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Transmittal

To: Design Alaska

Address: 601 College Road

Fairbanks, Alaska 99701

Attn: Mr. Mike Dean

Date: April 9, 2009

Job # 31-1-02124-001

Re: Wells Fargo Bank Bentley Branch

renovation and addition, Fairbanks, AK

The following items are enclosed:

Copies	Description
1	GEOTECHNICAL STUDY WELLS FARGO BANK BENTLEY BRANCH RENOVATION AND ADDITION, FAIRBANKS, AK

These are transmitted:

X As requested ☐ For your use ☐ For your information

☐ For review and comment ☐ For your action **X** For your files

Comments:

Copies to: **Bill Brookins**
Leslie Crawford

By: Stephen Adamczak Jr., P.E.
Title: Vice President

GEOTECHNICAL STUDY
WELLS FARGO BENTLEY BRANCH BANK
RENOVATION AND ADDITION
FAIRBANKS, ALASKA

April 2009

Submitted To:
Design Alaska
601 College Road
Fairbanks, Alaska 99701

By:
Shannon & Wilson, Inc.
2355 Hill Road
Fairbanks, Alaska 99709-5326

31-1-02124-001

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GEOTECHNICAL STUDY
WELLS FARGO BENTLEY BRANCH RENOVATION AND ADDITION
FAIRBANKS, ALASKA

1.0 INTRODUCTION

1.1 Purpose and Scope

This report describes the results of our geotechnical and environmental studies for your proposed renovation of and addition to the Wells Fargo Bank Bentley Branch at the Bentley Mall, off College Road, in Fairbanks Alaska. The purpose of our studies was to obtain information on which to base our foundation engineering recommendations, determine whether the soils under the proposed building expansion are contaminated, and provide pre-construction excavation, testing, and handling methods for potentially contaminated soils. The scope of our environmental services was limited to assess whether the soils were contaminated, and not to define the extent of contamination.

Our work for this project was in general accordance with our proposal dated January 21, 2009. We received authorization to proceed with the proposed work from Mr. Jack B. Wilbur of Design Alaska, on February 26, 2009.

1.2 Project Understanding

We understand a 20-foot-wide addition and expanded parking area are proposed on the east side of the existing Wells Fargo Bank Bentley Branch. We further understand past investigations by others indicate the soil and groundwater at the site may be contaminated with perchloroethylene (PCE). It is believed the PCE originated at a local laundromat and was released into the soil via a nearby sewer line.

2.0 FIELD AND LABORATORY STUDIES

2.1 Field Exploration

We drilled two exploratory borings and collected one grab sample on March 5, 2009. The two borings were drilled to approximately 14 feet, designated 09-1 and 09-2, and provided both

geotechnical and environmental information. We collected a grab sample from approximately 2.5 feet for analytical testing. We located the borings and grab-sample location in the field using a hand-held global positioning system (GPS) and referencing existing site features. A site plan displaying our boring and grab-sample locations is shown in Figure 1. Logs of the borings displaying the soil conditions we encountered are presented in Appendix A.

Our subcontractor, Homestead Drilling of Fairbanks (Homestead), completed the borings and grab-sample test hole using a truck-mounted Mobile B-61 drilling rig equipped with 8-inch outside-diameter (O.D.) hollow-stem augers. Chuck Schulz, an engineer with our firm, observed and logged drilling operations. As the borings progressed, we generally obtained samples at 2.5-foot-depth intervals using a split-spoon sampler driven into the soil at the base of the auger hole with a drop-hammer falling 30 inches onto the drill rods. We used a 3-inch O.D. by 2½-inch inside-diameter (I.D.) split-spoon and a 340-pound hammer to collect soil samples from the borings. For each sample, the number of blows required to advance the sampler the final 12 inches of an 18-inch sample is termed the penetration resistance; this is a measure of the relative consistency of unfrozen fine-grained soils and the relative density of unfrozen granular soils. The 2.5-foot grab sample was obtained by auguring approximately 2.5 feet and collecting the soil cuttings.

Geotechnical soil samples recovered using the techniques described above were classified in the field, sealed in airtight containers, and returned to our laboratory in Fairbanks for testing. A description of our soil classification system is included in Appendix B.

2.2 Geotechnical Laboratory Testing

The visual soil classifications were checked at our laboratory; we prepared selected samples for testing. Our laboratory-testing program consists of 12 moisture content tests and six gradation analyses. Moisture-content values are plotted on the boring logs in Appendix A. Grain-size distribution curves are presented in Appendix B.

2.3 Environmental Sampling and Testing

Kristen Williams, an environmental scientist from our firm, collected the analytical soil samples as the drilling progressed. She collected a portion of each split-spoon sample from below a depth of 5 feet, in each of the borings, and a single sample from a depth of 2.5 feet at the test-hole location. A total of nine soil samples and one duplicate quality control (QC) sample were

collected for chemical analysis. We collected the samples in general accordance with Alaska Department of Environmental Conservation (ADEC) regulations and guidance documents. The samples were labeled with the date, time, and analysis requested, field-preserved with methanol, and placed in hard plastic coolers with adequate quantities of ice substitute to maintain sample temperatures between at 2 ºC and 6 ºC until the samples reached the laboratory. We packed a "temperature blank" with the samples in each cooler. We maintained custody of the samples at all times prior to submitting them to SGS Environmental Services, Inc. (SGS).

The results of the analytical testing are discussed in Section 4.0.

3.0 SITE CONDITIONS

3.1 Geologic Setting

Fairbanks is within the Tanana Lowlands physiographic province, which forms a large arcuate band of alluvial sediments between the Alaska Range and the Yukon-Tanana Uplands. The Lowlands consist of vegetated floodplains and low benches cut by the Tanana River, and sloughs and oxbow lakes representing former channel positions of the Tanana River or its tributaries. Soils in the Lowlands typically consist of interbedded alluvial sands and gravels covered by silty overbank deposits. The thickness of the alluvial sediments overlying bedrock in the vicinity of the project is unknown, but has been estimated to be as great as 400 feet to 500 feet in the Fairbanks area. Former slough channels are commonly filled with organic silt and peat deposits, which are laterally discontinuous and vary in thickness. The portion of the Tanana Lowlands in which the site is located has not been glaciated.

The area is within a subarctic zone underlain by discontinuous permafrost. Permafrost is defined as ground that has remained at a temperature of 32 ºF or less for two or more years. The maximum depth of permafrost measured in the Fairbanks area may exceed 200 feet. The thickness of the active layer (the near-surface ground which undergoes an annual freeze-thaw cycle) is largely dependent upon soil type, ground cover, and snow depth. Frost-penetration beneath roads, parking lots, and other areas kept clear of snow can exceed 10 feet; whereas, frost-penetration in areas covered by organic material or snow is typically 3 feet to 5 feet.

3.2 Surface Conditions

The project site lies on a relatively flat, asphalt-surfaced parking lot that provides parking for Wells Fargo Bank patrons. At the time of drilling, there was approximately 2 inches to 4 inches of snow hard-pack and ice on the asphalt surface.

3.3 Subsurface Conditions

Subsurface conditions observed during our explorations generally consisted of approximately 1.5 feet to 2 feet of slightly silty to silty sand and gravel fill overlying approximately 5 feet of silty sand. We encountered relatively clean sand at approximately 7 feet to 9.5 feet, extending to the depths explored. There is an approximate 2-inch-thick layer of asphalt-concrete pavement at the surface.

We observed approximately 9 feet of seasonal frost during drilling.

We did not observe groundwater at the depths explored; however, past studies indicate the water table is approximately 16 feet to 17 feet below the surface. The regional groundwater table in the area is expected to fluctuate seasonally with the stages of the Chena River. The highest groundwater levels may occur after spring breakup and during periods of extensive rainfall in the drainage basin headwaters; the groundwater levels may drop throughout the fall and winter months, reaching their lowest levels just before spring breakup. We do not expect groundwater to be encountered during construction.

The following section discusses the results of our environmental studies.

4.0 ENVIRONMENTAL STUDIES

As noted earlier, we collected nine analytical soil samples, submitting them to SGS for laboratory analysis. SGS analyzed the samples to determine concentrations of volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260B.

The samples were field-preserved with methanol upon collection, in accordance with laboratory protocol. A trip blank, analyzed for the presence of VOCs to check for possible contamination of samples from a non-project source, was also included with the samples.

4.1 Analytical Results

Perchloroethylene (PCE) was detected in each of the nine samples submitted for analysis. PCE concentrations ranged from 0.131 mg/kg in the 2.5-foot grab sample, to 2.20 mg/kg at 7.5 feet to 9 feet in Boring 2. The ADEC Method 2 Table B1 migration-to-groundwater cleanup level for PCE is 0.024 mg/kg; all nine samples exceeded this cleanup level. A summary of VOC results is presented in Table 1; the SGS laboratory report is included as Appendix C.

4.2 Data Quality

We performed our standard quality assurance/quality control (QA/QC) review and completed an ADEC data-quality review checklist (Appendix D). Our review included assessing the accuracy, precision, and completeness of analytical results, as well as reviewing laboratory receipt and chain-of-custody forms.

Our QA/QC review did not identify any sample-handling anomalies affecting data quality. Sample *2124-030509-009* was analyzed out of hold-time for PCE, and should be considered biased low. This sample's result was above the ADEC cleanup level, so the usability of the result was not affected. Practical quantitation limits (PQLs) were elevated for several VOC analytes, but PCE PQLs were acceptable. Quality-control sample results indicated the PCE analysis was accurate and precise, and completeness objectives were met.

4.3 Discussion

The soil analyses indicate the soil in the vicinity of the proposed improvement is contaminated with PCE above the ADEC migration-to-groundwater cleanup level. This contamination is distributed vertically from at least 5 feet to 14 feet in the two borings sampled, and is present in surface soils in the location of the grab sample. We cannot determine the extent of the contamination based on these limited results, but the magnitude and vertical extent of PCE in the soil suggest it is likely present throughout the soils in the area. Due to the proximity of the soil contamination to the proposed building addition, several issues must be considered prior to construction. These include excavating and disposing of contaminated soil during construction of the foundation, and addressing the potential for PCE vapor intrusion into the addition and the existing building.

4.3.1 Contaminated Soil Excavation and Disposal

We do not know the extent of soil contamination, but it is possible all soil to be excavated may contain PCE above the cleanup level. Any soil containing PCE above the cleanup level must be containerized (in Supersacks or lined Connex bins), transported off-site, and disposed at a facility licensed to accept non-regulated PCE-contaminated soil. Alternatively, if the construction schedule allows, *in situ* remediation through chemical treatment or bioremediation (using reductive dehalogenation) could be explored.

Emerald Alaska, Inc., provides transportation and disposal services for PCE-contaminated soil. Assuming the soil was placed in 1-cubic-yard Supersacks, transportation and disposal fees would be on the order of $500 per cubic yard. This estimate would vary depending on multiple factors, including volume removed, Emerald's energy surcharge, containers used, and concentrations encountered, among others. Further investigation, through additional borings, sampling, and testing to the proposed depth of excavation, would assist in delineation of the contaminated soil and estimation of contaminated soil volume; this could save on disposal costs of potentially uncontaminated soils.

4.3.2 Vapor Intrusion

The ADEC requires vapor intrusion to be assessed when a building is within 100 feet of groundwater or soil contamination above cleanup levels. In this case, the proposed addition would be placed directly over soil exceeding the cleanup level for PCE. Contaminated soil is present within 2.5 feet of the surface in the location of the grab sample, and at least within 6.5 feet of the surface in the location of the borings. The potential exists for vapor intrusion into the addition, as well as the original building. In the Record of Decision (ROD) issued by the ADEC granting conditional closure to the Bentley Mall East Satellite site (the source of the PCE contamination), they note a vapor intrusion assessment was conducted in 2005 that included the Wells Fargo building. Indoor-air samples contained PCE and trichloroethylene (TCE) above EPA target indoor-air screening levels, at 290 micrograms per cubic meter ($\mu g/m^3$) and 6.8 $\mu g/m^3$, respectively. They were able to reduce the concentration of PCE and TCE in indoor air by changing heating/ventilation system settings to maintain a positive pressure inside the building, but vapor intrusion remains a concern. The ROD did not state whether current levels are below EPA-target indoor-air screening levels. In a building survey performed to identify

potential asbestos-containing material, we noted a Visqueen vapor barrier had been installed in the old building crawl space, possibly to further mitigate vapor intrusion in the existing building.

Vapor intrusion can be mitigated in the addition by installing an impermeable membrane with the slab-on-grade foundation, by configuring heating/ventilation systems to maintain a positive building pressure, and by installing sub-slab ventilation systems. Such mitigation should be considered in the construction of the new addition and the current building remodel. A vapor-intrusion assessment of the current building may assist in determining whether extending such a system to the current building is necessary. The assessment would include sampling shallow soil-gas immediately adjacent to the current building's foundation, and possibly sampling indoor air. Vapor intrusion is a potential hazard for employees working in the building, and to patrons, due to potential inhalation of toxic PCE and TCE vapors.

5.0 EARTHQUAKE HAZARDS ANALYSIS

5.1 Seismological Setting

The Fairbanks area lies between two right-lateral shear systems: the Denali Fault System approximately 60 miles to 80 miles south, and the Kaltag and Tintina Fault Systems approximately 80 miles north. The shear along these systems is believed to be the result of crustal adjustments in the North American Plate due to the convergence with the Pacific Plate along the Gulf of Alaska.

Seismicity in the Fairbanks area has historically been concentrated in clusters or bands with a northeast-southwest trend that indicates active faulting, although no faults with Holocene displacement have been recognized in the Fairbanks area (Page et al., 1991). These seismic zones include the Salcha Seismic Zone (SSZ) about 25 miles southeast of Fairbanks, and the Fairbanks and Minto Flats Seismic Zones about 25 miles northwest of Fairbanks. Page and others (1995) hypothesized these bands delineate the edges of blocks rotating clockwise between two right-lateral shear systems. Outside these northeast-trending linear seismic zones, recorded seismicity appears diffuse. The earthquakes in the Fairbanks area typically occur at depths of less than 25 miles.

Within the past century, the Fairbanks area has been subject to three large earthquakes occurring in the Tanana Lowlands. On July 22, 1937, a Magnitude 7.6 (M_s) event occurred in the SSZ

about 28 miles southeast of Fairbanks. This event, widely felt throughout central Alaska, produced extensive ground failures in the epicentral area (Page et al., 1995). Two other earthquakes, an October 15, 1947, M_s 7.2 event about 47 miles south-southwest of Fairbanks and an August 27, 1904, M_s 7.3 event about 17 miles southwest, are not correlated with apparent seismic zones. Data from the October 15, 1947, M_s 7.2 event suggest thrust-faulting, in contrast to the strike-slip faulting in the Fairbanks area. The epicenter of the 1904 earthquake, which predates the College seismograph at the University of Alaska Fairbanks, is uncertain.

A recent November 3, 2002, M_s 7.9 event on the Denali Fault south of Fairbanks was felt widely throughout central and southern Alaska and resulted in minor liquefaction in the Fairbanks area. The peak horizontal ground acceleration of this event recorded on bedrock at the University of Alaska Fairbanks campus was 0.09g.

5.2 Earthquake-induced Geologic Hazards

Earthquake-induced geologic hazards that may affect a site include mass movement of soils, settlement, liquefaction and its associated effects (i.e., loss of shear strength, bearing capacity failures, loss of lateral support, ground oscillation, lateral spreading, etc.), and fault rupture. Because of the site's relative flat topography, the risk of mass movement and lateral spreading is considered low.

There are no mapped faults with surface expressions at the site; no recorded or suspected quaternary movement has occurred within the area of the site.

We believe liquefaction is the primary earthquake hazard at this site, as thawed, granular soils in the Fairbanks area are susceptible to liquefaction. Although we did not advance our borings to groundwater depth due to the potential of hitting contaminated groundwater, past studies in the area indicate the depth to groundwater to be approximately 16 feet (plus or minus seasonal fluctuations). Based upon our experience, we believe soils at the site below the groundwater table will be loose to medium-dense, and susceptible to liquefaction.

Our experience suggests several inches of dynamic settlement may be anticipated during a design earthquake.

6.0 FOUNDATION ENGINEERING RECOMMENDATIONS

6.1 Discussion

Subsurface conditions observed during our explorations generally consisted of an approximate 5-foot-thick layer of slightly silty to silty sand overlying relatively clean sand to the depths explored. An approximate 2-foot-thick layer of slightly silty gravel fill was observed at the surface in both borings. We encountered seasonally frozen soils to depths of approximately 9 feet. Our foundation design and construction recommendations must consider the frost-susceptibility of the silty soils on-site, the depth of seasonally frozen soils which must be thawed before backfill and compaction occurs, and the presence of potentially contaminated soils underlying the site.

We understand the proposed addition will be founded on a thickened-edge slab-on-grade. With the recommended site preparation discussed below, a thickened-edge foundation is suitable for this site. The following is a discussion of foundation preparation recommendations for the site based on our experience and the subsurface conditions encountered in our exploratory borings.

6.2 Foundation Recommendations

6.2.1 Thickened-Edge Slab Foundations

In our opinion, the building can be founded on a thickened-edge slab foundation. The bearing portions of the footings should be founded on a minimum of 2 feet of compacted, nonfrost-susceptible (NFS) structural fill. The non-bearing portions of the slab may be founded on the existing gravel fill provided the gravel fill is a minimum of 1-foot-thick below the slab, extends throughout the footprint, and is prepared and compacted according to our recommendations described in this report. The purpose of the compacted fill is to provide a uniform-bearing layer beneath the footings and slab, and to reduce earthquake-induced differential movements. The minimum recommended width of the thickened-bearing portions of the slab are 2 feet for continuous edges and 2.5 feet for localized bearing areas. If these recommendations are followed, the bearing portion of the thickened slab can be designed for an allowable bearing pressure of 2,000 pounds per square foot (psf). Our recommendations for a thickened-edge-slab foundation system are summarized in Figure 2.

6.2.2 Perimeter Foundation Insulation

We recommend placing 4 inches of rigid-board insulation suitable for direct burial against the vertical portion of the foundation, and 4 inches of insulation extending out horizontally 48 inches from the foundation at a maximum depth of 2 feet below grade. We recommend any horizontal insulation not under paved concrete or an asphalt area, such as a sidewalk or parking lot, be protected with either ¼-inch cement board or treated plywood. The cement board or treated plywood should be placed over the horizontal insulation from a point 24 inches from the foundation perimeter outward to the extent of the insulation.

6.2.3 Settlement

If the footings are designed in accordance with the recommendations presented in this report, we estimate the total settlement of the structure under static loading will be about 1 inch under normal loading conditions. Differential settlements due to static loads are anticipated to be about one-half the total static settlement if the site is prepared according to our recommendations. We anticipate most of the settlement under static conditions will occur as construction load is applied. During a design earthquake, we estimate the structure could experience approximately 4 inches or more of differential settlement across the structure's foundation.

6.3 Excavation and Site Preparation

A minimum of 2 feet of compacted structural fill is recommended below all thickened, bearing portions of the slab. In the areas underlying the non-bearing portions of the slab, we recommend a minimum of 12 inches of the existing gravel fill be removed and replaced in compacted lifts. Excavation limits should extend out and down from the bottom edge of the footings on a 1vertical to 1 horizontal slope.

Prior to backfilling, the base of the excavations should be uniformly and systematically proof-rolled with at least eight passes of a large compactor; however, the use of a large vibratory compactor near the existing footings could result in loss of soil beneath the footings and/or settlement. Compaction near the existing structure should be monitored; if a large compactor is used, it should be operated as a static roller, not in the vibratory mode. The base of the excavations should then be backfilled with the appropriate structural fill or gravel fill.

Any seasonally frozen soils in the base of excavations should be replaced or allowed to thaw prior to the placement of compacted fill. We recommend the contractor anticipate the presence of seasonally frozen soils if construction commences prior to mid-June. Any seasonally frozen soils in the base of excavations should be replaced or allowed to thaw, to a minimum depth of 4 feet below the base of excavation, prior to the proof-rolling and placement of compacted fill.

Fill should be placed in layers not exceeding 8 inches in loose height; the material in each layer should be compacted to achieve a density of at least 95 percent of the maximum dry density based on the Modified Proctor moisture-density relationship (American Society for Testing & Materials [ASTM] D1557) with a large self-propelled vibratory roller.

6.3.1 Excavation Slopes

All excavations should be sloped sufficiently to provide stable cutbanks. We recommend the stability of the excavated slopes be made the responsibility of the contractor, as they will be most familiar with the conditions encountered in the excavations and have direct control over field conditions. The work should be accomplished in general accordance with applicable local, state, and federal standards. It is important to note that very steep, temporary excavation slopes made in seasonally frozen ground can become unstable as soils thaw.

6.3.2 Drainage and Grading

During the construction of the project, the ground surface should be sloped away from the open excavation to reduce water flowing into the excavation. The addition of water to soils in the excavation may reduce the stability of the slopes and raise the moisture content. Increased water content may cause silty soils to become soft and difficult to work with. The contractor should be prepared to remove soft wet material, or work in other areas until the wet silty soil is dry enough to excavate. Final site-grade should be established to provide drainage away from the finished floor elevation of the structure.

6.3.3 Site Preparation Adjacent to the Existing Structure

During excavation adjacent to an existing footing, care must be taken to maintain the integrity of the supporting soils. Soil should not be excavated below the level of the existing footing base for a distance of 2 feet from the outside edge of the footing, extending downward and outward on a 1 horizontal to 1 vertical, as shown in Figure 2. Care should be exercised to

prevent sloughing or loss of material from beneath the existing footing. Loss or loosening of material could result in settlement of the existing structure. To reduce construction vibrations, compaction of soil within 5 feet of the existing building foundation should be accomplished with hand-operated equipment or with static-compaction techniques.

When soils are excavated near an existing footing, it is possible a wedge of unsuitable soil may remain at the toe of the excavated slope. This wedge of unsuitable soil should be removed using methods that will prevent loosening of supporting soils or undermining of the existing footing. The size of the wedge of unsuitable soil and the methods used to replace it may depend on how far replacement fill extends from the existing structure.

One method of replacing a wedge of unsuitable soil is to perform successive, small, localized excavations and backfill with light equipment. With this method of excavation and backfill, we suggest excavating no more than about 8 lineal feet to 10 lineal feet of the unsuitable soil at a time and backfilling the excavation with compacted structural fill before proceeding to an adjacent zone. In our opinion, this would help to limit the potential loss of supporting soil. We also recommend the excavation be backfilled as soon as possible after excavation as practical. The excavation slope should be monitored for signs of instability due to heavy equipment vibrations.

We recommend an engineer from our firm be retained to observe excavation next to existing footings to determine that unsuitable soils have been removed without undermining the existing foundation.

6.4 Structural Fill

Structural fill should consist of unfrozen nonfrost-susceptible (NFS) gravelly sand or sandy gravel meeting the following gradation limits after compaction:

Size	Percent Passing
4-inch	100
No. 4 sieve	30-60
No. 200 sieve	0-5

We recommend a definition of NFS to include materials with less than 5 percent passing the No. 200 sieve based on the ¾-inch-minus fraction. Our experience indicates materials in the Fairbanks area with less than 5 percent to 6 percent passing the No. 200 sieve contain less than 3 percent of particles less than 0.02 mm.

The structural fill should be placed in layers not exceeding 8 inches in loose height; each layer should be compacted to a density of at least 95 percent of the maximum dry density based on the Modified Proctor moisture-density relationship (ASTM D1557) before placement of the next lift. ASTM D6938 should be used to determine in-place densities. The fill should consist of unfrozen materials and placed at above-freezing air temperatures. If previously placed fill freezes, for instance overnight, the frozen material should be excavated and wasted or allowed to thaw and recompacted prior to the placement of additional fill.

6.5 Existing Gravel Fill below Non-Bearing Floor Slabs

The existing gravel fill should be placed in layers not exceeding 8 inches in loose height; each layer should be compacted to a density of at least 95 percent of the maximum dry density based on the Modified Proctor moisture-density relationship (ASTM D1557) before placement of the next lift. ASTM D6938 should be used to determine in-place densities. The fill should consist of unfrozen materials and placed at above-freezing air temperatures. If previously placed fill freezes, for instance overnight, the frozen material should be excavated and wasted or allowed to thaw and recompacted prior to the placement of additional fill.

6.6 Nonstructural Fill and Backfill

Nonstructural fills may be used to fill or shape unpaved areas for landscaping and backfilling nonstructural areas. Nonstructural fills may consist of silt or silty soils from the excavation; however, the fill should not contain topsoil or organics. Maximum loose-lift height for nonstructural fill should not exceed 12 inches. This material should be compacted to at least 90 percent of the maximum density obtained from ASTM D 1557. Drying or wetting of the soil may be necessary to obtain compaction.

The compaction of sandy silt with small vibratory compactors, particularly smaller hand-operated equipment, is expected to be difficult. If hand-operated compactors (jumping jacks) are used to compact silty materials, the loose-lift thickness should not exceed 6 inches.

6.7 Surface Drainage

In general, the area around the building pads should be sloped to direct surface water and roof-runoff away from the structures. Landscaping fills should be placed to prevent ponding of water near the proposed structures or infiltration of large quantities of water into soils near the foundation systems.

7.0 LIMITATIONS

Subsurface explorations and testing identify actual subsurface conditions only at those locations where samples are taken, and at the time they are taken. Actual conditions at other locations of the project site, including those inferred to exist between the sample points, may differ significantly from conditions that exist at the sampling locations. The passage of time or intervening causes may change the actual conditions at the sampling locations as well.

Interpretations and recommendations made by Shannon & Wilson are based solely upon information available to Shannon & Wilson at the time the interpretations and recommendations are made.

All documents prepared by Shannon & Wilson are instruments of service with respect to the project for the sole use of our Client. Only our Client shall have the right to rely upon such documents. Such documents are not intended or represented to be suitable for reuse by our Client or others after the passage of time, on extensions of the project, or on any other project. Any such reuse without written verification or adaptation by Shannon & Wilson, as appropriate for the specific purpose intended, shall be at the user's sole risk.

Copies of documents that may be relied upon by our Client are limited to the printed copies (also known as hard copies) signed or sealed by Shannon & Wilson. Text, data, or graphics files in electronic media format are furnished solely for the convenience of our Client. Any conclusion or information obtained or derived from such electronic files shall be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

Because data stored in electronic media can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the Client should perform acceptance tests or procedures within 60 days after its receipt, after which, unless notice of any errors are given in

writing to Shannon & Wilson, the Client shall be deemed to have accepted the data thus transferred. Any errors reported within the 60-day acceptance period shall be corrected by Shannon & Wilson. Shannon & Wilson shall not be responsible for maintaining documents stored in electronic media format after acceptance by the Client.

When transferring documents in electronic media format, Shannon & Wilson does not make any representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used for the document's creation.

Shannon & Wilson, Inc., has prepared the attachment *Important Information About Your Geotechnical/Environmental Report* in Appendix E to assist you and others in understanding the uses and limitations of our reports.

We trust this information is sufficient for your needs at the present time. If you have any questions, please do not hesitate to call.

Sincerely,

SHANNON & WILSON, INC.

Matt Billings
Geological Engineer

Reviewed by:

Stephen Adamczak, Jr., P.E.
Vice President

Explanation:

09-1
- Approximate Boring Location and Number

GS-1
- Approximate Grab Sample Location

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

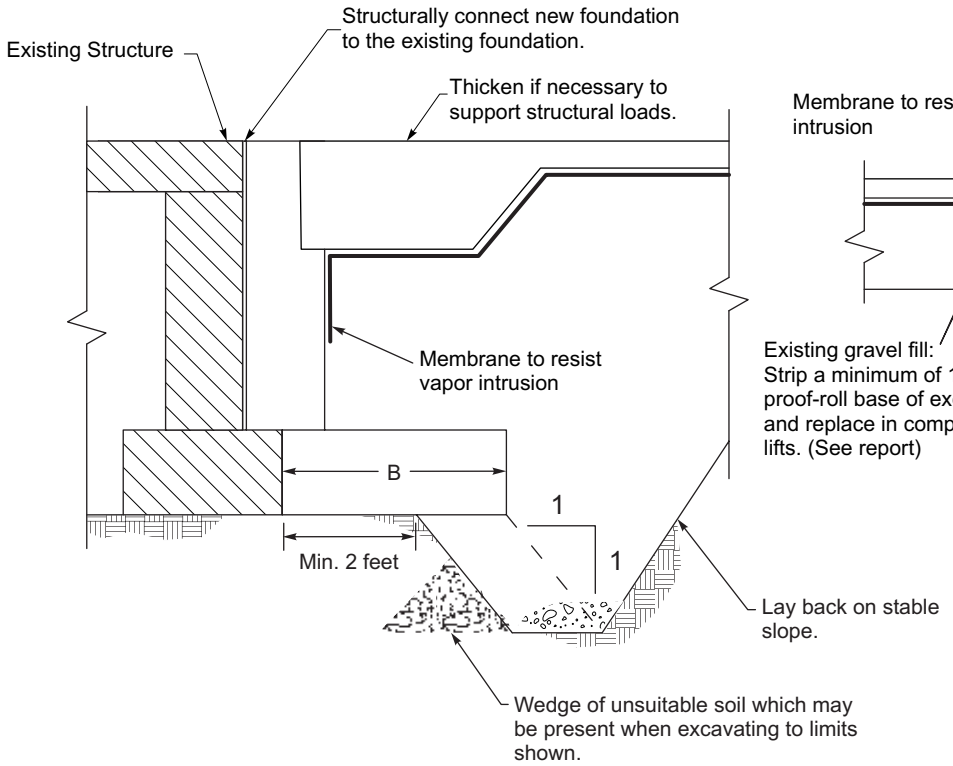
SITE MAP AND
APPROXIMATE BORING LOCATIONS

April 2009 31-1-02124-001

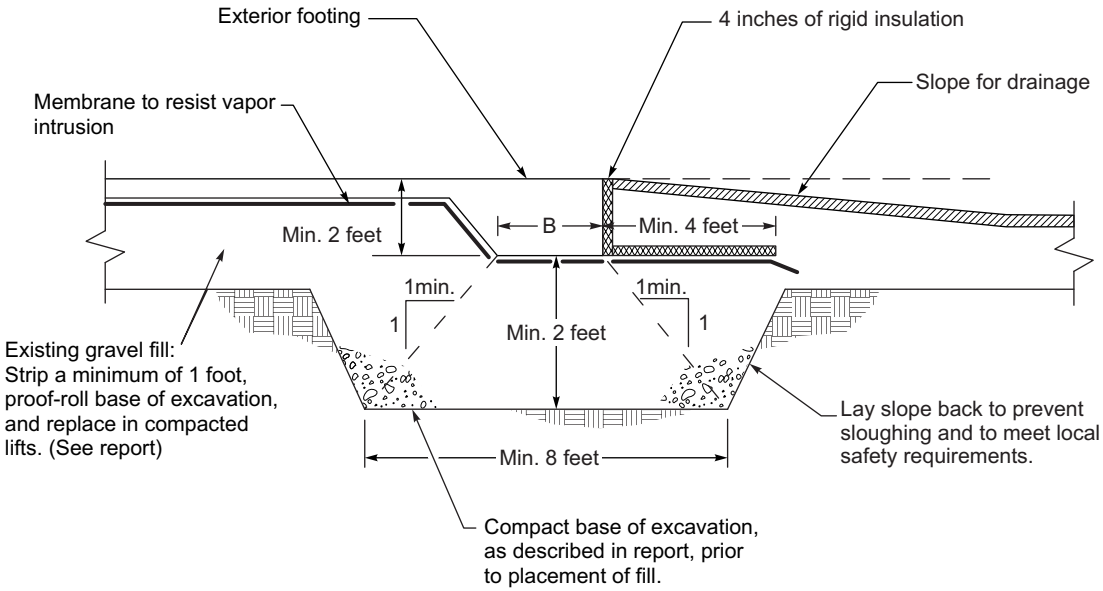
SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 1

Foundations Adjacent to Existing Structure:



Thickened-Edge Foundation Recommendations:



Legend

- Structural Fill
- Pavement Section or Topsoil
- *In Situ* Soils
- Insulation
- Unsuitable Soils

Note:
This figure is not a construction drawing and should be used for planning purposes only.

Footing Width (B):
Minimum 24 inches for continuous footings
Minimum 30 inches for spread footings

Not to Scale

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

SUMMARY OF FOUNDATION RECOMMENDATIONS

April 2009 31-1-02124-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 2

Table 1.
Boring Analytical Results

Sample ID:	2124-030509-001	2124-030509-002	2124-030509-003	2124-030509-004	2124-030509-005	2124-030509-006	2124-030509-007	2124-030509-008	2124-030509-009	2124-030509-010
Location ID:	Boring 1	Boring 1	Boring 1	Boring 1	Duplicate of -004	Boring 2	Boring 2	Boring 2	Boring 2	Boring 3
Depth:	5 - 6.5 ft.	7.5 - 9 ft.	10 - 11.5 ft.	12.5 - 14 ft.	12.5 - 14 ft.	5 - 6.5 ft.	7.5 - 9 ft.	10 - 11.5 ft.	12.5 - 14 ft.	surface - 2 ft.
Laboratory ID:	1090973001	1090973002	1090973003	1090973004	1090973005	1090973006	1090973007	1090973008	1090973009	1090973010
Collect Date/Time:	3/5/2009 10:06	3/5/2009 10:14	3/5/2009 10:19	3/5/2009 10:22	3/5/2009 10:31	3/5/2009 11:18	3/5/2009 11:23	3/5/2009 11:29	3/5/2009 11:35	3/5/2009 11:55
Dry Weight (% by Weight):	91.9	97.4	97.9	98.1	97.9	92.2	96.5	93.7	97.2	97.4
Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	<0.0168	<0.0120	<0.0103	<0.0158	<0.0122	<0.0145	<0.0153	<0.0177	<0.0201	<0.0142
Toluene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Ethylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
n-Butylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Carbon disulfide	<0.112	<0.0803	<0.0686	<0.105	<0.0813	<0.0968	<0.102	<0.118	<0.134	<0.0947
1,4-Dichlorobenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2-Dichloroethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,3,5-Trimethylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
4-Chlorotoluene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Chlorobenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
4-Methyl-2-pentanone	<0.279	<0.201	<0.171	<0.263	<0.203	<0.242	<0.256	<0.296	<0.334	<0.237
cis-1,2-Dichloroethene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
4-Isopropyltoluene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Methyl-t-butyl ether	<0.0447	<0.0321	<0.0274	<0.0421	<0.0325	<0.0387	<0.0409	<0.0473	<0.0535	<0.0379
cis-1,3-Dichloropropene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
n-Propylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Styrene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Dibromomethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
trans-1,3-Dichloropropene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2,4-Trichlorobenzene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
1,1,2,2-Tetrachloroethane	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
1,2-Dibromo-3-chloropropane	<0.112	<0.0803	<0.0686	<0.105	<0.0813	<0.0968	<0.102	<0.118	<0.134	<0.0947
Perchloroethlyene (PCE)	**0.148**	**0.166**	**0.166**	**0.197**	**0.243**	**0.208**	**2.20**	**2.10**	**0.311 JL**	**0.131**
Dibromochloromethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,3-Dichloropropane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2-Dibromoethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Carbon tetrachloride	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1,1,2-Tetrachloroethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Chloroform	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Bromobenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2,3-Trichloropropane	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Chloromethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Bromomethane	<0.224	<0.161	<0.137	<0.210	<0.163	<0.194	<0.205	<0.237	<0.267	<0.189
Bromochloromethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Vinyl chloride	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Dichlorodifluoromethane	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Chloroethane	<0.224	<0.161	<0.137	<0.210	<0.163	<0.194	<0.205	<0.237	<0.267	<0.189

Table 1.
Boring Analytical Results

Sample ID:	2124-030509-001	2124-030509-002	2124-030509-003	2124-030509-004	2124-030509-005	2124-030509-006	2124-030509-007	2124-030509-008	2124-030509-009	2124-030509-010
Location ID:	Boring 1	Boring 1	Boring 1	Boring 1	Duplicate of -004	Boring 2	Boring 2	Boring 2	Boring 2	Boring 3
Depth:	5 - 6.5 ft.	7.5 - 9 ft.	10 - 11.5 ft.	12.5 - 14 ft.	12.5 - 14 ft.	5 - 6.5 ft.	7.5 - 9 ft.	10 - 11.5 ft.	12.5 - 14 ft.	surface - 2 ft.
Laboratory ID:	1090973001	1090973002	1090973003	1090973004	1090973005	1090973006	1090973007	1090973008	1090973009	1090973010
Collect Date/Time:	3/5/2009 10:06	3/5/2009 10:14	3/5/2009 10:19	3/5/2009 10:22	3/5/2009 10:31	3/5/2009 11:18	3/5/2009 11:23	3/5/2009 11:29	3/5/2009 11:35	3/5/2009 11:55
Dry Weight (% by Weight):	91.9	97.4	97.9	98.1	97.9	92.2	96.5	93.7	97.2	97.4
Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
sec-Butylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Bromodichloromethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1-Dichloroethene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
2-Butanone (MEK)	<0.279	<0.201	<0.171	<0.263	<0.203	<0.242	<0.256	<0.296	<0.334	<0.237
Methylene chloride	<0.112	<0.0803	<0.0686	<0.105	<0.0813	<0.0968	<0.102	<0.118	<0.134	<0.0947
Trichlorofluoromethane	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
P & M -Xylene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Naphthalene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
o-Xylene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Bromoform	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Xylenes (total)	<0.112	<0.0803	<0.0686	<0.105	<0.0813	<0.0968	<0.102	<0.118	<0.134	<0.0947
1,2,4-Trimethylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
tert-Butylbenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1,1-Trichloroethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1-Dichloroethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
2-Chlorotoluene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Trichloroethene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
trans-1,2-Dichloroethene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2-Dichlorobenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
2,2-Dichloropropane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
Hexachlorobutadiene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473
Isopropylbenzene (Cumene)	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
2-Hexanone	<0.279	<0.201	<0.171	<0.263	<0.203	<0.242	<0.256	<0.296	<0.334	<0.237
1,2-Dichloropropane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1-Dichloropropene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,1,2-Trichloroethane	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,3-Dichlorobenzene	<0.0279	<0.0201	<0.0171	<0.0263	<0.0203	<0.0242	<0.0256	<0.0296	<0.0334	<0.0237
1,2,3-Trichlorobenzene	<0.0559	<0.0401	<0.0343	<0.0526	<0.0407	<0.0484	<0.0512	<0.0591	<0.0669	<0.0473

Notes:

Analyte concentrations in **BOLD** exceed ADEC migration-to-groundwater cleanup levels.

Perchloroethylene migration-to-groundwater cleanup level is 0.024 mg/kg.

JL Result is estimated, biased low

APPENDIX A

Soil Classification System and Boring Logs

Soil Classification

Soil samples were classified in accordance with Shannon & Wilson's soil classification system. This system is generally based on the Unified Soil Classification System (USCS) presented in ASTM D 2487 *Classification of Soils for Engineering Purposes (Unified Soil Classification System).* The soil classification system provides for the identification of the following characteristics in the order that they are listed.

a) Relative density or consistency – The relative consistency or density of the material is estimated based on the penetration resistance of unfrozen soil. The relative consistency is used to describe fine-grained cohesive soils (such as clay) and the relative density is used to define coarse-grained granular soils (such as sand). The penetration resistance is calculated by summing the blows required to drive the split-spoon sampler the final 12 inches of an 18-inch sample run. The penetration resistance is not valid in frozen soils. Relative density or consistency is determined according to the following table.

Penetration Resistance (blows per foot)	Relative Consistency	Penetration Resistance (blows per foot)	Relative Density
< 2	Very Soft	0 – 4	Very Loose
2 – 4	Soft	4 – 10	Loose
4 – 8	Medium Stiff	10 – 30	Medium Dense
8 – 15	Stiff	30 – 50	Dense
15 – 30	Very Stiff	> 50	Very Dense
> 30	Hard		

b) Color – Color descriptions are generally kept as simple as practical, using basic soil colors such as brown, gray, and tan. Color is generally used to distinguish soil layers or indicate the degree of weathering within a single soil layer.

c) Minor Constituents, Major Constituents, and Trace Constituents – In the field, visual-manual procedures are used to classify the soil type. The constituents are generally limited to (in decreasing size) boulders, cobbles, gravel, sand, silt, and clay. Minor constituents are soil types that comprise a significant portion of the sample (more than 5 percent), but are not the largest component of the sample. Minor constituents that comprise between 5 and 12 percent of the sample are identified as "slightly."

The major constituent is the one that comprises the largest fraction of the soil mass. The major constituent will generally appear in the form of all capital letters, such as SILT.

Trace constituents are soil types that are observed in the soil sample but comprise a limited portion of the sample. The presence of these soil types may or may not influence the behavior of the soil.

Organics may also be considered as constituents in the soil description. The following terms are used to describe the organic content.

Descriptor	Percent by Volume
Occasional	0 – 1
Scattered	1 – 10
Numerous	10 – 30
Organic	Minor constituent
PEAT	Major constituent

d) Moisture content – The relative moisture content (dry, slightly moist, moist, or wet) is given to the sample based

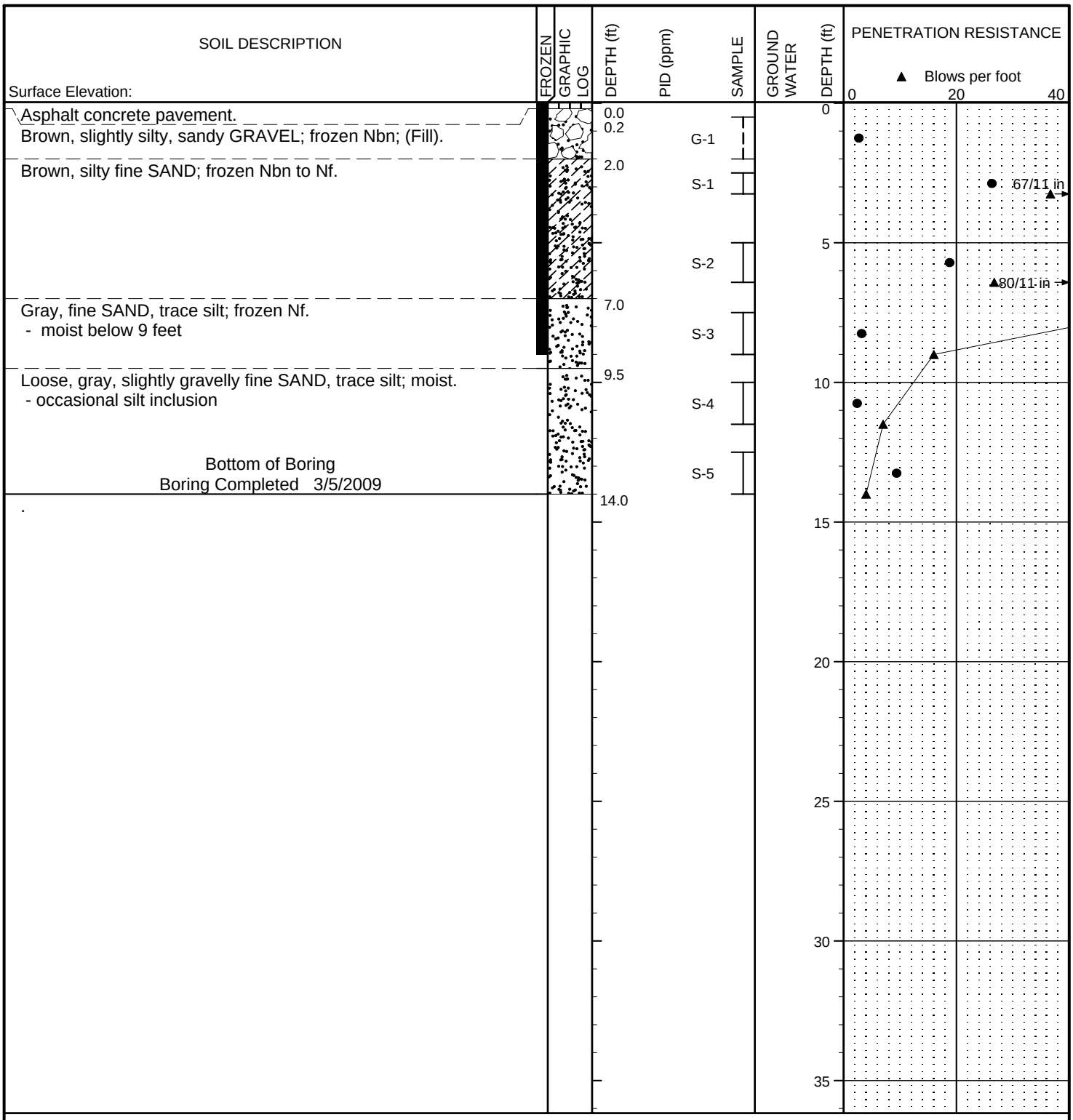
on observations of the sample. This is a qualitative description that assists the engineer in identifying how the sample may behave at that particular moisture content.

Shannon & Wilson's frozen soil classification is based on the descriptions developed by Linell and Kaplar (1966). The frozen soil descriptions are primarily based on visual observations regarding the presence, orientation, and form of ice. A summary of the Linnel and Kaplar classification is presented below.

Description			Designation
Segregated ice is not visible by eye	Friable, poorly bonded Material is easily broken up		Nf
	Well bonded – Soil particles strongly held together by ice	No excess ice	Nbn
		Excess ice	Nbe
Segregated ice is visible by eye (less than 1-inch thick)	Individual ice crystals or inclusions		Vx
	Ice coatings on soil particles		Vc
	Stratified or distinctly oriented ice formations		Vs
	Randomly or irregularly oriented ice formations		Vr
Ice greater than 1-inch thick	Ice with soil inclusions		ICE + soil type
	Ice without soil inclusions		ICE

(Based on Linell, K.A. and C.W. Kaplar, 1966, *Description and Classification of Frozen Soils*, U.S. Army Cold Regions Research Engineering Laboratory, Technical Report 150, Hanover, N.H.)

In addition to describing the presence, orientation and form of ice, our soil classification may also include a visual volumetric estimation of ice content and a description of the size and orientation of individual ice features.



Legend

Frozen Ground

- Asphalt Concrete
- Sandy gravel/gravelly sand
- Silty sand/sandy silt
- Sand
- Grab Sample
- 3 in. O.D. split spoon sample, 340 lb. hammer, 30 in. drop

ATTERBERG LIMITS

- Liquid Limit
- Water Content
- Plastic Limit

Note: Stratification lines represent approximate boundaries between soil types and transition may be gradual.

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

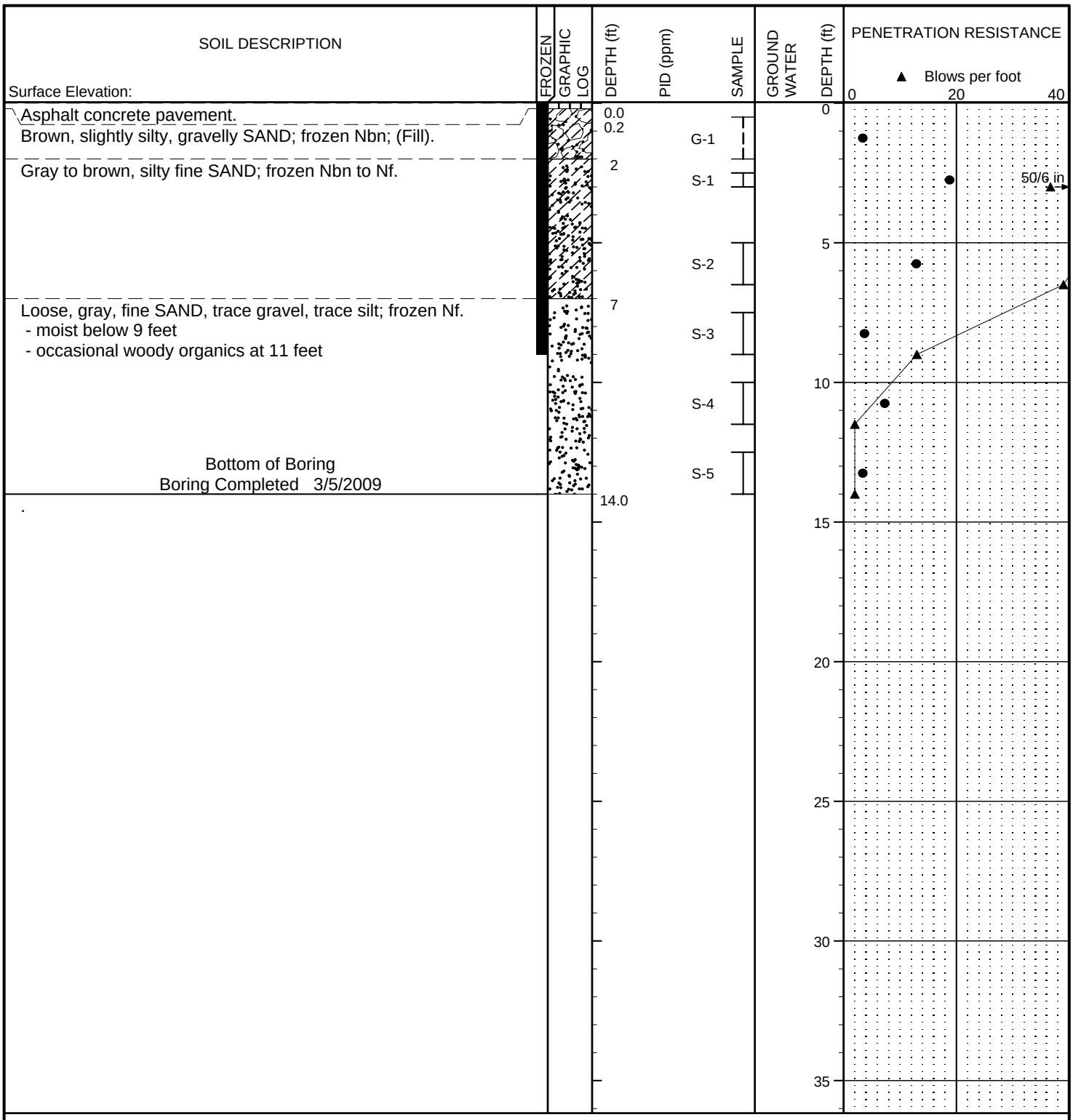
LOG OF BORING 09-1

31-1-02124-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure 2

Sheet 1 of 1



Legend

Frozen Ground

- Asphalt Concrete
- Sandy gravel/gravelly sand
- Silty sand/sandy silt
- Sand
- Silt, sand and gravel
- Grab Sample
- 3 in. O.D. split spoon sample, 340 lb. hammer, 30 in. drop

ATTERBERG LIMITS

Liquid Limit
Water Content
Plastic Limit

Note: Stratification lines represent approximate boundaries between soil types and transition may be gradual.

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

LOG OF BORING 09-2

31-1-02124-001

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Figure 2

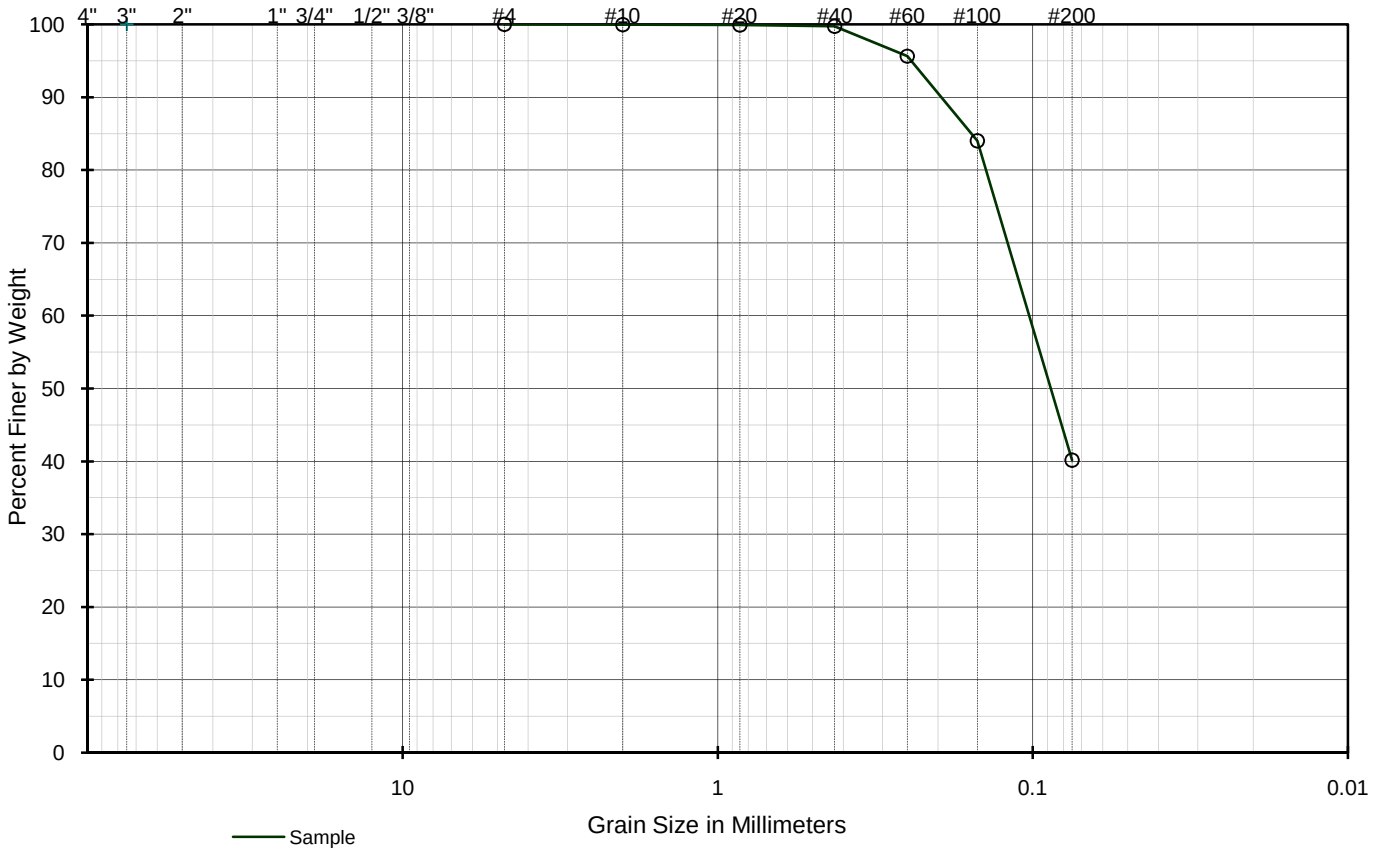
Sheet 1 of 1

APPENDIX B

Grain Size Distribution Curves

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Silty sand (SM)

Parameter	Grain Size (mm)**
D10	nv
D16	nv
D30	nv
D50	0.09
D60	0.10
D84	0.15

** nv - no value (insufficient data)

Cu = nv

Cc = nv

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	
1/2"	
3/8"	
#4	100
#10	100
#20	100
#40	100
#60	96
#100	84
#200	40.1
0.02mm	

* - Unified soil classification in general accordance with ASTM D2487

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-1, Sample S-2

March 12, 2009 31-1-02124-001

SHANNON & WILSON, INC.
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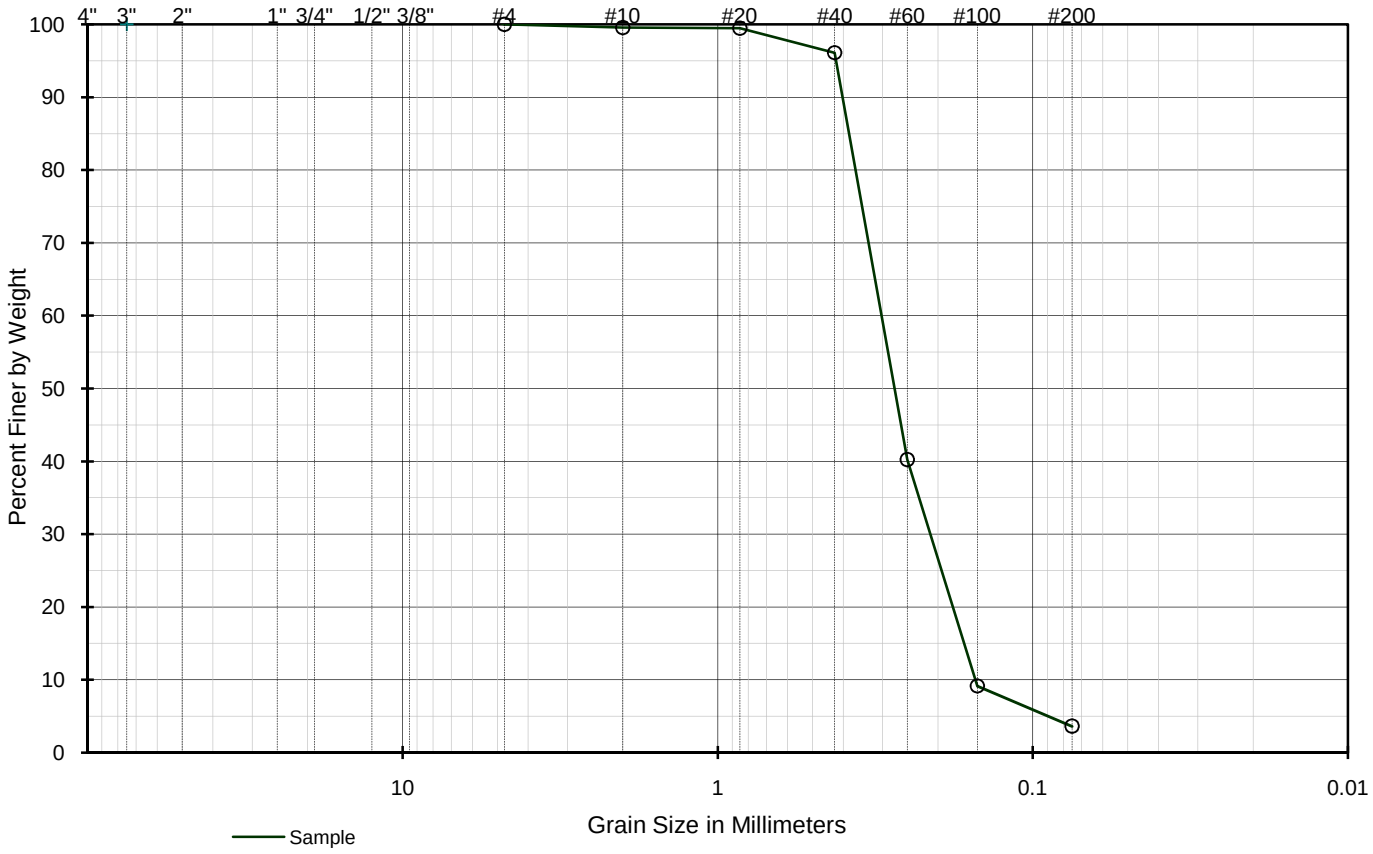
Figure B1

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Poorly graded sand (SP)

Parameter	Grain Size (mm)**
D10	0.15
D16	0.17
D30	0.21
D50	0.27
D60	0.30
D84	0.38

** nv - no value (insufficient data)

Cu = 2.0

Cc = 1.0

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	
1/2"	
3/8"	
#4	**100**
#10	**100**
#20	**99**
#40	**96**
#60	**40**
#100	**9**
#200	**3.6**
0.02mm	

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-1, Sample S-3

March 12, 2009 31-1-02124-001

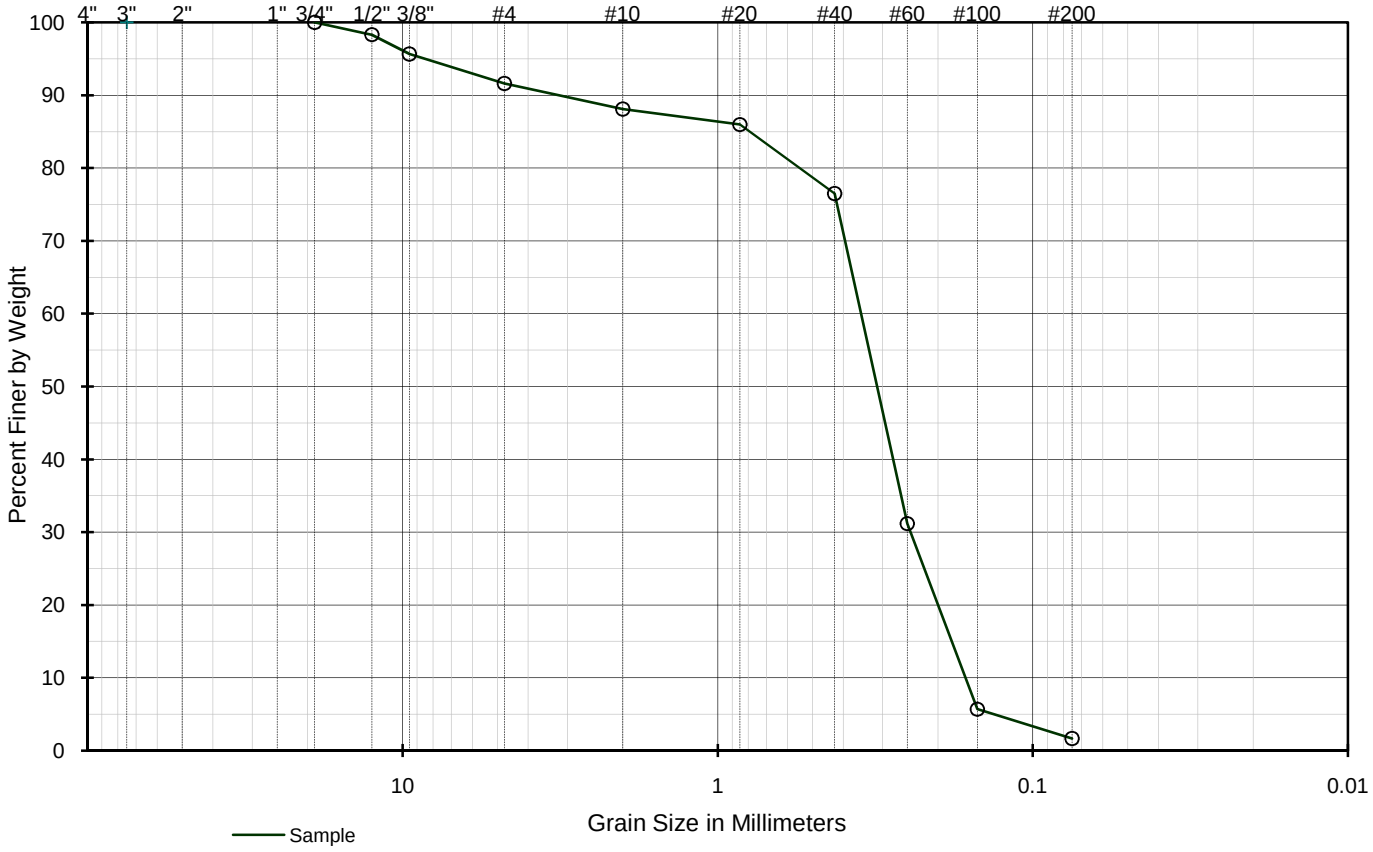
* - Unified soil classification in general accordance with ASTM D2487

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure B2

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Poorly graded sand (SP)

Parameter	Grain Size (mm)**
D10	0.16
D16	0.18
D30	0.24
D50	0.31
D60	0.35
D84	0.74

** nv - no value (insufficient data)

Cu = 2.1

Cc = 1.0

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	**100**
1/2"	**98**
3/8"	**96**
#4	**92**
#10	**88**
#20	**86**
#40	**76**
#60	**31**
#100	**6**
#200	**1.6**
0.02mm	

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-1, Sample S-4

March 12, 2009 31-1-02124-001

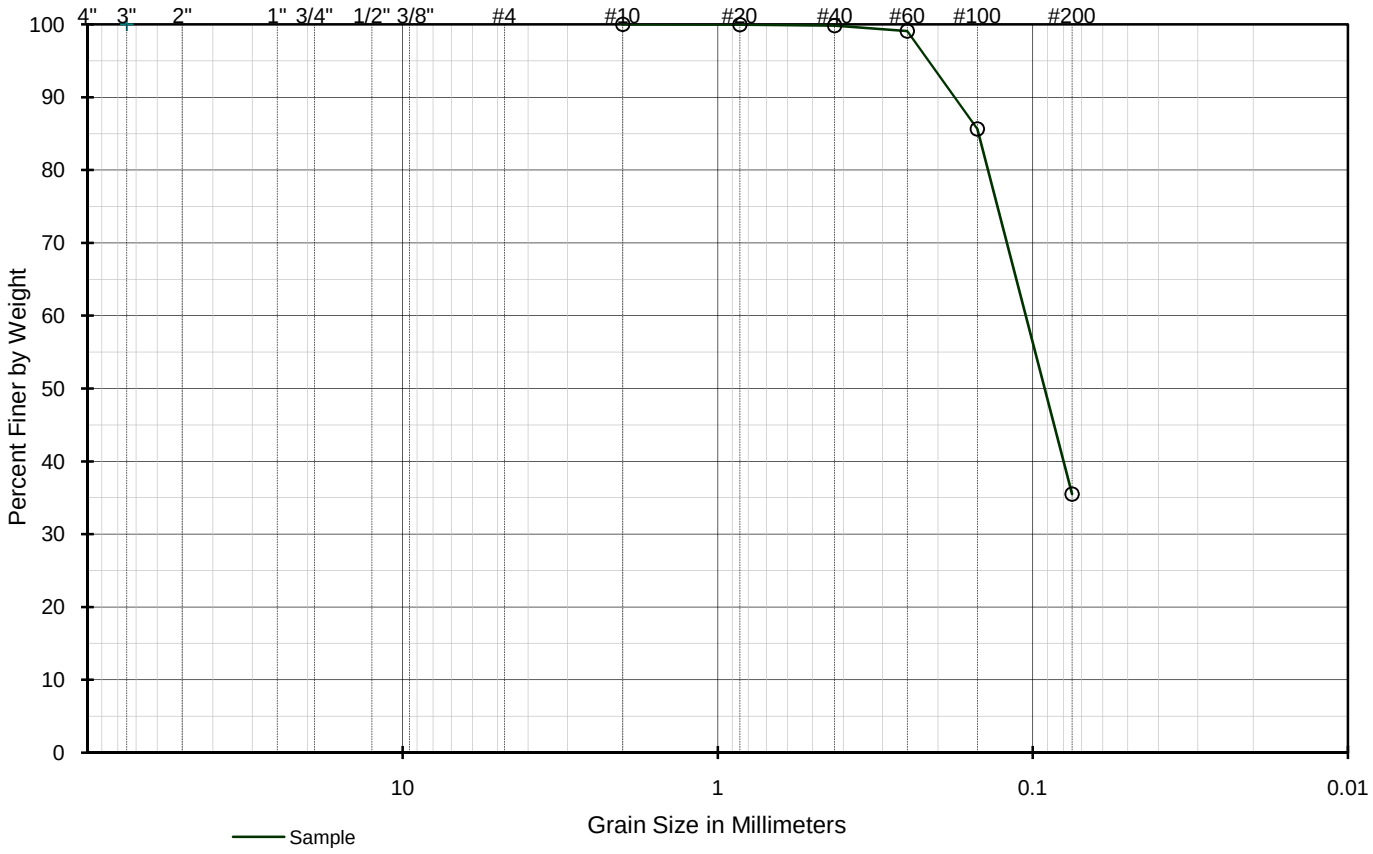
* - Unified soil classification in general accordance with ASTM D2487

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure B3

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Silty sand (SM)

Parameter	Grain Size (mm)**
D10	nv
D16	nv
D30	nv
D50	0.09
D60	0.11
D84	0.15

** nv - no value (insufficient data)

Cu = nv

Cc = nv

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	
1/2"	
3/8"	
#4	
#10	100
#20	100
#40	100
#60	99
#100	86
#200	35.5
0.02mm	

* - Unified soil classification in general accordance with ASTM D2487

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-2, Sample S-2

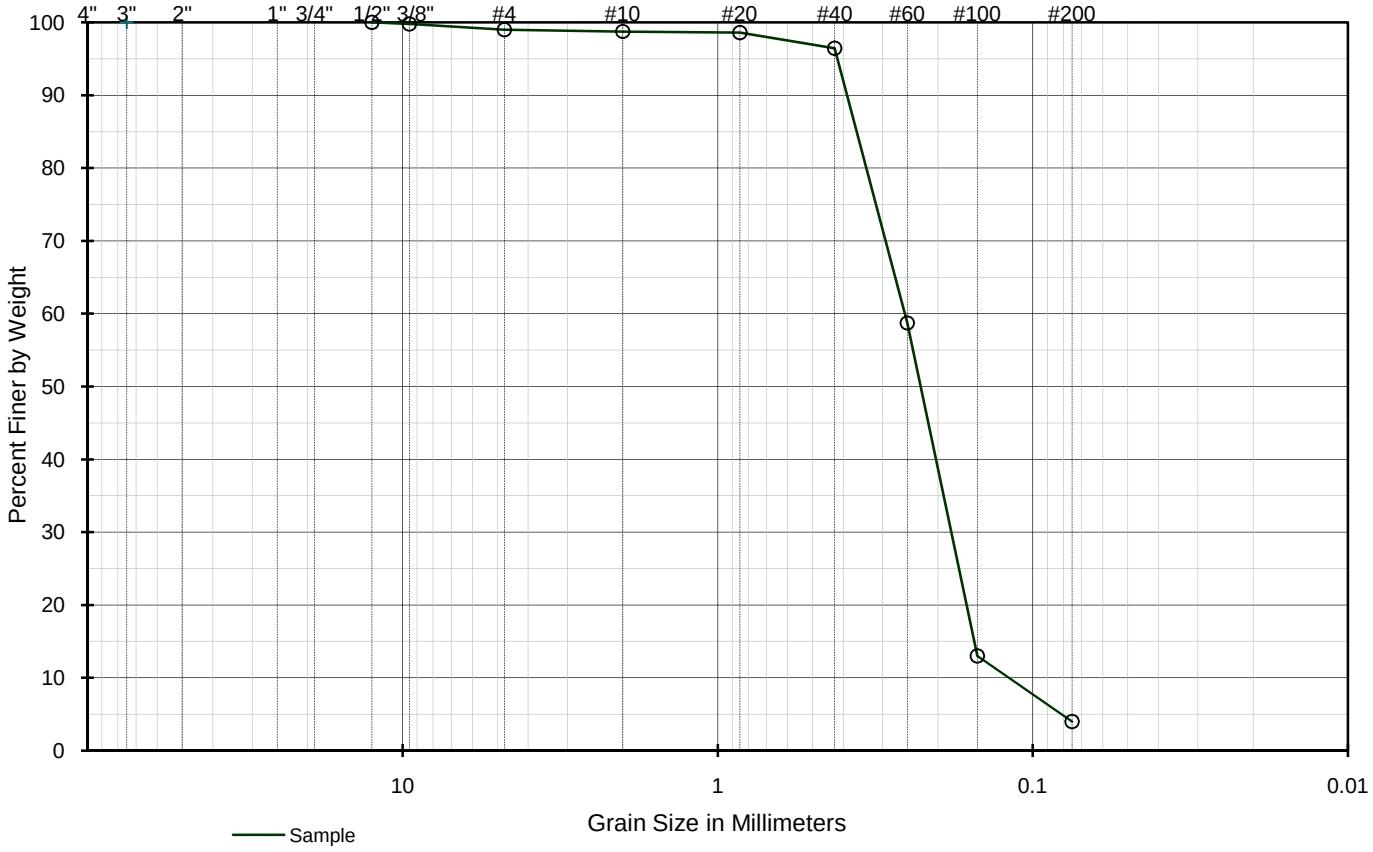
March 12, 2009 31-1-02124-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure B4

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Poorly graded sand (SP)

Parameter	Grain Size (mm)**
D10	0.12
D16	0.16
D30	0.18
D50	0.23
D60	0.25
D84	0.36

** nv - no value (insufficient data)

Cu = 2.1

Cc = 1.1

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	
1/2"	100
3/8"	100
#4	99
#10	99
#20	99
#40	96
#60	59
#100	13
#200	4.0
0.02mm	

* - Unified soil classification in general accordance with ASTM D2487

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-2, Sample S-3

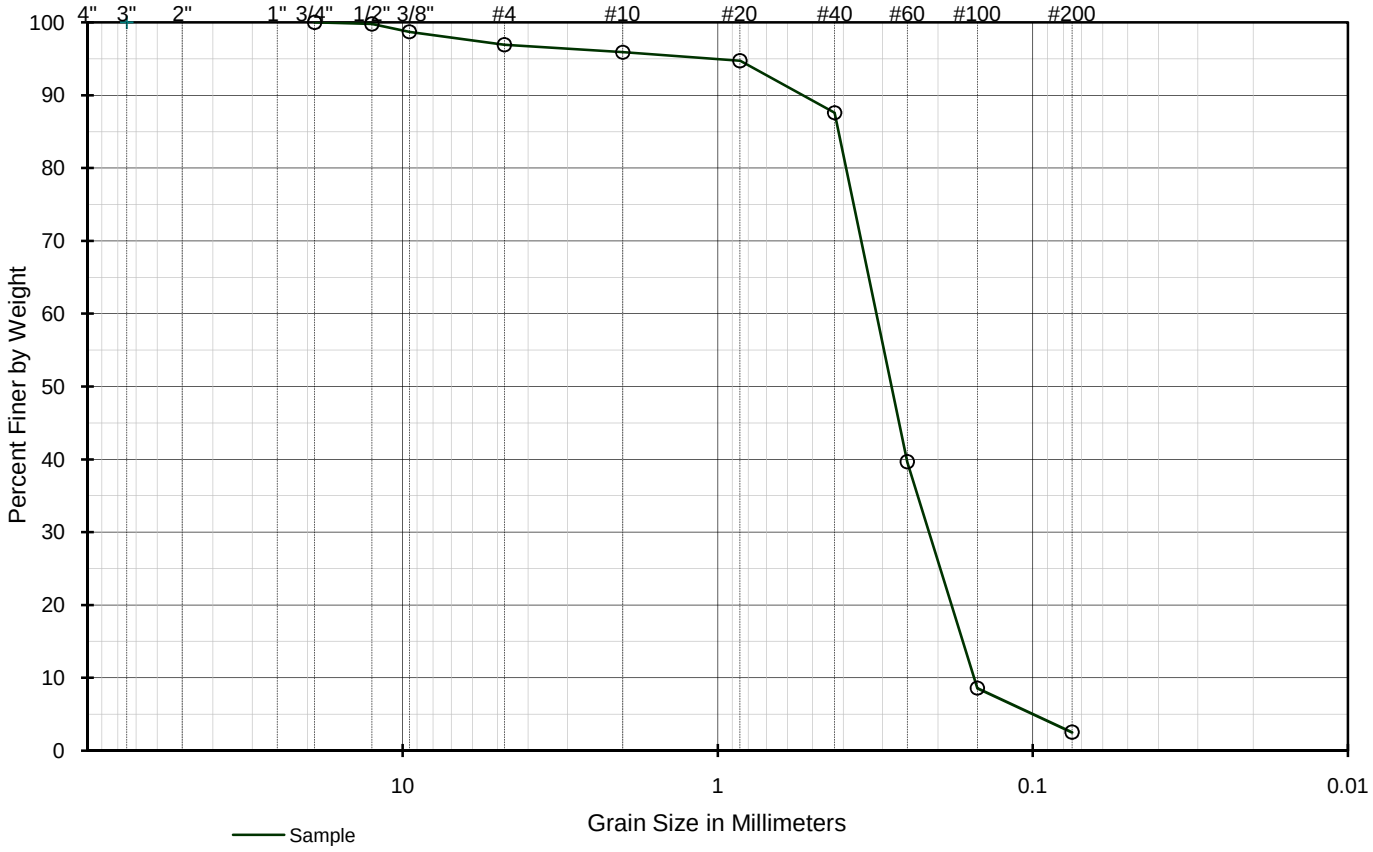
March 12, 2009 31-1-02124-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure B5

GRAIN SIZE DISTRIBUTION

U.S. Standard Sieve Size



*Unified Soil Classification**

Poorly graded sand (SP)

Parameter	Grain Size (mm)**
D10	0.15
D16	0.17
D30	0.21
D50	0.28
D60	0.31
D84	0.41

** nv - no value (insufficient data)

Cu = 2.0

Cc = 0.9

Sieve Size	Percent Passing by Weight
4"	
3"	
2.5"	
2"	
1.5"	
1"	
3/4"	**100**
1/2"	**100**
3/8"	**99**
#4	**97**
#10	**96**
#20	**95**
#40	**88**
#60	**40**
#100	**9**
#200	**2.5**
0.02mm	

Geotechnical Study
Wells Fargo Bentley Branch Renovation and Addition
Fairbanks, Alaska

GRAIN SIZE DISTRIBUTION

C136/C117

Boring 09-2, Sample S-4

March 12, 2009 31-1-02124-001

* - Unified soil classification in general accordance with ASTM D2487

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Figure B6

APPENDIX C

SGS Work Order 1090973

SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project:	Wells Fargo Borings
Client:	Shannon & Wilson-Fairbanks
SGS Work Order:	1090973

Released by:

Contents:

Note:
Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.

Case Narrative

Customer: SHANFBK **Shannon & Wilson-Fairbanks**

Project: 1090973 **Wells Fargo Borings**

Refer to the sample receipt form for information on sample condition.

1090973008 PS **2124-030509-008**

8260B - Sample was analyzed out side of hold time for methylene chloride only.

1090973009 PS **2124-030509-009**

8260B - Sample was analyzed 11 minutes outside of the hold time.

1090973010 PS **2124-030509-010**

8260B - Sample was analyzed out side of hold time for methylene chloride only.

1090973011 PS **TRIP BLANK**

8260B - Sample was analyzed outside of the hold time.

887214 MS **1090973001MS**

8260B - MS/MSD recovery for vinyl chloride does not meet QC criteria (biased high). See LCS for accuracy

887213 LCS **VXX/19249]**

8260B - LCS recovery for cis-1,3-dichloropropene does not meet QC criteria (biased high). This analyte was not detected in the associated samples.

887218 CCV **VMS/10406**

8260B - CCV recoveries for chloroethane and cis-1,3-dichloropropene do not meet QC criteria (biased high). These analytes were not detected in the associated samples.

Laboratory Analytical Report

Client: **Shannon & Wilson-Fairbanks**
2355 Hill Road
Fairbanks, AK 99707

Attn: **Kristen Williams**
T: (907) 458-3146 F:
krw@shanwil.com

Project: **Wells Fargo Borings**

Workorder No.: **1090973**

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Carmon Beene

Project Manager

Print Date: 3/30/2009

Enclosed are the analytical results associated with this workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Assurance Plan (QAP), which outlines this program is available at your request.

The Laboratory certification numbers are AK971-05 (DW), UTS-005 (CS) and AK00971 (Micro) for ADEC and AK100001 for NELAP (RCRA methods: 1020A, 1311, 6010B, 7470A, 7471A, 9040B, 9045C, 9056, 9060, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

If you have any questions regarding this report or if we can be of any assistance, please contact your SGS Project Manager at 907-562-2343. All work is being provided under SGS general terms and conditions (http://www.sgs.com/terms_and_conditions.htm)

The following descriptors may be found on your report which will serve to further qualify the data.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control Limit
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the MDL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
D	The analyte concentration is the result of dilution.
GT	Greater Than
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
R	Rejected
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard
<Surr/IS>	Surrogate / Internal Standard QC spiked standard
QC	Quality Control
QA	Quality Assurance
MB	Method Blank
LCS (D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
BMS(D)	Site Specific Matrix Spike (Duplicate)
RPD	Relative Percent Difference
ICV	Initial Calibration Verification
CCV	Continuous Calibration Verification
MSA	Method of Standard Addition

Notes: Soil samples are reported on a dry weight basis unless otherwise specified

All DRO/RRO analyses are integrated per SOP.

SAMPLE SUMMARY

Print Date: 3/30/2009 11:15 am

Client Name: Shannon & Wilson-Fairbanks
Project Name: Wells Fargo Borings
Workorder No.: 1090973

Analytical Methods

Method Description	Analytical Method
Percent Solids SM2540G	SM20 2540G
VOC 8260 (S) Field Extracted	SW8260B

Sample ID Cross Reference

Lab Sample ID	Client Sample ID
1090973001	2124-030509-001
1090973002	2124-030509-002
1090973003	2124-030509-003
1090973004	2124-030509-004
1090973005	2124-030509-005
1090973006	2124-030509-006
1090973007	2124-030509-007
1090973008	2124-030509-008
1090973009	2124-030509-009
1090973010	2124-030509-010
1090973011	TRIP BLANK

Client Sample ID: **2124-030509-001**
SGS Ref. #: 1090973001
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 91.9

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0168	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.112	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.279	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0447	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.112	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.148	0.0279	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.224	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-001**
SGS Ref. #: 1090973001
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 91.9

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.224	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.279	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.112	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.112	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.279	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0279	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0559	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	88.1	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	95.4	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	97	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-001**
SGS Ref. #: 1090973001
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 91.9

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/18/09 22:55
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 10:06

Initial Prep Wt./Vol.: 48.6541 g
Prep Extract Vol.: 25 mL
Container ID:1090973001-A
Analyst: KPW

Client Sample ID: **2124-030509-001**
SGS Ref. #: 1090973001
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 91.9

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	91.9		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973001-B
Analyst: STB

Client Sample ID: **2124-030509-002**
SGS Ref. #: 1090973002
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 10:14
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0120	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.0803	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.201	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0321	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.0803	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.166	0.0201	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.161	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-002**
SGS Ref. #: 1090973002
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 10:14
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.161	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.201	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.0803	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.0803	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.201	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0201	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0401	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	104	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	106	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	114	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-002**
SGS Ref. #: 1090973002
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 10:14
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/18/09 23:27
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 10:14

Initial Prep Wt./Vol.: 63.915 g
Prep Extract Vol.: 25 mL
Container ID:1090973002-A
Analyst: KPW

Client Sample ID: **2124-030509-002**
SGS Ref. #: 1090973002
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 10:14
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	97.4		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973002-B
Analyst: STB

Client Sample ID: **2124-030509-003**
SGS Ref. #: 1090973003
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:19
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0103	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.0686	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.171	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0274	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.0686	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.166	0.0171	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.137	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-003**
SGS Ref. #: 1090973003
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:19
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.137	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.171	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.0686	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.0686	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.171	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0171	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0343	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	99.2	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	107	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	105	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-003**
SGS Ref. #: 1090973003
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:19
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/19/09 00:00
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 10:19

Initial Prep Wt./Vol.: 74.479 g
Prep Extract Vol.: 25 mL
Container ID:1090973003-A
Analyst: KPW

Client Sample ID: **2124-030509-003**
SGS Ref. #: 1090973003
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:19
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	97.9		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973003-B
Analyst: STB

Client Sample ID: **2124-030509-004**
SGS Ref. #: 1090973004
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 98.1

Collection Date/Time: 03/05/09 10:22
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0158	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.105	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.263	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0421	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.105	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.197	0.0263	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.210	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-004**
SGS Ref. #: 1090973004
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 98.1

Collection Date/Time: 03/05/09 10:22
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.210	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.263	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.105	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.105	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.263	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0263	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0526	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	114	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	108	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	112	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-004**
SGS Ref. #: 1090973004
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 98.1

Collection Date/Time: 03/05/09 10:22
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/19/09 00:32
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 10:22

Initial Prep Wt./Vol.: 48.464 g
Prep Extract Vol.: 25 mL
Container ID:1090973004-A
Analyst: KPW

Client Sample ID: **2124-030509-004**
SGS Ref. #: 1090973004
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 98.1

Collection Date/Time: 03/05/09 10:22
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	98.1		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973004-B
Analyst: STB

Client Sample ID: **2124-030509-005**
SGS Ref. #: 1090973005
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:31
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0122	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.0813	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.203	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0325	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.0813	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.243	0.0203	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.163	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-005**
SGS Ref. #: 1090973005
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:31
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.163	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.203	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.0813	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.0813	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.203	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0203	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0407	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	111	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	106	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	126	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-005**
SGS Ref. #: 1090973005
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:31
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information							
Analytical Batch: VMS10406		Prep Batch: VXX19249			Initial Prep Wt./Vol.: 62.7901 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 25 mL		
Analysis Date/Time: 03/19/09 01:04		Prep Date/Time: 03/05/09 10:31			Container ID:1090973005-A		
Dilution Factor: 1					Analyst: KPW		

Client Sample ID: **2124-030509-005**
SGS Ref. #: 1090973005
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.9

Collection Date/Time: 03/05/09 10:31
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	97.9		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973005-B
Analyst: STB

Client Sample ID: **2124-030509-006**
SGS Ref. #: 1090973006
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 92.2

Collection Date/Time: 03/05/09 11:18
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0145	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.0968	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.242	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0387	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.0968	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	0.208	0.0242	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.194	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-006**
SGS Ref. #: 1090973006
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 92.2

Collection Date/Time: 03/05/09 11:18
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.194	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.242	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.0968	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.0968	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.242	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0242	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0484	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	116	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	102	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	123	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-006**
SGS Ref. #: 1090973006
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 92.2

Collection Date/Time: 03/05/09 11:18
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/19/09 01:37
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 11:18

Initial Prep Wt./Vol.: 55.988 g
Prep Extract Vol.: 25 mL
Container ID:1090973006-A
Analyst: KPW

Client Sample ID: **2124-030509-006**
SGS Ref. #: 1090973006
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 92.2

Collection Date/Time: 03/05/09 11:18
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	92.2		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973006-B
Analyst: STB

Client Sample ID: **2124-030509-007**
SGS Ref. #: 1090973007
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 96.5

Collection Date/Time: 03/05/09 11:23
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0153	mg/Kg	1	VMS10406	VXX19249	
Toluene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
Ethylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
n-Butylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Carbon disulfide	ND	0.102	mg/Kg	1	VMS10406	VXX19249	
1,4-Dichlorobenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,3,5-Trimethylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
4-Chlorotoluene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Chlorobenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
4-Methyl-2-pentanone (MIBK)	ND	0.256	mg/Kg	1	VMS10406	VXX19249	
cis-1,2-Dichloroethene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
4-Isopropyltoluene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Methyl-t-butyl ether	ND	0.0409	mg/Kg	1	VMS10406	VXX19249	
cis-1,3-Dichloropropene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
n-Propylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Styrene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Dibromomethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
trans-1,3-Dichloropropene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trichlorobenzene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
1,1,2,2-Tetrachloroethane	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromo-3-chloropropane	ND	0.102	mg/Kg	1	VMS10406	VXX19249	
Tetrachloroethene	2.20	0.0256	mg/Kg	1	VMS10406	VXX19249	
Dibromochloromethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichloropropane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2-Dibromoethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Carbon tetrachloride	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1,1,2-Tetrachloroethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Chloroform	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Bromobenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Chloromethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichloropropane	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
Bromomethane	ND	0.205	mg/Kg	1	VMS10406	VXX19249	
Bromochloromethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Vinyl chloride	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Dichlorodifluoromethane	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-007**
SGS Ref. #: 1090973007
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 96.5

Collection Date/Time: 03/05/09 11:23
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.205	mg/Kg	1	VMS10406	VXX19249	
sec-Butylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Bromodichloromethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
2-Butanone (MEK)	ND	0.256	mg/Kg	1	VMS10406	VXX19249	
Methylene chloride	ND	0.102	mg/Kg	1	VMS10406	VXX19249	
Trichlorofluoromethane	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
P & M -Xylene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
Naphthalene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
o-Xylene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
Bromoform	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Xylenes (total)	ND	0.102	mg/Kg	1	VMS10406	VXX19249	
1,2,4-Trimethylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
tert-Butylbenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1,1-Trichloroethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloroethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
2-Chlorotoluene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Trichloroethene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
trans-1,2-Dichloroethene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichlorobenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
2,2-Dichloropropane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
Hexachlorobutadiene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
Isopropylbenzene (Cumene)	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
2-Hexanone	ND	0.256	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloropropane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1-Dichloropropene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,1,2-Trichloroethane	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,3-Dichlorobenzene	ND	0.0256	mg/Kg	1	VMS10406	VXX19249	
1,2,3-Trichlorobenzene	ND	0.0512	mg/Kg	1	VMS10406	VXX19249	
1,2-Dichloroethane-D4 <surr>	111	80-137	%	1	VMS10406	VXX19249	
Toluene-d8 <surr>	106	80-122	%	1	VMS10406	VXX19249	
4-Bromofluorobenzene <surr>	111	42-147	%	1	VMS10406	VXX19249	

Client Sample ID: **2124-030509-007**
SGS Ref. #: 1090973007
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 96.5

Collection Date/Time: 03/05/09 11:23
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS10406
Analytical Method: SW8260B
Analysis Date/Time: 03/19/09 02:09
Dilution Factor: 1

Prep Batch: VXX19249
Prep Method: SW5035A
Prep Date/Time: 03/05/09 11:23

Initial Prep Wt./Vol.: 50.654 g
Prep Extract Vol.: 25 mL
Container ID:1090973007-A
Analyst: KPW

Client Sample ID: **2124-030509-007**
SGS Ref. #: 1090973007
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 96.5

Collection Date/Time: 03/05/09 11:23
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	96.5		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973007-B
Analyst: STB

Client Sample ID: **2124-030509-008**
SGS Ref. #: 1090973008
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 93.7

Collection Date/Time: 03/05/09 11:29
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0177	mg/Kg	1	VMS10407	VXX19250	
Toluene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
Ethylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
n-Butylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Carbon disulfide	ND	0.118	mg/Kg	1	VMS10407	VXX19250	
1,4-Dichlorobenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,3,5-Trimethylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
4-Chlorotoluene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Chlorobenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
4-Methyl-2-pentanone (MIBK)	ND	0.296	mg/Kg	1	VMS10407	VXX19250	
cis-1,2-Dichloroethene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
4-Isopropyltoluene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Methyl-t-butyl ether	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
cis-1,3-Dichloropropene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
n-Propylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Styrene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Dibromomethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
trans-1,3-Dichloropropene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trichlorobenzene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
1,1,2,2-Tetrachloroethane	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromo-3-chloropropane	ND	0.118	mg/Kg	1	VMS10407	VXX19250	
Tetrachloroethene	2.10	0.0296	mg/Kg	1	VMS10407	VXX19250	
Dibromochloromethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichloropropane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromoethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Carbon tetrachloride	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1,1,2-Tetrachloroethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Chloroform	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Bromobenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Chloromethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichloropropane	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
Bromomethane	ND	0.237	mg/Kg	1	VMS10407	VXX19250	
Bromochloromethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Vinyl chloride	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Dichlorodifluoromethane	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-008**
SGS Ref. #: 1090973008
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 93.7

Collection Date/Time: 03/05/09 11:29
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.237	mg/Kg	1	VMS10407	VXX19250	
sec-Butylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Bromodichloromethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
2-Butanone (MEK)	ND	0.296	mg/Kg	1	VMS10407	VXX19250	
Methylene chloride	ND	0.118	mg/Kg	1	VMS10414	VXX19260	
Trichlorofluoromethane	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
P & M -Xylene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
Naphthalene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
o-Xylene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
Bromoform	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Xylenes (total)	ND	0.118	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trimethylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
tert-Butylbenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1,1-Trichloroethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
2-Chlorotoluene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Trichloroethene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
trans-1,2-Dichloroethene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichlorobenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
2,2-Dichloropropane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
Hexachlorobutadiene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
Isopropylbenzene (Cumene)	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
2-Hexanone	ND	0.296	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloropropane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloropropene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,1,2-Trichloroethane	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichlorobenzene	ND	0.0296	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichlorobenzene	ND	0.0591	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane-D4 <surr>	102	80-137	%	1	VMS10407	VXX19250	
Toluene-d8 <surr>	98.3	80-122	%	1	VMS10407	VXX19250	
4-Bromofluorobenzene <surr>	102	42-147	%	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-008**
SGS Ref. #: 1090973008
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 93.7

Collection Date/Time: 03/05/09 11:29
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information							
Analytical Batch: VMS10407		Prep Batch: VXX19250			Initial Prep Wt./Vol.: 50.878 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 28.2 mL		
Analysis Date/Time: 03/19/09 23:38		Prep Date/Time: 03/05/09 11:29			Container ID:1090973008-A		
Dilution Factor: 1					Analyst: KPW		
Analytical Batch: VMS10414		Prep Batch: VXX19260			Initial Prep Wt./Vol.: 50.878 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 28.2 mL		
Analysis Date/Time: 03/24/09 15:17		Prep Date/Time: 03/05/09 11:29			Container ID:1090973008-A		
Dilution Factor: 1					Analyst: KPW		

Client Sample ID: **2124-030509-008**
SGS Ref. #: 1090973008
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 93.7

Collection Date/Time: 03/05/09 11:29
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	93.7		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973008-B
Analyst: STB

Client Sample ID: **2124-030509-009**
SGS Ref. #: 1090973009
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.2

Collection Date/Time: 03/05/09 11:35
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0201	mg/Kg	1	VMS10407	VXX19250	
Toluene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
Ethylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
n-Butylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Carbon disulfide	ND	0.134	mg/Kg	1	VMS10407	VXX19250	
1,4-Dichlorobenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,3,5-Trimethylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
4-Chlorotoluene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Chlorobenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
4-Methyl-2-pentanone (MIBK)	ND	0.334	mg/Kg	1	VMS10407	VXX19250	
cis-1,2-Dichloroethene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
4-Isopropyltoluene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Methyl-t-butyl ether	ND	0.0535	mg/Kg	1	VMS10407	VXX19250	
cis-1,3-Dichloropropene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
n-Propylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Styrene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Dibromomethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
trans-1,3-Dichloropropene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trichlorobenzene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
1,1,2,2-Tetrachloroethane	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromo-3-chloropropane	ND	0.134	mg/Kg	1	VMS10407	VXX19250	
Tetrachloroethene	0.311	0.0334	mg/Kg	1	VMS10407	VXX19250	
Dibromochloromethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichloropropane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromoethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Carbon tetrachloride	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1,1,2-Tetrachloroethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Chloroform	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Bromobenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Chloromethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichloropropane	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
Bromomethane	ND	0.267	mg/Kg	1	VMS10407	VXX19250	
Bromochloromethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Vinyl chloride	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Dichlorodifluoromethane	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-009**
SGS Ref. #: 1090973009
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.2

Collection Date/Time: 03/05/09 11:35
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.267	mg/Kg	1	VMS10407	VXX19250	
sec-Butylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Bromodichloromethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
2-Butanone (MEK)	ND	0.334	mg/Kg	1	VMS10407	VXX19250	
Methylene chloride	ND	0.134	mg/Kg	1	VMS10414	VXX19260	
Trichlorofluoromethane	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
P & M -Xylene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
Naphthalene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
o-Xylene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
Bromoform	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Xylenes (total)	ND	0.134	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trimethylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
tert-Butylbenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1,1-Trichloroethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
2-Chlorotoluene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Trichloroethene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
trans-1,2-Dichloroethene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichlorobenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
2,2-Dichloropropane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
Hexachlorobutadiene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
Isopropylbenzene (Cumene)	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
2-Hexanone	ND	0.334	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloropropane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloropropene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,1,2-Trichloroethane	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichlorobenzene	ND	0.0334	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichlorobenzene	ND	0.0669	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane-D4 <surr>	106	80-137	%	1	VMS10407	VXX19250	
Toluene-d8 <surr>	104	80-122	%	1	VMS10407	VXX19250	
4-Bromofluorobenzene <surr>	100	42-147	%	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-009**
SGS Ref. #: 1090973009
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.2

Collection Date/Time: 03/05/09 11:35
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information							
Analytical Batch: VMS10407		Prep Batch: VXX19250			Initial Prep Wt./Vol.: 40.182 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 26.121 mL		
Analysis Date/Time: 03/20/09 00:11		Prep Date/Time: 03/05/09 11:35			Container ID:1090973009-A		
Dilution Factor: 1					Analyst: KPW		
Analytical Batch: VMS10414		Prep Batch: VXX19260			Initial Prep Wt./Vol.: 40.182 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 26.12 mL		
Analysis Date/Time: 03/24/09 14:45		Prep Date/Time: 03/05/09 11:35			Container ID:1090973009-A		
Dilution Factor: 1					Analyst: KPW		

Client Sample ID: **2124-030509-009**
SGS Ref. #: 1090973009
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.2

Collection Date/Time: 03/05/09 11:35
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	97.2		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973009-B
Analyst: STB

Client Sample ID: **2124-030509-010**
SGS Ref. #: 1090973010
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 11:55
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0142	mg/Kg	1	VMS10407	VXX19250	
Toluene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
Ethylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
n-Butylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Carbon disulfide	ND	0.0947	mg/Kg	1	VMS10407	VXX19250	
1,4-Dichlorobenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,3,5-Trimethylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
4-Chlorotoluene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Chlorobenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
4-Methyl-2-pentanone (MIBK)	ND	0.237	mg/Kg	1	VMS10407	VXX19250	
cis-1,2-Dichloroethene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
4-Isopropyltoluene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Methyl-t-butyl ether	ND	0.0379	mg/Kg	1	VMS10407	VXX19250	
cis-1,3-Dichloropropene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
n-Propylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Styrene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Dibromomethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
trans-1,3-Dichloropropene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trichlorobenzene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
1,1,2,2-Tetrachloroethane	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromo-3-chloropropane	ND	0.0947	mg/Kg	1	VMS10407	VXX19250	
Tetrachloroethene	0.131	0.0237	mg/Kg	1	VMS10407	VXX19250	
Dibromochloromethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichloropropane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromoethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Carbon tetrachloride	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1,1,2-Tetrachloroethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Chloroform	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Bromobenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Chloromethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichloropropane	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
Bromomethane	ND	0.189	mg/Kg	1	VMS10407	VXX19250	
Bromochloromethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Vinyl chloride	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Dichlorodifluoromethane	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-010**
SGS Ref. #: 1090973010
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 11:55
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.189	mg/Kg	1	VMS10407	VXX19250	
sec-Butylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Bromodichloromethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
2-Butanone (MEK)	ND	0.237	mg/Kg	1	VMS10407	VXX19250	
Methylene chloride	ND	0.0947	mg/Kg	1	VMS10414	VXX19260	
Trichlorofluoromethane	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
P & M -Xylene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
Naphthalene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
o-Xylene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
Bromoform	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Xylenes (total)	ND	0.0947	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trimethylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
tert-Butylbenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1,1-Trichloroethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
2-Chlorotoluene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Trichloroethene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
trans-1,2-Dichloroethene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichlorobenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
2,2-Dichloropropane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
Hexachlorobutadiene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
Isopropylbenzene (Cumene)	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
2-Hexanone	ND	0.237	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloropropane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloropropene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,1,2-Trichloroethane	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichlorobenzene	ND	0.0237	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichlorobenzene	ND	0.0473	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane-D4 <surr>	99.2	80-137	%	1	VMS10407	VXX19250	
Toluene-d8 <surr>	98.8	80-122	%	1	VMS10407	VXX19250	
4-Bromofluorobenzene <surr>	99.2	42-147	%	1	VMS10407	VXX19250	

Client Sample ID: **2124-030509-010**
SGS Ref. #: 1090973010
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 11:55
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information							
Analytical Batch: VMS10407		Prep Batch: VXX19250			Initial Prep Wt./Vol.: 57.475 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 26.5 mL		
Analysis Date/Time: 03/19/09 23:06		Prep Date/Time: 03/05/09 11:55			Container ID:1090973010-A		
Dilution Factor: 1					Analyst: KPW		
Analytical Batch: VMS10414		Prep Batch: VXX19260			Initial Prep Wt./Vol.: 57.475 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 26.5 mL		
Analysis Date/Time: 03/24/09 14:12		Prep Date/Time: 03/05/09 11:55			Container ID:1090973010-A		
Dilution Factor: 1					Analyst: KPW		

Client Sample ID: **2124-030509-010**
SGS Ref. #: 1090973010
Project ID: Wells Fargo Borings
Matrix: Soil/Solid (dry weight)
Percent Solids: 97.4

Collection Date/Time: 03/05/09 11:55
Receipt Date/Time: 03/06/09 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	97.4		%	1	SPT7883		

Batch Information

Analytical Batch: SPT7883
Analytical Method: SM20 2540G
Analysis Date/Time: 03/17/09 16:30
Dilution Factor: 1

Initial Prep Wt./Vol.: 1 mL
Container ID:1090973010-B
Analyst: STB

Client Sample ID: **TRIP BLANK**
SGS Ref. #: 1090973011
Project ID: Wells Fargo Borings
Matrix: Solid/Soil (Wet Weight)

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	0.0151	mg/Kg	1	VMS10407	VXX19250	
Toluene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
Ethylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
n-Butylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Carbon disulfide	ND	0.101	mg/Kg	1	VMS10407	VXX19250	
1,4-Dichlorobenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,3,5-Trimethylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
4-Chlorotoluene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Chlorobenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
4-Methyl-2-pentanone (MIBK)	ND	0.252	mg/Kg	1	VMS10407	VXX19250	
cis-1,2-Dichloroethene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
4-Isopropyltoluene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Methyl-t-butyl ether	ND	0.0404	mg/Kg	1	VMS10407	VXX19250	
cis-1,3-Dichloropropene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
n-Propylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Styrene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Dibromomethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
trans-1,3-Dichloropropene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trichlorobenzene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
1,1,2,2-Tetrachloroethane	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromo-3-chloropropane	ND	0.101	mg/Kg	1	VMS10407	VXX19250	
Tetrachloroethene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Dibromochloromethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichloropropane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2-Dibromoethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Carbon tetrachloride	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1,1,2-Tetrachloroethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Chloroform	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Bromobenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Chloromethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichloropropane	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
Bromomethane	ND	0.202	mg/Kg	1	VMS10407	VXX19250	
Bromochloromethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Vinyl chloride	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Dichlorodifluoromethane	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	

Client Sample ID: **TRIP BLANK**
SGS Ref. #: 1090973011
Project ID: Wells Fargo Borings
Matrix: Solid/Soil (Wet Weight)

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	ND	0.202	mg/Kg	1	VMS10407	VXX19250	
sec-Butylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Bromodichloromethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
2-Butanone (MEK)	ND	0.252	mg/Kg	1	VMS10407	VXX19250	
Methylene chloride	ND	0.101	mg/Kg	1	VMS10414	VXX19260	
Trichlorofluoromethane	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
P & M -Xylene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
Naphthalene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
o-Xylene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
Bromoform	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Xylenes (total)	ND	0.101	mg/Kg	1	VMS10407	VXX19250	
1,2,4-Trimethylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
tert-Butylbenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1,1-Trichloroethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloroethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
2-Chlorotoluene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Trichloroethene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
trans-1,2-Dichloroethene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichlorobenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
2,2-Dichloropropane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
Hexachlorobutadiene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
Isopropylbenzene (Cumene)	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
2-Hexanone	ND	0.252	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloropropane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1-Dichloropropene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,1,2-Trichloroethane	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,3-Dichlorobenzene	ND	0.0252	mg/Kg	1	VMS10407	VXX19250	
1,2,3-Trichlorobenzene	ND	0.0505	mg/Kg	1	VMS10407	VXX19250	
1,2-Dichloroethane-D4 <surr>	103	80-137	%	1	VMS10407	VXX19250	
Toluene-d8 <surr>	100	80-122	%	1	VMS10407	VXX19250	
4-Bromofluorobenzene <surr>	98.8	42-147	%	1	VMS10407	VXX19250	

Client Sample ID: **TRIP BLANK**
SGS Ref. #: 1090973011
Project ID: Wells Fargo Borings
Matrix: Solid/Soil (Wet Weight)

Collection Date/Time: 03/05/09 10:06
Receipt Date/Time: 03/06/09 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information							
Analytical Batch: VMS10407		Prep Batch: VXX19250			Initial Prep Wt./Vol.: 49.53 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 25 mL		
Analysis Date/Time: 03/20/09 00:44		Prep Date/Time: 03/05/09 10:06			Container ID:1090973011-A		
Dilution Factor: 1					Analyst: KPW		
Analytical Batch: VMS10414		Prep Batch: VXX19260			Initial Prep Wt./Vol.: 49.53 g		
Analytical Method: SW8260B		Prep Method: SW5035A			Prep Extract Vol.: 25 mL		
Analysis Date/Time: 03/24/09 10:57		Prep Date/Time: 03/05/09 10:06			Container ID:1090973011-A		
Dilution Factor: 1					Analyst: KPW		

SGS Ref.#	885843	Method Blank	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks		**Prep Batch**	
Project Name/#	Wells Fargo Borings		**Method**	
Matrix	Soil/Solid (dry weight)		**Date**	

QC results affect the following production samples:

1090973001, 1090973002, 1090973003, 1090973004, 1090973005, 1090973006, 1090973007, 1090973008, 1090973009, 1090973010

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Solids					
Total Solids	100			%	03/17/09
Batch SPT7883					
Method SM20 2540G					
Instrument					

SGS Ref.#	887212	Method Blank	**Printed Date/Time**		03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks		**Prep**	**Batch**	VXX19249
Project Name/#	Wells Fargo Borings			**Method**	SW5035A
Matrix	Soil/Solid (dry weight)			**Date**	03/18/2009

QC results affect the following production samples:

1090973001, 1090973002, 1090973003, 1090973004, 1090973005, 1090973006, 1090973007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	887212 Method Blank	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks	**Prep Batch**	VXX19249
Project Name/#	Wells Fargo Borings	**Method**	SW5035A
Matrix	Soil/Solid (dry weight)	**Date**	03/18/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	0.0150	0.00500	mg/Kg	03/18/09
Toluene	0.0158J	0.0500	0.0150	mg/Kg	03/18/09
Ethylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
n-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
Carbon disulfide	ND	0.100	0.0310	mg/Kg	03/18/09
1,4-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2-Dichloroethane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,3,5-Trimethylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
4-Chlorotoluene	ND	0.0250	0.00780	mg/Kg	03/18/09
Chlorobenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
4-Methyl-2-pentanone (MIBK)	ND	0.250	0.0780	mg/Kg	03/18/09
cis-1,2-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/18/09
4-Isopropyltoluene	ND	0.0250	0.00780	mg/Kg	03/18/09
Methyl-t-butyl ether	ND	0.0400	0.0120	mg/Kg	03/18/09
cis-1,3-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/18/09
n-Propylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
Styrene	ND	0.0250	0.00780	mg/Kg	03/18/09
Dibromomethane	ND	0.0250	0.00780	mg/Kg	03/18/09
trans-1,3-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2,4-Trichlorobenzene	ND	0.0500	0.0150	mg/Kg	03/18/09
1,1,2,2-Tetrachloroethane	ND	0.0500	0.0150	mg/Kg	03/18/09
1,2-Dibromo-3-chloropropane	ND	0.100	0.0310	mg/Kg	03/18/09
Tetrachloroethene	ND	0.0250	0.00780	mg/Kg	03/18/09
Dibromochloromethane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,3-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2-Dibromoethane	ND	0.0250	0.00780	mg/Kg	03/18/09
Carbon tetrachloride	ND	0.0250	0.00780	mg/Kg	03/18/09
1,1,1,2-Tetrachloroethane	ND	0.0250	0.00780	mg/Kg	03/18/09
Chloroform	ND	0.0250	0.00780	mg/Kg	03/18/09
Bromobenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
Chloromethane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2,3-Trichloropropane	ND	0.0500	0.0150	mg/Kg	03/18/09
Bromomethane	ND	0.200	0.0620	mg/Kg	03/18/09
Bromochloromethane	ND	0.0250	0.00780	mg/Kg	03/18/09
Vinyl chloride	ND	0.0250	0.0120	mg/Kg	03/18/09
Dichlorodifluoromethane	ND	0.0500	0.0150	mg/Kg	03/18/09
Chloroethane	ND	0.200	0.0620	mg/Kg	03/18/09
sec-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
Bromodichloromethane	ND	0.0250	0.00780	mg/Kg	03/18/09

SGS Ref.#	887212 Method Blank	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks	**Prep Batch**	VXX19249
Project Name/#	Wells Fargo Borings	**Method**	SW5035A
Matrix	Soil/Solid (dry weight)	**Date**	03/18/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
1,1-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/18/09
2-Butanone (MEK)	ND	0.250	0.0780	mg/Kg	03/18/09
Methylene chloride	ND	0.100	0.0310	mg/Kg	03/18/09
Trichlorofluoromethane	ND	0.0500	0.0150	mg/Kg	03/18/09
P & M -Xylene	ND	0.0500	0.0150	mg/Kg	03/18/09
Naphthalene	ND	0.0500	0.0150	mg/Kg	03/18/09
o-Xylene	ND	0.0500	0.0150	mg/Kg	03/18/09
Bromoform	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2,4-Trimethylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
tert-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,1,1-Trichloroethane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,1-Dichloroethane	ND	0.0250	0.00780	mg/Kg	03/18/09
2-Chlorotoluene	ND	0.0250	0.00780	mg/Kg	03/18/09
Trichloroethene	ND	0.0250	0.00780	mg/Kg	03/18/09
trans-1,2-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
2,2-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/18/09
Hexachlorobutadiene	ND	0.0500	0.0150	mg/Kg	03/18/09
Isopropylbenzene (Cumene)	ND	0.0250	0.00780	mg/Kg	03/18/09
2-Hexanone	ND	0.250	0.0780	mg/Kg	03/18/09
1,2-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,1-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,1,2-Trichloroethane	ND	0.0250	0.00780	mg/Kg	03/18/09
1,3-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/18/09
1,2,3-Trichlorobenzene	ND	0.0500	0.0150	mg/Kg	03/18/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	98.2	80-137		%	03/18/09
Toluene-d8 <surr>	97.4	80-122		%	03/18/09
4-Bromofluorobenzene <surr>	100	42-147		%	03/18/09

Batch VMS10406
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	887358	Method Blank	**Printed Date/Time**		03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks		**Prep**	**Batch**	VXX19250
Project Name/#	Wells Fargo Borings			**Method**	SW5035A
Matrix	Soil/Solid (dry weight)			**Date**	03/19/2009

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	887358 Method Blank	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks	**Prep Batch**	VXX19250
Project Name/#	Wells Fargo Borings	**Method**	SW5035A
Matrix	Soil/Solid (dry weight)	**Date**	03/19/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	0.0150	0.00500	mg/Kg	03/19/09
Toluene	ND	0.0500	0.0150	mg/Kg	03/19/09
Ethylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
n-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
Carbon disulfide	ND	0.100	0.0310	mg/Kg	03/19/09
1,4-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2-Dichloroethane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,3,5-Trimethylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
4-Chlorotoluene	ND	0.0250	0.00780	mg/Kg	03/19/09
Chlorobenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
4-Methyl-2-pentanone (MIBK)	ND	0.250	0.0780	mg/Kg	03/19/09
cis-1,2-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/19/09
4-Isopropyltoluene	ND	0.0250	0.00780	mg/Kg	03/19/09
Methyl-t-butyl ether	ND	0.0400	0.0120	mg/Kg	03/19/09
cis-1,3-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/19/09
n-Propylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
Styrene	ND	0.0250	0.00780	mg/Kg	03/19/09
Dibromomethane	ND	0.0250	0.00780	mg/Kg	03/19/09
trans-1,3-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2,4-Trichlorobenzene	ND	0.0500	0.0150	mg/Kg	03/19/09
1,1,2,2-Tetrachloroethane	ND	0.0500	0.0150	mg/Kg	03/19/09
1,2-Dibromo-3-chloropropane	ND	0.100	0.0310	mg/Kg	03/19/09
Tetrachloroethene	ND	0.0250	0.00780	mg/Kg	03/19/09
Dibromochloromethane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,3-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2-Dibromoethane	ND	0.0250	0.00780	mg/Kg	03/19/09
Carbon tetrachloride	ND	0.0250	0.00780	mg/Kg	03/19/09
1,1,1,2-Tetrachloroethane	ND	0.0250	0.00780	mg/Kg	03/19/09
Chloroform	ND	0.0250	0.00780	mg/Kg	03/19/09
Bromobenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
Chloromethane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2,3-Trichloropropane	ND	0.0500	0.0150	mg/Kg	03/19/09
Bromomethane	ND	0.200	0.0620	mg/Kg	03/19/09
Bromochloromethane	ND	0.0250	0.00780	mg/Kg	03/19/09
Vinyl chloride	ND	0.0250	0.0120	mg/Kg	03/19/09
Dichlorodifluoromethane	ND	0.0500	0.0150	mg/Kg	03/19/09
Chloroethane	ND	0.200	0.0620	mg/Kg	03/19/09
sec-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
Bromodichloromethane	ND	0.0250	0.00780	mg/Kg	03/19/09

SGS Ref.#	887358 Method Blank	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks	**Prep Batch**	VXX19250
Project Name/#	Wells Fargo Borings	**Method**	SW5035A
Matrix	Soil/Solid (dry weight)	**Date**	03/19/2009

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
1,1-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/19/09
2-Butanone (MEK)	ND	0.250	0.0780	mg/Kg	03/19/09
Trichlorofluoromethane	ND	0.0500	0.0150	mg/Kg	03/19/09
P & M -Xylene	ND	0.0500	0.0150	mg/Kg	03/19/09
Naphthalene	ND	0.0500	0.0150	mg/Kg	03/19/09
o-Xylene	ND	0.0500	0.0150	mg/Kg	03/19/09
Bromoform	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2,4-Trimethylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
tert-Butylbenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,1,1-Trichloroethane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,1-Dichloroethane	ND	0.0250	0.00780	mg/Kg	03/19/09
2-Chlorotoluene	ND	0.0250	0.00780	mg/Kg	03/19/09
Trichloroethene	ND	0.0250	0.00780	mg/Kg	03/19/09
trans-1,2-Dichloroethene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
2,2-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/19/09
Hexachlorobutadiene	ND	0.0500	0.0150	mg/Kg	03/19/09
Isopropylbenzene (Cumene)	ND	0.0250	0.00780	mg/Kg	03/19/09
2-Hexanone	ND	0.250	0.0780	mg/Kg	03/19/09
1,2-Dichloropropane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,1-Dichloropropene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,1,2-Trichloroethane	ND	0.0250	0.00780	mg/Kg	03/19/09
1,3-Dichlorobenzene	ND	0.0250	0.00780	mg/Kg	03/19/09
1,2,3-Trichlorobenzene	ND	0.0500	0.0150	mg/Kg	03/19/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	103	80-137		%	03/19/09
Toluene-d8 <surr>	99.3	80-122		%	03/19/09
4-Bromofluorobenzene <surr>	98.6	42-147		%	03/19/09

Batch VMS10407
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	887959 Method Blank	**Printed Date/Time**	03/30/2009 11:15	
Client Name	Shannon & Wilson-Fairbanks	**Prep**	**Batch**	VXX19260
Project Name/#	Wells Fargo Borings		**Method**	SW5035A
Matrix	Soil/Solid (dry weight)		**Date**	03/24/2009

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Methylene chloride	ND	0.100	0.0310	mg/Kg	03/24/09
Surrogates					
1,2-Dichloroethane-D4 <surr>	105	80-137		%	03/24/09
Toluene-d8 <surr>	104	80-122		%	03/24/09
4-Bromofluorobenzene <surr>	105	42-147		%	03/24/09

Batch VMS10414
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	885844	Duplicate	**Printed Date/Time**	03/30/2009 11:15
Client Name	Shannon & Wilson-Fairbanks		**Prep Batch**	
Project Name/#	Wells Fargo Borings		**Method**	
Original	1090973001		**Date**	
Matrix	Soil/Solid (dry weight)			

QC results affect the following production samples:

1090973001, 1090973002, 1090973003, 1090973004, 1090973005, 1090973006, 1090973007, 1090973008, 1090973009, 1090973010

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
Solids						
Total Solids	91.9	92.2	%	0	(< 15)	03/17/2009

Batch SPT7883
Method SM20 2540G
Instrument

SGS

SGS Ref.#	887213	Lab Control Sample	**Printed Date/Time**	03/30/2009	11:15
			Prep Batch	VXX19249	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/18/2009	
Matrix	Soil/Solid (dry weight)				

QC results affect the following production samples:

1090973001, 1090973002, 1090973003, 1090973004, 1090973005, 1090973006, 1090973007

Parameter		QC Results	Pct Recov		LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	LCS	0.844	113		(80-125)			0.750 mg/Kg	03/18/2009
Toluene	LCS	0.763	102		(80-120)			0.750 mg/Kg	03/18/2009
Ethylbenzene	LCS	0.805	107		(80-120)			0.750 mg/Kg	03/18/2009
n-Butylbenzene	LCS	0.851	114		(80-123)			0.750 mg/Kg	03/18/2009
Carbon disulfide	LCS	1.07	95		(61-135)			1.13 mg/Kg	03/18/2009
1,4-Dichlorobenzene	LCS	0.776	103		(80-120)			0.750 mg/Kg	03/18/2009
1,2-Dichloroethane	LCS	0.783	104		(80-133)			0.750 mg/Kg	03/18/2009
1,3,5-Trimethylbenzene	LCS	0.819	109		(80-120)			0.750 mg/Kg	03/18/2009
4-Chlorotoluene	LCS	0.779	104		(80-120)			0.750 mg/Kg	03/18/2009
Chlorobenzene	LCS	0.801	107		(80-122)			0.750 mg/Kg	03/18/2009
4-Methyl-2-pentanone (MIBK)	LCS	2.41	107		(76-120)			2.25 mg/Kg	03/18/2009
cis-1,2-Dichloroethene	LCS	0.826	110		(80-124)			0.750 mg/Kg	03/18/2009
4-Isopropyltoluene	LCS	0.785	105		(80-120)			0.750 mg/Kg	03/18/2009
Methyl-t-butyl ether	LCS	1.18	105		(78-123)			1.13 mg/Kg	03/18/2009
cis-1,3-Dichloropropene	LCS	0.904	121	*	(80-120)			0.750 mg/Kg	03/18/2009
n-Propylbenzene	LCS	0.822	110		(80-122)			0.750 mg/Kg	03/18/2009
Styrene	LCS	0.776	103		(80-120)			0.750 mg/Kg	03/18/2009
Dibromomethane	LCS	0.775	103		(79-126)			0.750 mg/Kg	03/18/2009
trans-1,3-Dichloropropene	LCS	0.828	110		(80-120)			0.750 mg/Kg	03/18/2009
1,2,4-Trichlorobenzene	LCS	0.764	102		(80-122)			0.750 mg/Kg	03/18/2009

SGS

SGS Ref.#	887213	Lab Control Sample	**Printed Date/Time**	03/30/2009	11:15
			Prep Batch	VXX19249	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/18/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
1,1,2,2-Tetrachloroethane	LCS	0.762	102	(79-120)			0.750 mg/Kg	03/18/2009
1,2-Dibromo-3-chloropropane	LCS	0.707	94	(64-128)			0.750 mg/Kg	03/18/2009
Tetrachloroethene	LCS	0.805	107	(78-124)			0.750 mg/Kg	03/18/2009
Dibromochloromethane	LCS	0.738	98	(80-122)			0.750 mg/Kg	03/18/2009
1,3-Dichloropropane	LCS	0.739	99	(80-120)			0.750 mg/Kg	03/18/2009
1,2-Dibromoethane	LCS	0.790	105	(80-121)			0.750 mg/Kg	03/18/2009
Carbon tetrachloride	LCS	0.830	111	(73-133)			0.750 mg/Kg	03/18/2009
1,1,1,2-Tetrachloroethane	LCS	0.773	103	(78-125)			0.750 mg/Kg	03/18/2009
Chloroform	LCS	0.808	108	(80-124)			0.750 mg/Kg	03/18/2009
Bromobenzene	LCS	0.745	99	(80-120)			0.750 mg/Kg	03/18/2009
Chloromethane	LCS	0.736	98	(68-129)			0.750 mg/Kg	03/18/2009
1,2,3-Trichloropropane	LCS	0.777	104	(75-121)			0.750 mg/Kg	03/18/2009
Bromomethane	LCS	0.736	98	(52-140)			0.750 mg/Kg	03/18/2009
Bromochloromethane	LCS	0.816	109	(78-125)			0.750 mg/Kg	03/18/2009
Vinyl chloride	LCS	0.835	111	(78-125)			0.750 mg/Kg	03/18/2009
Dichlorodifluoromethane	LCS	0.799	107	(67-135)			0.750 mg/Kg	03/18/2009
Chloroethane	LCS	0.987	132	(53-141)			0.750 mg/Kg	03/18/2009
sec-Butylbenzene	LCS	0.845	113	(80-120)			0.750 mg/Kg	03/18/2009
Bromodichloromethane	LCS	0.796	106	(80-126)			0.750 mg/Kg	03/18/2009
1,1-Dichloroethene	LCS	0.876	117	(73-126)			0.750 mg/Kg	03/18/2009

SGS

SGS Ref.#	887213 Lab Control Sample	**Printed Date/Time**		03/30/2009	11:15
		Prep	**Batch**	VXX19249	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/18/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
2-Butanone (MEK)	LCS	2.37	105	(70-124)			2.25 mg/Kg	03/18/2009
Methylene chloride	LCS	0.605	81	(76-124)			0.750 mg/Kg	03/18/2009
Trichlorofluoromethane	LCS	0.881	117	(58-172)			0.750 mg/Kg	03/18/2009
P & M -Xylene	LCS	1.59	106	(80-120)			1.50 mg/Kg	03/18/2009
Naphthalene	LCS	0.728	97	(71-121)			0.750 mg/Kg	03/18/2009
o-Xylene	LCS	0.762	102	(80-120)			0.750 mg/Kg	03/18/2009
Bromoform	LCS	0.828	110	(74-129)			0.750 mg/Kg	03/18/2009
1,2,4-Trimethylbenzene	LCS	0.809	108	(80-120)			0.750 mg/Kg	03/18/2009
tert-Butylbenzene	LCS	0.826	110	(80-120)			0.750 mg/Kg	03/18/2009
1,1,1-Trichloroethane	LCS	0.809	108	(77-130)			0.750 mg/Kg	03/18/2009
1,1-Dichloroethane	LCS	0.770	103	(80-120)			0.750 mg/Kg	03/18/2009
2-Chlorotoluene	LCS	0.802	107	(80-123)			0.750 mg/Kg	03/18/2009
Trichloroethene	LCS	0.825	110	(80-122)			0.750 mg/Kg	03/18/2009
trans-1,2-Dichloroethene	LCS	0.810	108	(80-126)			0.750 mg/Kg	03/18/2009
1,2-Dichlorobenzene	LCS	0.739	99	(80-120)			0.750 mg/Kg	03/18/2009
2,2-Dichloropropane	LCS	0.852	114	(80-134)			0.750 mg/Kg	03/18/2009
Hexachlorobutadiene	LCS	0.825	110	(78-133)			0.750 mg/Kg	03/18/2009
Isopropylbenzene (Cumene)	LCS	0.761	101	(80-120)			0.750 mg/Kg	03/18/2009
2-Hexanone	LCS	2.28	101	(63-125)			2.25 mg/Kg	03/18/2009
1,2-Dichloropropane	LCS	0.843	112	(80-120)			0.750 mg/Kg	03/18/2009
1,1-Dichloropropene	LCS	0.871	116	(80-124)			0.750 mg/Kg	03/18/2009

SGS Ref.#	887213	Lab Control Sample	**Printed Date/Time**	03/30/2009	11:15
			Prep Batch	VXX19249	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/18/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
1,1,2-Trichloroethane	LCS	0.795	106	(82-120)			0.750 mg/Kg	03/18/2009
1,3-Dichlorobenzene	LCS	0.772	103	(80-120)			0.750 mg/Kg	03/18/2009
1,2,3-Trichlorobenzene	LCS	0.785	105	(77-126)			0.750 mg/Kg	03/18/2009
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		104	(80-137)				03/18/2009
Toluene-d8 <surr>	LCS		100	(80-122)				03/18/2009
4-Bromofluorobenzene <surr>	LCS		98	(42-147)				03/18/2009

Batch	VMS10406
Method	SW8260B
Instrument	HP 5890 Series II MS1 VMA

SGS Ref.#	887359	Lab Control Sample	**Printed Date/Time**	03/30/2009	11:15
			Prep Batch	VXX19250	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/19/2009	
Matrix	Soil/Solid (dry weight)				

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS

SGS Ref.#	887359 Lab Control Sample	**Printed Date/Time**		03/30/2009	11:15
		Prep	**Batch**	VXX19250	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/19/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Benzene	LCS	0.775	103	(80-125)			0.750 mg/Kg	03/19/2009
Toluene	LCS	0.774	103	(80-120)			0.750 mg/Kg	03/19/2009
Ethylbenzene	LCS	0.845	113	(80-120)			0.750 mg/Kg	03/19/2009
n-Butylbenzene	LCS	0.826	110	(80-123)			0.750 mg/Kg	03/19/2009
Carbon disulfide	LCS	1.19	106	(61-135)			1.13 mg/Kg	03/19/2009
1,4-Dichlorobenzene	LCS	0.756	101	(80-120)			0.750 mg/Kg	03/19/2009
1,2-Dichloroethane	LCS	0.781	104	(80-133)			0.750 mg/Kg	03/19/2009
1,3,5-Trimethylbenzene	LCS	0.823	110	(80-120)			0.750 mg/Kg	03/19/2009
4-Chlorotoluene	LCS	0.798	106	(80-120)			0.750 mg/Kg	03/19/2009
Chlorobenzene	LCS	0.774	103	(80-122)			0.750 mg/Kg	03/19/2009
4-Methyl-2-pentanone (MIBK)	LCS	2.43	108	(76-120)			2.25 mg/Kg	03/19/2009
cis-1,2-Dichloroethene	LCS	0.806	107	(80-124)			0.750 mg/Kg	03/19/2009
4-Isopropyltoluene	LCS	0.853	114	(80-120)			0.750 mg/Kg	03/19/2009
Methyl-t-butyl ether	LCS	1.24	110	(78-123)			1.13 mg/Kg	03/19/2009
cis-1,3-Dichloropropene	LCS	0.834	111	(80-120)			0.750 mg/Kg	03/19/2009
n-Propylbenzene	LCS	0.840	112	(80-122)			0.750 mg/Kg	03/19/2009
Styrene	LCS	0.829	111	(80-120)			0.750 mg/Kg	03/19/2009
Dibromomethane	LCS	0.767	102	(79-126)			0.750 mg/Kg	03/19/2009
trans-1,3-Dichloropropene	LCS	0.857	114	(80-120)			0.750 mg/Kg	03/19/2009
1,2,4-Trichlorobenzene	LCS	0.777	104	(80-122)			0.750 mg/Kg	03/19/2009
1,1,2,2-Tetrachloroethane	LCS	0.810	108	(79-120)			0.750 mg/Kg	03/19/2009

SGS

SGS Ref.#	887359 Lab Control Sample	**Printed Date/Time**		03/30/2009	11:15
		Prep	**Batch**	VXX19250	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/19/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
1,2-Dibromo-3-chloropropane	LCS	0.823	110	(64-128)			0.750 mg/Kg	03/19/2009
Tetrachloroethene	LCS	0.738	98	(78-124)			0.750 mg/Kg	03/19/2009
Dibromochloromethane	LCS	0.779	104	(80-122)			0.750 mg/Kg	03/19/2009
1,3-Dichloropropane	LCS	0.818	109	(80-120)			0.750 mg/Kg	03/19/2009
1,2-Dibromoethane	LCS	0.796	106	(80-121)			0.750 mg/Kg	03/19/2009
Carbon tetrachloride	LCS	0.793	106	(73-133)			0.750 mg/Kg	03/19/2009
1,1,1,2-Tetrachloroethane	LCS	0.769	102	(78-125)			0.750 mg/Kg	03/19/2009
Chloroform	LCS	0.757	101	(80-124)			0.750 mg/Kg	03/19/2009
Bromobenzene	LCS	0.746	99	(80-120)			0.750 mg/Kg	03/19/2009
Chloromethane	LCS	0.789	105	(68-129)			0.750 mg/Kg	03/19/2009
1,2,3-Trichloropropane	LCS	0.766	102	(75-121)			0.750 mg/Kg	03/19/2009
Bromomethane	LCS	0.759	101	(52-140)			0.750 mg/Kg	03/19/2009
Bromochloromethane	LCS	0.754	101	(78-125)			0.750 mg/Kg	03/19/2009
Vinyl chloride	LCS	0.738	98	(78-125)			0.750 mg/Kg	03/19/2009
Dichlorodifluoromethane	LCS	0.783	104	(67-135)			0.750 mg/Kg	03/19/2009
Chloroethane	LCS	0.758	101	(53-141)			0.750 mg/Kg	03/19/2009
sec-Butylbenzene	LCS	0.861	115	(80-120)			0.750 mg/Kg	03/19/2009
Bromodichloromethane	LCS	0.784	105	(80-126)			0.750 mg/Kg	03/19/2009
1,1-Dichloroethene	LCS	0.839	112	(73-126)			0.750 mg/Kg	03/19/2009
2-Butanone (MEK)	LCS	2.30	102	(70-124)			2.25 mg/Kg	03/19/2009

SGS

SGS Ref.#	887359 Lab Control Sample	**Printed Date/Time**		03/30/2009	11:15
		Prep	**Batch**	VXX19250	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/19/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Trichlorofluoromethane	LCS	0.840	112	(58-172)			0.750 mg/Kg	03/19/2009
P & M -Xylene	LCS	1.63	109	(80-120)			1.50 mg/Kg	03/19/2009
Naphthalene	LCS	0.802	107	(71-121)			0.750 mg/Kg	03/19/2009
o-Xylene	LCS	0.852	114	(80-120)			0.750 mg/Kg	03/19/2009
Bromoform	LCS	0.808	108	(74-129)			0.750 mg/Kg	03/19/2009
1,2,4-Trimethylbenzene	LCS	0.831	111	(80-120)			0.750 mg/Kg	03/19/2009
tert-Butylbenzene	LCS	0.850	113	(80-120)			0.750 mg/Kg	03/19/2009
1,1,1-Trichloroethane	LCS	0.832	111	(77-130)			0.750 mg/Kg	03/19/2009
1,1-Dichloroethane	LCS	0.781	104	(80-120)			0.750 mg/Kg	03/19/2009
2-Chlorotoluene	LCS	0.798	106	(80-123)			0.750 mg/Kg	03/19/2009
Trichloroethene	LCS	0.788	105	(80-122)			0.750 mg/Kg	03/19/2009
trans-1,2-Dichloroethene	LCS	0.797	106	(80-126)			0.750 mg/Kg	03/19/2009
1,2-Dichlorobenzene	LCS	0.732	98	(80-120)			0.750 mg/Kg	03/19/2009
2,2-Dichloropropane	LCS	0.810	108	(80-134)			0.750 mg/Kg	03/19/2009
Hexachlorobutadiene	LCS	0.736	98	(78-133)			0.750 mg/Kg	03/19/2009
Isopropylbenzene (Cumene)	LCS	0.867	116	(80-120)			0.750 mg/Kg	03/19/2009
2-Hexanone	LCS	2.38	106	(63-125)			2.25 mg/Kg	03/19/2009
1,2-Dichloropropane	LCS	0.830	111	(80-120)			0.750 mg/Kg	03/19/2009
1,1-Dichloropropene	LCS	0.830	111	(80-124)			0.750 mg/Kg	03/19/2009
1,1,2-Trichloroethane	LCS	0.784	104	(82-120)			0.750 mg/Kg	03/19/2009
1,3-Dichlorobenzene	LCS	0.735	98	(80-120)			0.750 mg/Kg	03/19/2009

SGS Ref.#	887359	Lab Control Sample	**Printed Date/Time**	03/30/2009	11:15
			Prep Batch	VXX19250	
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A	
Project Name/#	Wells Fargo Borings		**Date**	03/19/2009	
Matrix	Soil/Solid (dry weight)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
1,2,3-Trichlorobenzene	LCS	0.739	99	(77-126)			0.750 mg/Kg	03/19/2009
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		108	(80-137)				03/19/2009
Toluene-d8 <surr>	LCS		102	(80-122)				03/19/2009
4-Bromofluorobenzene <surr>	LCS		97	(42-147)				03/19/2009

Batch VMS10407
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	887960	Lab Control Sample	**Printed Date/Time**	03/30/2009 11:15
			Prep Batch	VXX19260
Client Name	Shannon & Wilson-Fairbanks		**Method**	SW5035A
Project Name/#	Wells Fargo Borings		**Date**	03/24/2009
Matrix	Soil/Solid (dry weight)			

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Methylene chloride	LCS	0.810	108	(76-124)			0.750 mg/Kg	03/24/2009
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		104	(80-137)				03/24/2009
Toluene-d8 <surr>	LCS		99	(80-122)				03/24/2009
4-Bromofluorobenzene <surr>	LCS		102	(42-147)				03/24/2009

Batch VMS10414
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS

SGS Ref.#	887214	Matrix Spike	**Printed Date/Time**	03/30/2009 11:15
	887215	Matrix Spike Duplicate	**Prep Batch**	VXX19249
			Method	Vol. Extraction SW8260 Field I
			Date	03/18/2009
Original	1090973001			
Matrix	Soil/Solid (dry weight)			

QC results affect the following production samples:

1090973001, 1090973002, 1090973003, 1090973004, 1090973005, 1090973006, 1090973007

Parameter	Qualifiers		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy										
Benzene	MS	ND	0.863	103	(80-125)				0.839 mg/Kg	03/18/2009
	MSD		0.868	104			1	(< 20)	0.839 mg/Kg	03/18/2009
Toluene	MS	ND	0.797	95	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.865	103			8	(< 20)	0.839 mg/Kg	03/18/2009
Ethylbenzene	MS	ND	0.850	101	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.896	107			5	(< 20)	0.839 mg/Kg	03/18/2009
n-Butylbenzene	MS	ND	0.910	108	(80-123)				0.839 mg/Kg	03/18/2009
	MSD		0.954	114			5	(< 20)	0.839 mg/Kg	03/18/2009
Carbon disulfide	MS	ND	1.10	88	(61-135)				1.26 mg/Kg	03/18/2009
	MSD		1.12	89			2	(< 20)	1.26 mg/Kg	03/18/2009
1,4-Dichlorobenzene	MS	ND	0.862	103	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.866	103			0	(< 20)	0.839 mg/Kg	03/18/2009
1,2-Dichloroethane	MS	ND	0.857	102	(80-133)				0.839 mg/Kg	03/18/2009
	MSD		0.823	98			4	(< 20)	0.839 mg/Kg	03/18/2009
1,3,5-Trimethylbenzene	MS	ND	0.889	106	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.904	108			2	(< 20)	0.839 mg/Kg	03/18/2009
4-Chlorotoluene	MS	ND	0.837	100	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.843	101			1	(< 20)	0.839 mg/Kg	03/18/2009
Chlorobenzene	MS	ND	0.850	101	(80-122)				0.839 mg/Kg	03/18/2009
	MSD		0.861	103			1	(< 20)	0.839 mg/Kg	03/18/2009
4-Methyl-2-pentanone (MIBK)	MS	ND	2.77	110	(76-120)				2.51 mg/Kg	03/18/2009
	MSD		2.57	102			8	(< 20)	2.51 mg/Kg	03/18/2009
cis-1,2-Dichloroethene	MS	ND	0.867	103	(80-124)				0.839 mg/Kg	03/18/2009
	MSD		0.888	106			2	(< 20)	0.839 mg/Kg	03/18/2009
4-Isopropyltoluene	MS	ND	0.863	103	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.886	106			3	(< 20)	0.839 mg/Kg	03/18/2009
Methyl-t-butyl ether	MS	ND	1.32	105	(78-123)				1.26 mg/Kg	03/18/2009
	MSD		1.25	100			5	(< 20)	1.26 mg/Kg	03/18/2009
cis-1,3-Dichloropropene	MS	ND	0.922	110	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.924	110			0	(< 20)	0.839 mg/Kg	03/18/2009
n-Propylbenzene	MS	ND	0.902	108	(80-122)				0.839 mg/Kg	03/18/2009
	MSD		0.908	108			1	(< 20)	0.839 mg/Kg	03/18/2009
Styrene	MS	ND	0.830	99	(80-120)				0.839 mg/Kg	03/18/2009
	MSD		0.850	101			2	(< 20)	0.839 mg/Kg	03/18/2009
Dibromomethane	MS	ND	0.865	103	(79-126)				0.839 mg/Kg	03/18/2009
	MSD		0.840	100			3	(< 20)	0.839 mg/Kg	03/18/2009
trans-1,3-Dichloropropene	MS	ND	0.842	100	(80-120)				0.839 mg/Kg	03/18/2009

SGS

SGS Ref.#	887214	Matrix Spike	**Printed Date/Time**	03/30/2009 11:15
	887215	Matrix Spike Duplicate	**Prep Batch**	VXX19249
			Method	Vol. Extraction SW8260 Field I
			Date	03/18/2009
Original	1090973001			
Matrix	Soil/Solid (dry weight)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
	MSD		0.873	104		4	(< 20)	0.839 mg/Kg	03/18/2009
1,2,4-Trichlorobenzene	MS	ND	0.876	104	(80-122)			0.839 mg/Kg	03/18/2009
	MSD		0.906	108		4	(< 20)	0.839 mg/Kg	03/18/2009
1,1,2,2-Tetrachloroethane	MS	ND	0.805	96	(79-120)			0.839 mg/Kg	03/18/2009
	MSD		0.794	95		1	(< 20)	0.839 mg/Kg	03/18/2009
1,2-Dibromo-3-chloropropane	MS	ND	0.924	110	(64-128)			0.839 mg/Kg	03/18/2009
	MSD		0.815	97		12	(< 20)	0.839 mg/Kg	03/18/2009
Tetrachloroethene	MS	0.148	1.01	103	(78-124)			0.839 mg/Kg	03/18/2009
	MSD		1.04	106		3	(< 20)	0.839 mg/Kg	03/18/2009
Dibromochloromethane	MS	ND	0.826	98	(80-122)			0.839 mg/Kg	03/18/2009
	MSD		0.827	99		0	(< 20)	0.839 mg/Kg	03/18/2009
1,3-Dichloropropane	MS	ND	0.819	98	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.838	100		2	(< 20)	0.839 mg/Kg	03/18/2009
1,2-Dibromoethane	MS	ND	0.922	110	(80-121)			0.839 mg/Kg	03/18/2009
	MSD		0.896	107		3	(< 20)	0.839 mg/Kg	03/18/2009
Carbon tetrachloride	MS	ND	0.877	105	(73-133)			0.839 mg/Kg	03/18/2009
	MSD		0.871	104		1	(< 20)	0.839 mg/Kg	03/18/2009
1,1,1,2-Tetrachloroethane	MS	ND	0.842	100	(78-125)			0.839 mg/Kg	03/18/2009
	MSD		0.863	103		2	(< 20)	0.839 mg/Kg	03/18/2009
Chloroform	MS	ND	0.867	103	(80-124)			0.839 mg/Kg	03/18/2009
	MSD		0.835	100		4	(< 20)	0.839 mg/Kg	03/18/2009
Bromobenzene	MS	ND	0.817	97	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.839	100		3	(< 20)	0.839 mg/Kg	03/18/2009
Chloromethane	MS	ND	0.881	105	(68-129)			0.839 mg/Kg	03/18/2009
	MSD		0.930	111		5	(< 20)	0.839 mg/Kg	03/18/2009
1,2,3-Trichloropropane	MS	ND	0.935	111	(75-121)			0.839 mg/Kg	03/18/2009
	MSD		0.865	103		8	(< 20)	0.839 mg/Kg	03/18/2009
Bromomethane	MS	ND	0.818	98	(52-140)			0.839 mg/Kg	03/18/2009
	MSD		0.851	101		4	(< 20)	0.839 mg/Kg	03/18/2009
Bromochloromethane	MS	ND	0.819	98	(78-125)			0.839 mg/Kg	03/18/2009
	MSD		0.869	104		6	(< 20)	0.839 mg/Kg	03/18/2009
Vinyl chloride	MS	ND	1.06	126*	(78-125)			0.839 mg/Kg	03/18/2009
	MSD		1.07	128*		1	(< 20)	0.839 mg/Kg	03/18/2009
Dichlorodifluoromethane	MS	ND	0.940	112	(67-135)			0.839 mg/Kg	03/18/2009
	MSD		0.945	113		1	(< 20)	0.839 mg/Kg	03/18/2009
Chloroethane	MS	ND	1.01	120	(53-141)			0.839 mg/Kg	03/18/2009
	MSD		1.03	123		3	(< 20)	0.839 mg/Kg	03/18/2009
sec-Butylbenzene	MS	ND	0.909	108	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.951	113		5	(< 20)	0.839 mg/Kg	03/18/2009
Bromodichloromethane	MS	ND	0.819	98	(80-126)			0.839 mg/Kg	03/18/2009

SGS

SGS Ref.#	887214	Matrix Spike	**Printed Date/Time**	03/30/2009 11:15
	887215	Matrix Spike Duplicate	**Prep Batch**	VXX19249
			Method	Vol. Extraction SW8260 Field I
			Date	03/18/2009
Original	1090973001			
Matrix	Soil/Solid (dry weight)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
	MSD		0.831	99		2	(< 20)	0.839 mg/Kg	03/18/2009
1,1-Dichloroethene	MS	ND	0.847	101	(73-126)			0.839 mg/Kg	03/18/2009
	MSD		0.851	102		1	(< 20)	0.839 mg/Kg	03/18/2009
2-Butanone (MEK)	MS	ND	2.64	105	(70-124)			2.51 mg/Kg	03/18/2009
	MSD		2.40	96		9	(< 20)	2.51 mg/Kg	03/18/2009
Methylene chloride	MS	ND	0.783	93	(76-124)			0.839 mg/Kg	03/18/2009
	MSD		0.834	99		6	(< 20)	0.839 mg/Kg	03/18/2009
Trichlorofluoromethane	MS	ND	0.900	107	(58-172)			0.839 mg/Kg	03/18/2009
	MSD		0.950	113		5	(< 20)	0.839 mg/Kg	03/18/2009
P & M -Xylene	MS	ND	1.69	101	(80-120)			1.68 mg/Kg	03/18/2009
	MSD		1.71	102		1	(< 20)	1.68 mg/Kg	03/18/2009
Naphthalene	MS	ND	0.888	106	(71-121)			0.839 mg/Kg	03/18/2009
	MSD		0.869	104		2	(< 20)	0.839 mg/Kg	03/18/2009
o-Xylene	MS	ND	0.856	102	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.851	101		1	(< 20)	0.839 mg/Kg	03/18/2009
Bromoform	MS	ND	0.899	107	(74-129)			0.839 mg/Kg	03/18/2009
	MSD		0.894	107		0	(< 20)	0.839 mg/Kg	03/18/2009
1,2,4-Trimethylbenzene	MS	ND	0.878	105	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.897	107		2	(< 20)	0.839 mg/Kg	03/18/2009
tert-Butylbenzene	MS	ND	0.891	106	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.934	111		5	(< 20)	0.839 mg/Kg	03/18/2009
1,1,1-Trichloroethane	MS	ND	0.848	101	(77-130)			0.839 mg/Kg	03/18/2009
	MSD		0.859	102		1	(< 20)	0.839 mg/Kg	03/18/2009
1,1-Dichloroethane	MS	ND	0.804	96	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.799	95		1	(< 20)	0.839 mg/Kg	03/18/2009
2-Chlorotoluene	MS	ND	0.871	104	(80-123)			0.839 mg/Kg	03/18/2009
	MSD		0.860	102		1	(< 20)	0.839 mg/Kg	03/18/2009
Trichloroethene	MS	ND	0.914	109	(80-122)			0.839 mg/Kg	03/18/2009
	MSD		0.897	107		2	(< 20)	0.839 mg/Kg	03/18/2009
trans-1,2-Dichloroethene	MS	ND	0.894	107	(80-126)			0.839 mg/Kg	03/18/2009
	MSD		0.853	102		5	(< 20)	0.839 mg/Kg	03/18/2009
1,2-Dichlorobenzene	MS	ND	0.801	96	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.799	95		0	(< 20)	0.839 mg/Kg	03/18/2009
2,2-Dichloropropane	MS	ND	0.835	100	(80-134)			0.839 mg/Kg	03/18/2009
	MSD		0.850	101		2	(< 20)	0.839 mg/Kg	03/18/2009
Hexachlorobutadiene	MS	ND	0.848	101	(78-133)			0.839 mg/Kg	03/18/2009
	MSD		0.966	115		13	(< 20)	0.839 mg/Kg	03/18/2009
Isopropylbenzene (Cumene)	MS	ND	0.829	99	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.854	102		3	(< 20)	0.839 mg/Kg	03/18/2009
2-Hexanone	MS	ND	2.83	112	(63-125)			2.5 mg/Kg	03/18/2009

SGS

SGS Ref.#	887214	Matrix Spike	**Printed Date/Time**	03/30/2009	11:15
	887215	Matrix Spike Duplicate	**Prep Batch**	VXX19249	
			Method	Vol. Extraction SW8260 Field I	
			Date	03/18/2009	

Original 1090973001
Matrix Soil/Solid (dry weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
	MSD		2.51	100		12	(< 20)	2.51 mg/Kg	03/18/2009
1,2-Dichloropropane	MS	ND	0.868	104	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.897	107		3	(< 20)	0.839 mg/Kg	03/18/2009
1,1-Dichloropropene	MS	ND	0.909	108	(80-124)			0.839 mg/Kg	03/18/2009
	MSD		0.951	113		5	(< 20)	0.839 mg/Kg	03/18/2009
1,1,2-Trichloroethane	MS	ND	0.844	101	(82-120)			0.839 mg/Kg	03/18/2009
	MSD		0.851	101		1	(< 20)	0.839 mg/Kg	03/18/2009
1,3-Dichlorobenzene	MS	ND	0.826	98	(80-120)			0.839 mg/Kg	03/18/2009
	MSD		0.838	100		2	(< 20)	0.839 mg/Kg	03/18/2009
1,2,3-Trichlorobenzene	MS	ND	0.911	109	(77-126)			0.839 mg/Kg	03/18/2009
	MSD		0.961	115		5	(< 20)	0.839 mg/Kg	03/18/2009
Surrogates									
1,2-Dichloroethane-D4 <surr>	MS		0.891	106	(80-137)				03/18/2009
	MSD		0.860	102		4			03/18/2009
Toluene-d8 <surr>	MS		0.880	105	(80-122)				03/18/2009
	MSD		0.890	106		1			03/18/2009
4-Bromofluorobenzene <surr>	MS		1.97	88	(42-147)				03/18/2009
	MSD		1.99	89		1			03/18/2009

Batch VMS10406
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	887360	Matrix Spike	**Printed Date/Time**		03/30/2009 11:15
	887361	Matrix Spike Duplicate	**Prep**	**Batch**	VXX19250
				Method	Vol. Extraction SW8260 Field I
				Date	03/19/2009
Original	1091024003				
Matrix	Soil/Solid (dry weight)				

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS

SGS Ref.#	887360	Matrix Spike	**Printed Date/Time**		03/30/2009 11:15
	887361	Matrix Spike Duplicate	**Prep**	**Batch**	VXX19250
				Method	Vol. Extraction SW8260 Field I
				Date	03/19/2009
Original	1091024003				
Matrix	Soil/Solid (dry weight)				

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	0.458	102	(80-125)			0.451 mg/Kg	03/20/2009
	MSD		0.437	97		5	(< 20)	0.451 mg/Kg	03/20/2009
Toluene	MS	ND	0.450	100	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.432	96		4	(< 20)	0.451 mg/Kg	03/20/2009
Ethylbenzene	MS	ND	0.485	108	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.471	105		3	(< 20)	0.451 mg/Kg	03/20/2009
n-Butylbenzene	MS	ND	0.521	116	(80-123)			0.451 mg/Kg	03/20/2009
	MSD		0.504	112		3	(< 20)	0.451 mg/Kg	03/20/2009
Carbon disulfide	MS	ND	0.647	96	(61-135)			0.675 mg/Kg	03/20/2009
	MSD		0.596	88		8	(< 20)	0.675 mg/Kg	03/20/2009
1,4-Dichlorobenzene	MS	ND	0.455	101	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.451	100		1	(< 20)	0.451 mg/Kg	03/20/2009
1,2-Dichloroethane	MS	ND	0.465	103	(80-133)			0.451 mg/Kg	03/20/2009
	MSD		0.426	95		9	(< 20)	0.451 mg/Kg	03/20/2009
1,3,5-Trimethylbenzene	MS	ND	0.506	112	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.511	113		1	(< 20)	0.451 mg/Kg	03/20/2009
4-Chlorotoluene	MS	ND	0.486	108	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.477	106		2	(< 20)	0.451 mg/Kg	03/20/2009
Chlorobenzene	MS	ND	0.442	98	(80-122)			0.451 mg/Kg	03/20/2009
	MSD		0.433	96		2	(< 20)	0.451 mg/Kg	03/20/2009
4-Methyl-2-pentanone (MIBK)	MS	ND	1.43	106	(76-120)			1.35 mg/Kg	03/20/2009
	MSD		1.35	101		5	(< 20)	1.35 mg/Kg	03/20/2009
cis-1,2-Dichloroethene	MS	ND	0.489	109	(80-124)			0.451 mg/Kg	03/20/2009
	MSD		0.475	105		3	(< 20)	0.451 mg/Kg	03/20/2009
4-Isopropyltoluene	MS	ND	0.522	116	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.512	114		2	(< 20)	0.451 mg/Kg	03/20/2009
Methyl-t-butyl ether	MS	ND	0.520	77*	(78-123)			0.675 mg/Kg	03/20/2009
	MSD		0.703	104		30 *	(< 20)	0.675 mg/Kg	03/20/2009
cis-1,3-Dichloropropene	MS	ND	0.507	113	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.486	108		4	(< 20)	0.451 mg/Kg	03/20/2009
n-Propylbenzene	MS	ND	0.511	114	(80-122)			0.451 mg/Kg	03/20/2009
	MSD		0.507	113		1	(< 20)	0.451 mg/Kg	03/20/2009
Styrene	MS	ND	0.480	107	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.458	102		5	(< 20)	0.451 mg/Kg	03/20/2009
Dibromomethane	MS	ND	0.456	101	(79-126)			0.451 mg/Kg	03/20/2009
	MSD		0.438	97		4	(< 20)	0.451 mg/Kg	03/20/2009
trans-1,3-Dichloropropene	MS	ND	0.490	109	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.481	107		2	(< 20)	0.451 mg/Kg	03/20/2009
1,2,4-Trichlorobenzene	MS	0.0117J	0.503	109	(80-122)			0.451 mg/Kg	03/20/2009
	MSD		0.479	104		5	(< 20)	0.451 mg/Kg	03/20/2009

SGS

SGS Ref.#	887360	Matrix Spike	**Printed Date/Time**	03/30/2009 11:15
	887361	Matrix Spike Duplicate	**Prep Batch**	VXX19250
			Method	Vol. Extraction SW8260 Field I
			Date	03/19/2009
Original	1091024003			
Matrix	Soil/Solid (dry weight)			

Parameter	Qualifiers		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy											
1,1,2,2-Tetrachloroethane	MS	ND		0.499	111	(79-120)			0.451	mg/Kg	03/20/2009
	MSD			0.485	108		3	(< 20)	0.451	mg/Kg	03/20/2009
1,2-Dibromo-3-chloropropane	MS	ND		0.494	110	(64-128)			0.451	mg/Kg	03/20/2009
	MSD			0.483	107		2	(< 20)	0.451	mg/Kg	03/20/2009
Tetrachloroethene	MS	ND		0.437	97	(78-124)			0.451	mg/Kg	03/20/2009
	MSD			0.410	91		7	(< 20)	0.451	mg/Kg	03/20/2009
Dibromochloromethane	MS	ND		0.456	101	(80-122)			0.451	mg/Kg	03/20/2009
	MSD			0.454	101		1	(< 20)	0.451	mg/Kg	03/20/2009
1,3-Dichloropropane	MS	ND		0.479	106	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.462	103		4	(< 20)	0.451	mg/Kg	03/20/2009
1,2-Dibromoethane	MS	ND		0.452	100	(80-121)			0.451	mg/Kg	03/20/2009
	MSD			0.454	101		0	(< 20)	0.451	mg/Kg	03/20/2009
Carbon tetrachloride	MS	ND		0.463	103	(73-133)			0.451	mg/Kg	03/20/2009
	MSD			0.445	99		4	(< 20)	0.451	mg/Kg	03/20/2009
1,1,1,2-Tetrachloroethane	MS	ND		0.456	101	(78-125)			0.451	mg/Kg	03/20/2009
	MSD			0.451	100		1	(< 20)	0.451	mg/Kg	03/20/2009
Chloroform	MS	ND		0.460	102	(80-124)			0.451	mg/Kg	03/20/2009
	MSD			0.433	96		6	(< 20)	0.451	mg/Kg	03/20/2009
Bromobenzene	MS	ND		0.458	102	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.449	100		2	(< 20)	0.451	mg/Kg	03/20/2009
Chloromethane	MS	ND		0.447	99	(68-129)			0.451	mg/Kg	03/20/2009
	MSD			0.425	94		5	(< 20)	0.451	mg/Kg	03/20/2009
1,2,3-Trichloropropane	MS	ND		0.477	106	(75-121)			0.451	mg/Kg	03/20/2009
	MSD			0.468	104		2	(< 20)	0.451	mg/Kg	03/20/2009
Bromomethane	MS	ND		0.400	89	(52-140)			0.451	mg/Kg	03/20/2009
	MSD			0.418	93		5	(< 20)	0.451	mg/Kg	03/20/2009
Bromochloromethane	MS	ND		0.460	102	(78-125)			0.451	mg/Kg	03/20/2009
	MSD			0.436	97		6	(< 20)	0.451	mg/Kg	03/20/2009
Vinyl chloride	MS	ND		0.465	103	(78-125)			0.451	mg/Kg	03/20/2009
	MSD			0.394	88		17	(< 20)	0.451	mg/Kg	03/20/2009
Dichlorodifluoromethane	MS	ND		0.455	101	(67-135)			0.451	mg/Kg	03/20/2009
	MSD			0.425	94		7	(< 20)	0.451	mg/Kg	03/20/2009
Chloroethane	MS	ND		0.429	95	(53-141)			0.451	mg/Kg	03/20/2009
	MSD			0.401	89		7	(< 20)	0.451	mg/Kg	03/20/2009
sec-Butylbenzene	MS	ND		0.540	120	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.520	115		4	(< 20)	0.451	mg/Kg	03/20/2009
Bromodichloromethane	MS	ND		0.478	106	(80-126)			0.451	mg/Kg	03/20/2009
	MSD			0.441	98		8	(< 20)	0.451	mg/Kg	03/20/2009
1,1-Dichloroethene	MS	ND		0.491	109	(73-126)			0.451	mg/Kg	03/20/2009
	MSD			0.433	96		13	(< 20)	0.451	mg/Kg	03/20/2009

SGS

SGS Ref.#	887360	Matrix Spike	**Printed Date/Time**		03/30/2009 11:15
	887361	Matrix Spike Duplicate	**Prep**	**Batch**	VXX19250
				Method	Vol. Extraction SW8260 Field I
				Date	03/19/2009
Original	1091024003				
Matrix	Soil/Solid (dry weight)				

Parameter		Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy											
2-Butanone (MEK)	MS		ND	1.51	112	(70-124)			1.35	mg/Kg	03/20/2009
	MSD			1.38	102		9	(< 20)	1.35	mg/Kg	03/20/2009
Trichlorofluoromethane	MS		ND	0.492	109	(58-172)			0.451	mg/Kg	03/20/2009
	MSD			0.466	103		6	(< 20)	0.451	mg/Kg	03/20/2009
P & M -Xylene	MS		ND	0.935	104	(80-120)			0.900	mg/Kg	03/20/2009
	MSD			0.899	100		4	(< 20)	0.900	mg/Kg	03/20/2009
Naphthalene	MS		0.0132J	0.532	115	(71-121)			0.451	mg/Kg	03/20/2009
	MSD			0.508	110		5	(< 20)	0.451	mg/Kg	03/20/2009
o-Xylene	MS		ND	0.488	108	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.476	106		3	(< 20)	0.451	mg/Kg	03/20/2009
Bromoform	MS		ND	0.467	104	(74-129)			0.451	mg/Kg	03/20/2009
	MSD			0.452	100		3	(< 20)	0.451	mg/Kg	03/20/2009
1,2,4-Trimethylbenzene	MS		ND	0.516	115	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.512	114		1	(< 20)	0.451	mg/Kg	03/20/2009
tert-Butylbenzene	MS		ND	0.524	116	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.527	117		0	(< 20)	0.451	mg/Kg	03/20/2009
1,1,1-Trichloroethane	MS		ND	0.476	106	(77-130)			0.451	mg/Kg	03/20/2009
	MSD			0.458	102		4	(< 20)	0.451	mg/Kg	03/20/2009
1,1-Dichloroethane	MS		ND	0.469	104	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.444	99		6	(< 20)	0.451	mg/Kg	03/20/2009
2-Chlorotoluene	MS		ND	0.506	112	(80-123)			0.451	mg/Kg	03/20/2009
	MSD			0.501	111		1	(< 20)	0.451	mg/Kg	03/20/2009
Trichloroethene	MS		0.0111J	0.491	106	(80-122)			0.451	mg/Kg	03/20/2009
	MSD			0.466	101		5	(< 20)	0.451	mg/Kg	03/20/2009
trans-1,2-Dichloroethene	MS		ND	0.306	68*	(80-126)			0.451	mg/Kg	03/20/2009
	MSD			0.446	99		38 *	(< 20)	0.451	mg/Kg	03/20/2009
1,2-Dichlorobenzene	MS		ND	0.449	100	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.433	96		3	(< 20)	0.451	mg/Kg	03/20/2009
2,2-Dichloropropane	MS		ND	0.465	103	(80-134)			0.451	mg/Kg	03/20/2009
	MSD			0.456	101		2	(< 20)	0.451	mg/Kg	03/20/2009
Hexachlorobutadiene	MS		ND	0.473	105	(78-133)			0.451	mg/Kg	03/20/2009
	MSD			0.450	100		5	(< 20)	0.451	mg/Kg	03/20/2009
Isopropylbenzene (Cumene)	MS		ND	0.509	113	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.488	108		4	(< 20)	0.451	mg/Kg	03/20/2009
2-Hexanone	MS		ND	1.37	101	(63-125)			1.35	mg/Kg	03/20/2009
	MSD			1.31	97		4	(< 20)	1.35	mg/Kg	03/20/2009
1,2-Dichloropropane	MS		ND	0.488	108	(80-120)			0.451	mg/Kg	03/20/2009
	MSD			0.473	105		3	(< 20)	0.451	mg/Kg	03/20/2009
1,1-Dichloropropene	MS		ND	0.498	111	(80-124)			0.451	mg/Kg	03/20/2009
	MSD			0.479	106		4	(< 20)	0.451	mg/Kg	03/20/2009

SGS Ref.#	887360	Matrix Spike	**Printed Date/Time**	03/30/2009 11:15
	887361	Matrix Spike Duplicate	**Prep Batch**	VXX19250
			Method	Vol. Extraction SW8260 Field I
			Date	03/19/2009

Original 1091024003
Matrix Soil/Solid (dry weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,1,2-Trichloroethane	MS	ND	0.469	104	(82-120)			0.451 mg/Kg	03/20/2009
	MSD		0.451	100		4	(< 20)	0.451 mg/Kg	03/20/2009
1,3-Dichlorobenzene	MS	ND	0.444	99	(80-120)			0.451 mg/Kg	03/20/2009
	MSD		0.431	96		3	(< 20)	0.451 mg/Kg	03/20/2009
1,2,3-Trichlorobenzene	MS	0.0117J	0.472	102	(77-126)			0.451 mg/Kg	03/20/2009
	MSD		0.453	98		4	(< 20)	0.451 mg/Kg	03/20/2009
Surrogates									
1,2-Dichloroethane-D4 <surr>	MS		0.470	104	(80-137)				03/20/2009
	MSD		0.468	104		0			03/20/2009
Toluene-d8 <surr>	MS		0.445	99	(80-122)				03/20/2009
	MSD		0.443	98		1			03/20/2009
4-Bromofluorobenzene <surr>	MS		1.04	87	(42-147)				03/20/2009
	MSD		1.06	88		2			03/20/2009

Batch VMS10407
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS Ref.#	887961	Matrix Spike	**Printed Date/Time**		03/30/2009 11:15
	887962	Matrix Spike Duplicate	**Prep**	**Batch**	VXX19260
				Method	Vol. Extraction SW8260 Field I
				Date	03/24/2009
Original	1091024003				
Matrix	Soil/Solid (dry weight)				

QC results affect the following production samples:

1090973008, 1090973009, 1090973010, 1090973011

Parameter	Qualifiers		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy											
Methylene chloride		MS	ND	0.401	70*	(76-124)			0.576	mg/Kg	03/24/2009
		MSD		0.382	66*		5	(< 20)	0.576	mg/Kg	03/24/2009
Surrogates											
1,2-Dichloroethane-D4 <surr>		MS		0.632	110	(80-137)					03/24/2009
		MSD		0.594	103		6				03/24/2009
Toluene-d8 <surr>		MS		0.561	97	(80-122)					03/24/2009
		MSD		0.570	99		2				03/24/2009
4-Bromofluorobenzene <surr>		MS		1.28	96	(42-147)					03/24/2009
		MSD		1.29	97		1				03/24/2009

Batch	VMS10414
Method	SW8260B
Instrument	HP 5890 Series II MS1 VMA

SGS

1090973

ental Services Inc.
JSTODY RECORD

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- West Virginia
- Maryland
- New York
- Ohio

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(1)

CLIENT: Shannon & Wilson

CONTACT: KRW PHONE NO: 458-3146

PROJECT: Wells Fargo Borings SITE/PWSID#: addition

REPORTS TO: KRW EMAIL: KRW@shanwil.com

INVOICE TO: Shannon & Wilson QUOTE #:

P.O. #:

SGS Reference #:

page 1 of 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used: MeOH	Analysis Required (3): VOC 8260	REMARKS/ LOC ID
1 A, B	2124-030509-001	3/5/09	1006	Soil	2	G		X	
2	2124-030509-002		1014		2	G		X	
3	2124-030509-003		1019		2	G		X	
4	2124-030509-004		1022		2	G		X	
5	2124-030509-005		1031		2	G		X	
6	2124-030509-006		1118		2	G		X	
7	2124-030509-007		1123		2	G		X	
8	2124-030509-008		1129		2	G		X	
9	2124-030509-009		1135		2	G		X	
10	2124-030509-010		1155		2	G		X	

(5)

	Date	Time	
Collected/Relinquished By:(1)	3/5/09	13:30	Received By: 3/05/09 1330 Carmon Beene
Relinquished By: (2) Carmon Beene 3/05/09		1530	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	3/6/09	0900	Received For Laboratory By:

(4)

DOD Project? YES NO

Special Deliverable Requirements:

Cooler ID _____

Requested Turnaround Time and-or Special Instructions:

Std.

Samples Received Cold? YES NO

FedEx Cooler TB

Temperature °C: 4.9 : 3.1

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

Page 8 of 83

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 550 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

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STODY RECORD

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio
- West Virginia

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(1)

CLIENT: S&W
CONTACT: KRW PHONE NO:
PROJECT: Wells Fargo SITE/PWSID# :
REPORTS TO: KRW EMAIL:
INVOICE TO: QUOTE #:
P.O. #:

SGS Reference #:

page 2 of 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used: HCl	Analysis Required (3): VOC 8260	REMARKS/ LOC ID
(ii) A	Trip Blanks	3/5/09	—	TB	1			X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
	3/5/09	1330	Darmon Beene 3/05/09 1330
Relinquished By: (2) Darmon Beene 3/05/09	Date	Time 1530	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 3/6/09	Time 0900	Received For Laboratory By:

(4)

DOD Project? YES NO
Cooler ID _____

Special Deliverable Requirements:

Requested Turnaround Time and-or Special Instructions:

Samples Received Cold? YES NO
FBXB Cooler TB
Temperature °C: 4.9 . 3.1

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 550 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS

SGS WO#: 1090973

SAMPLE RECEIPT FORM FOR TRANSFERS
From
FAIRBANKS, ALASKA OR HONOLULU, HAWAII
To
ANCHORAGE, AK

TO BE COMPLETED IN ANCHORAGE UPON ARRIVAL FROM FAIRBANKS OR HAWAII.
NOTES RECORDED BELOW ARE ACTIONS NEEDED UPON ARRIVAL IN ANCHORAGE.

Notes: _____

_____

_____

_____

_____

Receipt Date / Time: 3-6-09

Is Sample Date/Time Conversion Necessary? Yes _____ **No** ✓

Number of Hours From Alaska Local Time: ✓

Foreign Soil? Yes _____ **No** ✓

Delivery method to Anchorage (*circle all that apply*):

Alert Courier / UPS / FedEx / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlile / Lynden / SGS

Other: _____

Airbill # _____

COOLER AND TEMP BLANK READINGS* 70d

Cooler ID	Temp Blank (°C)	Cooler (°C)	Cooler ID	Temp Blank (°C)	Cooler (°C)
1	3.6	2.4			

CUSTODY SEALS INTACT: (YES) / NO

#'s / WHERE: two front right top lid

COMPLETED BY: [signature]

**Temperature readings include thermometer correction factors.*

1090973

SGS

SAMPLE RECEIPT FORM

SGS WO#:

Yes	No	NA		
___	✓	___	Are samples **RUSH**, priority or *w/in 72 hrs* of **hold time**?	
___	___	✓	If yes, have you done *e-mail ALERT notification*?	
___	✓	___	Are samples *within 24 hrs.* of **hold time** or **due date**?	
___	___	✓	If yes, have you also *spoken with* supervisor?	
___	✓	___	Archiving bottles (if req'd): Are they properly marked?	
___	✓	___	Are there any **problems**? PM Notified? ___	
✓	___	___	Were samples preserved correctly and pH verified?	
			___	
			___	
			___	
___	✓	___	If this is for PWS, provide **PWSID.** ___	
___	✓	___	Will courier charges apply?	
			Method of payment? ___	
✓	___	___	Data package required? (Level: 1 / (2) / 3 / 4)	
			Notes: ___	
___	✓	___	Is this a DoD project? (USACE, Navy, AFCEE)	

TAT (circle one): ~~Standard~~ -or- **Rush**

Received Date: 3/05/09

Received Time: 1330

Is **date/time conversion** necessary? NO

# of hours to AK Local Time: NA

Thermometer ID: FBXB

Cooler ID	Temp Blank	Cooler Temp
1	3.1 °C	4.9 °C
	°C	°C
	°C	°C
	°C	°C
	°C	°C

Note: Temperature readings include thermometer correction factors

Delivery method (circle all that apply): (Client) / Alert Courier / UPS / FedEx / USPS / DHL / AA Goldstreak / NAC / ERA / PenAir / Carlile/ Lynden / SGS / Other: ___

Airbill # ___

Additional Sample Remarks: *(√ if applicable)*

___ Extra Sample Volume?
___ Limited Sample Volume?
✓ MeOH field preserved for volatiles?
___ Field-filtered for dissolved ___
___ Lab-filtered for dissolved ___
___ Ref Lab required? ___
___ Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE)

Yes	No		
___	___	Is received temperature 4 ± 2°C?	
		Exceptions:	Samples/Analyses Affected:
		___	___
		___	___
		___	___
___	___	If temperature(s) <0 °C, were containers ice-free? N/A	
		Notify PM immediately of any ice in samples.	
___	___	Was there an airbill? *(Note # above in the right hand column)*	
___	___	Was cooler sealed with custody seals?	
		# / where: ___	
___	___	Were seal(s) intact upon arrival?	
___	___	Was there a COC with cooler?	
___	___	Was COC sealed in plastic bag & taped inside lid of cooler?	
___	___	Was the COC filled out properly?	
___	___	Did the COC indicate USACE / Navy / AFCEE project?	
___	___	Did the COC and samples correspond?	
___	___	Were all sample packed to prevent breakage?	
		Packing material: ___	
___	___	Were all samples unbroken and clearly labeled?	
___	___	Were all samples sealed in separate plastic bags?	
___	___	Were all VOCs free of headspace and/or MeOH preserved?	
___	___	Were correct container / sample sizes submitted?	
___	___	Is sample condition good?	
___	___	Was copy of CoC, SRF, and custody seals given to PM to fax?	

This section must be filled if problems are found.

Yes No ___ ___ Was client notified of problems?

Individual contacted: ___
Via: Phone / Fax / Email *(circle one)*
Date/Time: ___
Reason for contact: ___
___
___
___
___
___
Change Order Required? ___
SGS Contact: ___

Notes:

Completed by (sign): Carmon Beene **(print):** CARMON BEENE

Login proof (check one): waived ___ required ✓ performed by: ___

1090973

SGS

SAMPLE RECEIPT FORM (page 2)

SGS WO#:

						Container Volume									Container Type								Preservative							
#	Container ID	Matrix	Test	QC	TB	1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other	AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	Other
1-10	A	2	VOC 8260										10		✓						✓						✓			
	B		% Solid										10		✓								✓							
11	A	2	VOC 8260										1		✓						✓						✓			

Bottle Totals	1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other
								21	

Completed by: ________ Date: 3-6-09

Form # F004r16 revised 03/10/08

1090973

SGS Environmental **CUSTODY SEAL** WO# 0973

Signature: Carmen Beene Date/Time: 3/05/09 1545

SGS Environmental **CUSTODY SEAL** WO# 0973

Signature: Carmen Beene Date/Time: 3/05/09 1530

APPENDIX D

ADEC Data Quality Review Checklist

LABORATORY DATA REVIEW CHECKLIST

CS Report Name: Wells Fargo Borings **Date:** March 31, 2009

Laboratory Report Date: March 30, 2009

Consultant Firm: Shannon & Wilson, Inc.

Completed by: Kristen Williams
Title: Environmental Chemist

Laboratory Name: SGS Environmental Services, Inc.
SGS Work Order Number: 1090973

ADEC File Number: 102.38.122

(**NOTE**: ***NA*** = not applicable; Text in *italics* added by Shannon & Wilson, Inc.)

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses? **Yes / No**
Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS-approved?
NA **/ Yes / No**
Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?
Yes / No
Comments**:**

b. Correct analyses requested? **Yes / No**
Comments**:**

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
Yes / No
Comments:

b. Sample preservation acceptable - acidified waters, methanol-preserved VOC soil (GRO, BTEX, VOCs, etc.)? ***NA*** **/ Yes / No**
Comments:

c. Sample condition documented - broken, leaking (soil MeOH), zero headspace (VOC vials)? **Yes / No**
Comments: No problems.

d. If there were any discrepancies, were they documented (e.g., incorrect sample containers/preservation, sample temperatures outside range, insufficient sample size, missing samples)? ***NA*** **/ Yes / No**
Comments:

e. Data quality or usability affected? Explain. ***NA***
Comments:

4. Case Narrative

a. Present and understandable? **Yes / No**
Comments:

b. Discrepancies, errors or QC failures noted by the lab? ***None Noted*** **/ Yes**
Comments:

c. Were corrective actions documented? ***None Noted*** **/ Yes**
Comments:

d. What is the effect on data quality/usability, according to the case narrative? ***NA***
Comments: Analytes with CCV and LCS failures were biased high and were not detected in the samples.

5. Sample Results

a. Correct analyses performed/reported as requested on COC? **Yes / No**
Comments:

b. All applicable holding times met? **Yes / No**
Comments: Samples *2124-030509-008* and *2124-030509-010* were analyzed outside of hold time for methylene chloride. Sample *2124-030509-009* was analyzed 11 minutes outside of hold time for all VOC analytes.

c. All soils reported on a dry-weight basis? ***NA*** **/ Yes / No**
Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection

level for the project? **Yes / No**
Comments: The following analyte PQLs exceeded ADEC migration-to-groundwater (MTGW) cleanup levels for each project sample: 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropene, 1,2-dibromoethane, 1,2-dichloroethane, methylene chloride, and vinyl chloride. PQLs of 1,1,2-trichloroethane, 1,2-dichloropropane, bromomethane, dibromochloromethane, and trichloroethene exceeded ADEC MTGW cleanup levels in each project sample, except *2124-030509-003*. PQLs of 1,1-dichloroethene, cis-1,3-dichloropropene, and trans-1,3-dichloropropene exceeded ADEC MTGW cleanup levels for sample *2124-030509-009*. Carbon tetrachloride exceeded ADEC MTGW cleanup levels in each project sample, except *2124-030509-002*, *2124-030509-003*, and *2124-030509-005*. Additionally, the PQL of tetrachloroethene (0.0252 mg/kg) exceeded ADEC MTGW cleanup levels in the trip blank.

e. Data quality or usability affected? Explain. ***NA***
Comments: Results are biased low for analytes that were analyzed outside of hold times (5.b.). In addition, for sample analytes with PQLs greater than soil-cleanup levels, we cannot determine if these analytes are present above cleanup levels.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis, and 20 samples?
Yes / No
Comments:

ii. All method blank results less than PQL? **Yes / No**
Comments:

iii. If above PQL, what samples are affected? ***NA***
Comments:

iv. Do the affected sample(s) have data flags? ***NA*** **/ Yes / No**
Comments:

If so, are the data flags clearly defined? ***NA*** **/ Yes / No**
Comments:

v. Data quality or usability affected? Explain. ***NA***
Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis, and 20 samples?
(LCS/LCSD required per AK methods, LCS required per SW846) ***N/A*** **/ Yes / No**
Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples? ***NA*** **/ Yes / No**
Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits (and project specified DQOs, if applicable)? (AK petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages) **Yes / No**
Comments: LCS recovery of cis-1,3-dichloropropane was biased high. This analyte was not detected in the associated samples.

iv. Precision – All relative percent differences (RPDs) reported and less than method or laboratory limits (and project specified DQOs, if applicable)? RPD reported from LCS/LCSD and/or MS/MSD. (AK petroleum methods 20%; all other analyses see the laboratory QC pages) **Yes / No**
Comments: An LCSD was not analyzed. MS/MSD RPDs were above limits for methyl-t-butyl ether and trans-1,2-dichloroethene. These analytes were not detected in the associated samples.

v. If %R or RPD is outside of acceptable limits, what samples are affected? **NA**
Comments:

vi. Do the affected samples(s) have data flags? ***NA*** **/ Yes / No**
Comments:

If so, are the data flags clearly defined? ***NA*** **/ Yes / No**
Comments:

vii. Data quality or usability affected? Explain. ***NA***
Comments:

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses, field, QC and laboratory samples? ***NA*** **/ Yes / No**
Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits (and project specified DQOs if applicable)? (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages) ***NA*** **/ Yes / No**
Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? ***NA*** **/ Yes / No**
Comments:

If so, are the data flags clearly defined? ***NA*** **Yes / No**
Comments:

iv. Data quality or usability affected? Explain. ***NA***
Comments:

d. Trip Blank - Volatile analyses only (GRO, BTEX, VOCs, etc.)

i. One trip blank reported per matrix, analysis and cooler? ***NA*** / **Yes / No**
Comments:

ii. All results less than PQL? ***NA*** / **Yes / No**
Comments:

iii. If above PQL, what samples are affected? ***NA***
Comments**:**

iv. Data quality or usability affected? Explain. ***NA***
Comments:

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?
Yes / No
Comments: Project duplicates were *2124-030509-004* and *2124-030509-005*.

ii. Were the field duplicates submitted blind to the lab? ***NA*** / **Yes / No**
Comments:

iii. Precision – All relative percent differences (RPDs) less than specified DQOs?
(Recommended: 30% for water, 50% for soil) ***NA*** / **Yes / No**
Comments: RPD for the project duplicates is 20.9%.

iv. Data quality or usability affected? Explain. ***NA***

f. Decontamination or Equipment Blank (if applicable)
NA **/ Yes / No**

i. All results less than PQL? ***NA*** **/ Yes / No**
Comments:

ii. If results are above PQL, what samples are affected? ***NA***
Comments:

iii. Data quality or usability affected? Explain. ***NA***
Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-specific, etc.)

a. Are they defined and appropriate? ***NA*** **/ Yes / No**
Comments:

APPENDIX E

Important Information About Your Geotechnical/Environmental Report

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to Data Report: 31-1-02124-001

Date:	April 2009
RE::	Wells Fargo Bentley Branch Renovation and Addition
To:	Design Alaska. 601 College Road Fairbanks, Alaska 99701

Important Information About Your Geotechnical/Environmental Report

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors, which were considered in the development of the report, have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland