayey SAND with gravel (SC-SM): dense to very dense, brown, dry to moist, Most gravel 1/4 and smaller, low plasticity	

Continued

BORING DEPTH: 55.0 ft

DEPTH TO WATER: 52.0 ft Not Measured

BACKFILL: Grout

COMPLETION DATE: December 3, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
HAMMER TYPE: Automatic TripDRILLED BY: Precision, Roberto  
LOGGED BY: R. Carter

## LOG OF A1-1

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 242 North N Street	OTHER TESTS
						MATERIAL DESCRIPTION	
25	A1-1@25			(50/4")	0	- Some gray and reddish brown mottling present	
30	A1-1@30			(50/1")	0	- dark brown, gravel size increased to 1/4 to 3/4	
35	A1-1@35			(50/4")	0	Poorly-graded SAND with gravel (SP): very dense, brown, moist, very little silts and clays, occasional gray and reddish-gray mottling	
40	A1-1@40			(50/6")	0		

Continued

BORING DEPTH: 55.0 ft  
 DEPTH TO WATER: 52.0 ft Not Measured  
 BACKFILL: Grout  
 COMPLETION DATE: December 3, 2007  
 NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
 HAMMER TYPE: Automatic Trip  
 DRILLED BY: Precision, Roberto  
 LOGGED BY: R. Carter

## LOG OF A1-1

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 242 North N Street	OTHER TESTS
						MATERIAL DESCRIPTION	
45	A1-1@45			(50/3")	0	- Slight increase in concentration of silts and clays	
50	A1-1@50			(50/2")	0	Poorly-graded SAND with clay (SP-SC): dense, light brown, wet, No odor, low to moderate plasticity, some gravel in the 1/4 to 1/2 size fractionation	▽
55							

BORING DEPTH: 55.0 ft

DEPTH TO WATER: 52.0 ft Not Measured

BACKFILL: Grout

COMPLETION DATE: December 3, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
HAMMER TYPE: Automatic TripDRILLED BY: Precision, Roberto  
LOGGED BY: R. Carter

**LOG OF A1-1**  
**Livermore Hazmat Services**  
**Livermore, California**



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 241 North M Street	OTHER TESTS
						MATERIAL DESCRIPTION	
0	A1-2@0				0.8	Silty, clayey GRAVEL (GC-GM): medium dense, dark brown, dry, No Odor, 10% gravel, no plasticity	
2	A1-2@2				0.7	- Slight increase in gravel percentage	
5	A1-2@5				0.4	- Low plasticity, increase in size of gravel fractionation to 1/2 - 1	
7.5	A1-2@7.5	(77)			0.1	Clayey GRAVEL with sand (GC): dense to very dense, dark brown, dry to moist, No odor, gravel mostly below 1/4 in size	
10	A1-2@10	(50/3")			0.6	Clayey GRAVEL (GC): light brown, dry to moist, No odor, low plasticity	
12.5	A1-2@12.5				0.5	Clayey GRAVEL with sand (GC): dense to very dense, dark brown, dry to moist, No odor, low plasticity	
15	A1-2@15	(50/4")			0.5		
20	A1-2@20	(50/5")			0.3		

Continued

BORING DEPTH: 55.0 ft

DEPTH TO WATER: 49.0 ft Not Measured

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
HAMMER TYPE: Automatic TripDRILLED BY: Precision, Roberto  
LOGGED BY: R. Carter

## LOG OF A1-2

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 241 North M Street	OTHER TESTS
						MATERIAL DESCRIPTION	
25	A1-2@25			(50/3")	0.3	- Slight increase in gravel percentage  - Occasional large 3-4 gravel rising to surface on auger veins	
30	A1-2@30			(50/2")	0.3	- Decrease in gravel percentage	
35	A1-2@35			(50/5")	0.2	Lean CLAY with sand (CL): reddish brown, dry to moist, No odor, very little gravel in samples, sand present in thin layers. Low plasticity	
	A1-2@40			(30)	0.1		

Continued

BORING DEPTH: 55.0 ft

DEPTH TO WATER: 49.0 ft Not Measured

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
HAMMER TYPE: Automatic TripDRILLED BY: Precision, Roberto  
LOGGED BY: R. Carter

## LOG OF A1-2

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: 241 North M Street	OTHER TESTS
						MATERIAL DESCRIPTION	
45	A1-2@45		(20)		0.1	- Decreasing sand concentrations, medium-high plasticity	
50	A1-2@50		(50/2")		0.1	- Increase in sand concentration, occasional gravel	
55							

BORING DEPTH: 55.0 ft

DEPTH TO WATER: 49.0 ft Not Measured

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: 8-in. dia. Hollow Stem Auger  
HAMMER TYPE: Automatic TripDRILLED BY: Precision, Roberto  
LOGGED BY: R. Carter

## LOG OF A1-2

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						MATERIAL DESCRIPTION	
0	DP1-1@0				0.6	AC/AB	
0.5	DP1-1@0.5				1.1	Silty CLAY (CL-ML): dark brown, damp, low plasticity, no odor or staining, some pea gravel, subrounded	
2	DP1-1@2				0.7		
5	DP1-1@5				0	Poorly-graded GRAVEL with silt and sand (GP-GM): loose, yellowish brown, subrounded pea gravel	
7.5	DP1-1@7.5				0.7	- increasing gravel up to 1" in size, subangular to subrounded	
10	DP1-1@10				0.5	Silty CLAY (CL-ML): yellowish brown, damp, low plasticity, no odor or staining	
12.5	DP1-1@12.5						
15	DP1-1@15				0.7	Sandy Lean CLAY with gravel (CL): yellowish brown, subangular, up to 3/4" in size	
						Clayey SAND (SC): loose, yellowish brown, damp, no odor or staining	

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

## LOG OF DP1-1

### Livermore Hazmat Services

### Livermore, California



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						SURFACE EL: ft +/- (rel. MSL datum)	
						MATERIAL DESCRIPTION	
0	P1-2@0				0	AB/AC	
0.2	P1-2@5				0.2	Silty CLAY with gravel (CL-ML): medium brown, no odor or staining, subangular to subrounded gravel up to 1/2" in size	
0.4	P1-2@2						
5	P1-2@5				0	Silty GRAVEL with sand (GM): light brown, damp, subrounded, up to 1" in size, no odor	
0.2	P1-2@1.5						
10	P1-2@10				0.2	- gravel size increasing with depth to 2"	
0.7	P1-2@10						
15	P1-2@15				0	- some coarse grained sand	

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

**LOG OF DP1-2**  
**Livermore Hazmat Services**  
**Livermore, California**



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						MATERIAL DESCRIPTION	
0	D	DP1-3@0			0.4	AB/AC	
0.5	D	DP1-3@0.5			0.2	Silty CLAY with gravel (CL-ML): dark brown, damp, subangular, gravel up to 1/2" in size, no odor or staining	
2	D	DP1-3@2			0		
5	D	DP1-3@5			0.6	Clayey GRAVEL with sand (GC): medium brown, damp, subangular, gravel up to 3/4" in size, no odor or staining	
6.5	D	DP1-3@6.5			0	Silty GRAVEL with sand (GM): loose, yellowish brown, damp, pea size gravel - gravel increasing to 1" in size, subrounded, at 6.5'	
9	D	DP1-3@9			0.1	- gravel increasing to 3" in size, at 9'	
10	D	DP1-3@10			0.1		
15	D	DP1-3@15			0		

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

**LOG OF DP1-3**  
**Livermore Hazmat Services**  
**Livermore, California**



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						MATERIAL DESCRIPTION	
0	D	DP1-4@0			0.6	AB/AC	
0.5	D	DP1-4@0.5			0	Silty CLAY with gravel (CL-ML): medium brown, damp, pea gravel, subrounded, low plasticity, no odor/staining	
2	D	DP1-4@2			0.2		
5	D	DP1-4@5			0.7	Silty GRAVEL with sand (GM): loose, yellowish brown, damp, no odor, subangular, up to 3/4" in size  - gravel increasing with depth, at 8'	
7.5	D	DP1-4@7.5			0		
10	D	DP1-4@10			0.8	- gravel increases to 2" in size, subrounded to subangular, at 12'  - 6" lens of coarse grained sand, at 14'	
12.5	D	DP1-4@12.5					
15	D	DP1-4@15			0.4		

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

**LOG OF DP1-4**  
**Livermore Hazmat Services**  
**Livermore, California**



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						SURFACE EL: ft +/- (rel. MSL datum)	
						MATERIAL DESCRIPTION	
0	P1-5@0				0.4	Silty, clayey GRAVEL (GC-GM): loose, medium brown, damp, pea gravel, subrounded, no odor or staining	
1.5	P1-5@1.5				0.6		
2	P1-5@2				0.6		
5	P1-5@5				1.1		
7	P1-5@7.5				0.6	Silty GRAVEL with sand (GM): yellowish brown, damp, fine grained sand, subangular gravel, up to 1" in size, no odor or staining - 2" lens of clayey sand, at 7'	
10	P1-5@10				0		
15	P1-5@15				0		

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

**LOG OF DP1-5**  
**Livermore Hazmat Services**  
**Livermore, California**



DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLER TYPE	SAMPLER BLOW COUNT/ PRESSURE	OVM/PID (ppm)	LOCATION: Chestnut Parcels	OTHER TESTS
						MATERIAL DESCRIPTION	
		DP1-6@0			0.3	CLAYEY SILT (MH): medium brown, dry to damp, no odor or staining	
		DP1-6@1.5			0.6		
		DP1-6@2			0.4		
		DP1-6@5			0.8	Silty GRAVEL with sand (GM): light brown, damp, subangular, up to 1/2" in size, no odor or staining	
5		DP1-6@7.5			0.7	Sandy SILT (ML): yellowish brown, damp, fine grained sand, no odor or staining	
		DP1-6@10			0.6	Silty GRAVEL with sand (GM): dense, yellowish brown, damp, no odor or staining	
10		DP1-6@10			0.6	Sandy SILT (ML): loose, yellowish brown, dry to damp, fine grained sand, no odor or staining - some pea gravel, at 11'	
15		DP1-6@15			0.5		

BORING DEPTH: 15.0 ft

DEPTH TO WATER: Not Encountered

BACKFILL: Grout

COMPLETION DATE: December 4, 2007

NOTES: 1. Terms and symbols defined on Plate B-1.

DRILLING METHOD: Direct Push

RIG TYPE: Geoprobe

DRILLED BY: Precision, Israel R.

LOGGED BY: K. Emery

**LOG OF DP1-6**  
**Livermore Hazmat Services**  
**Livermore, California**



**APPENDIX C  
ANALYTICAL REPORTS**

## ANALYTICAL REPORT

Job Number: 720-12010-1

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery



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Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/12/2007

**Job Narrative  
720-J12010-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: Reporting Limit was raised because sediment filled half of the vial, not enough to run without dilution.

No other analytical or quality issues were noted.

**GC VOA**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12010-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-12010-1	A1-1@0				
Arsenic		3.4	0.99	mg/Kg	6010B
Lead		4.5	0.99	mg/Kg	6010B
720-12010-2	A1-1@2				
Arsenic		3.7	1.0	mg/Kg	6010B
Lead		4.6	1.0	mg/Kg	6010B
720-12010-3	A1-1@7.5				
Arsenic		2.8	0.95	mg/Kg	6010B
Lead		3.8	0.95	mg/Kg	6010B
720-12010-5	A1-2@2				
Arsenic		3.9	1.0	mg/Kg	6010B
Lead		4.8	1.0	mg/Kg	6010B
720-12010-6	A1-2@7.5				
Arsenic		2.6	0.95	mg/Kg	6010B
Lead		2.3	0.95	mg/Kg	6010B
720-12010-7	A1-1				
Tetrachloroethene		16	1.0	ug/L	8260B
720-12010-9FD	A1-1 DUP				
Tetrachloroethene		18	1.0	ug/L	8260B

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS (Low Level)	TAL SF	SW846 8260B	
Purge and Trap for Solids	TAL SF		SW846 5030B
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL SF	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL SF		SW846 3050B
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS (Low Level)	TAL SF	SW846 8260B	
Purge-and-Trap	TAL SF		SW846 5030B

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12010-1	A1-1@0	Solid	12/03/2007 0845	12/03/2007 1825
720-12010-2	A1-1@2	Solid	12/03/2007 0900	12/03/2007 1825
720-12010-3	A1-1@7.5	Solid	12/03/2007 0915	12/03/2007 1825
720-12010-4	A1-2@0	Solid	12/03/2007 1642	12/03/2007 1825
720-12010-5	A1-2@2	Solid	12/03/2007 1650	12/03/2007 1825
720-12010-6	A1-2@7.5	Solid	12/03/2007 1715	12/03/2007 1825
720-12010-7	A1-1	Water	12/03/2007 1430	12/03/2007 1825
720-12010-8TB	TRIP BLANK	Water	12/03/2007 0000	12/03/2007 1825
720-12010-9FD	A1-1 DUP	Water	12/03/2007 1430	12/03/2007 1825

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1@0

Lab Sample ID: 720-12010-1

Client Matrix: Solid

Date Sampled: 12/03/2007 0845

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 720-29255	Instrument ID: Agilent 75MSD
Preparation:	5030B	Prep Batch: 720-29231	Lab File ID: 120407006.D
Dilution:	1.0		Initial Weight/Volume: 5.05 g
Date Analyzed:	12/04/2007 1539		Final Weight/Volume: 10 mL
Date Prepared:	12/04/2007 1400		

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		9.9
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		9.9
Chloroform		ND		5.0
Chloromethane		ND		9.9
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		9.9
Dichlorodifluoromethane		ND		9.9
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		9.9

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-1@0

Lab Sample ID: 720-12010-1

Date Sampled: 12/03/2007 0845

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407006.D
Dilution:	1.0			Initial Weight/Volume:	5.05 g
Date Analyzed:	12/04/2007 1539			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		9.9
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		9.9
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		100		50 - 138
1,2-Dichloroethane-d4 (Surr)		100		66 - 127
Toluene-d8 (Surr)		96		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1@2

Lab Sample ID: 720-12010-2

Client Matrix: Solid

Date Sampled: 12/03/2007 0900

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407009.D
Dilution:	1.0			Initial Weight/Volume:	5.07 g
Date Analyzed:	12/04/2007 1655			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		20
Bromoform		ND		4.9
Bromomethane		ND		9.9
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.9
Chloroform		ND		4.9
Chloromethane		ND		9.9
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.9
Dichlorodifluoromethane		ND		9.9
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.9

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1@2

Lab Sample ID: 720-12010-2

Date Sampled: 12/03/2007 0900

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407009.D
Dilution:	1.0			Initial Weight/Volume:	5.07 g
Date Analyzed:	12/04/2007 1655			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.9
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.9
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		90		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		91		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1@7.5

Lab Sample ID: 720-12010-3

Client Matrix: Solid

Date Sampled: 12/03/2007 0915

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407010.D
Dilution:	1.0			Initial Weight/Volume:	5.17 g
Date Analyzed:	12/04/2007 1720			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.7
Chloroform		ND		4.8
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-1@7.5

Lab Sample ID: 720-12010-3

Date Sampled: 12/03/2007 0915

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407010.D
Dilution:	1.0			Initial Weight/Volume:	5.17 g
Date Analyzed:	12/04/2007 1720			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		89		50 - 138
1,2-Dichloroethane-d4 (Surr)		91		66 - 127
Toluene-d8 (Surr)		91		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-2@0

Lab Sample ID: 720-12010-4

Client Matrix: Solid

Date Sampled: 12/03/2007 1642

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407011.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/04/2007 1745			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-2@0

Lab Sample ID: 720-12010-4

Date Sampled: 12/03/2007 1642

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407011.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/04/2007 1745			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		90		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		88		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-2@2

Lab Sample ID: 720-12010-5

Client Matrix: Solid

Date Sampled: 12/03/2007 1650

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407012.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/04/2007 1810			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-2@2

Lab Sample ID: 720-12010-5

Date Sampled: 12/03/2007 1650

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407012.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/04/2007 1810			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		91		50 - 138
1,2-Dichloroethane-d4 (Surr)		95		66 - 127
Toluene-d8 (Surr)		93		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-2@7.5

Lab Sample ID: 720-12010-6

Client Matrix: Solid

Date Sampled: 12/03/2007 1715

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407013.D
Dilution:	1.0			Initial Weight/Volume:	5.07 g
Date Analyzed:	12/04/2007 1835			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		20
Bromoform		ND		4.9
Bromomethane		ND		9.9
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.9
Chloroform		ND		4.9
Chloromethane		ND		9.9
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.9
Dichlorodifluoromethane		ND		9.9
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.9

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-2@7.5

Lab Sample ID: 720-12010-6

Date Sampled: 12/03/2007 1715

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29255	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29231	Lab File ID:	120407013.D
Dilution:	1.0			Initial Weight/Volume:	5.07 g
Date Analyzed:	12/04/2007 1835			Final Weight/Volume:	10 mL
Date Prepared:	12/04/2007 1400				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.9
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.9
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		95		50 - 138
1,2-Dichloroethane-d4 (Surr)		100		66 - 127
Toluene-d8 (Surr)		98		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1

Lab Sample ID: 720-12010-7

Client Matrix: Water

Date Sampled: 12/03/2007 1430

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	2.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1431			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1431				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		10
Acetone	ND		100
Benzene	ND		1.0
Dichlorobromomethane	ND		1.0
Bromobenzene	ND		2.0
Chlorobromomethane	ND		2.0
Bromoform	ND		2.0
Bromomethane	ND		2.0
2-Butanone (MEK)	ND		100
n-Butylbenzene	ND		2.0
sec-Butylbenzene	ND		2.0
tert-Butylbenzene	ND		2.0
Carbon disulfide	ND		10
Carbon tetrachloride	ND		1.0
Chlorobenzene	ND		1.0
Chloroethane	ND		2.0
Chloroform	ND		2.0
Chloromethane	ND		2.0
2-Chlorotoluene	ND		1.0
4-Chlorotoluene	ND		1.0
Chlorodibromomethane	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
1,3-Dichloropropane	ND		2.0
1,1-Dichloropropene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		2.0
Ethylene Dibromide	ND		1.0
Dibromomethane	ND		1.0
Dichlorodifluoromethane	ND		1.0
1,1-Dichloroethane	ND		1.0
1,2-Dichloroethane	ND		1.0
1,1-Dichloroethene	ND		1.0
cis-1,2-Dichloroethene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
cis-1,3-Dichloropropene	ND		1.0
trans-1,3-Dichloropropene	ND		1.0
Ethylbenzene	ND		1.0
Hexachlorobutadiene	ND		2.0
2-Hexanone	ND		100
Isopropylbenzene	ND		1.0
4-Isopropyltoluene	ND		2.0
Methylene Chloride	ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-1

Lab Sample ID: 720-12010-7

Date Sampled: 12/03/2007 1430

Client Matrix: Water

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	2.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1431			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1431				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		100
Naphthalene	ND		2.0
N-Propylbenzene	ND		2.0
Styrene	ND		1.0
1,1,1,2-Tetrachloroethane	ND		1.0
1,1,2,2-Tetrachloroethane	ND		1.0
Tetrachloroethene	16		1.0
Toluene	ND		1.0
1,2,3-Trichlorobenzene	ND		2.0
1,2,4-Trichlorobenzene	ND		2.0
1,1,1-Trichloroethane	ND		1.0
1,1,2-Trichloroethane	ND		1.0
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		2.0
1,2,3-Trichloropropane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0
1,2,4-Trimethylbenzene	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
Vinyl acetate	ND		100
Vinyl chloride	ND		1.0
Xylenes, Total	ND		2.0
2,2-Dichloropropane	ND		1.0
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	106		83 - 127
1,2-Dichloroethane-d4 (Surr)	97		86 - 129
Toluene-d8 (Surr)	102		82 - 126

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** TRIP BLANK

Lab Sample ID: 720-12010-8TB

Client Matrix: Water

Date Sampled: 12/03/2007 0000

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1251			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1251				

Analyst	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** TRIP BLANK

Lab Sample ID: 720-12010-8TB

Date Sampled: 12/03/2007 0000

Client Matrix: Water

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1251			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1251				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	115		83 - 127
1,2-Dichloroethane-d4 (Surr)	99		86 - 129
Toluene-d8 (Surr)	107		82 - 126

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1 DUP

Lab Sample ID: 720-12010-9FD

Client Matrix: Water

Date Sampled: 12/03/2007 1430

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	2.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1505			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1505				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		10
Acetone	ND		100
Benzene	ND		1.0
Dichlorobromomethane	ND		1.0
Bromobenzene	ND		2.0
Chlorobromomethane	ND		2.0
Bromoform	ND		2.0
Bromomethane	ND		2.0
2-Butanone (MEK)	ND		100
n-Butylbenzene	ND		2.0
sec-Butylbenzene	ND		2.0
tert-Butylbenzene	ND		2.0
Carbon disulfide	ND		10
Carbon tetrachloride	ND		1.0
Chlorobenzene	ND		1.0
Chloroethane	ND		2.0
Chloroform	ND		2.0
Chloromethane	ND		2.0
2-Chlorotoluene	ND		1.0
4-Chlorotoluene	ND		1.0
Chlorodibromomethane	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
1,3-Dichloropropane	ND		2.0
1,1-Dichloropropene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		2.0
Ethylene Dibromide	ND		1.0
Dibromomethane	ND		1.0
Dichlorodifluoromethane	ND		1.0
1,1-Dichloroethane	ND		1.0
1,2-Dichloroethane	ND		1.0
1,1-Dichloroethene	ND		1.0
cis-1,2-Dichloroethene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
cis-1,3-Dichloropropene	ND		1.0
trans-1,3-Dichloropropene	ND		1.0
Ethylbenzene	ND		1.0
Hexachlorobutadiene	ND		2.0
2-Hexanone	ND		100
Isopropylbenzene	ND		1.0
4-Isopropyltoluene	ND		2.0
Methylene Chloride	ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

Client Sample ID: A1-1 DUP

Lab Sample ID: 720-12010-9FD

Date Sampled: 12/03/2007 1430

Client Matrix: Water

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29436	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	2.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1505			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1505				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		100
Naphthalene	ND		2.0
N-Propylbenzene	ND		2.0
Styrene	ND		1.0
1,1,1,2-Tetrachloroethane	ND		1.0
1,1,2,2-Tetrachloroethane	ND		1.0
Tetrachloroethene	18		1.0
Toluene	ND		1.0
1,2,3-Trichlorobenzene	ND		2.0
1,2,4-Trichlorobenzene	ND		2.0
1,1,1-Trichloroethane	ND		1.0
1,1,2-Trichloroethane	ND		1.0
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		2.0
1,2,3-Trichloropropane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0
1,2,4-Trimethylbenzene	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
Vinyl acetate	ND		100
Vinyl chloride	ND		1.0
Xylenes, Total	ND		2.0
2,2-Dichloropropane	ND		1.0
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	113		83 - 127
1,2-Dichloroethane-d4 (Surr)	102		86 - 129
Toluene-d8 (Surr)	105		82 - 126

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-1@0

Lab Sample ID: 720-12010-1

Date Sampled: 12/03/2007 0845

Client Matrix: Solid

Date Received: 12/03/2007 1825

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29500	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29257	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	12/11/2007 2227			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1130				

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Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.4		0.99
Lead		4.5		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID: A1-1@2**

Lab Sample ID: 720-12010-2  
Client Matrix: Solid

Date Sampled: 12/03/2007 0900  
Date Received: 12/03/2007 1825

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29500	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29257	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	12/11/2007 2230			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.7		1.0
Lead		4.6		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID:** A1-1@7.5

Lab Sample ID: 720-12010-3  
Client Matrix: Solid

Date Sampled: 12/03/2007 0915  
Date Received: 12/03/2007 1825

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29500 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29257 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.05 g  
Date Analyzed: 12/11/2007 2241 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1130

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		2.8		0.95
Lead		3.8		0.95

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID: A1-2@2**

Lab Sample ID: 720-12010-5  
Client Matrix: Solid

Date Sampled: 12/03/2007 1650  
Date Received: 12/03/2007 1825

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29500 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29257 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 0.98 g  
Date Analyzed: 12/11/2007 2248 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1130

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.9		1.0
Lead		4.8		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Client Sample ID: A1-2@7.5**

Lab Sample ID: 720-12010-6  
Client Matrix: Solid

Date Sampled: 12/03/2007 1715  
Date Received: 12/03/2007 1825

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29500 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29257 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.05 g  
Date Analyzed: 12/11/2007 2252 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1130

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		2.6		0.95
Lead		2.3		0.95

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
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# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Prep Batch: 720-29231</b>					
LCS 720-29231/1-A	Lab Control Spike	T	Solid	5030B	
LCSD 720-29231/2-A	Lab Control Spike Duplicate	T	Solid	5030B	
MB 720-29231/3-A	Method Blank	T	Solid	5030B	
720-12010-1	A1-1@0	T	Solid	5030B	
720-12010-1MS	Matrix Spike	T	Solid	5030B	
720-12010-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
720-12010-2	A1-1@2	T	Solid	5030B	
720-12010-3	A1-1@7.5	T	Solid	5030B	
720-12010-4	A1-2@0	T	Solid	5030B	
720-12010-5	A1-2@2	T	Solid	5030B	
720-12010-6	A1-2@7.5	T	Solid	5030B	
<b>Analysis Batch: 720-29255</b>					
LCS 720-29231/1-A	Lab Control Spike	T	Solid	8260B	720-29231
LCSD 720-29231/2-A	Lab Control Spike Duplicate	T	Solid	8260B	720-29231
MB 720-29231/3-A	Method Blank	T	Solid	8260B	720-29231
720-12010-1	A1-1@0	T	Solid	8260B	720-29231
720-12010-1MS	Matrix Spike	T	Solid	8260B	720-29231
720-12010-1MSD	Matrix Spike Duplicate	T	Solid	8260B	720-29231
720-12010-2	A1-1@2	T	Solid	8260B	720-29231
720-12010-3	A1-1@7.5	T	Solid	8260B	720-29231
720-12010-4	A1-2@0	T	Solid	8260B	720-29231
720-12010-5	A1-2@2	T	Solid	8260B	720-29231
720-12010-6	A1-2@7.5	T	Solid	8260B	720-29231
<b>Analysis Batch: 720-29436</b>					
LCS 720-29436/2	Lab Control Spike	T	Water	8260B	
LCSD 720-29436/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-29436/3	Method Blank	T	Water	8260B	
720-12010-7	A1-1	T	Water	8260B	
720-12010-8TB	TRIP BLANK	T	Water	8260B	
720-12010-9FD	A1-1 DUP	T	Water	8260B	

### Report Basis

T = Total

# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 720-29257</b>					
LCS 720-29257/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29257/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
MB 720-29257/1-A	Method Blank	T	Solid	3050B	
720-12010-1	A1-1@0	T	Solid	3050B	
720-12010-2	A1-1@2	T	Solid	3050B	
720-12010-3	A1-1@7.5	T	Solid	3050B	
720-12010-5	A1-2@2	T	Solid	3050B	
720-12010-6	A1-2@7.5	T	Solid	3050B	
<b>Analysis Batch: 720-29500</b>					
LCS 720-29257/2-A	Lab Control Spike	T	Solid	6010B	720-29257
LCSD 720-29257/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29257
MB 720-29257/1-A	Method Blank	T	Solid	6010B	720-29257
720-12010-1	A1-1@0	T	Solid	6010B	720-29257
720-12010-2	A1-1@2	T	Solid	6010B	720-29257
720-12010-3	A1-1@7.5	T	Solid	6010B	720-29257
720-12010-5	A1-2@2	T	Solid	6010B	720-29257
720-12010-6	A1-2@7.5	T	Solid	6010B	720-29257

### Report Basis

T = Total

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Method Blank - Batch: 720-29231

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29231/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1514  
Date Prepared: 12/04/2007 1400

Analysis Batch: 720-29255  
Prep Batch: 720-29231  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120407005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		5.0
Chlorobromomethane	ND		20
Bromoform	ND		5.0
Bromomethane	ND		10
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		5.0
sec-Butylbenzene	ND		5.0
tert-Butylbenzene	ND		5.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	ND		5.0
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		5.0
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		50
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		5.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Method Blank - Batch: 720-29231

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: MB 720-29231/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1514  
Date Prepared: 12/04/2007 1400

Analysis Batch: 720-29255  
Prep Batch: 720-29231  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120407005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		5.0
Methylene Chloride	ND		10
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		10
N-Propylbenzene	ND		5.0
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		5.0
1,2,4-Trichlorobenzene	ND		5.0
1,1,1-Trichloroethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		5.0
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		50
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	99	50 - 138	
1,2-Dichloroethane-d4 (Surr)	100	66 - 127	
Toluene-d8 (Surr)	97	51 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Lab Control Spike/

### Lab Control Spike Duplicate Recovery Report - Batch: 720-29231

**Method: 8260B**

**Preparation: 5030B**

LCS Lab Sample ID: LCS 720-29231/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1424  
Date Prepared: 12/04/2007 1400

Analysis Batch: 720-29255  
Prep Batch: 720-29231  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120407003.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-29231/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1449  
Date Prepared: 12/04/2007 1400

Analysis Batch: 720-29255  
Prep Batch: 720-29231  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120407004.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Benzene	93	95	80 - 120	2	20	
Chlorobenzene	92	95	86 - 115	4	20	
1,1-Dichloroethene	102	99	81 - 140	3	20	
Toluene	93	95	81 - 120	2	20	
Trichloroethene	92	96	82 - 118	4	20	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	103		93		50 - 138	
1,2-Dichloroethane-d4 (Surr)	99		91		66 - 127	
Toluene-d8 (Surr)	102		92		51 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 720-29231

**Method: 8260B**  
**Preparation: 5030B**

MS Lab Sample ID: 720-12010-1      Analysis Batch: 720-29255  
Client Matrix: Solid      Prep Batch: 720-29231  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1605  
Date Prepared: 12/04/2007 1400

Instrument ID: Agilent 75MSD  
Lab File ID: 120407007.D  
Initial Weight/Volume: 5.07 g  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-12010-1      Analysis Batch: 720-29255  
Client Matrix: Solid      Prep Batch: 720-29231  
Dilution: 1.0  
Date Analyzed: 12/04/2007 1630  
Date Prepared: 12/04/2007 1400

Instrument ID: Agilent 75MSD  
Lab File ID: 120407008.D  
Initial Weight/Volume: 5.14 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	102	97	63 - 126	7	20		
Chlorobenzene	94	91	57 - 124	6	20		
1,1-Dichloroethene	111	105	66 - 149	7	20		
Toluene	99	95	54 - 131	6	20		
Trichloroethene	100	94	53 - 130	7	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	98		97		50 - 138		
1,2-Dichloroethane-d4 (Surr)	93		97		66 - 127		
Toluene-d8 (Surr)	96		96		51 - 129		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Method Blank - Batch: 720-29436

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29436/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1130  
Date Prepared: 12/10/2007 1130

Analysis Batch: 720-29436  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900G  
Lab File ID: c:\saturnws\data\200712\12  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Method Blank - Batch: 720-29436

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29436/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1130  
Date Prepared: 12/10/2007 1130

Analysis Batch: 720-29436  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900G  
Lab File ID: c:\saturnws\data\200712\12  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	110	83 - 127	
1,2-Dichloroethane-d4 (Surr)	102	86 - 129	
Toluene-d8 (Surr)	95	82 - 126	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29436

Method: 8260B  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-29436/2	Analysis Batch: 720-29436	Instrument ID: Varian 3900G
Client Matrix: Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200712\1\
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 40 mL
Date Analyzed: 12/10/2007 1023		Final Weight/Volume: 40 mL
Date Prepared: 12/10/2007 1023		

LCSD Lab Sample ID: LCSD 720-29436/1	Analysis Batch: 720-29436	Instrument ID: Varian 3900G
Client Matrix: Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200712\121
Dilution: 1.0	Units: ug/L	Initial Weight/Volume: 40 mL
Date Analyzed: 12/10/2007 1057		Final Weight/Volume: 40 mL
Date Prepared: 12/10/2007 1057		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	88	89	69 - 129	1	20		
Chlorobenzene	101	101	61 - 121	1	20		
1,1-Dichloroethene	96	99	65 - 125	3	20		
Toluene	95	96	70 - 130	0	20		
Trichloroethene	90	90	74 - 134	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	104		96		83 - 127		
1,2-Dichloroethane-d4 (Surr)	89		89		86 - 129		
Toluene-d8 (Surr)	94		97		82 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-1

### Method Blank - Batch: 720-29257

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29257/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2127  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		1.0
Lead	ND		1.0

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29257

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 720-29257/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2130  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29257/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2134  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	86	84	80 - 120	2	20		
Lead	83	81	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

**720 - 12010 Rev.**

**ES-F10 CHAIN OF CUSTODY**

PROJECT NAME: Livewall Hazmat Services

PROJECT NO.: A1-1014

PROJECT CONTACT: Vance Evans

SAMPLED BY: Vance Evans

LAB: Test America

TURNAROUND: 5 Days

LABORATORY I.D. NUMBER	FIELD SAMPLE I.D.	MATRIX	CONTAINERS			PRESERVATIVE	SAMPLING DATE			NOTES
			WATER	SOIL	AIR		MONTH	DAY	YEAR	
A1-100			X			X	12	03	07	0845
A1-102				X		X	02	03	07	0900
A1-103					X	X	02	03	07	0915
A1-104					X	X	02	03	07	0930
A1-105					X	X	02	03	07	1045
A1-106					X	X	02	03	07	1100
A1-107					X	X	02	03	07	1115
A1-108					X	X	02	03	07	1130
A1-109					X	X	02	03	07	1145
A1-110					X	X	02	03	07	1200
A1-1 Dup			X	X		X	120	03	07	1430
Tripp Blank			X	X		X	120	03	07	1430

**ANALYSIS REQUESTED**

**EDF Reporting**

**COPY**

**Comments & Notes:**

\* Added A1-1 dup on 12/14/07

**FUGRO**

1000 Broadway, Suite 440  
Oakland, California 94607  
Tel: 510.268.0461 Fax: 510.268.0545

**CHAIN OF CUSTODY RECORD**

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Glenn Young</i>	12/3/07 18:25	<i>John H. McPherson</i>	12/3/07 18:25
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

*1640P 4.2°C*

## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12010-1

**Login Number: 12010**

**List Source: TestAmerica San Francisco**

**Creator: Bullock, Tracy**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	Client revised COC 12/4/07
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 720-12010-2

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery

A handwritten signature in black ink that reads "Melissa Brewer".

---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/13/2007

**TestAmerica Laboratories, Inc.**

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566

Tel (925) 484-1919 Fax (925) 484-1096 [www.testamericainc.com](http://www.testamericainc.com)

**Job Narrative  
720-J12010-2**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12010-2

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method
720-12010-4	A1-2@0				
Arsenic		3.9	1.0	mg/Kg	6010B
Barium		160	1.0	mg/Kg	6010B
Chromium		58	1.0	mg/Kg	6010B
Cobalt		14	1.0	mg/Kg	6010B
Copper		28	1.0	mg/Kg	6010B
Lead		5.6	1.0	mg/Kg	6010B
Nickel		120	1.0	mg/Kg	6010B
Vanadium		25	1.0	mg/Kg	6010B
Zinc		41	1.0	mg/Kg	6010B

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-2

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Inductively Coupled Plasma - Atomic Emission Spectrometry Acid Digestion of Sediments, Sludges, and Soils	TAL SF	SW846 6010B	SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL SF	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL SF		SW846 7471A

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12010-4	A1-2@0	Solid	12/03/2007 1642	12/03/2007 1825

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-2

**Client Sample ID:** A1-2@0

Lab Sample ID: 720-12010-4

Date Sampled: 12/03/2007 1642

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29377	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	12/12/2007 2344			Final Weight/Volume:	50 mL
Date Prepared:	12/07/2007 1530				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		3.9		1.0
Barium		160		1.0
Beryllium		ND		0.51
Cadmium		ND		0.51
Chromium		58		1.0
Cobalt		14		1.0
Copper		28		1.0
Lead		5.6		1.0
Molybdenum		ND		1.0
Nickel		120		1.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		1.0
Vanadium		25		1.0
Zinc		41		1.0

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method:	7471A	Analysis Batch:	720-29531	Instrument ID:	FIMS 100
Preparation:	7471A	Prep Batch:	720-29482	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	12/12/2007 1508			Final Weight/Volume:	50 mL
Date Prepared:	12/11/2007 1442				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.049

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
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## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-2

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 720-29377</b>					
LCS 720-29377/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29377/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
LCSSRM 720-29377/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-29377/1-A	Method Blank	T	Solid	3050B	
720-12010-4	A1-2@0	T	Solid	3050B	
<b>Prep Batch: 720-29482</b>					
LCS 720-29482/2-A	Lab Control Spike	T	Solid	7471A	
LCSD 720-29482/3-A	Lab Control Spike Duplicate	T	Solid	7471A	
MB 720-29482/1-A	Method Blank	T	Solid	7471A	
720-12010-4	A1-2@0	T	Solid	7471A	
<b>Analysis Batch:720-29531</b>					
LCS 720-29482/2-A	Lab Control Spike	T	Solid	7471A	720-29482
LCSD 720-29482/3-A	Lab Control Spike Duplicate	T	Solid	7471A	720-29482
MB 720-29482/1-A	Method Blank	T	Solid	7471A	720-29482
720-12010-4	A1-2@0	T	Solid	7471A	720-29482
<b>Analysis Batch:720-29548</b>					
LCS 720-29377/2-A	Lab Control Spike	T	Solid	6010B	720-29377
LCSD 720-29377/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29377
LCSSRM 720-29377/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-29377
MB 720-29377/1-A	Method Blank	T	Solid	6010B	720-29377
720-12010-4	A1-2@0	T	Solid	6010B	720-29377

#### Report Basis

T = Total

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-2

### Method Blank - Batch: 720-29377

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29377/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2220  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		2.0
Arsenic	ND		1.0
Barium	ND		1.0
Beryllium	ND		0.50
Cadmium	ND		0.50
Chromium	ND		1.0
Cobalt	ND		1.0
Copper	ND		1.0
Lead	ND		1.0
Molybdenum	ND		1.0
Nickel	ND		1.0
Selenium	ND		2.0
Silver	ND		1.0
Thallium	ND		1.0
Vanadium	ND		1.0
Zinc	ND		1.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-2

### LCS-Standard Reference Material - Batch: 720-29377

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: LCSSRM 720-29377/25-A      Analysis Batch: 720-29548  
Client Matrix: Solid      Prep Batch: 720-29377  
Dilution: 1.0      Units: mg/Kg  
Date Analyzed: 12/12/2007 2359  
Date Prepared: 12/07/2007 1530

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.02 g  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	18.3	67	14 - 96	
Arsenic	22.7	19.9	87	72 - 128	
Barium	145	122	84	80 - 120	
Beryllium	1.09	0.931	85	65 - 134	
Cadmium	42.2	36.3	86	80 - 120	
Chromium	246	216	88	80 - 120	
Cobalt	65.1	60.3	93	72 - 128	
Copper	58.5	53.2	91	80 - 120	
Lead	44.1	36.3	82	75 - 126	
Molybdenum	61.0	53.2	87	62 - 138	
Nickel	96.8	83.2	86	80 - 120	
Selenium	165	143	87	80 - 120	
Silver	79.5	64.0	80	72 - 127	
Thallium	55.9	48.9	88	79 - 121	
Vanadium	56.7	51.7	91	63 - 137	
Zinc	44.0	37.3	85	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-2

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29377

Method: 6010B  
Preparation: 3050B

LCS Lab Sample ID: LCS 720-29377/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2223  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29377/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2227  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						LCS Qual	LCSD Qual
	LCS	LCSD	Limit	RPD	RPD Limit			
Antimony	99	101	80 - 120	2	20			
Arsenic	100	101	80 - 120	1	20			
Barium	94	95	80 - 120	1	20			
Beryllium	100	102	80 - 120	2	20			
Cadmium	94	95	80 - 120	1	20			
Chromium	98	100	80 - 120	1	20			
Cobalt	98	100	80 - 120	1	20			
Copper	100	102	80 - 120	2	20			
Lead	96	98	80 - 120	1	20			
Molybdenum	99	101	80 - 120	2	20			
Nickel	96	98	80 - 120	1	20			
Selenium	99	101	80 - 120	2	20			
Silver	102	103	80 - 120	1	20			
Thallium	95	97	80 - 120	1	20			
Vanadium	99	101	80 - 120	2	20			
Zinc	96	97	80 - 120	1	20			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-2

### Method Blank - Batch: 720-29482

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID: MB 720-29482/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1449  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.050

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29482

**Method: 7471A**  
**Preparation: 7471A**

LCS Lab Sample ID: LCS 720-29482/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1451  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29482/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1452  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	100	99	85 - 115	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12010-2

**Login Number: 12010**

**List Source: TestAmerica San Francisco**

**Creator: Bullock, Tracy**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	Client revised COC 12/4/07
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 720-12010-3

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery



---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/28/2007

**Job Narrative  
720-J12010-3**

**Comments**

No additional comments.

**Receipt**

The following samples were analyzed outside the method defined holding time because the request for the test was made after the holding time for the sample expired: A1-2@2 (720-12010-5), A1-2@7.5 (720-12010-6)

All other samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 30066 were outside control limits. The associated laboratory control standard (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

**GC VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## **EXECUTIVE SUMMARY - Detections**

Client: Fugro West Incorporated

Job Number: 720-12010-3

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
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No Detections

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-3

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS Purge and Trap for Solids	TAL SF	SW846 8260B	
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) Ultrasonic Extraction	TAL SF	SW846 8015B	
	TAL SF		SW846 3550B

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12010-3

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12010-5	A1-2@2	Solid	12/03/2007 1650	12/03/2007 1825
720-12010-6	A1-2@7.5	Solid	12/03/2007 1715	12/03/2007 1825

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-3

**Client Sample ID:** A1-2@2

Lab Sample ID: 720-12010-5

Date Sampled: 12/03/2007 1650

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-30066	Instrument ID:	Varian 3900E
Preparation:	5030B	Prep Batch:	720-30064	Lab File ID:	c:\varianws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	5.87 g
Date Analyzed:	12/23/2007 1806			Final Weight/Volume:	10 mL
Date Prepared:	12/23/2007 1239				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12		ND	H	0.21
Surrogate		%Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)		95		60 - 140
Toluene-d8 (Surr)		97		70 - 130

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-3

**Client Sample ID:** A1-2@7.5

Lab Sample ID: 720-12010-6

Date Sampled: 12/03/2007 1715

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch:	720-30066	Instrument ID:	Varian 3900E
Preparation:	5030B	Prep Batch:	720-30064	Lab File ID:	c:\varianws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	5.10 g
Date Analyzed:	12/23/2007 1943			Final Weight/Volume:	10 mL
Date Prepared:	12/23/2007 1239				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Gasoline Range Organics (GRO)-C5-C12		ND	H	0.25
Surrogate				
	%Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	91		60 - 140	
Toluene-d8 (Surr)	96		70 - 130	

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-3

**Client Sample ID:** A1-2@2

Lab Sample ID: 720-12010-5

Date Sampled: 12/03/2007 1650

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-30214	Instrument ID:	HP DRO5
Preparation:	3550B	Prep Batch:	720-30123	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	30.22 g
Date Analyzed:	12/28/2007 1229			Final Weight/Volume:	5 mL
Date Prepared:	12/27/2007 1155			Injection Volume:	
				Column ID:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND	H	0.99
Motor Oil Range Organics [C24-C36]		ND	H	50
Surrogate		%Rec		Acceptance Limits
Capric Acid (Surr)		0		0 - 5
p-Terphenyl		92		41 - 105

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12010-3

**Client Sample ID:** A1-2@7.5

Lab Sample ID: 720-12010-6

Date Sampled: 12/03/2007 1715

Client Matrix: Solid

Date Received: 12/03/2007 1825

### 8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)-Silica Gel Cleanup

Method:	8015B	Analysis Batch:	720-30214	Instrument ID:	HP DRO5
Preparation:	3550B	Prep Batch:	720-30123	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	30.30 g
Date Analyzed:	12/28/2007 1135			Final Weight/Volume:	5 mL
Date Prepared:	12/27/2007 1155			Injection Volume:	
				Column ID:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND	H	0.99
Motor Oil Range Organics [C24-C36]		ND	H	50
Surrogate		%Rec		Acceptance Limits
Capric Acid (Surr)		0		0 - 5
p-Terphenyl		97		41 - 105

## DATA REPORTING QUALIFIERS

Client: Fugro West Incorporated

Job Number: 720-12010-3

Lab Section	Qualifier	Description
GC/MS VOA	F	MS or MSD exceeds the control limits
	H	Sample was prepped or analyzed beyond the specified holding time
GC Semi VOA	H	Sample was prepped or analyzed beyond the specified holding time

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-3

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Prep Batch: 720-30064</b>					
LCS 720-30064/2-A	Lab Control Spike	T	Solid	5030B	
LCSD 720-30064/3-A	Lab Control Spike Duplicate	T	Solid	5030B	
MB 720-30064/1-A	Method Blank	T	Solid	5030B	
720-12010-5	A1-2@2	T	Solid	5030B	
720-12010-5MS	Matrix Spike	T	Solid	5030B	
720-12010-5MSD	Matrix Spike Duplicate	T	Solid	5030B	
720-12010-6	A1-2@7.5	T	Solid	5030B	
<b>Analysis Batch: 720-30066</b>					
LCS 720-30064/2-A	Lab Control Spike	T	Solid	8260B	720-30064
LCSD 720-30064/3-A	Lab Control Spike Duplicate	T	Solid	8260B	720-30064
MB 720-30064/1-A	Method Blank	T	Solid	8260B	720-30064
720-12010-5	A1-2@2	T	Solid	8260B	720-30064
720-12010-5MS	Matrix Spike	T	Solid	8260B	720-30064
720-12010-5MSD	Matrix Spike Duplicate	T	Solid	8260B	720-30064
720-12010-6	A1-2@7.5	T	Solid	8260B	720-30064
<b>Report Basis</b>					
T = Total					
<b>GC Semi VOA</b>					
<b>Prep Batch: 720-30123</b>					
LCS 720-30123/2-A	Lab Control Spike	A	Solid	3550B	
LCSD 720-30123/3-A	Lab Control Spike Duplicate	A	Solid	3550B	
MB 720-30123/1-A	Method Blank	A	Solid	3550B	
720-12010-5	A1-2@2	A	Solid	3550B	
720-12010-6	A1-2@7.5	A	Solid	3550B	
<b>Analysis Batch: 720-30214</b>					
LCS 720-30123/2-A	Lab Control Spike	A	Solid	8015B	720-30123
LCSD 720-30123/3-A	Lab Control Spike Duplicate	A	Solid	8015B	720-30123
MB 720-30123/1-A	Method Blank	A	Solid	8015B	720-30123
720-12010-5	A1-2@2	A	Solid	8015B	720-30123
720-12010-6	A1-2@7.5	A	Solid	8015B	720-30123

### Report Basis

A = Silica Gel Cleanup

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-3

### Method Blank - Batch: 720-30064

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-30064/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/23/2007 1641  
Date Prepared: 12/23/2007 1239

Analysis Batch: 720-30066  
Prep Batch: 720-30064  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200712\12  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Benzene	ND		0.0050
Toluene	ND		0.0050
Gasoline Range Organics (GRO)-C5-C12	ND		0.25
Surrogate	% Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		60 - 140
Toluene-d8 (Surr)	97		70 - 130

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-30064

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 720-30064/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/23/2007 1712  
Date Prepared: 12/23/2007 1239

Analysis Batch: 720-30066  
Prep Batch: 720-30064  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200712\12  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-30064/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/23/2007 1735  
Date Prepared: 12/23/2007 1239

Analysis Batch: 720-30066  
Prep Batch: 720-30064  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200712\12  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	96	92	70 - 123	5	20		
Toluene	100	99	81 - 128	1	20		
Gasoline Range Organics (GRO)-C5-C12	66	62	51 - 97	6	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	102		94		60 - 140		
Toluene-d8 (Surr)	98		98		70 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-3

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 720-30064

**Method: 8260B**  
**Preparation: 5030B**

MS Lab Sample ID: 720-12010-5      Analysis Batch: 720-30066  
Client Matrix: Solid      Prep Batch: 720-30064  
Dilution: 1.0  
Date Analyzed: 12/23/2007 1831  
Date Prepared: 12/23/2007 1239

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200712\`  
Initial Weight/Volume: 5.62 g  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-12010-5      Analysis Batch: 720-30066  
Client Matrix: Solid      Prep Batch: 720-30064  
Dilution: 1.0  
Date Analyzed: 12/23/2007 1855  
Date Prepared: 12/23/2007 1239

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200712\12  
Initial Weight/Volume: 5.66 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	81	81	70 - 123	1	20		
Toluene	91	88	81 - 128	4	20		
Gasoline Range Organics (GRO)-C5-C12	49	50	51 - 97	0	20	F	F
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	97		95		60 - 140		
Toluene-d8 (Surr)	100		98		70 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12010-3

### **Method Blank - Batch: 720-30123**

Lab Sample ID: MB 720-30123/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 12/28/2007 0948  
 Date Prepared: 12/27/2007 1155

Analysis Batch: 720-30214  
 Prep Batch: 720-30123  
 Units: mg/Kg

### **Method: 8015B**

### **Preparation: 3550B**

### **Silica Gel Cleanup**

Instrument ID: HP DRO5  
 Lab File ID: N/A  
 Initial Weight/Volume: 30.30 g  
 Final Weight/Volume: 5 mL  
 Injection Volume:  
 Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		0.99
Motor Oil Range Organics [C24-C36]	ND		50
Surrogate	% Rec		Acceptance Limits
Capric Acid (Surr)	0	0 - 5	
p-Terphenyl	101	41 - 105	
<b>Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-30123</b>		<b>Method: 8015B</b>	
		<b>Preparation: 3550B</b>	
		<b>Silica Gel Cleanup</b>	
LCS Lab Sample ID: LCS 720-30123/2-A	Analysis Batch: 720-30214 Prep Batch: 720-30123 Units: mg/Kg	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 30.14 g Final Weight/Volume: 5 mL Injection Volume: Column ID: PRIMARY	

LCSD Lab Sample ID: LCSD 720-30123/3-A	Analysis Batch: 720-30214 Prep Batch: 720-30123 Units: mg/Kg	Instrument ID: HP DRO5 Lab File ID: N/A Initial Weight/Volume: 30.20 g Final Weight/Volume: 5 mL Injection Volume: Column ID: PRIMARY
--	--	--

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	64	63	50 - 130	2	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
p-Terphenyl	104		98		41 - 105		

Calculations are performed before rounding to avoid round-off errors in calculated results.

**720-12010 Rev.**

## ES-F10 CHAIN OF CUSTODY

PROJECT NAME: Liv Anna & HAZMAT Serv. IncPROJECT NO.: 1120.014PROJECT CONTACT: Vince EmanSAMPLED BY: Vince Eman

LABORATORY ID NUMBER	FIELD SAMPLE ID.	MATRIX	CONTAINER	PRESERVATIVE	SAMPLING DATE			
					MONTH	DAY	YEAR	TIME
A1-1-CO		WATER	NOA	HCl	12	2	07	07:51
A1-1-C2		AIR	Tube		12	2	07	07:51
A1-1-C1.5			PINT		12	2	07	07:51
A1-1-CO					12	2	07	07:51
A1-1-C3					12	2	07	07:51
A1-1-C2.5					12	2	07	07:51
A1-1					12	2	07	07:51
* A1-1_Dup	X				12	2	07	07:51
trip Blatt	X				12	2	07	07:51

102-408  
PAGE 1 OF 1

ANALYSIS REQUESTED

(EDF Reporting)

TPH and THM  
TPH  
S:1:C:G:1VDCS  
100  
SELON

## COMMENTS &amp; NOTES:

\* Add up

COOP

1000

FUGRO

FUGRO WEST, INC.

1000 Broadway, Suite 440

Oakland, California 94607

Tel: 610.268.0461 Fax: 610.268.0546

Approved by Glenn Young, AG-62 Manager, Fugro West, Inc. 10/15/07.  
 Note: If this is a printed copy, please check the online QMS to ensure that it is the latest version.

## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12010-3

**Login Number: 12010**

**List Source: TestAmerica San Francisco**

**Creator: Bullock, Tracy**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	Client revised COC 12/4/07
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 720-12037-1

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery

A handwritten signature in black ink that reads "Melissa Brewer".

---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/14/2007

**TestAmerica Laboratories, Inc.**

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566

Tel (925) 484-1919 Fax (925) 484-1096 [www.testamericainc.com](http://www.testamericainc.com)

**Job Narrative  
720-J12037-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

**GC VOA**

No analytical or quality issues were noted.

**Metals**

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 29319 were outside control limits. The associated laboratory control standard (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12037-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-12037-1	DP1-1@0				
Arsenic		3.5	0.97	mg/Kg	6010B
Lead		4.8	0.97	mg/Kg	6010B
720-12037-2	DP1-1@2				
Arsenic		3.6	0.99	mg/Kg	6010B
Lead		4.2	0.99	mg/Kg	6010B
720-12037-3	DP1-1@7.5				
Arsenic		2.6	0.98	mg/Kg	6010B
Lead		2.9	0.98	mg/Kg	6010B
720-12037-4	DP1-2@0				
Arsenic		3.8	0.95	mg/Kg	6010B
Lead		5.3	0.95	mg/Kg	6010B
720-12037-5	DP1-2@2				
Arsenic		4.0	0.97	mg/Kg	6010B
Lead		5.6	0.97	mg/Kg	6010B
720-12037-6	DP1-2@7.5				
Arsenic		3.5	0.99	mg/Kg	6010B
Lead		4.5	0.99	mg/Kg	6010B
720-12037-7	DP1-3@0				
Arsenic		3.9	0.99	mg/Kg	6010B
Lead		5.2	0.99	mg/Kg	6010B
720-12037-8	DP1-3@2				
Arsenic		4.6	1.0	mg/Kg	6010B
Lead		5.4	1.0	mg/Kg	6010B
720-12037-9	DP1-3@7.5				
Arsenic		3.4	1.0	mg/Kg	6010B
Lead		2.9	1.0	mg/Kg	6010B

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12037-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-12037-10	DP1-4@0				
Acetone		84	50	ug/Kg	8260B
Arsenic		2.7	0.97	mg/Kg	6010B
Lead		8.9	0.97	mg/Kg	6010B
720-12037-11	DP1-4@2				
Arsenic		3.6	1.0	mg/Kg	6010B
Lead		4.9	1.0	mg/Kg	6010B
720-12037-12	DP1-4@7.5				
Arsenic		5.0	0.99	mg/Kg	6010B
Lead		4.1	0.99	mg/Kg	6010B
720-12037-13	DP1-5@0				
Arsenic		5.4	0.99	mg/Kg	6010B
Lead		44	0.99	mg/Kg	6010B
720-12037-14	DP1-5@2				
Arsenic		3.5	1.0	mg/Kg	6010B
Lead		4.8	1.0	mg/Kg	6010B
720-12037-15	DP1-5@7.5				
Arsenic		3.2	0.95	mg/Kg	6010B
Lead		3.3	0.95	mg/Kg	6010B
720-12037-17	DP1-6@2				
Arsenic		4.2	0.95	mg/Kg	6010B
Lead		5.6	0.95	mg/Kg	6010B
720-12037-18	DP1-6@7.5				
Arsenic		4.4	1.0	mg/Kg	6010B
Lead		5.5	1.0	mg/Kg	6010B

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12037-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS (Low Level)	TAL SF	SW846 8260B	
Purge and Trap for Solids	TAL SF		SW846 5030B
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL SF	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL SF		SW846 3050B

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12037-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12037-1	DP1-1@0	Solid	12/04/2007 0851	12/04/2007 1727
720-12037-2	DP1-1@2	Solid	12/04/2007 0856	12/04/2007 1727
720-12037-3	DP1-1@7.5	Solid	12/04/2007 0902	12/04/2007 1727
720-12037-4	DP1-2@0	Solid	12/04/2007 0924	12/04/2007 1727
720-12037-5	DP1-2@2	Solid	12/04/2007 0929	12/04/2007 1727
720-12037-6	DP1-2@7.5	Solid	12/04/2007 0935	12/04/2007 1727
720-12037-7	DP1-3@0	Solid	12/04/2007 0959	12/04/2007 1727
720-12037-8	DP1-3@2	Solid	12/04/2007 1002	12/04/2007 1727
720-12037-9	DP1-3@7.5	Solid	12/04/2007 1007	12/04/2007 1727
720-12037-10	DP1-4@0	Solid	12/04/2007 1035	12/04/2007 1727
720-12037-11	DP1-4@2	Solid	12/04/2007 1039	12/04/2007 1727
720-12037-12	DP1-4@7.5	Solid	12/04/2007 1045	12/04/2007 1727
720-12037-13	DP1-5@0	Solid	12/04/2007 1118	12/04/2007 1727
720-12037-14	DP1-5@2	Solid	12/04/2007 1121	12/04/2007 1727
720-12037-15	DP1-5@7.5	Solid	12/04/2007 1126	12/04/2007 1727
720-12037-16	DP1-6@0	Solid	12/04/2007 1203	12/04/2007 1727
720-12037-17	DP1-6@2	Solid	12/04/2007 1208	12/04/2007 1727
720-12037-18	DP1-6@7.5	Solid	12/04/2007 1212	12/04/2007 1727

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-1@0

Lab Sample ID: 720-12037-1

Client Matrix: Solid

Date Sampled: 12/04/2007 0851

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507007.D
Dilution:	1.0			Initial Weight/Volume:	5.11 g
Date Analyzed:	12/05/2007 1407			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		20
Bromoform		ND		4.9
Bromomethane		ND		9.8
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.8
Chloroform		ND		4.9
Chloromethane		ND		9.8
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.8
Dichlorodifluoromethane		ND		9.8
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.8

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-1@0

Lab Sample ID: 720-12037-1

Date Sampled: 12/04/2007 0851

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507007.D
Dilution:	1.0			Initial Weight/Volume:	5.11 g
Date Analyzed:	12/05/2007 1407			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.8
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.8
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		100		50 - 138
1,2-Dichloroethane-d4 (Surr)		105		66 - 127
Toluene-d8 (Surr)		94		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-1@2

Lab Sample ID: 720-12037-2

Client Matrix: Solid

Date Sampled: 12/04/2007 0856

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507010.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 1522			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		10
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		10
Chloroform		ND		5.0
Chloromethane		ND		10
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		10
Dichlorodifluoromethane		ND		10
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-1@2

Lab Sample ID: 720-12037-2

Date Sampled: 12/04/2007 0856

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507010.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 1522			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		10
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		10
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		89		50 - 138
1,2-Dichloroethane-d4 (Surr)		103		66 - 127
Toluene-d8 (Surr)		95		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-1@7.5

Lab Sample ID: 720-12037-3

Client Matrix: Solid

Date Sampled: 12/04/2007 0902

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507011.D
Dilution:	1.0			Initial Weight/Volume:	5.16 g
Date Analyzed:	12/05/2007 1547			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.7
Chloroform		ND		4.8
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-1@7.5

Lab Sample ID: 720-12037-3

Date Sampled: 12/04/2007 0902

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507011.D
Dilution:	1.0			Initial Weight/Volume:	5.16 g
Date Analyzed:	12/05/2007 1547			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		91		50 - 138
1,2-Dichloroethane-d4 (Surr)		99		66 - 127
Toluene-d8 (Surr)		95		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-2@0

Lab Sample ID: 720-12037-4

Client Matrix: Solid

Date Sampled: 12/04/2007 0924

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507012.D
Dilution:	1.0			Initial Weight/Volume:	5.16 g
Date Analyzed:	12/05/2007 1613			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.7
Chloroform		ND		4.8
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-2@0

Lab Sample ID: 720-12037-4

Date Sampled: 12/04/2007 0924

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507012.D
Dilution:	1.0			Initial Weight/Volume:	5.16 g
Date Analyzed:	12/05/2007 1613			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		95		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		94		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-2@2

Lab Sample ID: 720-12037-5

Client Matrix: Solid

Date Sampled: 12/04/2007 0929

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507013.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 1638			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		10
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		10
Chloroform		ND		5.0
Chloromethane		ND		10
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		10
Dichlorodifluoromethane		ND		10
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-2@2

Lab Sample ID: 720-12037-5

Date Sampled: 12/04/2007 0929

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507013.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 1638			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		10
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		10
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		86		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		94		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-2@7.5

Lab Sample ID: 720-12037-6

Client Matrix: Solid

Date Sampled: 12/04/2007 0935

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507014.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/05/2007 1703			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-2@7.5

Lab Sample ID: 720-12037-6

Date Sampled: 12/04/2007 0935

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507014.D
Dilution:	1.0			Initial Weight/Volume:	5.14 g
Date Analyzed:	12/05/2007 1703			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		96		50 - 138
1,2-Dichloroethane-d4 (Surr)		102		66 - 127
Toluene-d8 (Surr)		100		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-3@0

Lab Sample ID: 720-12037-7

Client Matrix: Solid

Date Sampled: 12/04/2007 0959

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507015.D
Dilution:	1.0			Initial Weight/Volume:	5.01 g
Date Analyzed:	12/05/2007 1728			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		10
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		10
Chloroform		ND		5.0
Chloromethane		ND		10
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		10
Dichlorodifluoromethane		ND		10
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-3@0

Lab Sample ID: 720-12037-7

Date Sampled: 12/04/2007 0959

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507015.D
Dilution:	1.0			Initial Weight/Volume:	5.01 g
Date Analyzed:	12/05/2007 1728			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		10
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		10
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		78		50 - 138
1,2-Dichloroethane-d4 (Surr)		96		66 - 127
Toluene-d8 (Surr)		86		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-3@2

Lab Sample ID: 720-12037-8

Client Matrix: Solid

Date Sampled: 12/04/2007 1002

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507016.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Date Analyzed:	12/05/2007 1753			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.6
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.6
Chloroform		ND		4.8
Chloromethane		ND		9.6
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.6
Dichlorodifluoromethane		ND		9.6
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.6

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-3@2

Lab Sample ID: 720-12037-8

Date Sampled: 12/04/2007 1002

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507016.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Date Analyzed:	12/05/2007 1753			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.6
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.6
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		87		50 - 138
1,2-Dichloroethane-d4 (Surr)		97		66 - 127
Toluene-d8 (Surr)		92		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-3@7.5

Lab Sample ID: 720-12037-9

Client Matrix: Solid

Date Sampled: 12/04/2007 1007

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507017.D
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Date Analyzed:	12/05/2007 1818			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-3@7.5

Lab Sample ID: 720-12037-9

Date Sampled: 12/04/2007 1007

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507017.D
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Date Analyzed:	12/05/2007 1818			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		80		50 - 138
1,2-Dichloroethane-d4 (Surr)		95		66 - 127
Toluene-d8 (Surr)		92		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-4@0

Lab Sample ID: 720-12037-10

Client Matrix: Solid

Date Sampled: 12/04/2007 1035

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29355	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29315	Lab File ID:	120607006.D
Dilution:	1.0			Initial Weight/Volume:	5.01 g
Date Analyzed:	12/06/2007 1259			Final Weight/Volume:	10 mL
Date Prepared:	12/06/2007 1100				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		84		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		10
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		10
Chloroform		ND		5.0
Chloromethane		ND		10
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		10
Dichlorodifluoromethane		ND		10
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-4@0

Lab Sample ID: 720-12037-10

Date Sampled: 12/04/2007 1035

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29355	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29315	Lab File ID:	120607006.D
Dilution:	1.0			Initial Weight/Volume:	5.01 g
Date Analyzed:	12/06/2007 1259			Final Weight/Volume:	10 mL
Date Prepared:	12/06/2007 1100				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		10
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		10
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		96		50 - 138
1,2-Dichloroethane-d4 (Surr)		96		66 - 127
Toluene-d8 (Surr)		91		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-4@2

Lab Sample ID: 720-12037-11

Client Matrix: Solid

Date Sampled: 12/04/2007 1039

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507019.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Date Analyzed:	12/05/2007 1908			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.6
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.6
Chloroform		ND		4.8
Chloromethane		ND		9.6
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.6
Dichlorodifluoromethane		ND		9.6
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.6

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-4@2

Lab Sample ID: 720-12037-11

Date Sampled: 12/04/2007 1039

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507019.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Date Analyzed:	12/05/2007 1908			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.6
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.6
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		89		50 - 138
1,2-Dichloroethane-d4 (Surr)		96		66 - 127
Toluene-d8 (Surr)		90		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-4@7.5

Lab Sample ID: 720-12037-12

Date Sampled: 12/04/2007 1045

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507020.D
Dilution:	1.0			Initial Weight/Volume:	5.13 g
Date Analyzed:	12/05/2007 1933			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-4@7.5

Lab Sample ID: 720-12037-12

Date Sampled: 12/04/2007 1045

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507020.D
Dilution:	1.0			Initial Weight/Volume:	5.13 g
Date Analyzed:	12/05/2007 1933			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		89		50 - 138
1,2-Dichloroethane-d4 (Surr)		97		66 - 127
Toluene-d8 (Surr)		93		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-5@0

Lab Sample ID: 720-12037-13

Client Matrix: Solid

Date Sampled: 12/04/2007 1118

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507021.D
Dilution:	1.0			Initial Weight/Volume:	5.09 g
Date Analyzed:	12/05/2007 1959			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		20
Bromoform		ND		4.9
Bromomethane		ND		9.8
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.8
Chloroform		ND		4.9
Chloromethane		ND		9.8
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.8
Dichlorodifluoromethane		ND		9.8
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.8

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-5@0

Lab Sample ID: 720-12037-13

Date Sampled: 12/04/2007 1118

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507021.D
Dilution:	1.0			Initial Weight/Volume:	5.09 g
Date Analyzed:	12/05/2007 1959			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.8
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.8
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		81		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		90		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-5@2

Lab Sample ID: 720-12037-14

Client Matrix: Solid

Date Sampled: 12/04/2007 1121

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507022.D
Dilution:	1.0			Initial Weight/Volume:	5.09 g
Date Analyzed:	12/05/2007 2024			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		20
Bromoform		ND		4.9
Bromomethane		ND		9.8
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.8
Chloroform		ND		4.9
Chloromethane		ND		9.8
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.8
Dichlorodifluoromethane		ND		9.8
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.8

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-5@2

Lab Sample ID: 720-12037-14

Date Sampled: 12/04/2007 1121

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507022.D
Dilution:	1.0			Initial Weight/Volume:	5.09 g
Date Analyzed:	12/05/2007 2024			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.8
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.8
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		86		50 - 138
1,2-Dichloroethane-d4 (Surr)		98		66 - 127
Toluene-d8 (Surr)		93		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-5@7.5

Lab Sample ID: 720-12037-15

Date Sampled: 12/04/2007 1126

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507023.D
Dilution:	1.0			Initial Weight/Volume:	5.03 g
Date Analyzed:	12/05/2007 2049			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		9.9
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		9.9
Chloroform		ND		5.0
Chloromethane		ND		9.9
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		9.9
Dichlorodifluoromethane		ND		9.9
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		9.9

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-5@7.5

Lab Sample ID: 720-12037-15

Date Sampled: 12/04/2007 1126

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507023.D
Dilution:	1.0			Initial Weight/Volume:	5.03 g
Date Analyzed:	12/05/2007 2049			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		9.9
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		9.9
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		85		50 - 138
1,2-Dichloroethane-d4 (Surr)		96		66 - 127
Toluene-d8 (Surr)		94		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-6@0

Lab Sample ID: 720-12037-16

Client Matrix: Solid

Date Sampled: 12/04/2007 1203

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507024.D
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Date Analyzed:	12/05/2007 2114			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Acetone		ND		49
Benzene		ND		4.9
Dichlorobromomethane		ND		4.9
Bromobenzene		ND		4.9
Chlorobromomethane		ND		19
Bromoform		ND		4.9
Bromomethane		ND		9.7
2-Butanone (MEK)		ND		49
n-Butylbenzene		ND		4.9
sec-Butylbenzene		ND		4.9
tert-Butylbenzene		ND		4.9
Carbon disulfide		ND		4.9
Carbon tetrachloride		ND		4.9
Chlorobenzene		ND		4.9
Chloroethane		ND		9.7
Chloroform		ND		4.9
Chloromethane		ND		9.7
2-Chlorotoluene		ND		4.9
4-Chlorotoluene		ND		4.9
Chlorodibromomethane		ND		4.9
1,2-Dichlorobenzene		ND		4.9
1,3-Dichlorobenzene		ND		4.9
1,4-Dichlorobenzene		ND		4.9
1,3-Dichloropropane		ND		4.9
1,1-Dichloropropene		ND		4.9
1,2-Dibromo-3-Chloropropane		ND		49
Ethylene Dibromide		ND		4.9
Dibromomethane		ND		9.7
Dichlorodifluoromethane		ND		9.7
1,1-Dichloroethane		ND		4.9
1,2-Dichloroethane		ND		4.9
1,1-Dichloroethene		ND		4.9
cis-1,2-Dichloroethene		ND		4.9
trans-1,2-Dichloroethene		ND		4.9
1,2-Dichloropropane		ND		4.9
cis-1,3-Dichloropropene		ND		4.9
trans-1,3-Dichloropropene		ND		4.9
Ethylbenzene		ND		4.9
Hexachlorobutadiene		ND		4.9
2-Hexanone		ND		49
Isopropylbenzene		ND		4.9
4-Isopropyltoluene		ND		4.9
Methylene Chloride		ND		9.7

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-6@0

Lab Sample ID: 720-12037-16

Date Sampled: 12/04/2007 1203

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507024.D
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Date Analyzed:	12/05/2007 2114			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		49
Naphthalene		ND		9.7
N-Propylbenzene		ND		4.9
Styrene		ND		4.9
1,1,1,2-Tetrachloroethane		ND		4.9
1,1,2,2-Tetrachloroethane		ND		4.9
Tetrachloroethene		ND		4.9
Toluene		ND		4.9
1,2,3-Trichlorobenzene		ND		4.9
1,2,4-Trichlorobenzene		ND		4.9
1,1,1-Trichloroethane		ND		4.9
1,1,2-Trichloroethane		ND		4.9
Trichloroethene		ND		4.9
Trichlorofluoromethane		ND		4.9
1,2,3-Trichloropropane		ND		4.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.9
1,2,4-Trimethylbenzene		ND		4.9
1,3,5-Trimethylbenzene		ND		4.9
Vinyl acetate		ND		49
Vinyl chloride		ND		4.9
Xylenes, Total		ND		9.7
2,2-Dichloropropane		ND		4.9
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		72		50 - 138
1,2-Dichloroethane-d4 (Surr)		96		66 - 127
Toluene-d8 (Surr)		83		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-6@2

Lab Sample ID: 720-12037-17

Client Matrix: Solid

Date Sampled: 12/04/2007 1208

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507025.D
Dilution:	1.0			Initial Weight/Volume:	5.19 g
Date Analyzed:	12/05/2007 2139			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.8
Acetone		ND		48
Benzene		ND		4.8
Dichlorobromomethane		ND		4.8
Bromobenzene		ND		4.8
Chlorobromomethane		ND		19
Bromoform		ND		4.8
Bromomethane		ND		9.6
2-Butanone (MEK)		ND		48
n-Butylbenzene		ND		4.8
sec-Butylbenzene		ND		4.8
tert-Butylbenzene		ND		4.8
Carbon disulfide		ND		4.8
Carbon tetrachloride		ND		4.8
Chlorobenzene		ND		4.8
Chloroethane		ND		9.6
Chloroform		ND		4.8
Chloromethane		ND		9.6
2-Chlorotoluene		ND		4.8
4-Chlorotoluene		ND		4.8
Chlorodibromomethane		ND		4.8
1,2-Dichlorobenzene		ND		4.8
1,3-Dichlorobenzene		ND		4.8
1,4-Dichlorobenzene		ND		4.8
1,3-Dichloropropane		ND		4.8
1,1-Dichloropropene		ND		4.8
1,2-Dibromo-3-Chloropropane		ND		48
Ethylene Dibromide		ND		4.8
Dibromomethane		ND		9.6
Dichlorodifluoromethane		ND		9.6
1,1-Dichloroethane		ND		4.8
1,2-Dichloroethane		ND		4.8
1,1-Dichloroethene		ND		4.8
cis-1,2-Dichloroethene		ND		4.8
trans-1,2-Dichloroethene		ND		4.8
1,2-Dichloropropane		ND		4.8
cis-1,3-Dichloropropene		ND		4.8
trans-1,3-Dichloropropene		ND		4.8
Ethylbenzene		ND		4.8
Hexachlorobutadiene		ND		4.8
2-Hexanone		ND		48
Isopropylbenzene		ND		4.8
4-Isopropyltoluene		ND		4.8
Methylene Chloride		ND		9.6

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-6@2

Lab Sample ID: 720-12037-17

Date Sampled: 12/04/2007 1208

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507025.D
Dilution:	1.0			Initial Weight/Volume:	5.19 g
Date Analyzed:	12/05/2007 2139			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		48
Naphthalene		ND		9.6
N-Propylbenzene		ND		4.8
Styrene		ND		4.8
1,1,1,2-Tetrachloroethane		ND		4.8
1,1,2,2-Tetrachloroethane		ND		4.8
Tetrachloroethene		ND		4.8
Toluene		ND		4.8
1,2,3-Trichlorobenzene		ND		4.8
1,2,4-Trichlorobenzene		ND		4.8
1,1,1-Trichloroethane		ND		4.8
1,1,2-Trichloroethane		ND		4.8
Trichloroethene		ND		4.8
Trichlorofluoromethane		ND		4.8
1,2,3-Trichloropropane		ND		4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		4.8
1,2,4-Trimethylbenzene		ND		4.8
1,3,5-Trimethylbenzene		ND		4.8
Vinyl acetate		ND		48
Vinyl chloride		ND		4.8
Xylenes, Total		ND		9.6
2,2-Dichloropropane		ND		4.8
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		80		50 - 138
1,2-Dichloroethane-d4 (Surr)		94		66 - 127
Toluene-d8 (Surr)		87		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

Client Sample ID: DP1-6@7.5

Lab Sample ID: 720-12037-18

Client Matrix: Solid

Date Sampled: 12/04/2007 1212

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507026.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 2204			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		5.0
Acetone		ND		50
Benzene		ND		5.0
Dichlorobromomethane		ND		5.0
Bromobenzene		ND		5.0
Chlorobromomethane		ND		20
Bromoform		ND		5.0
Bromomethane		ND		10
2-Butanone (MEK)		ND		50
n-Butylbenzene		ND		5.0
sec-Butylbenzene		ND		5.0
tert-Butylbenzene		ND		5.0
Carbon disulfide		ND		5.0
Carbon tetrachloride		ND		5.0
Chlorobenzene		ND		5.0
Chloroethane		ND		10
Chloroform		ND		5.0
Chloromethane		ND		10
2-Chlorotoluene		ND		5.0
4-Chlorotoluene		ND		5.0
Chlorodibromomethane		ND		5.0
1,2-Dichlorobenzene		ND		5.0
1,3-Dichlorobenzene		ND		5.0
1,4-Dichlorobenzene		ND		5.0
1,3-Dichloropropane		ND		5.0
1,1-Dichloropropene		ND		5.0
1,2-Dibromo-3-Chloropropane		ND		50
Ethylene Dibromide		ND		5.0
Dibromomethane		ND		10
Dichlorodifluoromethane		ND		10
1,1-Dichloroethane		ND		5.0
1,2-Dichloroethane		ND		5.0
1,1-Dichloroethene		ND		5.0
cis-1,2-Dichloroethene		ND		5.0
trans-1,2-Dichloroethene		ND		5.0
1,2-Dichloropropane		ND		5.0
cis-1,3-Dichloropropene		ND		5.0
trans-1,3-Dichloropropene		ND		5.0
Ethylbenzene		ND		5.0
Hexachlorobutadiene		ND		5.0
2-Hexanone		ND		50
Isopropylbenzene		ND		5.0
4-Isopropyltoluene		ND		5.0
Methylene Chloride		ND		10

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-6@7.5

Lab Sample ID: 720-12037-18

Date Sampled: 12/04/2007 1212

Client Matrix: Solid

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29323	Instrument ID:	Agilent 75MSD
Preparation:	5030B	Prep Batch:	720-29261	Lab File ID:	120507026.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Date Analyzed:	12/05/2007 2204			Final Weight/Volume:	10 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)		ND		50
Naphthalene		ND		10
N-Propylbenzene		ND		5.0
Styrene		ND		5.0
1,1,1,2-Tetrachloroethane		ND		5.0
1,1,2,2-Tetrachloroethane		ND		5.0
Tetrachloroethene		ND		5.0
Toluene		ND		5.0
1,2,3-Trichlorobenzene		ND		5.0
1,2,4-Trichlorobenzene		ND		5.0
1,1,1-Trichloroethane		ND		5.0
1,1,2-Trichloroethane		ND		5.0
Trichloroethene		ND		5.0
Trichlorofluoromethane		ND		5.0
1,2,3-Trichloropropane		ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		5.0
1,2,4-Trimethylbenzene		ND		5.0
1,3,5-Trimethylbenzene		ND		5.0
Vinyl acetate		ND		50
Vinyl chloride		ND		5.0
Xylenes, Total		ND		10
2,2-Dichloropropane		ND		5.0
Surrogate		%Rec		Acceptance Limits
4-Bromofluorobenzene		87		50 - 138
1,2-Dichloroethane-d4 (Surr)		91		66 - 127
Toluene-d8 (Surr)		92		51 - 129

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-1@0

Lab Sample ID: 720-12037-1

Date Sampled: 12/04/2007 0851

Client Matrix: Solid

Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29500	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29257	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	12/11/2007 2303			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1130				

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Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.5		0.97
Lead		4.8		0.97

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-1@2

Lab Sample ID: 720-12037-2  
Client Matrix: Solid

Date Sampled: 12/04/2007 0856  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29500	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29257	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	12/11/2007 2307			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1130				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.6		0.99
Lead		4.2		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-1@7.5

Lab Sample ID: 720-12037-3  
Client Matrix: Solid

Date Sampled: 12/04/2007 0902  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	12/13/2007 0218			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		2.6		0.98
Lead		2.9		0.98

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-2@0

Lab Sample ID: 720-12037-4  
Client Matrix: Solid

Date Sampled: 12/04/2007 0924  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.05 g  
Date Analyzed: 12/13/2007 0222 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.8		0.95
Lead		5.3		0.95

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-2@2

Lab Sample ID: 720-12037-5  
Client Matrix: Solid

Date Sampled: 12/04/2007 0929  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.03 g  
Date Analyzed: 12/13/2007 0225 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		4.0		0.97
Lead		5.6		0.97

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-2@7.5

Lab Sample ID: 720-12037-6  
Client Matrix: Solid

Date Sampled: 12/04/2007 0935  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	12/13/2007 0236			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.5		0.99
Lead		4.5		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-3@0

Lab Sample ID: 720-12037-7  
Client Matrix: Solid

Date Sampled: 12/04/2007 0959  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.01 g  
Date Analyzed: 12/13/2007 0240 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.9		0.99
Lead		5.2		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-3@2

Lab Sample ID: 720-12037-8  
Client Matrix: Solid

Date Sampled: 12/04/2007 1002  
Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	12/13/2007 0244			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		4.6		1.0
Lead		5.4		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-3@7.5

Lab Sample ID: 720-12037-9  
Client Matrix: Solid

Date Sampled: 12/04/2007 1007  
Date Received: 12/04/2007 1727

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.00 g  
Date Analyzed: 12/13/2007 0247 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.4		1.0
Lead		2.9		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-4@0

Lab Sample ID: 720-12037-10 Date Sampled: 12/04/2007 1035  
Client Matrix: Solid Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.03 g  
Date Analyzed: 12/13/2007 0251 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		2.7		0.97
Lead		8.9		0.97

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-4@2

Lab Sample ID: 720-12037-11 Date Sampled: 12/04/2007 1039  
Client Matrix: Solid Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.00 g  
Date Analyzed: 12/13/2007 0255 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.6		1.0
Lead		4.9		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-4@7.5

Lab Sample ID:	720-12037-12	Date Sampled:	12/04/2007 1045
Client Matrix:	Solid	Date Received:	12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	12/13/2007 0259			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		5.0		0.99
Lead		4.1		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-5@0

Lab Sample ID:	720-12037-13	Date Sampled:	12/04/2007 1118
Client Matrix:	Solid	Date Received:	12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29548	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	12/13/2007 0303			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		5.4		0.99
Lead		44		0.99

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-5@2

Lab Sample ID: 720-12037-14 Date Sampled: 12/04/2007 1121  
Client Matrix: Solid Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29278 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 0.98 g  
Date Analyzed: 12/13/2007 0307 Final Weight/Volume: 50 mL  
Date Prepared: 12/05/2007 1438

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.5		1.0
Lead		4.8		1.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-5@7.5

Lab Sample ID:	720-12037-15	Date Sampled:	12/04/2007 1126
Client Matrix:	Solid	Date Received:	12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29592	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	12/13/2007 2347			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		3.2		0.95
Lead		3.3		0.95

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-6@2

Lab Sample ID:	720-12037-17	Date Sampled:	12/04/2007 1208
Client Matrix:	Solid	Date Received:	12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29592	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29278	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	12/13/2007 2355			Final Weight/Volume:	50 mL
Date Prepared:	12/05/2007 1438				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		4.2		0.95
Lead		5.6		0.95

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Client Sample ID:** DP1-6@7.5

Lab Sample ID: 720-12037-18 Date Sampled: 12/04/2007 1212  
Client Matrix: Solid Date Received: 12/04/2007 1727

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B Analysis Batch: 720-29548 Instrument ID: Varian ICP  
Preparation: 3050B Prep Batch: 720-29319 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 1.00 g  
Date Analyzed: 12/13/2007 0028 Final Weight/Volume: 50 mL  
Date Prepared: 12/06/2007 1304

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		4.4		1.0
Lead		5.5		1.0

## **DATA REPORTING QUALIFIERS**

Client: Fugro West Incorporated

Job Number: 720-12037-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Metals	F	MS or MSD exceeds the control limits

# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Prep Batch: 720-29261</b>					
LCS 720-29261/1-A	Lab Control Spike	T	Solid	5030B	
LCSD 720-29261/2-A	Lab Control Spike Duplicate	T	Solid	5030B	
MB 720-29261/3-A	Method Blank	T	Solid	5030B	
720-12037-1	DP1-1@0	T	Solid	5030B	
720-12037-1MS	Matrix Spike	T	Solid	5030B	
720-12037-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
720-12037-2	DP1-1@2	T	Solid	5030B	
720-12037-3	DP1-1@7.5	T	Solid	5030B	
720-12037-4	DP1-2@0	T	Solid	5030B	
720-12037-5	DP1-2@2	T	Solid	5030B	
720-12037-6	DP1-2@7.5	T	Solid	5030B	
720-12037-7	DP1-3@0	T	Solid	5030B	
720-12037-8	DP1-3@2	T	Solid	5030B	
720-12037-9	DP1-3@7.5	T	Solid	5030B	
720-12037-11	DP1-4@2	T	Solid	5030B	
720-12037-12	DP1-4@7.5	T	Solid	5030B	
720-12037-13	DP1-5@0	T	Solid	5030B	
720-12037-14	DP1-5@2	T	Solid	5030B	
720-12037-15	DP1-5@7.5	T	Solid	5030B	
720-12037-16	DP1-6@0	T	Solid	5030B	
720-12037-17	DP1-6@2	T	Solid	5030B	
720-12037-18	DP1-6@7.5	T	Solid	5030B	
<b>Prep Batch: 720-29315</b>					
LCS 720-29315/1-A	Lab Control Spike	T	Solid	5030B	
LCSD 720-29315/2-A	Lab Control Spike Duplicate	T	Solid	5030B	
MB 720-29315/3-A	Method Blank	T	Solid	5030B	
720-12037-10	DP1-4@0	T	Solid	5030B	

# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-29323</b>					
LCS 720-29261/1-A	Lab Control Spike	T	Solid	8260B	720-29261
LCSD 720-29261/2-A	Lab Control Spike Duplicate	T	Solid	8260B	720-29261
MB 720-29261/3-A	Method Blank	T	Solid	8260B	720-29261
720-12037-1	DP1-1@0	T	Solid	8260B	720-29261
720-12037-1MS	Matrix Spike	T	Solid	8260B	720-29261
720-12037-1MSD	Matrix Spike Duplicate	T	Solid	8260B	720-29261
720-12037-2	DP1-1@2	T	Solid	8260B	720-29261
720-12037-3	DP1-1@7.5	T	Solid	8260B	720-29261
720-12037-4	DP1-2@0	T	Solid	8260B	720-29261
720-12037-5	DP1-2@2	T	Solid	8260B	720-29261
720-12037-6	DP1-2@7.5	T	Solid	8260B	720-29261
720-12037-7	DP1-3@0	T	Solid	8260B	720-29261
720-12037-8	DP1-3@2	T	Solid	8260B	720-29261
720-12037-9	DP1-3@7.5	T	Solid	8260B	720-29261
720-12037-11	DP1-4@2	T	Solid	8260B	720-29261
720-12037-12	DP1-4@7.5	T	Solid	8260B	720-29261
720-12037-13	DP1-5@0	T	Solid	8260B	720-29261
720-12037-14	DP1-5@2	T	Solid	8260B	720-29261
720-12037-15	DP1-5@7.5	T	Solid	8260B	720-29261
720-12037-16	DP1-6@0	T	Solid	8260B	720-29261
720-12037-17	DP1-6@2	T	Solid	8260B	720-29261
720-12037-18	DP1-6@7.5	T	Solid	8260B	720-29261
<b>Analysis Batch:720-29355</b>					
LCS 720-29315/1-A	Lab Control Spike	T	Solid	8260B	720-29315
LCSD 720-29315/2-A	Lab Control Spike Duplicate	T	Solid	8260B	720-29315
MB 720-29315/3-A	Method Blank	T	Solid	8260B	720-29315
720-12037-10	DP1-4@0	T	Solid	8260B	720-29315

### Report Basis

T = Total

# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 720-29257</b>					
LCS 720-29257/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29257/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
MB 720-29257/1-A	Method Blank	T	Solid	3050B	
720-12037-1	DP1-1@0	T	Solid	3050B	
720-12037-2	DP1-1@2	T	Solid	3050B	
<b>Prep Batch: 720-29278</b>					
LCS 720-29278/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29278/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
LCSSRM 720-29278/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-29278/1-A	Method Blank	T	Solid	3050B	
720-12037-3	DP1-1@7.5	T	Solid	3050B	
720-12037-3MS	Matrix Spike	T	Solid	3050B	
720-12037-3MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-12037-4	DP1-2@0	T	Solid	3050B	
720-12037-5	DP1-2@2	T	Solid	3050B	
720-12037-6	DP1-2@7.5	T	Solid	3050B	
720-12037-7	DP1-3@0	T	Solid	3050B	
720-12037-8	DP1-3@2	T	Solid	3050B	
720-12037-9	DP1-3@7.5	T	Solid	3050B	
720-12037-10	DP1-4@0	T	Solid	3050B	
720-12037-11	DP1-4@2	T	Solid	3050B	
720-12037-12	DP1-4@7.5	T	Solid	3050B	
720-12037-13	DP1-5@0	T	Solid	3050B	
720-12037-14	DP1-5@2	T	Solid	3050B	
720-12037-15	DP1-5@7.5	T	Solid	3050B	
720-12037-17	DP1-6@2	T	Solid	3050B	
<b>Prep Batch: 720-29319</b>					
LCS 720-29319/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29319/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
LCSSRM 720-29319/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-29319/1-A	Method Blank	T	Solid	3050B	
720-12037-18	DP1-6@7.5	T	Solid	3050B	
720-12037-18MS	Matrix Spike	T	Solid	3050B	
720-12037-18MSD	Matrix Spike Duplicate	T	Solid	3050B	
<b>Analysis Batch: 720-29500</b>					
LCS 720-29257/2-A	Lab Control Spike	T	Solid	6010B	720-29257
LCSD 720-29257/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29257
MB 720-29257/1-A	Method Blank	T	Solid	6010B	720-29257
720-12037-1	DP1-1@0	T	Solid	6010B	720-29257
720-12037-2	DP1-1@2	T	Solid	6010B	720-29257

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Analysis Batch:720-29548</b>					
LCS 720-29278/2-A	Lab Control Spike	T	Solid	6010B	720-29278
LCSD 720-29278/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29278
MB 720-29278/1-A	Method Blank	T	Solid	6010B	720-29278
LCS 720-29319/2-A	Lab Control Spike	T	Solid	6010B	720-29319
LCSD 720-29319/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29319
LCSSRM 720-29319/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-29319
MB 720-29319/1-A	Method Blank	T	Solid	6010B	720-29319
720-12037-3	DP1-1@7.5	T	Solid	6010B	720-29278
720-12037-3MS	Matrix Spike	T	Solid	6010B	720-29278
720-12037-3MSD	Matrix Spike Duplicate	T	Solid	6010B	720-29278
720-12037-4	DP1-2@0	T	Solid	6010B	720-29278
720-12037-5	DP1-2@2	T	Solid	6010B	720-29278
720-12037-6	DP1-2@7.5	T	Solid	6010B	720-29278
720-12037-7	DP1-3@0	T	Solid	6010B	720-29278
720-12037-8	DP1-3@2	T	Solid	6010B	720-29278
720-12037-9	DP1-3@7.5	T	Solid	6010B	720-29278
720-12037-10	DP1-4@0	T	Solid	6010B	720-29278
720-12037-11	DP1-4@2	T	Solid	6010B	720-29278
720-12037-12	DP1-4@7.5	T	Solid	6010B	720-29278
720-12037-13	DP1-5@0	T	Solid	6010B	720-29278
720-12037-14	DP1-5@2	T	Solid	6010B	720-29278
720-12037-18	DP1-6@7.5	T	Solid	6010B	720-29319
720-12037-18MS	Matrix Spike	T	Solid	6010B	720-29319
720-12037-18MSD	Matrix Spike Duplicate	T	Solid	6010B	720-29319
<b>Analysis Batch:720-29592</b>					
LCSSRM 720-29278/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-29278
720-12037-15	DP1-5@7.5	T	Solid	6010B	720-29278
720-12037-17	DP1-6@2	T	Solid	6010B	720-29278

#### Report Basis

T = Total

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29261

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29261/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1252  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29323  
Prep Batch: 720-29261  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120507005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		5.0
Chlorobromomethane	ND		20
Bromoform	ND		5.0
Bromomethane	ND		10
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		5.0
sec-Butylbenzene	ND		5.0
tert-Butylbenzene	ND		5.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	ND		5.0
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		5.0
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		50
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		5.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29261

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29261/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1252  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29323  
Prep Batch: 720-29261  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120507005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		5.0
Methylene Chloride	ND		10
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		10
N-Propylbenzene	ND		5.0
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		5.0
1,2,4-Trichlorobenzene	ND		5.0
1,1,1-Trichloroethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		5.0
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		50
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	93	50 - 138	
1,2-Dichloroethane-d4 (Surr)	90	66 - 127	
Toluene-d8 (Surr)	92	51 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Lab Control Spike/

### Lab Control Spike Duplicate Recovery Report - Batch: 720-29261

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 720-29261/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1202  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29323  
Prep Batch: 720-29261  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120507003.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-29261/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1227  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29323  
Prep Batch: 720-29261  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120507004.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	93	97	80 - 120	4	20		
Chlorobenzene	93	94	86 - 115	1	20		
1,1-Dichloroethene	102	103	81 - 140	0	20		
Toluene	92	96	81 - 120	4	20		
Trichloroethene	93	97	82 - 118	4	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	98		98		50 - 138		
1,2-Dichloroethane-d4 (Surr)	96		97		66 - 127		
Toluene-d8 (Surr)	98		98		51 - 129		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 720-29261

**Method: 8260B**  
**Preparation: 5030B**

MS Lab Sample ID: 720-12037-1      Analysis Batch: 720-29323  
Client Matrix: Solid      Prep Batch: 720-29261  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1432  
Date Prepared: 12/05/2007 1130

Instrument ID: Agilent 75MSD  
Lab File ID: 120507008.D  
Initial Weight/Volume: 5.07 g  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-12037-1      Analysis Batch: 720-29323  
Client Matrix: Solid      Prep Batch: 720-29261  
Dilution: 1.0  
Date Analyzed: 12/05/2007 1457  
Date Prepared: 12/05/2007 1130

Instrument ID: Agilent 75MSD  
Lab File ID: 120507009.D  
Initial Weight/Volume: 5.17 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	95	98	63 - 126	1	20		
Chlorobenzene	88	90	57 - 124	1	20		
1,1-Dichloroethene	103	107	66 - 149	2	20		
Toluene	91	93	54 - 131	1	20		
Trichloroethene	91	93	53 - 130	0	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	95		96		50 - 138		
1,2-Dichloroethane-d4 (Surr)	98		100		66 - 127		
Toluene-d8 (Surr)	97		92		51 - 129		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29315

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29315/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/06/2007 1234  
Date Prepared: 12/06/2007 1100

Analysis Batch: 720-29355  
Prep Batch: 720-29315  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120607005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		5.0
Chlorobromomethane	ND		20
Bromoform	ND		5.0
Bromomethane	ND		10
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		5.0
sec-Butylbenzene	ND		5.0
tert-Butylbenzene	ND		5.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	ND		5.0
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		5.0
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		50
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		5.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29315

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29315/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/06/2007 1234  
Date Prepared: 12/06/2007 1100

Analysis Batch: 720-29355  
Prep Batch: 720-29315  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120607005.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		5.0
Methylene Chloride	ND		10
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		10
N-Propylbenzene	ND		5.0
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		5.0
1,2,4-Trichlorobenzene	ND		5.0
1,1,1-Trichloroethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		5.0
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		50
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	94	50 - 138	
1,2-Dichloroethane-d4 (Surr)	101	66 - 127	
Toluene-d8 (Surr)	98	51 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Lab Control Spike/

### Lab Control Spike Duplicate Recovery Report - Batch: 720-29315

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 720-29315/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/06/2007 1144  
Date Prepared: 12/06/2007 1100

Analysis Batch: 720-29355  
Prep Batch: 720-29315  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120607003.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-29315/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/06/2007 1209  
Date Prepared: 12/06/2007 1100

Analysis Batch: 720-29355  
Prep Batch: 720-29315  
Units: ug/Kg

Instrument ID: Agilent 75MSD  
Lab File ID: 120607004.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Benzene	101	105	80 - 120	4	20	
Chlorobenzene	98	99	86 - 115	2	20	
1,1-Dichloroethene	109	114	81 - 140	4	20	
Toluene	99	104	81 - 120	5	20	
Trichloroethene	99	104	82 - 118	5	20	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	95		97		50 - 138	
1,2-Dichloroethane-d4 (Surr)	102		104		66 - 127	
Toluene-d8 (Surr)	100		100		51 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29257

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29257/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2127  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		1.0
Lead	ND		1.0

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29257

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 720-29257/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2130  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29257/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/11/2007 2134  
Date Prepared: 12/05/2007 1130

Analysis Batch: 720-29500  
Prep Batch: 720-29257  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	86	84	80 - 120	2	20		
Lead	83	81	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29278

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29278/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0159  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29548  
Prep Batch: 720-29278  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		1.0
Lead	ND		1.0

### LCS-Standard Reference Material - Batch: 720-29278

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: LCSSRM 720-29278/25-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/14/2007 0021  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29592  
Prep Batch: 720-29278  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.03 g  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	22.7	19.9	88	72 - 128	
Lead	44.1	37.1	84	75 - 126	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Lab Control Spike/

#### Lab Control Spike Duplicate Recovery Report - Batch: 720-29278

LCS Lab Sample ID: LCS 720-29278/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0202  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29548  
Prep Batch: 720-29278  
Units: mg/Kg

**Method: 6010B**

**Preparation: 3050B**

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29278/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0206  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29548  
Prep Batch: 720-29278  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						LCS Qual	LCSD Qual
	LCS	LCSD	Limit	RPD	RPD Limit			
Arsenic	100	92	80 - 120	9	20			
Lead	97	90	80 - 120	7	20			

### Matrix Spike/

#### Matrix Spike Duplicate Recovery Report - Batch: 720-29278

MS Lab Sample ID: 720-12037-3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0210  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29548  
Prep Batch: 720-29278

**Method: 6010B**  
**Preparation: 3050B**

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-12037-3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0214  
Date Prepared: 12/05/2007 1438

Analysis Batch: 720-29548  
Prep Batch: 720-29278

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 0.99 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						MS Qual	MSD Qual
	MS	MSD	Limit	RPD	RPD Limit			
Arsenic	86	89	75 - 125	5	20			
Lead	80	84	75 - 125	6	20			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Method Blank - Batch: 720-29319

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29319/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0003  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		1.0
Lead	ND		1.0

### LCS-Standard Reference Material - Batch: 720-29319

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: LCSSRM 720-29319/25-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0155  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.03 g  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	22.7	18.9	83	72 - 128	
Lead	44.1	34.9	79	75 - 126	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-1

### Lab Control Spike/

#### Lab Control Spike Duplicate Recovery Report - Batch: 720-29319

**Method: 6010B**

**Preparation: 3050B**

LCS Lab Sample ID: LCS 720-29319/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0006  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29319/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0010  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Arsenic	99	98	80 - 120	1	20		
Lead	96	95	80 - 120	1	20		

### Matrix Spike/

#### Matrix Spike Duplicate Recovery Report - Batch: 720-29319

**Method: 6010B**

**Preparation: 3050B**

MS Lab Sample ID: 720-12037-18  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0021  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.02 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-12037-18  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/13/2007 0024  
Date Prepared: 12/06/2007 1304

Analysis Batch: 720-29548  
Prep Batch: 720-29319

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.02 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						
	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	77	77	75 - 125	0	20		
Lead	72	72	75 - 125	0	20	F	F

Calculations are performed before rounding to avoid round-off errors in calculated results.





## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12037-1

**Login Number: 12037**

**Creator: Lewis, Trenton L**

**List Number: 1**

**List Source: TestAmerica San Francisco**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 720-12037-2

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery

A handwritten signature in black ink that reads "Melissa Brewer".

---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/18/2007

**TestAmerica Laboratories, Inc.**

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566

Tel (925) 484-1919 Fax (925) 484-1096 [www.testamericainc.com](http://www.testamericainc.com)

**Job Narrative  
720-J12037-2**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12037-2

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method
720-12037-16	DP1-6@0				
Arsenic		4.5	1.0	mg/Kg	6010B
Barium		210	1.0	mg/Kg	6010B
Beryllium		0.54	0.50	mg/Kg	6010B
Chromium		63	1.0	mg/Kg	6010B
Cobalt		16	1.0	mg/Kg	6010B
Copper		33	1.0	mg/Kg	6010B
Lead		6.2	1.0	mg/Kg	6010B
Nickel		120	1.0	mg/Kg	6010B
Vanadium		29	1.0	mg/Kg	6010B
Zinc		42	1.0	mg/Kg	6010B

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12037-2

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Inductively Coupled Plasma - Atomic Emission Spectrometry Acid Digestion of Sediments, Sludges, and Soils	TAL SF	SW846 6010B	SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL SF	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL SF		SW846 7471A

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12037-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12037-16	DP1-6@0	Solid	12/04/2007 1203	12/04/2007 1727

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12037-2

**Client Sample ID:** DP1-6@0

Lab Sample ID:	720-12037-16	Date Sampled:	12/04/2007 1203
Client Matrix:	Solid	Date Received:	12/04/2007 1727

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method:	6010B	Analysis Batch:	720-29592	Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch:	720-29377	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.0 g
Date Analyzed:	12/13/2007 2351			Final Weight/Volume:	50 mL
Date Prepared:	12/07/2007 1530				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		4.5		1.0
Barium		210		1.0
Beryllium		0.54		0.50
Cadmium		ND		0.50
Chromium		63		1.0
Cobalt		16		1.0
Copper		33		1.0
Lead		6.2		1.0
Molybdenum		ND		1.0
Nickel		120		1.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		1.0
Vanadium		29		1.0
Zinc		42		1.0

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method:	7471A	Analysis Batch:	720-29531	Instrument ID:	FIMS 100
Preparation:	7471A	Prep Batch:	720-29482	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	12/12/2007 1509			Final Weight/Volume:	50 mL
Date Prepared:	12/11/2007 1442				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.051

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>

# Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-2

## QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 720-29377</b>					
LCS 720-29377/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-29377/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
MB 720-29377/1-A	Method Blank	T	Solid	3050B	
720-12037-16	DP1-6@0	T	Solid	3050B	
<b>Prep Batch: 720-29482</b>					
LCS 720-29482/2-A	Lab Control Spike	T	Solid	7471A	
LCSD 720-29482/3-A	Lab Control Spike Duplicate	T	Solid	7471A	
MB 720-29482/1-A	Method Blank	T	Solid	7471A	
720-12037-16	DP1-6@0	T	Solid	7471A	
<b>Analysis Batch: 720-29531</b>					
LCS 720-29482/2-A	Lab Control Spike	T	Solid	7471A	720-29482
LCSD 720-29482/3-A	Lab Control Spike Duplicate	T	Solid	7471A	720-29482
MB 720-29482/1-A	Method Blank	T	Solid	7471A	720-29482
720-12037-16	DP1-6@0	T	Solid	7471A	720-29482
<b>Analysis Batch: 720-29548</b>					
LCS 720-29377/2-A	Lab Control Spike	T	Solid	6010B	720-29377
LCSD 720-29377/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-29377
MB 720-29377/1-A	Method Blank	T	Solid	6010B	720-29377
<b>Analysis Batch: 720-29592</b>					
720-12037-16	DP1-6@0	T	Solid	6010B	720-29377

### Report Basis

T = Total

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-2

### Method Blank - Batch: 720-29377

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-29377/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2220  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		2.0
Arsenic	ND		1.0
Barium	ND		1.0
Beryllium	ND		0.50
Cadmium	ND		0.50
Chromium	ND		1.0
Cobalt	ND		1.0
Copper	ND		1.0
Lead	ND		1.0
Molybdenum	ND		1.0
Nickel	ND		1.0
Selenium	ND		2.0
Silver	ND		1.0
Thallium	ND		1.0
Vanadium	ND		1.0
Zinc	ND		1.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-2

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29377

Method: 6010B  
Preparation: 3050B

LCS Lab Sample ID: LCS 720-29377/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2223  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29377/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 2227  
Date Prepared: 12/07/2007 1530

Analysis Batch: 720-29548  
Prep Batch: 720-29377  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.						LCS Qual	LCSD Qual
	LCS	LCSD	Limit	RPD	RPD Limit			
Antimony	99	101	80 - 120	2	20			
Arsenic	100	101	80 - 120	1	20			
Barium	94	95	80 - 120	1	20			
Beryllium	100	102	80 - 120	2	20			
Cadmium	94	95	80 - 120	1	20			
Chromium	98	100	80 - 120	1	20			
Cobalt	98	100	80 - 120	1	20			
Copper	100	102	80 - 120	2	20			
Lead	96	98	80 - 120	1	20			
Molybdenum	99	101	80 - 120	2	20			
Nickel	96	98	80 - 120	1	20			
Selenium	99	101	80 - 120	2	20			
Silver	102	103	80 - 120	1	20			
Thallium	95	97	80 - 120	1	20			
Vanadium	99	101	80 - 120	2	20			
Zinc	96	97	80 - 120	1	20			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12037-2

### Method Blank - Batch: 720-29482

**Method: 7471A**

**Preparation: 7471A**

Lab Sample ID: MB 720-29482/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1449  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.050

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29482

**Method: 7471A**

**Preparation: 7471A**

LCS Lab Sample ID: LCS 720-29482/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1451  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-29482/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/12/2007 1452  
Date Prepared: 12/11/2007 1442

Analysis Batch: 720-29531  
Prep Batch: 720-29482  
Units: mg/Kg

Instrument ID: FIMS 100  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	100	99	85 - 115	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.





## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12037-2

**Login Number: 12037**

**List Source: TestAmerica San Francisco**

**Creator: Lewis, Trenton L**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 720-12042-1

Job Description: Livermore HAZMAT Services

For:

Fugro West Incorporated  
1000 Broadway, Suite 440  
Oakland, CA 94607

Attention: Ms. Karen Emery

A handwritten signature in black ink that reads "Melissa Brewer".

---

Melissa Brewer  
Project Manager I  
melissa.brewer@testamericainc.com  
12/12/2007

**TestAmerica Laboratories, Inc.**

TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566

Tel (925) 484-1919 Fax (925) 484-1096 [www.testamericainc.com](http://www.testamericainc.com)

**Job Narrative  
720-J12042-1**

**Comments**

No additional comments.

**Receipt**

Received 2 TB's not on COC; analyze per client's e-mail 12/7/07.

All other samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Fugro West Incorporated

Job Number: 720-12042-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-12042-1	A1-2				
tert-Butylbenzene		2.2	1.0	ug/L	8260B
Tetrachloroethene		1.9	0.50	ug/L	8260B
720-12042-2	A1-2 DUP				
tert-Butylbenzene		2.7	1.0	ug/L	8260B
Tetrachloroethene		2.1	0.50	ug/L	8260B

## METHOD SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12042-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS (Low Level) Purge-and-Trap	TAL SF TAL SF	SW846 8260B SW846 5030B	

**Lab References:**

TAL SF = TestAmerica San Francisco

**Method References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: Fugro West Incorporated

Job Number: 720-12042-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-12042-1	A1-2	Water	12/04/2007 1400	12/04/2007 1727
720-12042-2	A1-2 DUP	Water	12/04/2007 1400	12/04/2007 1727
720-12042-3TB	TRIP BLANK	Water	12/04/2007 0000	12/04/2007 1727

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

**Client Sample ID:** A1-2

Lab Sample ID: 720-12042-1

Date Sampled: 12/04/2007 1400

Client Matrix: Water

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29432	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200712\121007\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1820			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1820				

Analyst	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	2.2		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

**Client Sample ID:** A1-2

Lab Sample ID: 720-12042-1

Date Sampled: 12/04/2007 1400

Client Matrix: Water

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29432	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200712\121007\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1820			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1820				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	1.9		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	115		83 - 127
1,2-Dichloroethane-d4 (Surr)	90		86 - 129
Toluene-d8 (Surr)	115		82 - 126

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

Client Sample ID: A1-2 DUP

Lab Sample ID: 720-12042-2

Client Matrix: Water

Date Sampled: 12/04/2007 1400

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29432	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200712\121007\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1853			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1853				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	2.7		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

Client Sample ID: A1-2 DUP

Lab Sample ID: 720-12042-2

Date Sampled: 12/04/2007 1400

Client Matrix: Water

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29432	Instrument ID:	Saturn 2K3
Preparation:	5030B			Lab File ID:	d:\data\200712\121007\SA-
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/10/2007 1853			Final Weight/Volume:	40 mL
Date Prepared:	12/10/2007 1853				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	2.1		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	119		83 - 127
1,2-Dichloroethane-d4 (Surr)	90		86 - 129
Toluene-d8 (Surr)	116		82 - 126

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

**Client Sample ID:** TRIP BLANK

Lab Sample ID: 720-12042-3TB

Date Sampled: 12/04/2007 0000

Client Matrix: Water

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29487	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/11/2007 1359			Final Weight/Volume:	40 mL
Date Prepared:	12/11/2007 1359				

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0

## Analytical Data

Client: Fugro West Incorporated

Job Number: 720-12042-1

**Client Sample ID:** TRIP BLANK

Lab Sample ID: 720-12042-3TB

Date Sampled: 12/04/2007 0000

Client Matrix: Water

Date Received: 12/04/2007 1727

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch:	720-29487	Instrument ID:	Varian 3900G
Preparation:	5030B			Lab File ID:	c:\saturnws\data\200712\12
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	12/11/2007 1359			Final Weight/Volume:	40 mL
Date Prepared:	12/11/2007 1359				

Analyte	Result (ug/L)	Qualifier	RL
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene	111		83 - 127
1,2-Dichloroethane-d4 (Surr)	98		86 - 129
Toluene-d8 (Surr)	102		82 - 126

## **DATA REPORTING QUALIFIERS**

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-29432</b>					
LCS 720-29432/2	Lab Control Spike	T	Water	8260B	
LCSD 720-29432/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-29432/3	Method Blank	T	Water	8260B	
720-12042-1	A1-2	T	Water	8260B	
720-12042-2	A1-2 DUP	T	Water	8260B	
<b>Analysis Batch:720-29487</b>					
LCS 720-29487/3	Lab Control Spike	T	Water	8260B	
LCSD 720-29487/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-29487/4	Method Blank	T	Water	8260B	
720-12042-3TB	TRIP BLANK	T	Water	8260B	

#### Report Basis

T = Total

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Method Blank - Batch: 720-29432

Lab Sample ID: MB 720-29432/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1205  
Date Prepared: 12/10/2007 1205

Analysis Batch: 720-29432  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: Saturn 2K3  
Lab File ID: d:\data\200712\121007\MB  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Method Blank - Batch: 720-29432

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29432/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1205  
Date Prepared: 12/10/2007 1205

Analysis Batch: 720-29432  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Saturn 2K3  
Lab File ID: d:\data\200712\121007\MB  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	121	83 - 127	
1,2-Dichloroethane-d4 (Surr)	95	86 - 129	
Toluene-d8 (Surr)	108	82 - 126	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29432

Method: 8260B  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-29432/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1058  
Date Prepared: 12/10/2007 1058

Analysis Batch: 720-29432  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Saturn 2K3  
Lab File ID: d:\data\200712\121007\LS-  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-29432/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2007 1131  
Date Prepared: 12/10/2007 1131

Analysis Batch: 720-29432  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Saturn 2K3  
Lab File ID: d:\data\200712\121007\LD-V  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	84	93	69 - 129	11	20		
Chlorobenzene	104	106	61 - 121	2	20		
1,1-Dichloroethene	84	92	65 - 125	9	20		
Toluene	84	92	70 - 130	8	20		
Trichloroethene	78	84	74 - 134	8	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	109		108		83 - 127		
1,2-Dichloroethane-d4 (Surr)	91		92		86 - 129		
Toluene-d8 (Surr)	96		95		82 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Method Blank - Batch: 720-29487

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29487/4

Analysis Batch: 720-29487

Instrument ID: Varian 3900G

Client Matrix: Water

Prep Batch: N/A

Lab File ID: c:\saturnws\data\200712\12

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 40 mL

Date Analyzed: 12/11/2007 1219

Final Weight/Volume: 40 mL

Date Prepared: 12/11/2007 1219

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
2-Butanone (MEK)	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Method Blank - Batch: 720-29487

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 720-29487/4

Analysis Batch: 720-29487

Instrument ID: Varian 3900G

Client Matrix: Water

Prep Batch: N/A

Lab File ID: c:\saturnws\data\200712\12

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 40 mL

Date Analyzed: 12/11/2007 1219

Final Weight/Volume: 40 mL

Date Prepared: 12/11/2007 1219

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
4-Methyl-2-pentanone (MIBK)	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	107	83 - 127	
1,2-Dichloroethane-d4 (Surr)	100	86 - 129	
Toluene-d8 (Surr)	102	82 - 126	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: Fugro West Incorporated

Job Number: 720-12042-1

### Lab Control Spike/ Lab Control Spike Duplicate Recovery Report - Batch: 720-29487

Method: 8260B  
Preparation: 5030B

LCS Lab Sample ID: LCS 720-29487/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/11/2007 1112  
Date Prepared: 12/11/2007 1112

Analysis Batch: 720-29487  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900G  
Lab File ID: c:\saturnws\data\200712\1  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-29487/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/11/2007 1146  
Date Prepared: 12/11/2007 1146

Analysis Batch: 720-29487  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900G  
Lab File ID: c:\saturnws\data\200712\121  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	86	95	69 - 129	9	20		
Chlorobenzene	98	107	61 - 121	9	20		
1,1-Dichloroethene	91	100	65 - 125	9	20		
Toluene	89	100	70 - 130	12	20		
Trichloroethene	82	97	74 - 134	16	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	110		105		83 - 127		
1,2-Dichloroethane-d4 (Surr)	103		101		86 - 129		
Toluene-d8 (Surr)	103		103		82 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Brewer, Melissa

---

**From:** Emery, Karen [FWI] [kemery@fugro.com]  
**Sent:** Friday, December 07, 2007 9:49 AM  
**To:** Brewer, Melissa  
**Subject:** RE: Sample Login Confirmation for 720-12042: Livermore HAZMAT Services

Hi Melissa-

They should have been listed on the COC. Please take them off of hold and analyze for VOCs.

Thanks,  
Karen

-----Original Message-----

**From:** Brewer, Melissa [mailto:[melissa.brewer@testamericainc.com](mailto:melissa.brewer@testamericainc.com)]  
**Sent:** Wednesday, December 05, 2007 5:46 PM  
**To:** Emery, Karen [FWI]  
**Subject:** Sample Login Confirmation for 720-12042: Livermore HAZMAT Services

Received 2 Trip Blanks that were not noted on the COC. We logged them in "on hold".

**Melissa Brewer**  
TestAmerica San Francisco  
(925) 484-1919  
[melissa.brewer@testamericainc.com](mailto:melissa.brewer@testamericainc.com)  
[www.testamericainc.com](http://www.testamericainc.com)  
THE LEADER IN ENVIRONMENTAL TESTING

Reference: [019915]  
Attachments: 3

Confidentiality Notice: The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.



## Login Sample Receipt Check List

Client: Fugro West Incorporated

Job Number: 720-12042-1

**Login Number: 12042**

**List Source: TestAmerica San Francisco**

**Creator: Lewis, Trenton L**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	See Narrative
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

**APPENDIX D  
LIMITED SUBSURFACE ASSESSMENT REPORT DATED MAY 22, 2006**

**CONFIDENTIAL**GEOTECHNICAL  
ENVIRONMENTAL  
WATER RESOURCES  
CONSTRUCTION SERVICESProject No.  
**6907.1.004.02**

May 22, 2006

Mr. Eric Keller  
Livermore Chestnut Associates, LLC  
c/o Arroyo Crossing, Inc  
2001 Windward Way, Suite 200  
San Mateo, CA 94404

Subject: M Street Parcel  
241 North M Street  
Livermore, California

**LIMITED SUBSURFACE ASSESSMENT**

Dear Mr. Keller:

ENGeo Incorporated is pleased to present our subsurface assessment of the subject property, located in Livermore, California (Figure 1). The purpose of the study was to provide an assessment of potential impacts and environmental concerns associated with the operations of the D&M Auto Parts Machine Shop.

**SCOPE OF WORK**

The scope of work included the following:

- Advance of three ±7.5-foot-deep direct push boring with the collection of three-to-four soil samples.
- Laboratory analysis of the soil samples for Total Petroleum Hydrocarbons (EPA 8015m) and Volatile Organic Compounds (VOCs - EPA 8260).
- Preparation of a summary report with our conclusions and recommendations.

**BACKGROUND**

We understand the current machine shop has been in operation since the 1970's. The current operator, Gene Hale, has managed the facility for approximately 37 years. A room along the southeastern edge of the building is used to wash and rinse parts directly into a floor drain, which was connected directly to the municipal sewer. Approximately five years ago, the City of Livermore informed the property owner that he was no longer allowed to discharge his waster to the

Livermore Chestnut Associates, LLC  
M Street Parcel  
LIMITED SUBSURFACE ASSESSMENT

6907.1.004.02  
May 22, 2006  
Page 2

Livermore informed the property owner that he was no longer allowed to discharge his waster to the sewer and that the drain needed to be plugged. Currently, the drain is used to hold the discharge until it is pumped to a tank where it is steamed away.

### SOIL SAMPLING

Sampling activities were conducted on May 18, 2006. Two of the three borings were located approximately within 10 inches of the northeast and southwest sides of the existing plugged drain. The third boring was located within 8 inches north of the sewer line on the outer east side of the building (Figure 2). A total of 11 soil samples were retrieved using a proprietary penetrometer-percussion probe. Drilling was performed under the direction of an ENGEO Environmental Geologist. Sampling equipment was cleaned with Alquinox and rinsed with distilled water.

Soil samples taken next to the plugged drain were recovered at depths of 1.5, 3, 4.5 and 7.5 feet below the concrete floor surface. Soil samples taken outside of the building near the sewer line were recovered at 1.5, 4.5 and 7.5 feet. The samples were retrieved in clean  $\frac{3}{4}$ -inch by 6-inch brass liners, which were sealed with Teflon tape and plastic end caps. Following recovery, the samples were labeled and preserved in a cooled ice chest for transportation to McCampbell Analytical, Inc. in Pacheco, California. The deeper samples from each of the borings were held pending laboratory testing of the shallow soil samples. Soils consisted of grayish brown clays with fine to coarse gravel, with a layer of light yellowish brown sandstone at approximately 6 feet below ground surface. No water was encountered in the boring.

### LABORATORY ANALYSIS

Soil samples were analyzed for Volatile Organic Compounds (VOCs) according to EPA Test Method 8260B and Total Recoverable Petroleum Hydrocarbons according to EPA 418.1. No VOCs were reported above the laboratory reporting limit. Petroleum hydrocarbons were reported for two of the soil samples, at concentrations of 140 and 230 milligrams per kilogram (mg/kg). These concentrations are below the current Environmental Screening Level (ESL) of 400 mg/kg maintained by the San Francisco Regional Water Quality Control Board (SFRWQCB).

### ASSESSMENT FINDINGS

Based on a review of the field and laboratory data, there is no evidence of significant subsurface impacts associated with the D & M facility. ENGEO recommends that the property is viewed by an environmental professional during demolition activities.

Livermore Chestnut Associates, LLC  
M Street Parcel  
LIMITED SUBSURFACE ASSESSMENT

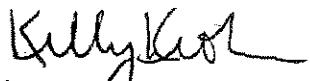
6907.1.004.02  
May 22, 2006  
Page 3

If you have any questions regarding this letter, please do not hesitate to contact us.

Very truly yours,

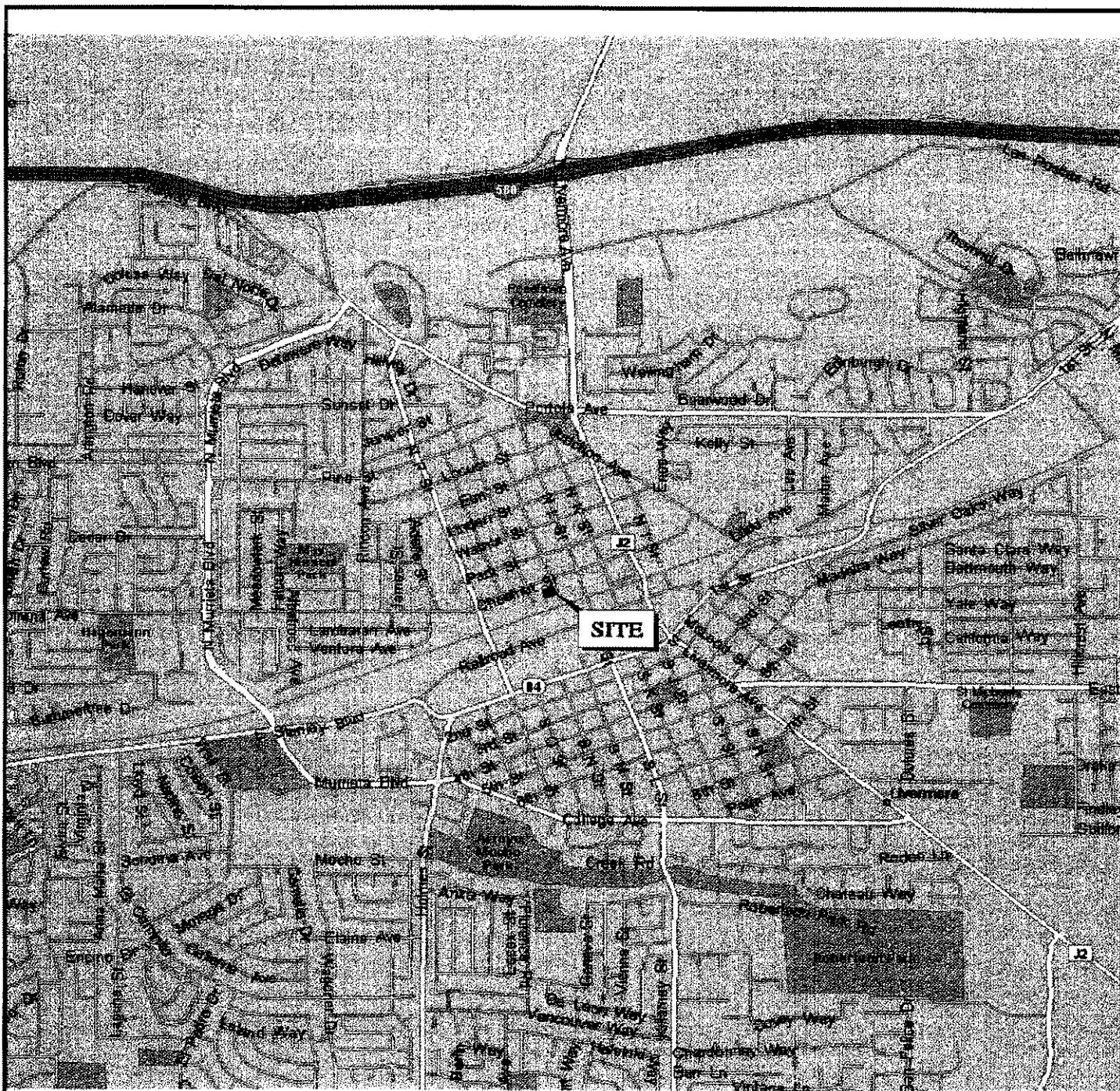
ENGEO INCORPORATED

Reviewed by:

  
Rachel Sultan  
rs/smc:limited

  
Shawn Munger, PG

Attachments: Figures  
McCampbell Analytical Test Results



0 FEET 2000  
0 METERS 1000

BASE MAP SOURCE: MS STREETS AND TRIPS

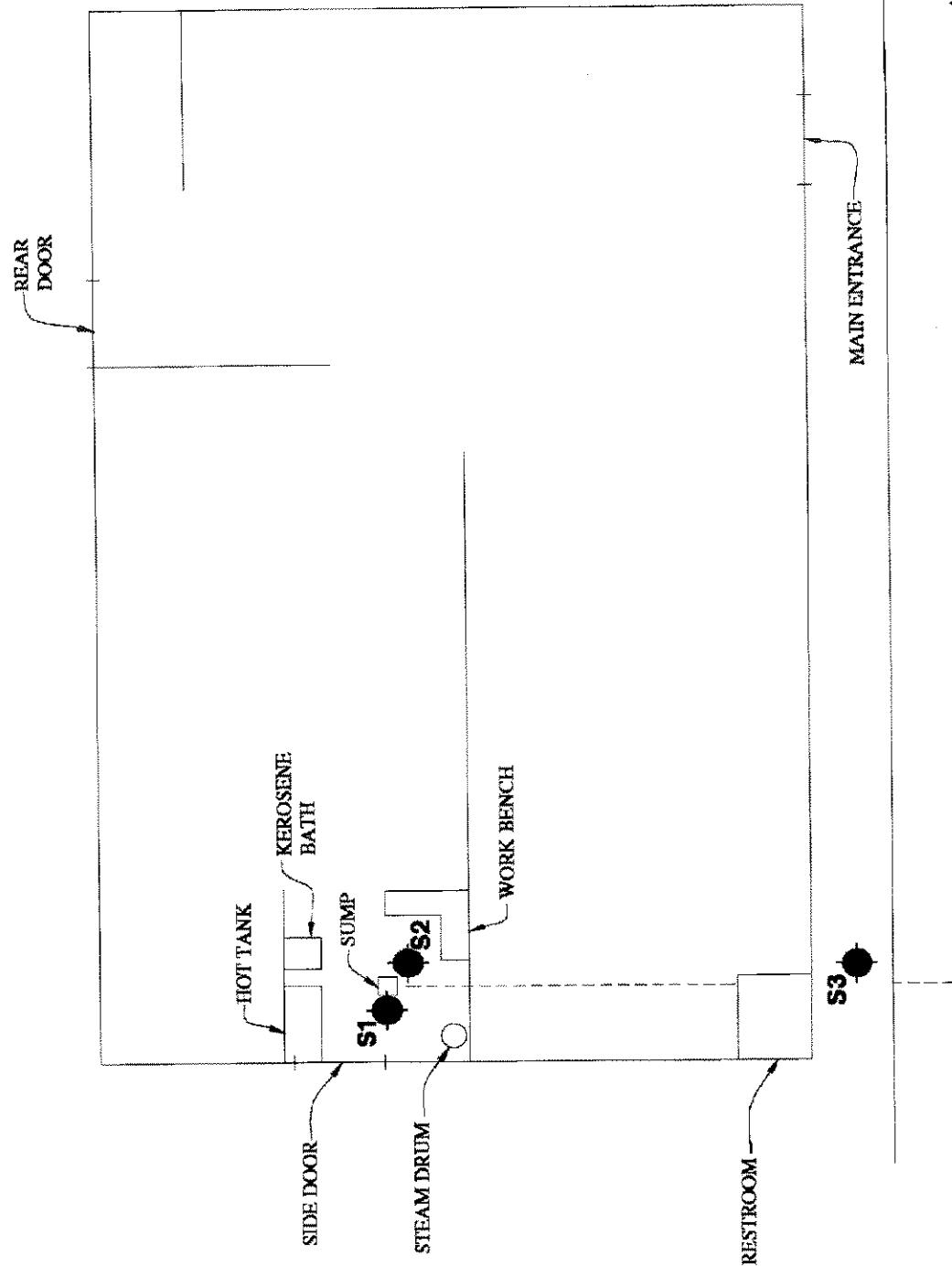
**ENGEO**  
INCORPORATED  
EXCELLENT SERVICE SINCE 1971

VICINITY MAP  
M STREET PARCEL  
LIVERMORE, CALIFORNIA

PROJECT NO.: 6907.1.004.02	FIGURE NO. <b>1</b>
DATE: MAY 2006	
DRAWN BY: SRP      CHECKED BY: SM	

ORIGINAL FIGURE PRINTED IN COLOR

C:\Drafting\DRAWINGS\DWG\6907\004\6907.1.004.02-LSA-1-View sp-USGS.dwg 5-26-06 04:29:10 PM

EXPLANATION

**S3** APPROXIMATE LOCATION OF  
PROPOSED SAMPLE

<b>ENGEO</b> <small>INCORPORATED EXCELLENT SERVICE SINCE 1971</small>	<b>SITE PLAN</b>	
	PROJECT NO.:	6907.1.004.02
	DATE:	MAY 2006
DRAWN BY: SRP	CHECKED BY: SM	FIGURE NO. 2



NO SCALE

0605386

**McCAMPBELL ANALYTICAL, INC.**

116 2nd Avenue South, #D7

PACIFICO, CA 94553-5560

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: main@mccampbell.com

Telephone: (925) 798-1620 Fax: (925) 798-1622

Report To: Swann Manager Bill To: ENSCOCompany: ENSCOTele: (925) 846-9050 E-Mail: Swanner@ensco.com

Fax: ( )

Project #: 6107.1.002.04Project Location: M Street Parcel LivermoreSampler Signature: P

CHAIN OF CUSTODY RECORD									
TURN AROUND TIME			EDF Required? Coel (Normal)			Analysis Request			
			RUSH	24 HR	48 HR	72 HR	5 DAY	No	Write On (DW)
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Contaminants	Type Contaminants	MATRIX	METHOD	OTHER	Comments
B1-a	1.5 ft	10:02	1	8x	X				
B1-b	3 ft	9:59	1						
B1-c	4.5 ft	10:08	1						
B1-d	7.5 ft	10:19	1						
B2-a	1.5 ft	9:41	1						
B2-b	3.5 ft	9:35	1						
B2-c	4.5 ft	9:38	1						
B2-d	7.5 ft	9:45	1						
B3-a	1.5 ft	10:28	1						
B3-b	4.5 ft	10:38	1						
B3-c	7.5 ft	10:48	1						
Relinquished By:	<u>J. Swanner</u>	Date:	Time:	Received By:	ICER® GOOD CONDITION HEADSPACE ABSENT DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB				
Relinquished By:	<u>J. Swanner</u>	Date:	Time:	Received By:	ICER® GOOD CONDITION HEADSPACE ABSENT DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB				
Relinquished By:	<u>J. Swanner</u>	Date:	Time:	Received By:	VOAS O&G METALS OTHER				

COMMENTS:

PZ 1 of 1

PRESERVATION VOAS O&amp;G METALS OTHER pH&lt;2

**McCampbell Analytical, Inc.**

110 Second Avenue South, #D7  
Pacheco, CA 94553-5560  


# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0605386

ClientID: ENGE

EDF: NO

Report to:  
**Shawn Munger**  
**ENGeo Incorporated**  
**2010 Crow Canyon Place, Ste 250**  
**San Ramon, CA 94583-4634**

TEL: (925) 866-9000  
 FAX: (925) 866-0199  
 ProjectNo: #6907.1.002.04; M Street Parcel, Livermore  
 PO:

Bill to:  
  
Accounts Payable

ENGeo Incorporated

2010 Crow Canyon Place, Ste 250  
San Ramon, CA 94583-4634

Date Received: 05/18/2006

Date Printed: 05/19/2006

Sample ID ClientSampID

Matrix Collection Date Hold

1 2 3 4 5 6 7 8 9 10 11 12

Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0605386-001	B1-a	Soil	5/18/06 10:02:00	<input type="checkbox"/>	A	A										
0605386-002	B1-b	Soil	5/18/06 9:59:00 AM	<input type="checkbox"/>	A	A										
0605386-003	B1-c	Soil	5/18/06 10:08:00	<input type="checkbox"/>	A	A										
0605386-005	B2-a	Soil	5/18/06 9:41:00 AM	<input type="checkbox"/>	A	A										
0605386-006	B2-b	Soil	5/18/06 9:35:00 AM	<input type="checkbox"/>	A	A										
0605386-007	B2-c	Soil	5/18/06 9:38:00 AM	<input type="checkbox"/>	A	A										
0605386-008	B3-a	Soil	5/18/06 10:28:00	<input type="checkbox"/>	A	A										
0605386-010	B3-b	Soil	5/18/06 10:38:00	<input type="checkbox"/>	A	A										

Test Legend:

1	418 SG S	2	8260B_S	3	4	5
6		7		8	9	10
11		12				

Comments:  
 Prepared by: Maria Venegas

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

 <b>McC Campbell Analytical, Inc.</b>			110 2nd Avenue South, #D7, Pacheco, CA 94553-3560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com			
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634	Client Project ID: #6907.1.002.04; M Street Parcel, Livermore		Date Sampled: 05/18/06 Date Received: 05/18/06			
	Client Contact: Shawn Munger		Date Extracted: 05/18/06			
	Client P.O.:		Date Analyzed: 05/19/06			
	<b>Total Recoverable Petroleum Hydrocarbons with Silica Gel Clean-Up by IR Spectrometry*</b> <small>Analytical method: E418.1 Work Order: 0605386</small>					
Lab ID	Client ID	Matrix	TRPH		DF	% SS
0605386-001A	B1-a	S	ND		1	100
0605386-002A	B1-b	S	ND		1	102
0605386-003A	B1-c	S	ND		1	103
0605386-005A	B2-a	S	230		1	102
0605386-006A	B2-b	S	140		1	106
0605386-007A	B2-c	S	ND		1	104
0605386-009A	B3-a	S	ND		1	104
0605386-010A	B3-b	S	ND		1	102
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	NA		NA	
		S	10		mg/Kg	
* water samples and all TCLP & SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.						
DF = dilution factor (may be raised to dilute target analyte or matrix interference).						
# surrogate diluted out of range or not applicable to this sample.						
g) sample extract repeatedly cleaned up with silica gel until constant IR result achieved; h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) results are reported on a dry weight basis.						

DHS Certification No. 1644

 Angela Rydelius, Lab Manager

 <b>McC Campbell Analytical, Inc.</b>				110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com			
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634		Client Project ID: #6907.1.002.04; M Street Parcel, Livermore		Date Sampled: 05/18/06			
				Date Received: 05/18/06			
		Client Contact: Shawn Munger		Date Extracted: 05/18/06			
		Client P.O.:		Date Analyzed: 05/20/06			
<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
Extraction Method: SW5030B		Analytical Method: SW8260B		Work Order: 0605386			
Lab ID	0605386-001A						
Client ID	B1-a						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	Bromomethane	ND	1.0	0.005
n-Butyl benzene	ND	1.0	0.005	t-Butyl alcohol (TBA)	ND	1.0	0.05
tert-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroform	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
2-Chlorotoluene	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
Dibromochloromethane	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethene	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	1,2-Dichloropropene	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	2,2-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	Hexachlorobutadiene	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	Naphthalene	ND	1.0	0.005
Styrene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
Toluene	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,2,3-Trichloropropene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
				Xylenes	ND	1.0	0.005
Surrogate Recoveries (%)							
%SS1:	80			%SS2:			103
%SS3:	111						
Comments:							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.							
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

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ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634	Client Project ID: #6907.1.002.04; M Street Parcel, Livermore			Date Sampled: 05/18/06 Date Received: 05/18/06 Client Contact: Shawn Munger Client P.O.:				
				Date Extracted: 05/18/06 Date Analyzed: 05/20/06				
	<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
	Extraction Method: SW5030B		Analytical Method: SW8260B			Work Order: 0605386		
Lab ID	0605386-002A							
Client ID	B1-b							
Matrix	Soil							
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit	
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05	
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005	
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005	
Bromoform	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005	
2-Butanone (MEK)	ND	1.0	0.02	Bromomethane	ND	1.0	0.005	
n-Butyl benzene	ND	1.0	0.005	t-Butyl alcohol (TBA)	ND	1.0	0.05	
tert-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005	
Carbon Tetrachloride	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005	
Chloroethane	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005	
Chloroform	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01	
2-Chlorotoluene	ND	1.0	0.005	Chloromethane	ND	1.0	0.005	
Dibromochloromethane	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005	
1,2-Dibromoethane (EDB)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005	
1,2-Dichlorobenzene	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005	
1,4-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005	
1,1-Dichloroethane	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005	
1,1-Dichloroethene	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005	
trans-1,2-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005	
1,3-Dichloropropane	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005	
1,1-Dichloropropene	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005	
trans-1,3-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005	
Ethylbenzene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005	
Freon 113	ND	1.0	0.1	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	
Hexachloroethane	ND	1.0	0.005	Hexachlorobutadiene	ND	1.0	0.005	
Isopropylbenzene	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005	
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005	
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005	
Nitrobenzene	ND	1.0	0.1	Naphthalene	ND	1.0	0.005	
Styrene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005	
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005	
Toluene	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005	
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005	
1,1,2-Trichloroethane	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005	
Trichlorofluoromethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005	
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005	
Vinyl Chloride	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005	
				Xylenes	ND	1.0	0.005	
Surrogate Recoveries (%)								
%SS1:	80				%SS2:	99		
%SS3:	110							
Comments:								
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.								
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.								
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.								
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.								

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ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634		Client Project ID: #6907.1.002.04; M Street Parcel, Livermore		Date Sampled: 05/18/06			
		Client Contact: Shawn Munger		Date Received: 05/18/06			
		Client P.O.:		Date Extracted: 05/18/06			
				Date Analyzed: 05/20/06			
<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
Extraction Method: SW5030B		Analytical Method: SW8260B		Work Order: 0605386			
Lab ID	0605386-003A						
Client ID	B1-c						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromo-chloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromo-chloromethane	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
1,1-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIBE)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl tolene	ND	1.0	0.005
Methyl- <i>t</i> -butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005
Surrogate Recoveries (%)							
%SS1:	82			%SS2:			100
%SS3:	111						
Comments:							
* water and vapor samples are reported in $\mu\text{g}/\text{L}$ , soil/sludge/solid samples in $\text{mg}/\text{kg}$ , product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in $\text{mg}/\text{L}$ , wipe samples in $\mu\text{g}/\text{wipe}$ .							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.							
(h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

 <b>McC Campbell Analytical, Inc.</b>				110 2nd Avenue South, #D7, Pacheco, CA 94555-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com			
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634	Client Project ID: #6907.1.002.04; M Street Parcel, Livermore			Date Sampled: 05/18/06			
				Date Received: 05/18/06			
	Client Contact: Shawn Munger			Date Extracted: 05/18/06			
	Client P.O.:			Date Analyzed: 05/20/06			
<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
Extraction Method: SW5030B		Analytical Method: SW8260B		Work Order: 0605386			
Lab ID	0605386-005A						
Client ID	B2-a						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromo(chloromethane)	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromo(chloromethane)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
1,1-Dichloroethylene	ND	1.0	0.005	cis-1,2-Dichloroethylene	ND	1.0	0.005
trans-1,2-Dichloroethylene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethylene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethylene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005
<b>Surrogate Recoveries (%)</b>							
%SS1:	81	%SS2:			100		
%SS3:	111						
Comments:							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.							
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

 <b>McCormick Analytical, Inc.</b>				110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccormick.com E-mail: main@mccormick.com			
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634		Client Project ID: #6907.1.002.04; M-Street Parcel, Livermore		Date Sampled: 05/18/06			
		Client Contact: Shawn Munger		Date Received: 05/18/06			
		Client P.O.:		Date Extracted: 05/18/06			
				Date Analyzed: 05/20/06			
<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
Extraction Method: SW5030B		Analytical Method: SW8260B		Work Order: 0605386			
Lab ID	0605386-006A						
Client ID	B2-b						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Butyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromochloromethane	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
1,1-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-1-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propylbenzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005
<b>Surrogate Recoveries (%)</b>							
%SS1:	82			%SS2:		100	
%SS3:	111						
<b>Comments:</b>							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.							
b) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

 <b>McC Campbell Analytical, Inc.</b>		110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1612 Website: www.mccampbell.com E-mail: main@mccampbell.com					
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634		Client Project ID: #6907.1.002.04; M Street Parcel, Livermore			Date Sampled: 05/18/06		
					Date Received: 05/18/06		
		Client Contact: Shawn Munger			Date Extracted: 05/18/06		
		Client P.O.:			Date Analyzed: 05/19/06		
<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>							
Extraction Method: SW5030B		Analytical Method: SW8260B			Work Order: 0605386		
Lab ID	0605386-007A						
Client ID	B2-c						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	Bromomethane	ND	1.0	0.005
n-Butyl benzene	ND	1.0	0.005	t-Butyl alcohol (TBA)	ND	1.0	0.05
tert-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroform	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
2-Chlorotoluene	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
Dibromochloromethane	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethene	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	2,2-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Diisopropyl ether (DPE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	Hexachlorobutadiene	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Methyl- <i>t</i> -butyl ether (MTBE)	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	Naphthalene	ND	1.0	0.005
Styrene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
Toluene	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
				Xylenes	ND	1.0	0.005
Surrogate Recoveries (%)							
%SS1:	93	%SS2:			99		
%SS3:	104						
Comments:							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &c) low surrogate due to matrix interference.							
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

 <b>McC Campbell Analytical, Inc.</b>				110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com			
ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634	Client Project ID: #6907.1.002.04; M Street Parcel, Livermore			Date Sampled: 05/18/06 Date Received: 05/18/06 Client Contact: Shawn Munger Client P.O.:			
				Date Extracted: 05/18/06 Date Analyzed: 05/19/06			
	<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b>						
	Extraction Method: SW5030B		Analytical Method: SW8260B			Work Order: 0605386	
Lab ID	0605386-009A						
Client ID	B3-a						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromo(chloromethane)	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromo(chloromethane)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
1,1-Dichloroethylene	ND	1.0	0.005	cis-1,2-Dichloroethylene	ND	1.0	0.005
trans-1,2-Dichloroethylene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Di(isopropyl ether (DIPE))	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyltoluene	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzenes	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethylene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethylene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005
Surrogate Recoveries (%)							
%SS1:	94				%SS2:	99	
%SS3:	106						
Comments:							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.							
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							

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ENGEO Incorporated  2010 Crow Canyon Place, Ste 250  San Ramon, CA 94583-4634	Client Project ID: #6907.1.002.04; M Street Parcel, Livermore			Date Sampled: 05/18/06 Date Received: 05/18/06 Date Extracted: 05/18/06 Date Analyzed: 05/19/06			
	Client Contact: Shawn Munger						
	Client P.O.:						
	<b>Volatile Organics by P&amp;T and GC/MS (Basic Target List)*</b> Extraction Method: SW5030B      Analytical Method: SW8260B      Work Order: 0605386						
Lab ID	0605386-010A						
Client ID	B3-b						
Matrix	Soil						
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	Bromomethane	ND	1.0	0.005
n-Butyl benzene	ND	1.0	0.005	1-Butyl alcohol (TBA)	ND	1.0	0.05
tert-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroform	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
2-Chlorotoluene	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
Dibromoform	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
1,2-Dibromoethane (EDB)	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	Dibromomethane	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethene	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIEP)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
Methyl- <i>t</i> -butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes	ND	1.0	0.005
<b>Surrogate Recoveries (%)</b>							
%SS1:	93	%SS2:			98		
%SS3:	105						
<b>Comments:</b>							
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.							
ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.							
# surrogate diluted out of range or coelutes with another peak; & low surrogate due to matrix interference.							
h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.							



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## QC SUMMARY REPORT FOR E418.1

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0605386

EPA Method: E418.1		Extraction: SW3550_TRPH			BatchID: 21761			Spiked Sample ID: 0605386-002A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TRPH	ND	20.8	125	125	0	111	111	0	70 - 130	70 - 130
%SS:	100	100	110	110	0	95	96	1.05	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 21761 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0605386-001A	5/18/06 10:02 AM	5/18/06	5/19/06 10:46 AM	0605386-002A	5/18/06 9:59 AM	5/18/06	5/19/06 10:51 AM
0605386-003A	5/18/06 10:08 AM	5/18/06	5/19/06 10:56 AM	0605386-005A	5/18/06 9:41 AM	5/18/06	5/19/06 11:01 AM
0605386-006A	5/18/06 9:35 AM	5/18/06	5/19/06 11:06 AM	0605386-007A	5/18/06 9:38 AM	5/18/06	5/19/06 11:11 AM
0605386-009A	5/18/06 10:28 AM	5/18/06	5/19/06 11:16 AM	0605386-010A	5/18/06 10:38 AM	5/18/06	5/19/06 11:21 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or % RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range.

DHS Certification No. 1644


 QA/QC Officer



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## QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0605386

EPA Method: SW8260B		Extraction: SW5030B		BatchID: 21762		Spiked Sample ID: 0605386-002A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	0.050	96.5	98.5	2.05	105	107	1.78	70 - 130	70 - 130
Benzene	ND	0.050	114	115	0.971	119	117	1.13	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	0.25	119	110	8.06	114	99.8	13.7	70 - 130	70 - 130
Chlorobenzene	ND	0.050	91.8	90	1.95	95.4	95.5	0.109	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	0.050	118	116	1.49	119	118	0.935	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	101	103	1.68	110	114	3.58	70 - 130	70 - 130
1,1-Dichloroethene	ND	0.050	109	105	3.82	115	118	2.46	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	0.050	112	111	1.18	117	118	0.916	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	0.050	97.7	98.8	1.10	106	109	2.95	70 - 130	70 - 130
Methyl t-butyl ether (MTBE)	ND	0.050	105	107	2.17	115	119	2.91	70 - 130	70 - 130
Toluene	ND	0.050	103	98.4	4.57	105	105	0	70 - 130	70 - 130
Trichloroethene	ND	0.050	80.5	82.8	2.90	88.7	90.2	1.72	70 - 130	70 - 130
%SS1:	90	0.050	107	106	0.604	106	106	0	70 - 130	70 - 130
%SS2:	90	0.050	97	92	5.16	93	92	1.48	70 - 130	70 - 130
%SS3:	99	0.050	103	101	2.22	101	101	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

## BATCH 21762 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0605386-001A	5/18/06 10:02 AM	5/18/06	5/20/06 6:03 AM	0605386-002A	5/18/06 9:59 AM	5/18/06	5/20/06 6:47 AM
0605386-003A	5/18/06 10:08 AM	5/18/06	5/20/06 7:30 AM	0605386-005A	5/18/06 9:41 AM	5/18/06	5/20/06 8:14 AM
0605386-006A	5/18/06 9:35 AM	5/18/06	5/20/06 8:58 AM	0605386-007A	5/18/06 9:38 AM	5/18/06	5/19/06 5:28 AM
0605386-009A	5/18/06 10:28 AM	5/18/06	5/19/06 6:10 AM	0605386-010A	5/18/06 10:38 AM	5/18/06	5/19/06 6:52 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

 QA/QC Officer