ENVIRONMENTAL SITE INVESTIGATION REPORT

BAYLINER MARINE
17825 59TH AVENUE NE
ARLINGTON, WASHINGTON

December 23, 2009

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ARLINGTON, WASHINGTON 98223

STANTEC PN: 190402025

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1.0 INTRODUCTION

This report presents results of continuing environmental investigations at the Bayliner Marine property located at 17825 59th Avenue NE, Arlington, Snohomish County, Washington 98223. This report describes the construction of five groundwater monitoring wells in December 2009, collection of soil and groundwater samples for laboratory analyses, an evaluation of sensitive receptors near the property, and a comparison of site data with Washington Department of Ecology soil and groundwater cleanup levels under Washington's Model Toxics Cleanup Act (MTCA). Based on findings of previous site investigation activities including the performance of a Phase I ESA and follow-up Phase II activities, Brunswick directed Stantec to perform the site investigation described herein.

1.1 BACKGROUND

Stantec was retained by Brunswick Corporation, owner of the subject property, in March 2009 to initially complete a Phase I ESA, and then a Phase II ESA in preparation for a potential sale of the subject property.

1.1.1 Subject Property Description

The subject property is a 32.8-acre industrial site developed with three office buildings and thirteen industrial buildings constructed between 1969 and 1996. The subject property also includes employee parking lots, boat storage areas, and three stormwater retention ponds, The subject property operated as a fiberglass boat manufacturing facility from 1968 until December 2008, and has been in the process of being closed down since then. Prior to 1968, the site consisted of undeveloped land.

Figure 1 in Appendix A depicts the location of the subject property. Figure 2 presents a Site Plan of the subject property showing boring and sampling locations.

The subject property is located in an area of moderately dense industrial and commercial development. It is bordered on the north by 180th Street NE. Across the street to the north of Building 1 is Campbell and Neilson Auto Wrecking (18021 59th Avenue NE). Undeveloped land is located across the street to the north of Building's 2, 3 and 4. Across the street to the north of the eastern boat storage yard is the Stella-Jones wood preserving plant (6520 188th Street NE).

The subject property is bordered on the east by a currently vacant former manufacturing building (address and former tenants unknown). Further to the east are a Burlington Northern Railroad line, smaller commercial structures, and 67th Avenue NE. A residential neighborhood

lies beyond 67th Avenue. The subject property is bordered on the south primarily by undeveloped land. To the west of the subject property is 59th Avenue NE, with the Arlington Municipal Airport beyond.

1.1.2 Phase I ESA Findings

The March 23, 2009 Phase I ESA Report identified the following Recognized Environmental Conditions (RECs) associated with the subject property:

- Wastewater discharges from the facility were originally directed to two septic systems with leach fields on the subject property. All wastewater from the facility went to the on-site septic systems from 1968 until at least 1987. Bayliner buildings were gradually connected to the municipal sanitary sewer system between 1987 and 2005. Chemical waste constituents that may have been present in the wastewater discharges had the potential to migrate from the leach fields to subsurface soil and groundwater beneath the subject property.

- All stormwater catch basins and trench drains on the property discharged the collected stormwater to a series of three retention ponds along the southern boundary of the subject property. There was a potential that chemical or petroleum contaminants that became entrained in stormwater runoff may have accumulated in sediments within the ponds or leached to underlying soil or groundwater.

- Washington Department of Ecology's underground storage tank (UST) database indicated that two USTs had been present on the subject property from 1964 until 1996. However, the database did not provide any additional information about the removal of the tanks, and files researched at the City of Arlington Fire Department contained no record at all of former USTs. If USTs had indeed been previously present, there was a potential that petroleum leaks or spills from the tank systems could have caused contamination of subsurface soil or groundwater.

1.1.3 Phase II ESA Findings

In response to the results of the Phase I ESA, Brunswick Corporation directed Stantec to complete a Phase II ESA to further evaluate the potential presence of subsurface contamination associated with the RECs discussed above, as well as other aspects of the environmental condition of the property. The results of the Phase II ESA were detailed in a report dated June 25, 2009. Key findings of the Phase II ESA are summarized below:

Former Underground Storage Tanks. Mr. Tad Blankenbaker, site manager at the Bayliner Marine facility, reported that he had worked at the subject property for 20 years, and that the

USTs had been formerly located in the area just north of Building #11. Stantec also reviewed files pertaining to the former USTs at the Northwest Region office of the Department of Ecology in Bellevue, Washington. Ecology records indicated that one 5,000-gallon aviation gasoline UST and one 9,000-gallon Jet-A UST were removed from the ground in April 1989. No further documentation, such as results of soil sampling conducted at the time of the removal, was present in the Ecology files.

Stella-Jones (former J.H. Baxter) Woodtreating Facility, 6520 188th St. NE. Although not identified as a REC in the Phase I ESA report, Brunswick directed Stantec to conduct a review of Ecology files concerning groundwater quality data at the Stella-Jones site. This review was done in response to inquiries made by a potential buyer of the property about the potential for environmental impact from the Stella Jones site. A portion of the Stella Jones facility is located directly across 180th Street to the north of the subject property. The Stella-Jones facility treats telephone and power poles using a pressure-treating process with a solution of 5% pentachlorophenol (PCP) in a base oil carrier. An alternate treatment process using Copper Naphthanate was added to the facility in approximately 2002-2003. Parcel A includes approximately 17 acres used for the pole treatment operations, located in the northern part of the Stella-Jones facility, more than 1,500 feet north of the subject property. Parcel B comprises 28 acres on the southern part of the facility adjacent to the Bayliner property. Parcel B has been used for untreated pole storage and pole peeling only. No wood treating has ever occurred on Parcel B. The woodtreating facility began operation on Parcel A in the mid-1960s. PCP and creosote waste were reportedly disposed into a pit on the south portion of Parcel A. The facility was purchased by J.H. Baxter in 1970, and Baxter purchased Parcel B for storage of untreated poles. The operation previously owned by J.H. Baxter was acquired by Stella-Jones Corp. in 2007.

An initial groundwater investigation began in 1989, and six monitoring wells were installed on Parcel A and two on Parcel B. An investigation of soil and groundwater quality in the untreated pole storage area (Parcel B) was completed in October 2002. Grab groundwater samples were collected from each boring location. In addition, a groundwater monitoring well (MW-14) was added to the site's well network near the southern boundary of the Baxter facility, across the street from the employee parking lot on the Bayliner property. A low PCP concentration of 0.067 micrograms per liter (µg/L) was reported in the groundwater sample from SB-57, across the street from the northeast corner of the Bayliner property. PCP was not detected at any of the other groundwater sample locations within 1,000 feet of the subject property (SB-54, SB-55, SB-56, SB-58, MW-4, MW-14). The only locations with elevated concentrations of PCP, PAHs and TPH-D were located 2,000 to 3,000 feet north of the subject property. October 2002 groundwater data showed a fairly steep groundwater gradient across the Stella-Jones property toward the northwest.

Groundwater sampling conducted in February 2004 found no PCP or PAHs at MW-4 or MW-14, the wells nearest to the subject property. The closest reported contamination to the Bayliner

property was at MW-10, about 1,500 feet to the north. No data more recent than 2004 was found in the Department of Ecology files.

Sampling of Soil, Groundwater and Pond Sediment. In May 2009, soil borings were completed using a hollow-stem auger drilling rig at 7 locations (B-1 through B-7) selected to evaluate potential impacts from the areas of concern identified as RECs in the Phase I report. Samples of soil and groundwater from each location were collected for laboratory analyses. Observed subsurface soil in the borings consisted of fine-to-coarse-grained sand with traces of gravel. Groundwater was encountered at a depth of approximately 18 feet below ground surface (bgs) in each boring.

To evaluate potential accumulations of contamination in the three on-site retention ponds, Stantec collected a surface sediment sample from the bottom of each pond. Acetone was detected at low concentrations in the sediment samples from RP-1 (0.14 mg/kg) and RP-3 (0.056 mg/kg). Acetone was not detected in the sample from RP-2. No other VOCs or SVOCs were detected in any of the pond sediment samples at concentrations exceeding the laboratory method detection limit (MDL). The sediment samples contained several RCRA metals, in all cases below MTCA Method A Soil Cleanup Levels for Unrestricted Site Use, or below US EPA risk-based screening levels in cases where MTCA cleanup levels have not been established.

The Phase II ESA identified an area of shallow groundwater impacted with Tetrachloroethylene (PCE) at concentrations above the MTCA Method A Groundwater Cleanup Level of 5 micrograms per liter (µg/L). The highest reported concentration of PCE was 42 µg/L at B-4, located in the area of a former septic system leach field north of Building 14. At B-5, approximately 200 feet northwest in the presumed downgradient direction from B-4, the reported PCE concentration was 31 µg/L. At B-6, which is near the northern property boundary approximately 600 feet in the presumed downgradient direction from B-4, the PCE concentration was 18 µg/L. Based on the data generated in this preliminary investigation, the lateral extent of PCE impact to the east and west appeared to be limited. No other VOCs were detected in the collected groundwater samples. The source of the PCE contamination is not known.

No SVOCs were detected in any of the groundwater samples. Several metals were identified in the groundwater samples, but only arsenic in B-5 at 24 µg/L and lead in B-1 at 20 µg/L exceeded the respective MTCA Method A Cleanup Levels. The elevated concentrations of arsenic and lead in groundwater samples may be attributable to turbidity in the samples, since the samples were not filtered prior to analysis.

The analytical results did not identify any compounds in soil at concentrations exceeding Method A Soil Cleanup Levels for Unrestricted Site Use. The low reported concentrations of PCE in soil are not indicative of a source point contributing to the PCE impacts to groundwater.

Locations of the Phase II ESA borings are depicted on Figure 2 in Appendix A. Analytical results from the May 2009 samples are summarized in the tables in Appendix B.

1.2 ADDITIONAL INVESTIGATION SCOPE OF WORK

This report describes additional investigation undertaken to confirm and expand upon the data obtained during the Phase II ESA. The approved scope of work included the following elements:

- *Pre-Field Activities.* Prior to mobilizing to the site, Stantec notified One Call Utility Notification Service to alert the utility companies in the area of the scheduled work, and request that they mark all underground utilities in accordance with State of Washington requirements. In addition, Stantec subcontracted with a private utility locating contractor to mark underground utilities on the subject property near the proposed boring locations. The site-specific health and safety plan was updated to reflect the additional project activities, in accordance with federal regulations (40 CFR 1910.120).

- *Groundwater Sampling and Analyses.* Groundwater monitoring wells were constructed at five locations to allow collection of soil and groundwater samples to confirm results of the Phase II ESA. Groundwater samples from each well were analyzed for VOCs by US EPA Method 8260, and for total metals by US EPA Methods 6010 and 7471.

- *Soil Sampling and Analyses.* One soil sample from each boring was selected for laboratory analysis of VOCs and total RCRA metals.

- *Surveying and Determination of Groundwater Gradient.* Locations and top-of-casing elevations of each of the wells were surveyed and depth-to-water measurements were made to allow calculation of the relative groundwater surface elevation, gradient, and direction of flow.

- *Well Log Search and Identification of Sensitive Receptors.* Stantec completed a search of Department of Ecology water well logs for any wells located within an approximate ½ -mile radius surrounding the subject property. For each well within the search area, an attempt was made to determine the location of the well relative to the subject property, and to identify the owner of the well. Stantec also evaluated nearby surface water bodies, ditches, wetlands or other possible sensitive receptors, and locations of major subsurface utility trenches that could provide a preferential pathway for migration of groundwater.

- *Determination of Applicable Cleanup Levels.* Soil and groundwater sampling data from the subject property was compared to MTCA Method A Cleanup Levels for soil (both for

unrestricted land use and industrial property uses), and groundwater. In the case of detected compounds for which Method A Cleanup Levels have not been established, cleanup standards could be any of the following:

- Applicable cleanup standard contained in state or federal law (e.g. drinking water Maximum Contaminant Levels (MCLs) established by US EPA)
- Naturally-occurring background concentration of the compound
- Practical Quantitation Limits (PQL) of available laboratory analytical methods
- MTCA Method B Cleanup Level, calculated using generic default assumptions, human health risk assessment equations, and procedures for assessing impacts on terrestrial or aquatic ecological receptors, as specified under MTCA.

Stantec evaluated these options for any compounds detected in site soil or groundwater for which Method A Cleanup Levels have not been established.

2.0 SUBSURFACE INVESTIGATION

2.1 PRE-FIELD WORK ACTIVITIES

Prior to mobilizing to the site, on December 3, 2009 Stantec notified the Washington Utilities Underground Location Center (800-424-5555) to alert the utility companies in the area of the scheduled work, and request that they mark all underground utility locations in accordance with State of Washington requirements. In addition, Stantec subcontracted with Locates Down Under (LDU), a private utility locating contractor to mark private underground utilities near the proposed boring locations. On December 7, 2009, a representative of LDU met Stantec at the subject property to mark locations of all power, communications, natural gas and water lines in the vicinity of the proposed borings.

2.2 INSTALLATION OF SOIL BORINGS

Stantec retained Cascade Drilling Services, Inc. of Woodinville, Washington to provide hollow-stem auger drilling equipment and crews for installation of five soil borings at the subject property. Drilling commenced on December 8, 2009 and was completed on December 9, 2009. As an added safety precaution, the first 5 feet of each boring was cleared using a hand auger. The 6.25-inch O.D. auger stem was then lowered into the hand-cleared boring and drilling began. Drill cuttings were placed into 55-gallon steel drums which, when full, were closed with a lid, labeled with Stantec's contact information and temporarily stored on-site.

Soil samples were obtained at every 5 feet of depth using a split-spoon sampler advanced ahead of the drill string. Soil samples were examined for visual or olfactory indications of contamination and were screened in the field for volatile organic vapors using a photoionization detector (PID) with a 10.6 electron-volt lamp. Soil samples were also characterized according to the Unified Soil Classification System and observations were recorded on a boring log. Copies of the boring logs are provided in Appendix C.

Soil samples from each depth interval were collected from the split spoon and transferred to clean, laboratory-supplied sample containers, placed in a cooler, and held for possible laboratory analyses. Soil samples for VOC analysis were obtained in accordance with EPA Method 5035 using a laboratory-supplied syringe to minimize loss of volatile constituents during sample collection.

The borings were continued to at least 5 feet below the first encountered groundwater, or the depth of auger refusal, whichever was shallower.

2.3 MONITORING WELL CONSTRUCTION

After reaching the total depth in each boring, a groundwater monitoring was constructed in the boring from 2-inch diameter Schedule 40 PVC pipe. Machine-slotted 0.01-inch screen was placed from approximately 10 feet above to approximately 5 feet below the groundwater surface. The annular space around the well casing was filled with 10/20 Colorado silica sand to a point 2 feet above the screened interval of the well. The remainder of the boring was filled with hydrated bentonite to within 2 feet of the surface. The upper 2 feet of the boring was then sealed with concrete and a flush-mounted well monument installed at the ground surface.

Well construction details are presented in Appendix B, Table 1, and in the well construction logs in Appendix C.

2.4 GROUNDWATER SAMPLING

After completion, the wells were allowed to stand for at least 24 hours. On December 10, 2009, the wells were developed by bailing until turbidity in the water had been removed (approximately 5 to 10 well volumes of water). Details of removed water volumes and field monitoring of water quality parameters are presented in the Groundwater Sampling Data Sheets in Appendix D.

Following development, depth-to-water measurements were taken in each well and recorded. Groundwater samples were collected using a low-flow peristaltic pump with dedicated polyethylene tubing. Prior to sampling, purge water was measured for pH, conductivity, dissolved oxygen, oxygen reduction potential, and temperature. Samples were collected after these parameters stabilized, approximately 10 to 15 minutes after purging. The groundwater samples were decanted directly into clean, laboratory supplied VOA vials.

2.5 LABORATORY ANALYSES

One soil sample from each boring was selected for laboratory analyses. The selected sample at each location was from the depth interval just above the saturated zone, except at boring MW-5 where very low PID readings were observed in the samples from the 5-foot, 10-foot, and 15-foot depths. No positive PID readings were recorded at any of the other sample intervals in any of the borings. Based on the highest PID reading of 6.9 ppm at the 5-foot sample interval, both the 5-foot sample and a sample from the bottom of the boring were selected for analyses.

The selected soil samples and the groundwater samples from each boring were maintained on ice in a cooler and under chain-of-custody until delivery to the project laboratory. All samples were shipped to Environmental Science Corp. (ESC) laboratory in Mt. Juliet, Tennessee for analyses.

All of the soil and groundwater samples were analyzed by ESC for the following parameters:

- Volatile Organic Compounds (VOCs) by US EPA Method 8260B
- RCRA 8 Total Metals by US EPA Method 6010 (arsenic, barium, cadmium, chromium, lead, selenium and silver) and US EPA Method 7471 (mercury).
- Chromium VI by US EPA Method 7196.

2.6 WELLHEAD SURVEY

Locations of each of the wells were surveyed by Stantec personnel on December 10, 2009, and elevations of the top-of-casing for each well were surveyed to the nearest 0.01 foot. Elevations were correlated to a USGS benchmark at an elevation of 130 feet MSL, located on the Arlington Airport property approximately 650 feet northwest of the subject property. Depth-to-water measurements were used in conjunction with the survey data to determine the relative groundwater surface elevation, gradient, and direction of flow, as presented in section 3.1. Top-of-casing elevations, depth-to-water measurements, and calculated potentiometric surface elevations in each well are presented in Appendix B, Table 1.

3.0 SUMMARY OF FINDINGS

3.1 OBSERVED SUBSURFACE CONDITIONS

Observed subsurface soil in the borings at the Bayliner site consisted of fine-to-coarse-grained sand with traces of gravel. Similar soil conditions were noted at all depth intervals in all of the borings, with the only noticeable difference being slight variation in the amount of gravel. Groundwater was encountered at depths of approximately 20 to 30 feet bgs in all borings.

According to the USGS 7.5-minute topographic map for the Smokey Point, Washington quadrangle (1981), the subject property is located at an elevation of approximately 130 feet above mean sea level. The area to the north, south and west is relatively flat, sloping downward slightly toward the Stillaguamish River approximately 1.4 miles to the northwest. However, an area of low hills rise steeply just to the east of the subject property, reaching to ridges of up to 350 feet above mean sea level within less than one-half-mile. Based on this observed surface topography, groundwater beneath the Bayliner property was expected to flow toward the northwest

Data collected on December 10, 2009 from the subject property monitoring wells was used to confirm the assumptions about groundwater flow direction. As summarized in Appendix B, Table 1, static water levels occurred at depths ranging from approximately 17 to 22 feet bgs. The potentiometric surface elevations ranged from 113.01 feet above mean sea level (MSL) at MW-3 in the southeast corner of the property, to 108.43 feet above MSL at MW-5 in the northwest corner of the property. This results in an overall gradient across the site of 0.0034 feet per foot (ft/ft) in a northwesterly direction. However, the gradient is steeper (approximately 0.009 ft/ft) in a north-northeast direction across the southern third of the property. Across the northern two-thirds of the property, the gradient turns toward the northwest at a gradient of approximately 0.001 ft/ft. Potentiometric surface contours, as measured on December 10, 2009, are illustrated on Figure 3 in Appendix A.

3.2 SOIL SAMPLE ANALYTICAL RESULTS

Analytical results for soil samples are summarized in Appendix B, Tables 2 and 3. Complete copies of the laboratory analytical reports are provided in Appendix E.

Tetrachloroethylene (PCE) was not present above the detection limit of the laboratory method in the samples collected from MW-2, MW-3 or MW-5. Low concentrations of PCE, a common industrial and dry cleaning solvent, were found in the soil at MW-1 (0.025 mg/kg) and MW-4 (0.0039 mg/kg). Similar low concentrations of PCE, ranging from 0.0036 mg/kg to 0.011 mg/kg, had been detected in soil samples collected during the Phase II ESA in May 2009. The

detected PCE concentrations are well below the MTCA Method A Soil Cleanup Level for Unrestricted Site Use (0.05 mg/kg) established by the Department of Ecology,.

No other VOCs were detected in any of the soil samples at concentrations above the laboratory MDL.

Several RCRA metals were present in the soil samples. Results were compared against MTCA Method A Soil Cleanup Levels for Unrestricted Site Use. Method A Cleanup Levels have been established for 6 of the 9 metals analyzed (arsenic, cadmium, total chromium, hexavalent chromium [chromium VI], lead and mercury). For the other three metals (barium, silver, selenium), results were compared with the US EPA's Regional Risk-Based Screening Level.

Detected concentrations of cadmium, total chromium, hexavalent chromium, lead, and mercury were all well below their respective Method A Cleanup levels.

Barium was present in all 6 samples, at concentrations ranging from 48 to 62 mg/kg. These concentrations are well below the US EPA's Regional Risk-Based Screening Level for barium in residential soil of 15,000 mg/kg.

Arsenic, silver and selenium were not detected above the laboratory method detection limit in any of the samples

3.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS

PCE was reported at a concentration of 59 µg/L at MW-1. This exceeds the MTCA Method A Cleanup Level of 5 µg/L, and is similar to the 42 µg/L PCE detected at nearby B-4 in May 2009.

PCE at a concentration of 13 µg/L was detected in the sample at MW-4. This is similar to the 18 µg/L PCE concentration reported in May 2009 at B-6, approximately 100 feet to the southeast. Trichloroethylene (TCE) was also detected in the MW-4 sample at a concentration of 16 µg/L. TCE was not detected in any of the other samples from December or May 2009. TCE is often found as a degradation product of PCE, as well as being a frequently used industrial solvent.

No VOCs were detected above laboratory MDLs at MW-2, MW-3 or MW-5.

Several RCRA metals were detected in groundwater samples. Results were compared against MTCA Method A Groundwater Cleanup Levels that have been established for 5 of the 8 metals analyzed (arsenic, cadmium, total chromium, lead and mercury). For the other three metals (barium, silver, selenium), results were compared with the US EPA's Regional Risk-Based Screening Level.

Detected barium concentrations ranged from 13 µg/L (MW-5) to 96 µg/L (MW-2 and MW-4). All were well below the Risk-Based Screening Level of 7,300 µg/L.

Total chromium concentrations ranged from 12 µg/L (MW-1) to 35 µg/L (MW-4). All were below the MTCA Method A Groundwater Cleanup Level of 50 µg/L.

Lead was detected at a concentration of 7.2 µg/L in the sample from MW-4, below the MTCA Method A Groundwater Cleanup Level of 15 µg/L. Lead was not detected above the laboratory MDL in any of the other samples.

Silver was reported in only one groundwater sample (MW-5) at a concentration of 14 µg/L. This is well below the Risk-Based Screening Level of 180 µg/L.

Arsenic, cadmium, mercury, and selenium were not detected above the laboratory MDL in any of the groundwater samples.

3.4 SENSITIVE RECEPTOR SURVEY

Stantec conducted research into water wells, surface water bodies, ditches, wetlands or other possible sensitive receptors located in the vicinity of the subject property.

Water well logs were reviewed at the Department of Ecology web site (http://apps.ecy.wa.gov/welllog/scripts/mapresults3.asp) for an approximately 1/2–mile radius surrounding the subject property. Logs for approximately 136 wells were identified, excluding those that are listed as decommissioned. Table 6 in Appendix B lists the identified well logs in the area, grouped by locations that are downgradient (NW), cross-gradient (SW, N, or NE) or upgradient (SE) from the subject property. Locations were estimated by street address or ¼-section descriptions provided on the well logs. The majority of the wells were located upgradient (60) or cross-gradient (60) from the subject property. Of the 16 well logs from the downgradient quadrant, 15 are listed in the ¼ section directly northwest of the subject property (T31N, R03E, Section 22, SE ¼ of the NW ¼).

Of those 15 closest wells, 14 are listed as resource protection wells (monitoring wells). One well is listed as a City of Arlington municipal water supply well, located approximately 1,500 feet north-northwest from the northwest corner of the subject property. The City well is reported to be 185 feet deep, with a screened interval between 151 and 181 feet bgs. According to the web site for the City of Arlington Department of Public Works, (http://www.ci.arlington.wa.us/documents/PW%20Utilities/annual%20water%20report%202007%20for%20web.pdf) , the well supplies 2% of the City's overall water supply.

No other sensitive receptors were identified within ½-mile downgradient of the subject property. The nearest surface water bodies are the Middle Fork of Quilceda Creek, approximately 0.4 miles south of the subject property, and Portage Creek about 1.1 mile north of the subject property. According to the U.S. Fish & Wildlife Service National Wetlands Mapper (http://www.fws.gov/wetlands/Data/Mapper.html), the nearest identified wetland areas are approximately ¾ mile southeast and 1.5 miles northwest of the subject property. The nearest school is Weston High School, 4407 172nd Street NE, approximately 1.2 miles southwest of the subject property.

Subgrade natural gas and water lines are located along 180th Street on the north border of the subject property. Although such utility trenches sometimes provide preferential pathways for migration of contaminated groundwater, this does not seem likely at the subject property because the typical depth of such utility lines is shallower than the depth of the impacted groundwater.

4.0 SUMMARY AND CONCLUSIONS

The results of the December 2009 Site Investigation largely corroborated the findings from the May 2009 Phase II ESA. Soils beneath the site are relatively uniform across the site, consisting of fine-grained to coarse-grained sand with traces of gravel. Shallow groundwater was encountered at depths of 18 to 22 feet bgs in May 2009, and from 20 to 30 feet bgs in December 2009. The groundwater gradient across the site is roughly 0.0034 ft./ft. with a flow direction toward the northwest.

Impacts To Soil

Soil sample analyses have not identified any known source points for subsurface contamination. Concentrations of RCRA metals in soil samples from both May and December 2009 were all below applicable MTCA Method A Cleanup Levels for unrestricted land use or US EPA Risk-Based Screening Levels. PCE was detected at low concentrations in soil at six sample locations in May 2009, and in two of the December 2009 borings. However, the highest PCE concentrations detected in soil (0.044 mg/kg at B-6, 0.025 mg/kg at MW-1) are below the MTCA Method A Cleanup Level of 0.05 mg/kg. These do not appear to represent a release point that is contributing to solvent impacts in groundwater, but rather more likely a residual "smear" effect left from PCE concentrations in fluctuating levels of groundwater.

Impacts to Groundwater

The presence of VOCs in shallow groundwater is the most significant area of concern at the subject property. December 2009 monitoring well samples confirmed the presence of PCE in groundwater beneath the middle portion of the property. The highest concentrations have been located in the vicinity of a former septic leach field between Buildings 11 and 14, although as discussed above, soil sample data from this area does not confirm that the former leach field is a source of the PCE. In May 2009, PCE was reported at a concentration of 42 µg/L in the sample from B-4. In December 2009, the sample from nearby MW-1 contained PCE at 59 µg/L. The next highest PCE concentration was in the May 2009 sample from B-5, 175 feet northwest and downgradient of MW-1/B-4.

PCE is also present in groundwater near the north central boundary of the subject property, 500 to 600 feet north-northwest of B-5 and MW-1/B-4. In May 2009, PCE at 18 µg/L was present at B-6. In December 2009, PCE at 13 µg/L was detected in the sample from MW-4, an additional 140 feet northwest from B-6. The sample from MW-4 also contained a concentration of 16 µg/L TCE. TCE is a potential degradation product of PCE, as well as being a frequently used stand-alone industrial solvent.

Lateral Extent of Groundwater Impacts

MW-4 was located as close as practical to the northern property boundary. The presence of PCE and TCE at this location indicates that the VOC-contaminant plume may extend off site to the north and west, although VOCs were not detected in the sample from MW-5, which is located at the northwest corner of the property about 400 feet west of MW-4. Although the overall site-wide groundwater flow direction appears to be toward the northwest, the presence of PCE at B-6 and MW-4 and the absence of PCE at MW-5 suggest that there may be a more northward groundwater flow component.

The western extent of the PCE impact appears to be defined by the absence of PCE in samples from MW-2, MW-5 and B-7.

May 2009 samples from B-2 and B-3, located east of MW-1/B-4, contained low concentrations of PCE (1.5 and 3.3 µg/L). However, the concentrations at these locations were below the MTCA Method A Cleanup Level.

MW-3 was constructed at the extreme southeast corner of the subject property to evaluate the possibility that the PCE impacts may be moving onto the subject property from off-site. The well was located as far as practical in the upgradient direction from MW-1/B-4 while remaining on the subject property. No VOCs were detected in the groundwater from MW-3. However, based on a northwesterly flow direction, points upgradient from MW-1/B-4 may actually be on the adjoining undeveloped land to the east of Building 14 and south of Retention Ponds #2 and #3. There is a potential that PCE is migrating onto the property from an off-site source in this direction. However, the adjoining property is undeveloped and has been historically undeveloped. Therefore, there is no readily apparent potential upgradient source of a PCE release.

Sensitive Receptors

The only identified receptor of concern is the City of Arlington water supply well located in the downgradient direction, approximately 1,500 feet north-northwest of the subject property. The City well draws water from the aquifer 151 to 181 feet bgs, considerably deeper than the groundwater zone (approximately 20 feet bgs) where solvent impacts have been found at the subject property.

It is undetermined at this time whether hydraulic connections exist between these two groundwater zones, and the vertical extent of the solvent impact has not been determined.

Applicable Cleanup Standards

Under MTCA, cleanup standards have been established to provide uniform, state-wide approaches to the cleanup of hazardous waste sites. The cleanup standards consist of two elements: 1) cleanup levels that identify at what concentration a particular hazardous substance does not pose an unacceptable threat to human health and the environment; and 2) points of compliance that define the location on the site where the cleanup level must be met. The state of Washington has established a table listing Method A cleanup levels for 25 to 30 of the most commonly encountered hazardous substances. For most situations, the standard point of compliance is defined by Ecology as "throughout the site."

Method A cleanup levels for soil have been established by Ecology for the following hazardous substances detected in site soil samples: PCE, cadmium, chromium III, chromium VI, lead, and mercury. In all cases, the detected concentrations at all locations throughout the site was below the Method A soil cleanup level for unrestricted site use.

Four hazardous substances have been detected in soil samples at the subject property for which Method A cleanup levels have not been established: acetone, styrene, barium, and silver. MTCA states that for hazardous substances without established Method A cleanup levels, values established in other applicable federal or state laws may be utilized as the cleanup level. The USEPA has published risk-based screening levels for these compounds. At all locations throughout the site, the detected concentrations were between one and five orders of magnitude lower than the risk-based screening level for residential soil.

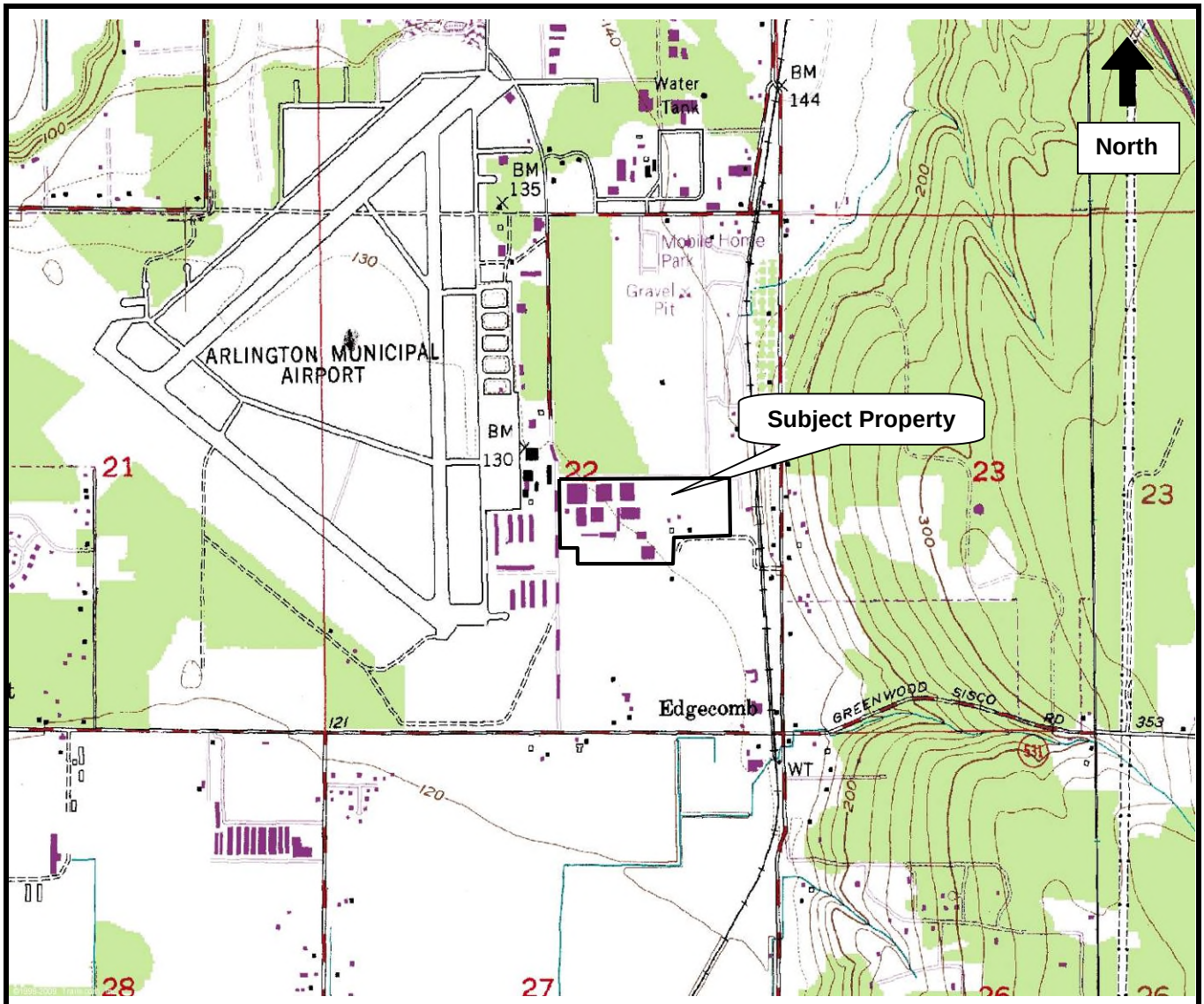
One other compound (dimethyl phthalate) was detected in soil. Neither a Method A cleanup level or an EPA risk-based screening level have been established for this compound.

Method A cleanup levels for groundwater have been established for the following hazardous substances detected in groundwater samples at the subject property: PCE, TCE, arsenic, total chromium, lead, and mercury. For PCE and TCE, both the Method A cleanup level and the EPA Maximum Contaminant Level (MCL) for drinking water are set at 5 µg/L. Concentrations above this threshold were detected in groundwater samples at the subject property. Three hazardous substances detected in groundwater samples at the subject property – barium selenium and silver – do not have an established Method A groundwater cleanup level. EPA risk-based screening levels do exist for each of these substances. At all locations throughout the site, the detected concentrations were below the respective EPA risk-based screening levels.

Table 12 in Appendix B lists the proposed cleanup levels to be applied for each of the hazardous substances detected in soil and groundwater at the subject property.

APPENDIX A

FIGURES



Quadrangle Location Map

Job #: 190402025

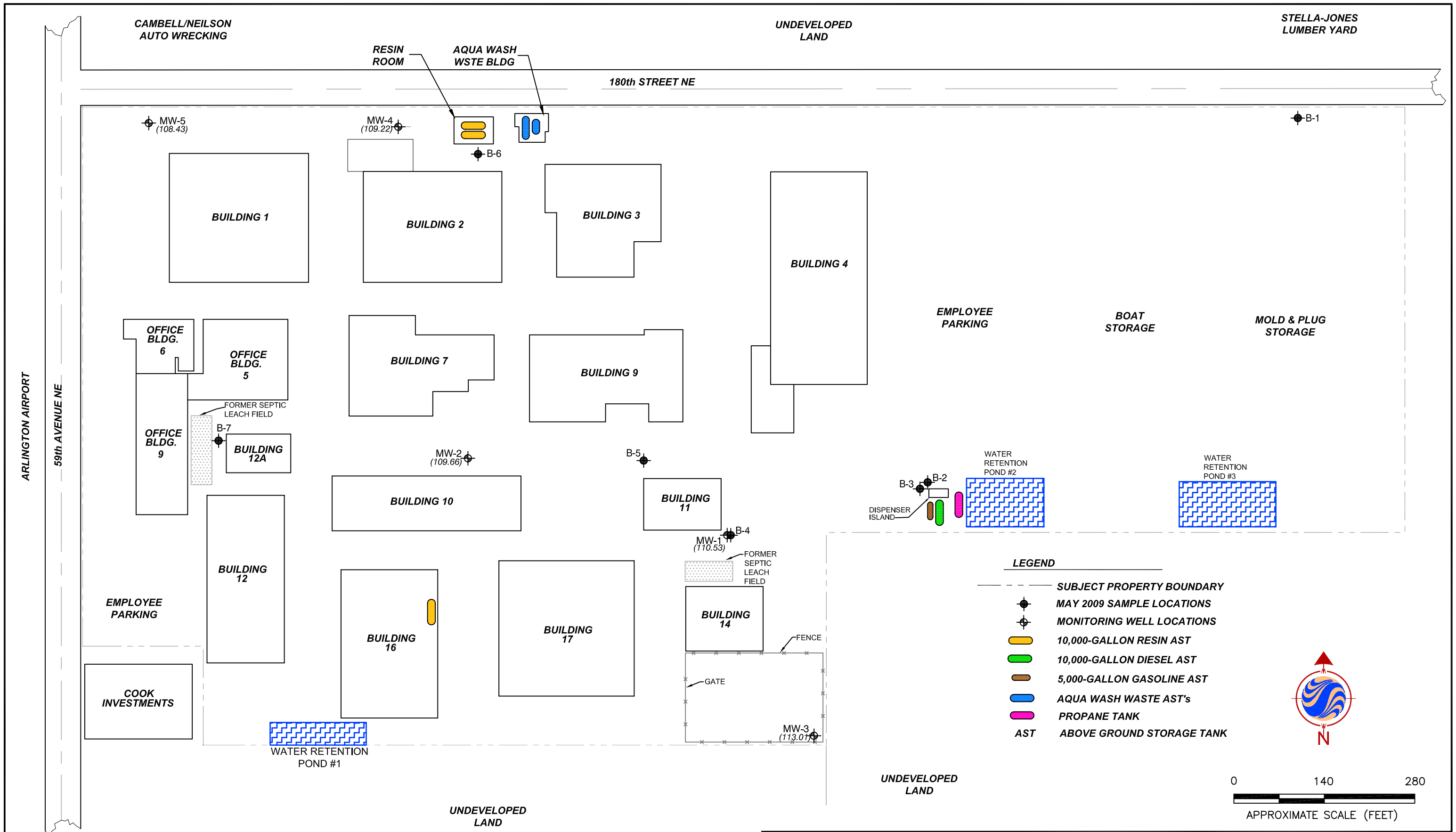
Site Location Map

US Marine
17825 59th Avenue
Arlington, Washington 98223

Stantec

7730 SW Mohawk St.
Tualatin, Oregon
97062

DATE: 03/04/09	***Source: USGS Smokey Point, WA Quad 1981***	***Scale 1:25000***	***Figure: 1***
DWN: Paula Fitzgerald	***APPR: Amy Zach***		***Revision: 0***



Stantec
7730 SW MOHAWK STREET
TUALATIN, OREGON
PH (503) 691-2030/FAX (503) 692-7074

FOR:		SITE PLAN	FIGURE:
BAYLINER MARINE 17825 59th AVENUE NE ARLINGTON, WASHINGTON 98223			2
JOB NUMBER: 190402025	DRAWN BY: DJH	CHECKED BY: RRS	APPROVED BY: AKZ	DATE: 12/11/09

FILEPATH:K:\1-CLIENTS\BAYLINER MARINE-190402025\190402025-FIG 2- BAYLINER MARINE.dwg|dheller|Jan 08, 2010 at 13:30|Layout: SITE PLAN-FIG.2

CAMBELL/NEILSON AUTO WRECKING

UNDEVELOPED LAND

STELLA-JONES LUMBER YARD

180th STREET NE

ARLINGTON AIRPORT

59th AVENUE NE

109

110

111

112

113

RESIN ROOM

AQUA WASH WSTE BLDG

MW-5 (108.43)

MW-4 (109.22)

B-6

B-1

BUILDING 1

BUILDING 2

BUILDING 3

BUILDING 4

OFFICE BLDG. 6

OFFICE BLDG. 5

BUILDING 7

BUILDING 9

EMPLOYEE PARKING

BOAT STORAGE

MOLD & PLUG STORAGE

FORMER SEPTIC LEACH FIELD

B-7

OFFICE BLDG. 9

BUILDING 12A

MW-2 (109.66)

B-5

WATER RETENTION POND #2

WATER RETENTION POND #3

B-3

B-2

DISPENSER ISLAND

BUILDING 10

BUILDING 11

B-4

MW-1 (110.53)

FORMER SEPTIC LEACH FIELD

BUILDING 12

BUILDING 16

BUILDING 17

BUILDING 14

FENCE

GATE

EMPLOYEE PARKING

COOK INVESTMENTS

MW-3 (113.01)

WATER RETENTION POND #1

UNDEVELOPED LAND

UNDEVELOPED LAND

JET CITY EQUIPMENT RENTAL

ANCHOR SELF STORAGE

LEGEND

- SUBJECT PROPERTY BOUNDARY
- MAY 2009 SAMPLE LOCATIONS
- MONITORING WELL LOCATIONS
- 10,000-GALLON RESIN AST
- 10,000-GALLON DIESEL AST
- 5,000-GALLON GASOLINE AST
- AQUA WASH WASTE AST's
- PROPANE TANK
- AST ABOVE GROUND STORAGE TANK
- GROUNDWATER ELEVATION CONTOURS (FEET)
- (113.01) RELATIVE GROUNDWATER ELEVATION (FEET)

N

0 140 280

APPROXIMATE SCALE (FEET)

Stantec
7730 SW MOHAWK STREET
TUALATIN, OREGON
PH (503) 691-2030/FAX (503) 692-7074

FOR:
BAYLINER MARINE
17825 59th AVENUE NE
ARLINGTON, WASHINGTON 98223

SITE PLAN WITH GROUNDWATER ELEVATIONS

FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
190402025	DJH	RRS	ACZ	12/11/09

FILEPATH:K:\1-CLIENTS\BAYLINER MARINE-190402025\190402025-FIG 3- BAYLINER MARINE.dwg|dheller|Jan 08, 2010 at 14:37|Layout: SITE PLAN-FIG.2'P

APPENDIX B

TABLES

Table 1
Monitoring Well Data
Bayliner Marine - Arlington, Washington

Well No.	Measurement Date	Total Depth (feet)	Top of Casing Elevation (ft MSL)	Screened Interval (ft. bgs)		Screened Interval (ft. MSL)		Depth to Groundwater (Feet)	Groundwater Elevation (Ft. MSL)
				Top	*Bottom*	*Top*	*Bottom*		
MW-1	12/10/2009	29.95	129.42	15	30	114.42	99.42	18.89	110.53
MW-2	12/10/2009	27.25	129.68	15	30	114.68	99.68	20.02	109.66
MW-3	12/10/2009	24.3	129.90	10	25	119.9	104.9	16.89	113.01
MW-4	12/10/2009	28.4	130.42	15	30	115.42	100.42	21.2	109.22
MW-5	12/10/2009	33.95	130.39	20	35	110.39	95.39	21.96	108.43

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

VOCs IN SOIL – DECEMBER 2009

Sample #	*Sample Date*	*Sample Depth (feet bgs)*[1]	*VOCs*[2] *(mg/kg)*[3]	*MTCA Method A Cleanup Level*[4] *(mg/kg)*	*US EPA Regional Risk-Based Screening Level*[5] *(mg/kg)*
MW-1	12/10/09	20	PCE[6] 0.025 All Others BDL[7]	PCE 0.05	PCE 0.57
MW-2	12/10/09	20	All BDL	N/A	N/A
MW-3	12/10/09	15	All BDL	N/A	N/A
MW-4	12/10/09	20	PCE 0.0039 All Others BDL	PCE 0.05	PCE 0.57
MW-5	12/10/09	5	All BDL	N/A	N/A
	12/10/09	20	All BDL	N/A	N/A

NOTES:

1 Sample depth in feet below ground surface (bgs)
2 VOCs = Volatile Organic Compounds by USEPA Method 8260 B
3 Mg/kg = milligrams per kilogram
4 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
5 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
6 PCE = Tetrachloroethylene (aka perchlorethylene)
7 BDL = Below Detection Limit for the laboratory analytical method

TABLE 3
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

VOCs AND SVOCs IN SOIL – MAY 2009

Sample #	*Sample Date*	*Sample Depth (feet bgs)*[1]	*VOCs*[2] *(mg/kg)*[3]	*SVOCs*[4] *(mg/kg)*	*MTCA Method A Cleanup Level*[5] *(mg/kg)*	*US EPA Regional Risk-Based Screening Level*[6] *(mg/kg)*
B-1-15	5/20/09	15	PCE[7] 0.0036 All Others BDL[9]	PCP[8] BDL All Others BDL	PCE 0.05	PCE 0.57
B-2-15	5/20/09	15	PCE 0.0041 All Others BDL	PCP BDL All Others BDL	PCE 0.05	PCE 0.57
B-3-15	5/21/09	15	PCE 0.0075 All Others BDL	PCP BDL All Others BDL	PCE 0.05	PCE 0.57
B-4-15	5/21/09	15	PCE 0.0049 All Others BDL	PCP BDL All Others BDL	PCE 0.05	PCE 0.57
B-5-15	5/21/09	15	PCE 0.011 All Others BDL	PCP BDL All Others BDL	PCE 0.05	PCE 0.57
B-6-5	5/21/09	5	Acetone 0.082 PCE 0.044 Styrene 0.0026	Dimethyl Phthalate 1.3 PCP BDL All Others BDL	Acetone NE[10] Dimethly Phthalate NE PCE 0.05 Styrene NE	Acetone 61,000 Dimethyl Phthalate NE PCE 0.57 Styrene 6,500
B-7-15	5/21/09	15	All BDL	PCP BDL All Others BDL	N/A	N/A

NOTES:

1 Sample depth in feet below ground surface (bgs)
2 VOCs = Volatile Organic Compounds by USEPA Method 8260 B
3 Mg/kg = milligrams per kilogram
4 SVOCs = Semi-Voatile Organic Compounds by USEPA Method 8270 C
5 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
6 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
7 PCE = Tetrachloroethylene (aka perchlorethylene)
8 PCP = Pentachlorophenol
9 BDL = Below Detection Limit for the laboratory analytical method
10 NE = MTCA Method A Cleanup Level is not established for this compound

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

RCRA METALS IN SOIL – DECEMBER 2009

Sample #	*Sample Date*	*Sample Depth (feet bgs)*[1]	*Arsenic*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Mercury*	*Selenium*	*Silver*	*MTCA Method A Cleanup Level*[3]	*US EPA Regional Risk-Based Screening Level*[4]
			(all values in mg/kg)[2]									
MW-1	12/09/09	20	BDL[5]	58	0.84	Total 43 Cr VI BDL	1.3	BDL	BDL	BDL	Arsenic 20 Barium NE[6] Cadmium 2 Chromium-Total NE Chromium VI 19 Lead 250 Mercury 2 Selenium NE Silver NE	Arsenic 0.39 Barium 15,000 Cadmium 70 Chromium-Total 280 Chromium VI 39 Lead 400 Mercury 4.3 Selenium 390 Silver 390
MW-2	12/09/09	20	BDL	59	0.84	Total 41 Cr VI BDL	1.6	BDL	BDL	BDL		
MW-3	12/09/09	15	BDL	53	0.89	Total 33 Cr VI BDL	1.9	BDL	BDL	BDL		
MW-4	12/09/09	20	BDL	62	1.0	Total 51 Cr VI BDL	1.8	0.224	BDL	BDL		
MW-5	12/09/09	5	BDL	52	1.0	Total 35 Cr VI BDL	4.7	0.027	BDL	BDL		
	12/09/09	20	BDL	48	0.87	Total 54 Cr VI BDL	1.7	0.021	BDL	BDL		

NOTES:

1 Sample depth in feet below ground surface (bgs)
2 Mg/kg = milligrams per kilogram
3 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
4 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
5 BDL = Below Detection Limit of laboratory analytical method
6 MTCA Method A Cleanup Level is not established for this compound

TABLE 5
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

RCRA METALS IN SOIL – MAY 2009

Sample #	*Sample Date*	*Sample Depth (feet bgs)*[1]	*Arsenic*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Mercury*	*Selenium*	*Silver*	*MTCA Method A Cleanup Level*[3]	*US EPA Regional Risk-Based Screening Level*[4]
			(all values in mg/kg)[2]									
B-1-15	5/20/09	15	BDL[5]	52	0.89	Total 32 Cr III 30 Cr VI BDL	3.2	0.025	BDL	BDL	Arsenic 20 Barium NE[6] Cadmium 2 Chromium-Total NE Chromium III 2,000 Chromium VI 19 Lead 250 Mercury 2 Selenium NE Silver NE	Arsenic 0.39 Barium 15,000 Cadmium 70 Chromium-Total 280 Chromium III 120,000 Chromium VI 39 Lead 400 Mercury 4.3 Selenium 390 Silver 390
B-2-15	5/20/09	15	BDL	58	0.66	Total 29 Cr III 25 Cr VI BDL	2.7	BDL	BDL	BDL		
B-3-15	5/21/09	15	BDL	43	0.92	Total 61 Cr III 55 Cr VI BDL	3.2	0.022	BDL	BDL		
B-4-15	5/21/09	15	BDL	55	0.8	Total 38 Cr III 36 Cr VI BDL	3.2	BDL	BDL	BDL		
B-5-15	5/21/09	15	BDL	49	1.2	Total 140 Cr III 140 Cr VI BDL	3.8	BDL	BDL	BDL		
B-6-5	5/21/09	5	BDL	56	0.93	Total 33 Cr III 31 Cr VI BDL	7.2	0.028	BDL	BDL		
B-7-15	5/21/09	15	1.4	60	0.38	Total 45 Cr III NA Cr VI NA	3.4	BDL	BDL	1.2		

NOTES:

1 Sample depth in feet below ground surface (bgs)
2 Mg/kg = milligrams per kilogram
3 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
4 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
5 BDL = Below Detection Limit of laboratory analytical method
6 MTCA Method A Cleanup Level is not established for this compound

TABLE 6
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

VOCs IN GROUNDWATER – DECEMBER 2009

Sample #	*Sample Date*	*VOCs[1] (µg/L)[2]*	*MTCA Method A Cleanup Level[3] (µg/L)*
MW-1	12/09/09	**PCE[4] 59** All Others BDL[6]	N/A
MW-2	12/09/09	All BDL	N/A
MW-3	12/09/09	All BDL	N/A
MW-4	12/09/09	**PCE 13** **TCE[5] 16** All Others BDL	PCE 5 TCE 5
MW-5	12/09/09	All BDL	N/A

NOTES:

Values in bold font exceed applicable cleanup guidelines

1 VOCs = Volatile Organic Compounds by USEPA Method 8260 B
2 µg/L = micrograms per liter
3 Method A Groundwater Cleanup Level established under Washington Model Toxics Cleanup Act (MTCA)
4 PCE = Tetrachloroethylene (aka perchlorethylene)
5 TCE - Trichloroethylene
6 BDL = Below Detection Limit for the laboratory analytical method

TABLE 7
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

VOCs AND SVOCs IN GROUNDWATER – MAY 2009

Sample #	*Sample Date*	*Depth to Water (feet bgs)*[1]	*VOCs*[2] *(µg/L)*[3]	*SVOCs*[4] *(µg/L)*	*MTCA Method A Cleanup Level*[5] *(µg/L)*
B-1	5/20/09	18	All BDL[8]	PCP[7] BDL All Others BDL	N/A
B-2	5/21/09	15	PCE[6] 1.5 All Others BDL	PCP BDL All Others BDL	PCE 5
B-3	5/21/09	15	PCE 3.3 All Others BDL	PCP BDL All Others BDL	PCE 5
B-4	**5/21/09**	**15**	**PCE 42** All Others BDL	PCP BDL All Others BDL	PCE 5
B-5	**5/21/09**	**15**	**PCE 31** All Others BDL	PCP BDL All Others BDL	PCE 5
B-6	**5/21/09**	**15**	**PCE 18**	PCP BDL All Others BDL	PCE 5
B-7	5/21/09	15	All BDL	PP BDL All Others BDL	N/A

NOTES:

Values in bold font exceed applicable cleanup guidelines

1 Depth to groundwater in feet below ground surface (bgs)
2 VOCs = Volatile Organic Compounds by USEPA Method 8260 B
3 µg/L = micrograms per liter
4 SVOCs = Semi-Voatile Organic Compounds by USEPA Method 8270 C
5 Method A Groundwater Cleanup Level established under Washington Model Toxics Cleanup Act (MTCA)
6 PCE = Tetrachloroethylene (aka perchlorethylene)
7 PCP = Pentachlorophenol
8 BDL = Below Detection Limit for the laboratory analytical method
9 MTCA Method A Cleanup Level is not established for this compound

TABLE 8
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

RCRA METALS IN GROUNDWATER – DECEMBER 2009

Sample #	*Sample Date*	*Arsenic*	*Barium*	*Cadmium*	*Chromium (Total)*	*Lead*	*Mercury*	*Selenium*	*Silver*	*MTCA Method A Cleanup Level*[2]	*US EPA Regional Risk-Based Screening Level*[3]
		(all values in µg/L)[1]									
MW-1	12/10/09	BDL[4]	42	BDL	12	BDL	BDL	BDL	BDL	Arsenic 5 Barium NE Cadmium 5 Chromium (Total) 50 Lead 15 Mercury 2 Selenium NE[5] Silver NE	Arsenic 0.045 Barium 7,300 Cadmium 18 Chromium (Total) 100 Lead 15 Mercury 0.57 Selenium 180 Silver 180
MW-2	12/10/09	BDL	96	BDL	26	BDL	BDL	BDL	BDL		
MW-3	12/10/09	BDL	87	BDL	18	BDL	BDL	BDL	BDL		
MW-4	12/10/09	BDL	96	BDL	35	7.2	BDL	BDL	BDL		
MW-5	12/10/09	BDL	13	BDL	BDL	BDL	BDL	BDL	14		

NOTES:

1 µg/L = micrograms per liter
2 Method A Groundwater Cleanup Level established under Washington Model Toxics Cleanup Act (MTCA)
3 MTCA Method A Cleanup Level is not established for this compound
4 BDL = Below Detection Limit of laboratory analytical method

TABLE 9
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

RCRA METALS IN GROUNDWATER – MAY 2009

Sample #	*Sample Date*	*Depth to Water (feet bgs)*[1]	*Arsenic*	*Barium*	*Cadmium*	*Chromium (Total)*	*Lead*	*Mercury*	*Selenium*	*Silver*	*MTCA Method A Cleanup Level*[3]	*US EPA Regional Risk-Based Screening Level*[4]
			(all values in µg/L)[2]									
B-1	**5/20/09**	**18**	BDL[4]	480	BDL	43	**20**	0.21	BDL	BDL	Arsenic 5 Barium NE Cadmium 5 Chromium (Total) 50 Lead 15 Mercury 2 Selenium NE[5] Silver NE	Arsenic 0.045 Barium 7,300 Cadmium 18 Chromium (Total) 100 Lead 15 Mercury 0.57 Selenium 180 Silver 180
B-2	5/21/09	18	BDL	91	BDL	20	6.9	BDL	BDL	BDL		
B-3	5/21/09	18	BDL	70	BDL	12	7.1	BDL	BDL	BDL		
B-4	5/21/09	18	BDL	190	BDL	38	7.6	BDL	BDL	BDL		
B-5	**5/21/09**	**18**	**24**	91	BDL	14	BDL	BDL	22	BDL		
B-6	5/21/09	18	BDL	71	BDL	BDL	BDL	BDL	BDL	BDL		
B-7	5/21/09	18	BDL	82	BDL	32	6.5	BDL	BDL	BDL		

NOTES:

Values shown in bold font exceed applicable cleanup guidelines

1 Depth to groundwater in feet below ground surface (bgs)
2 µg/L = micrograms per liter
3 Method A Groundwater Cleanup Level established under Washington Model Toxics Cleanup Act (MTCA)
4 BDL = Below Detection Limit of laboratory analytical method
5 MTCA Method A Cleanup Level is not established for this compound

TABLE 10
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

VOCs AND SVOCs IN POND SEDIMENT – MAY 2009

Sample #	*Sample Date*	*VOCs*[1]	*SVOCs*[3]	*MTCA Method A Cleanup Level*[4]	*US EPA Regional Risk-Based Screening Level*[5]
		(all values in mg/kg)[2]			
RP-1	5/22/09	Acetone 0.14 All Others BDL[6]	All BDL	Acetone NE[7]	Acetone 61,000
RP-2	5/22/09	All BDL	All BDL	- - -	- - -
RP-3	5/22/09	Acetone 0.056 All Others BDL	All BDL	Acetone NE	Acetone 61,000
Trip Blank	5/22/09	All BDL	N/A	- - -	- - -

NOTES:

1 VOCs = Volatile Organic Compounds by USEPA Method 8260 B
2 Mg/kg = milligrams per kilogram
3 SVOCs = Semi-Voatile Organic Compounds by USEPA Method 8270 C
4 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
5 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
6 BDL = Below Detection Limit for the laboratory analytical method
7 MTCA Method A Cleanup Level is not established for this compound

TABLE 11
SUMMARY OF LABORATORY ANALYTICAL RESULTS
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

RCRA METALS IN POND SEDIMENT – MAY 2009

Sample #	*Sample Date*	*Arsenic*	*Barium*	*Cadmium*	*Chromium*	*Lead*	*Mercury*	*Selenium*	*Silver*	*MTCA Method A Cleanup Level*[3]	*US EPA Regional Risk-Based Screening Level*[4]
		(all values in mg/kg)[2]									
RP-1	5/22/09	13	63	1.8	Total 80 Cr III 40 Cr VI BDL	160	0.12	BDL[5]	1.8	Arsenic 20 Barium NE[6] Cadmium 2 Chromium-Total NE Chromium III 2000 Chromium VI 19 Lead 250 Mercury 2 Selenium NE Silver NE	Arsenic 0.39 Barium 15,000 Cadmium 70 Chromium-Total 280 Chromium III 120,000 Chromium VI 39 Lead 400 Mercury 4.3 Selenium 390 Silver 390
RP-2	5/22/09	3.4	52	0.59	Total 47 Cr III 33 Cr VI BDL	17	0.037	BDL	1.2		
RP-3	5/22/09	2.7	56	0.49	Total 42 Cr III 38 Cr VI BDL	10	0.025	BDL	1.2		

NOTES:

1 Sample depth in feet below ground surface (bgs)
2 Mg/kg = milligrams per kilogram
3 Method A Soil Cleanup Level for Unrestricted Land Use established under Washington Model Toxics Cleanup Act (MTCA)
4 Regional Risk Based-Screening Level Table Master published by US Environmental Protection Agency
5 BDL = Below Detection Limit of laboratory analytical method
6 MTCA Method A Cleanup Level is not established for this compound

TABLE 12
BAYLINER MARINE PROPERTY
ARLINGTON, WASHINGTON

PROPOSED CLEANUP LEVELS

Hazardous Substance	*Max. Detected Concentration*	*Proposed Cleanup Level*	*Cleanup Level Source*
Hazardous Substances Detected in Soil			
PCE	0.025 mg/kg	0.05 mg/kg	MTCA Method A-Soil Unrestricted
Acetone	0.14 mg/kg	61,000 mg/kg	EPA Risk-Based Screening Level-Residential Soil
Styrene	0.0026 mg/kg	6,500 mg/kg	EPA Risk-Based Screening Level-Residential Soil
Dimethyl Phthalate	1.3 mg/kg	TBD	
Arsenic	13 mg/kg	20 mg/kg	MTCA Method A-Soil Unrestricted
Barium	63 mg/kg	15,000 mg/kg	EPA Risk-Based Screening Level-Residential Soil
Cadmium	1.8 mg/kg	2.0 mg/kg	MTCA Method A-Soil Unrestricted
Chromium III	140 mg/kg	2,000 mg/kg	MTCA Method A-Soil Unrestricted
Total Chromium	140 mg/kg	280 mg/kg	EPA Risk-Based Screening Level-Residential Soil
Lead	160 mg/kg	250 mg/kg	MTCA Method A-Soil Unrestricted
Mercury	0.224 mg/kg	2.0 mg/kg	MTCA Method A-Soil Unrestricted
Silver	1.8 mg/kg	390 mg/kg	EPA Risk-Based Screening Level-Residential Soil
Hazardous Substances Detected in Groundwater			
PCE	59 µg/L	5 µg/L	MTCA Method A-Groundwater and EPA MCL
TCE	16 µg/L	5 µg/L	MTCA Method A-Groundwater and EPA MCL
Arsenic	24 µg/L	5 µg/L	MTCA Method A-Groundwater
Barium	480 µg/L	2,000 µg/L	MCL
Total Chromium	43 µg/L	50 µg/L	MTCA Method A-Groundwater
Lead	20 µg/L	15 µg/L	MTCA Method A-Groundwater
Mercury	0.21 µg/L	2.0 µg/L	MTCA Method A-Groundwater
Selenium	22 µg/L	50 µg/L	MCL
Silver	14 µg/L	180 µg/L	EPA Risk-Based Screening Level-Res. Tapwater

APPENDIX C

BORING LOGS

PROJECT: **Bayliner Marine**
LOCATION: **17825 59th Avenue NE, Arlington, WA**
PROJECT NUMBER: **190402025.200.0002**

WELL / PROBEHOLE / BOREHOLE NO: **MW-1**

Stantec

DATE: STARTED **12/9/2009** COMPLETED: **12/9/2009**
TIME: STARTED COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon**

NORTHING (ft):
EASTING (ft):
LATITUDE:
LONGITUDE:
GROUND ELEV (ft):
TOC ELEV (ft): **129.42**
INITIAL DTW (ft): **25** **12/9/09**
BOREHOLE DEPTH (ft): **30.0**
STATIC DTW (ft): **N/A**
WELL DEPTH (ft): **30**
WELL CASING DIAM. (in): **2**
BOREHOLE DIAM. (in): **6.25**
LOGGED BY: **ACZ**
CHECKED BY: **RRS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Well Construction
			Concrete							
			Fill Material							
		SW	SW; Sand, fine to medium grained, < 5% coarse sand, brown, damp, no odor, no staining, medium dense							
09 00 5					09 00 MW-1-5		13 12 13	0.0	5	
09 05 10		SW	SW; Sand, fine to coarse grained, < 5% gravel, brown, damp, no odor, no staining, medium dense		09 05 MW-1-10		10 12 14	0.0	10	
09 12 15					09 12 MW-1-15		14 19 20	0.0	15	
09 18 20		SW	SW; Sand, fine to coarse grained, brown, moist, no odor, no staining, very dense		09 18 MW-1-20*		50 for 6	0.0	20	
09 23 25		SW	SW; Sand, fine to coarse grained, brown, saturated, no odor, no staining, very dense		09 23 MW-1-25		50 for 6	0.0	▽ 25	
30			Hole terminated at 30 feet.						30	
			* - Sample submitted for analysis.							
35									35	

GEO FORM 304_STANTEC037_GWM INSTALL - BRUNSICK - ARLINGTON, WA.GPJ SECOR037.GDT 12/18/09

PROJECT: **Bayliner Marine**
LOCATION: **17825 59th Avenue NE, Arlington, WA**
PROJECT NUMBER: **190402025.200.0002**

WELL / PROBEHOLE / BOREHOLE NO: **MW-2**

Stantec

DATE: STARTED **12/9/2009** COMPLETED: **12/9/2009**
TIME: STARTED COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon**

NORTHING (ft):
EASTING (ft):
LATITUDE:
LONGITUDE:
GROUND ELEV (ft):
TOC ELEV (ft): **129.68**
INITIAL DTW (ft): **25** **12/9/09**
BOREHOLE DEPTH (ft): **30.0**
STATIC DTW (ft): **N/A**
WELL DEPTH (ft): **30**
WELL CASING DIAM. (in): **2**
BOREHOLE DIAM. (in): **6.25**
LOGGED BY: **ACZ**
CHECKED BY: **RRS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Well Construction
			Concrete							
			Fill Material							
		SW	SW; Sand, fine to coarse grained, < 5% gravel, brown, damp, no odor, no staining, medium dense to dense							
11 15 5					11 15 MW-2-5		10 12 12	0.0	5	
11 26 10					11 26 MW-2-10		10 14 19	0.0	10	
11 39 15					11 39 MW-2-15		50 for 6 19 20	0.0	15	
11 43 20		SW	SW; Sand, fine to coarse grained, brown, moist, no odor, no staining, very dense		11 43 MW-2-20*		32 50 for 4	0.0	20	
11 48 25		SW	SW; Sand, fine to coarse grained, brown, saturated, no odor, no staining, very dense		11 48 MW-2-25		50 for 5	0.0	▽ 25	
30			Hole terminated at 30 feet.						30	
			* - Sample submitted for analysis.							
35									35	

GEO FORM 304 STANTEC037 GWM INSTALL - BRUNSICK - ARLINGTON, WA.GPJ SECOR037.GDT 12/18/09

PROJECT: **Bayliner Marine**
LOCATION: **17825 59th Avenue NE, Arlington, WA**
PROJECT NUMBER: **190402025.200.0002**

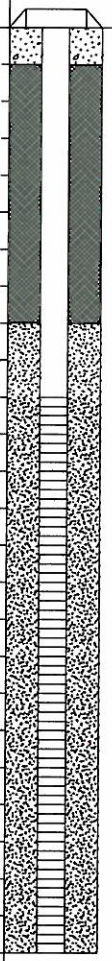
WELL / PROBEHOLE / BOREHOLE NO: **MW-3**

Stantec

DATE: STARTED **12/8/2009** COMPLETED: **12/8/2009**
TIME: STARTED COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon**

NORTHING (ft):
EASTING (ft):
LATITUDE:
LONGITUDE:
GROUND ELEV (ft):
TOC ELEV (ft): **129.90**
INITIAL DTW (ft): **20** **12/9/09**
BOREHOLE DEPTH (ft): **25.0**
STATIC DTW (ft): **N/A**
WELL DEPTH (ft): **25**
WELL CASING DIAM. (in): **2**
BOREHOLE DIAM. (in): **6.25**
LOGGED BY: **ACZ**
CHECKED BY: **RRS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)
			Topsoil					
		SW	SW; Sand, fine to coarse grained, < 5% gravel, brown, damp, no odor, no staining, dense					
14 01 5		SW	SW; Sand, fine to medium grained, reddish brown to brown, damp, no odor, no staining, dense to very dense		14 01 MW-3-5		27 50 for 4	0.0
14 15 10		SW	SW; Sand, fine to coarse grained, <5% gravel, brown, damp, no odor, no staining, very dense		14 15 MW-3-10		20 27 30	0.0
14 19 15		SW	SW; Sand, fine to coarse grained, brown to dark brown, moist to wet, no odor, no staining, very dense		14 19 MW-3-15*		50 for 5	0.0
14 24 20		SW	SW; Sand, fine to coarse grained, <5% gravel, brown, saturated, no odor, no staining, very dense		14 24 MW-3-20		50 for 5	0.0
14 33 25			Hole terminated at 25 feet.					
			* - Sample submitted for analysis.					



GEO FORM 304_STANTEC037_GWM INSTALL - BRUNSICK - ARLINGTON, WA.GPJ_SECOR037.GDT 12/18/09

PROJECT: **Bayliner Marine**
LOCATION: **17825 59th Avenue NE, Arlington, WA**
PROJECT NUMBER: **190402025.200.0002**

WELL / PROBEHOLE / BOREHOLE NO: **MW-4**

Stantec

DATE: STARTED **12/9/2009** COMPLETED: **12/9/2009**
TIME: STARTED COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon**

NORTHING (ft):
EASTING (ft):
LATITUDE:
LONGITUDE:
GROUND ELEV (ft):
TOC ELEV (ft): **130.42**
INITIAL DTW (ft): **25** **12/9/09**
BOREHOLE DEPTH (ft): **30.0**
STATIC DTW (ft): **N/A**
WELL DEPTH (ft): **30**
WELL CASING DIAM. (in): **2**
BOREHOLE DIAM. (in): **6.25**
LOGGED BY: **ACZ**
CHECKED BY: **RRS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)
			Asphalt					
			Fill Material					
		SW	SW; Sand, fine to coarse grained, <15% gravel, grayish brown, damp, no odor, no staining, medium dense					
13 25 5					13 45 MW-4-5		12 12 14	0.0
13 45 10					13 50 MW-4-10		14 17 18	0.0
13 50 15		SW	SW; Sand, fine to coarse grained, <25% gravel, grayish brown, damp, no odor, no staining, very dense		13 55 MW-4-15		31 50 for 4	0.0
14 01 20		SW	SW; Sand, fine to medium grained, brown to dark brown, moist to wet, no odor, no staining, very dense		14 01 MW-4-20*		50 for 5	0.0
14 09 25		SW	SW; Sand, fine to medium grained, brown to dark brown, saturated, no odor, no staining, very dense		14 09 MW-4-25		50 for 5	0.0
30			Hole terminated at 30 feet.					
			* - Sample submitted for analysis.					
35								

Depth (feet): 5, 10, 15, 20, 25, 30, 35

Well Construction

GEO FORM 304_STANTEC037_GWM INSTALL - BRUNSICK - ARLINGTON, WA.GPJ SECOR037.GDT 12/18/09

PROJECT: **Bayliner Marine**
LOCATION: **17825 59th Avenue NE, Arlington, WA**
PROJECT NUMBER: **190402025.200.0002**

WELL / PROBEHOLE / BOREHOLE NO: **MW-5**

Stantec

DATE: STARTED **12/8/2009** COMPLETED: **12/8/2009**
TIME: STARTED COMPLETED:
DRILLING COMPANY: **Cascade Drilling Inc.**
DRILLING EQUIPMENT: **CME 75**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING EQUIPMENT: **Split Spoon**

NORTHING (ft):
EASTING (ft):
LATITUDE:
LONGITUDE:
GROUND ELEV (ft):
TOC ELEV (ft): **130.39**
INITIAL DTW (ft): **30** **12/9/09**
BOREHOLE DEPTH (ft): **35.0**
STATIC DTW (ft): **N/A**
WELL DEPTH (ft): **35**
WELL CASING DIAM. (in): **2**
BOREHOLE DIAM. (in): **6.25**
LOGGED BY: **ACZ**
CHECKED BY: **RRS**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Well Construction
			Topsoil							
		SW	SW; Sand, fine to coarse grained, brown, damp, no odor, no staining, dense							
11 00 5					11 00 MW-5-5*		12 18 24	6.9	5	
11 11 10		SW	SW; Sand, fine to coarse grained, <5% gravel, brown, damp, no odor, no staining, very dense		11 11 MW-5-10		50 for 6	2.4	10	
11 24 15		SW	SW; Sand, fine to coarse grained, brown, moist, no odor, no staining, very dense		11 24 MW-5-15		50 for 4	0.9	15	
11 31 20		SW	SW; Sand, fine to medium grained, brown, damp to moist, no odor, no staining, very dense		11 31 MW-5-20*		22 30 35	0.0	20	
11 42 25		SW	SW; Sand, fine to coarse grained, brown, wet, no odor, no staining, very dense		11 42 MW-5-25		50 for 6	0.0	25	
30		SW	SW; Sand, fine to coarse grained, brown, saturated, no odor, no staining, very dense						▽ 30	
35			Hole terminated at 35 feet.						35	
			* - Submitted for labaratory analysis.							

GEO FORM 304 STANTEC037 GWM INSTALL - BRUNSICK - ARLINGTON, WA.GPJ SECOR037.GDT 12/18/09

APPENDIX D

GROUNDWATER SAMPLING DATA SHEETS

GROUNDWATER SAMPLING DATA SHEET

SECOR International

7730 SW Mohawk, Tualatin, OR 97062

Stantec Project No.: 190402025.200.0001 Date: 12/10/09 Well No: MW-1

Facility Name: Brunswick - Bayliner Temperture: low 20s °F or °C

Field Personnel: ACZ and JLN Weather: cloudy

FIELD MEASUREMENTS:

A. Total Depth (TD) of Well from TOC: 29.95 FT. or IN.

C Static Water Level (SWL) Below Top of Casing (TOC): 18.89 FT. or IN.

D. Height of Water Column in Casing: (h = TD-SWL) 11.06 FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column

		3 Well Vols.	5 Well Vols.					
5/8" diameter	=	21.8 mL/ft		X	feet of water	_____	= _____	PV (milliliters)
2" diameter	=	0.5 gal/ft	0.82 gal/ft	X	feet of water	_____	= _____	PV (gallons)
4" diameter	=	2.0 gal/ft	3.25 gal/ft	X	feet of water	_____	= _____	PV (gallons)
6" diameter	=	4.4 gal/ft	7.35 gal/ft	X	feet of water	_____	= _____	PV (gallons)

Purge Method: peristaltic pump - low flow (disposable bailer / trash pump / pvc hand bail / in-line pump / single valve sampler / syringe) Duration: low flow

OBSERVATIONS:

	Time	Turbidity	pH	Temp. (°F)	Conduct. (mS/cm²)	DO (mg/L)	ORP	SWL
1st Volume:	1453	None	6.99	48.39	229	5.06	73.8	
2nd Volume:	1456	↓	6.95	47.90	118	4.49	108.5	
3rd Volume:	1459	↓	6.88	47.91	118	4.42	132.0	
4th Volume:	1502	↓	6.85	47.95	103	4.48	140.9	
5th Volume:								

Total Volume of Water Purged From Well: < 1 gal

Purge Water Stored/Disposed of Where/How: On-Site 55-gallon drum

SAMPLES COLLECTED: Depth to Water at time of sample collection: >80%

Sample Numbers(s):	Time:	Size/Number of Container(s):	Preservative:
MW-1	1507	(2) 40ml VOAs	HCl
		(1) 250ml poly	HNO_3

COMMENTS: Approximately 20 gallons was purged by whale pump during well development.

Casing Capacities:

2-inch hole.....0.16 gal/lin ft.

4-inch hole.....0.65 gal/lin ft.

6.5-inch hole.....1.70 gal/lin ft.

8-inch hole.....2.60 gal/lin ft.

10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: _____

Original Water Column: _____ x 0.80 = -(_____)

Collect sample when Depth to Water measures

Less than or equal to: _____

GROUNDWATER SAMPLING DATA SHEET

SECOR International

7730 SW Mohawk, Tualatin, OR 97062

Stantec Project No.: 190402025.200.0001 Date: 12/10/09 Well No: MW-2

Facility Name: Brunswick - Bayliner Temperture: low 20s °F or °C

Field Personnel: ACZ and JLN Weather: cloudy

FIELD MEASUREMENTS:

A. Total Depth (TD) of Well from TOC: 27.25 FT. or IN.

C Static Water Level (SWL) Below Top of Casing (TOC): 20.02 FT. or IN.

D. Height of Water Column in Casing: (h = TD-SWL) 7.23 FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column

		3 Well Vols.	5 Well Vols.					
5/8" diameter	=	21.8 mL/ft		X	feet of water	____	= ____	PV (milliliters)
2" diameter	=	0.5 gal/ft	0.82 gal/ft	X	feet of water	____	= ____	PV (gallons)
4" diameter	=	2.0 gal/ft	3.25 gal/ft	X	feet of water	____	= ____	PV (gallons)
6" diameter	=	4.4 gal/ft	7.35 gal/ft	X	feet of water	____	= ____	PV (gallons)

Purge Method: disposable bailer / trash pump / pvc hand bail / peristaltic pump / in-line pump / single valve sampler / syringe Duration: low flow

OBSERVATIONS:

	Time	Turbidity	pH	Temp. (°F)	Conduct. (µS/cm²)	DO (mg/L)	ORP	SWL
1st Volume:	1412	None	5.89	50.03	291	3.94	66.9	
2nd Volume:	1415	↓	6.02	50.04	298	3.88	58.9	
3rd Volume:	1418	↓	6.24	49.92	324	3.86	27.9	
4th Volume:	1421	↓	6.24	49.90	324	3.88	27.0	
5th Volume:								

Total Volume of Water Purged From Well: < 1.0 gals

Purge Water Stored/Disposed of Where/How: On-Site 55-gallon drum

SAMPLES COLLECTED:

Depth to Water at time of sample collection: >80%

Sample Numbers(s):	Time:	Size/Number of Container(s):	Preservative:
MW-2	1425	(2) 40ml VOAs	HCl
		(1) 250ml poly	HNO_3

COMMENTS: Approx 20-gal of water was purged by bailer during well development

Casing Capacities:

2-inch hole.....0.16 gal/lin ft.

4-inch hole.....0.65 gal/lin ft.

6.5-inch hole.....1.70 gal/lin ft.

8-inch hole.....2.60 gal/lin ft.

10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: ____

Original Water Column: ____ x 0.80 = -( )

Collect sample when Depth to Water measures

Less than or equal to: ____

GROUNDWATER SAMPLING DATA SHEET

SECOR International

7730 SW Mohawk, Tualatin, OR 97062

Stantec Project No.: 190402025.200.0001 Date: 12/10/09 Well No: MW-3

Facility Name: Brunswick - Bayliner Temperture: low 20s °F or °C

Field Personnel: ACZ and JLN Weather: partly cloudy

FIELD MEASUREMENTS:

A. Total Depth (TD) of Well from TOC: 24.30 FT. or IN.

C Static Water Level (SWL) Below Top of Casing (TOC): 16.89 FT. or IN.

D. Height of Water Column in Casing: (h = TD-SWL) 7.41 FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column

		3 Well Vols.	5 Well Vols.					
5/8" diameter	=	21.8 mL/ft		X	feet of water	____	= ____	PV (mililiters)
2" diameter	=	0.5 gal/ft	0.82 gal/ft	X	feet of water	____	= ____	PV (gallons)
4" diameter	=	2.0 gal/ft	3.25 gal/ft	X	feet of water	____	= ____	PV (gallons)
6" diameter	=	4.4 gal/ft	7.35 gal/ft	X	feet of water	____	= ____	PV (gallons)

Purge Method: disposable bailer / trash pump / pvc hand bail peristaltic pump Duration: slow flow

in-line pump / single valve sampler / syringe

OBSERVATIONS:

	Time	Turbidity	pH	Temp. (°F)	Conduct. (µS/cm²)	DO (mg/L)	ORP	SWL
1st Volume:	1540	None	5.97	46.31	160	5.06	97.1	
2nd Volume:	1543	↓	5.55	47.30	93	4.43	139.6	
3rd Volume:	1546	↓	5.40	47.69	61	4.49	139.5	
4th Volume:	1549	↓	5.29	47.91	67	4.44	139.0	
5th Volume:								

Total Volume of Water Purged From Well: < 1 gal

Purge Water Stored/Disposed of Where/How: On-Site 55-gallon drum

SAMPLES COLLECTED:

Depth to Water at time of sample collection: >80%

Sample Numbers(s):	Time:	Size/Number of Container(s):	Preservative:
MW-3	1556	(2) 40 ml VOAs	HCl
		(1) 250 ml poly	HNO_3

COMMENTS: Approx 20-gals was purged by bailer during well development

Casing Capacities:

2-inch hole.....0.16 gal/lin ft.

4-inch hole.....0.65 gal/lin ft.

6.5-inch hole.....1.70 gal/lin ft.

8-inch hole.....2.60 gal/lin ft.

10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: ____

Original Water Column: ____ x 0.80 = -( )

Collect sample when Depth to Water measures

Less than or equal to: ____

GROUNDWATER SAMPLING DATA SHEET

SECOR International

7730 SW Mohawk, Tualatin, OR 97062

Stantec Project No.: 190402025.200.0001 Date: 12/10/09 Well No: MW-4

Facility Name: Brunswick - Bayliner Temperture: low 20s °F or °C

Field Personnel: ACZ and JLN Weather: partly cloudy

FIELD MEASUREMENTS:

A. Total Depth (TD) of Well from TOC: 28.40 FT. or IN.

C Static Water Level (SWL) Below Top of Casing (TOC): 21.20 FT. or IN.

D. Height of Water Column in Casing: (h = TD-SWL) 7.20 FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column

		3 Well Vols.	5 Well Vols.					
5/8" diameter	=	21.8 mL/ft		X	feet of water	____	= ____	PV (milliliters)
2" diameter	=	0.5 gal/ft	0.82 gal/ft	X	feet of water	____	= ____	PV (gallons)
4" diameter	=	2.0 gal/ft	3.25 gal/ft	X	feet of water	____	= ____	PV (gallons)
6" diameter	=	4.4 gal/ft	7.35 gal/ft	X	feet of water	____	= ____	PV (gallons)

Purge Method: disposable bailer / trash pump / pvc hand bail / peristaltic pump / in-line pump / single valve sampler / syringe Duration: low flow

OBSERVATIONS:

	Time	Turbidity	pH	Temp. (°F)	Conduct (µS/cm²)	DO (mg/L)	ORP	SWL
1st Volume:	1337	low	5.88	53.05	117	3.26	87.1	
2nd Volume:	1340	low	5.98	53.20	116	3.05	109.8	
3rd Volume:	1343	none	5.99	53.49	112	2.99	119.0	
4th Volume:	1346	none	5.90	53.77	119	2.93	129.3	
5th Volume:								

Total Volume of Water Purged From Well: < 1 gal

Purge Water Stored/Disposed of Where/How: On-Site 55-gallon drum

SAMPLES COLLECTED:

Depth to Water at time of sample collection: >80%

Sample Numbers(s):	Time:	Size/Number of Container(s):	Preservative:
MW-4	1339	(2) 40ml VOAs	HCl
		(1) 250ml poly	HNO_3

COMMENTS: Approx 20-gals of water was purged by bailer during well development.

Casing Capacities:

2-inch hole.....0.16 gal/lin ft.

4-inch hole.....0.65 gal/lin ft.

6.5-inch hole.....1.70 gal/lin ft.

8-inch hole.....2.60 gal/lin ft.

10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: ____

Original Water Column: ____ x 0.80 = -( )

Collect sample when Depth to Water measures

Less than or equal to: ____

GROUNDWATER SAMPLING DATA SHEET

SECOR International

7730 SW Mohawk, Tualatin, OR 97062

Stantec Project No.: 190402025.200.0001 Date: 12/10/09 Well No: MW-5

Facility Name: Brunswick - Bayliner Temperture: low 20s °F or °C

Field Personnel: ACZ and JLN Weather: partly cloudy

FIELD MEASUREMENTS:

A. Total Depth (TD) of Well from TOC: 33.95 FT. or IN.

C Static Water Level (SWL) Below Top of Casing (TOC): 21.96 FT. or IN.

D. Height of Water Column in Casing: (h = TD-SWL) 11.99 FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column

		3 Well Vols.	5 Well Vols.					
5/8" diameter	=	21.8 mL/ft		X	feet of water	____	= ____	PV (milliliters)
2" diameter	=	0.5 gal/ft	0.82 gal/ft	X	feet of water	____	= ____	PV (gallons)
4" diameter	=	2.0 gal/ft	3.25 gal/ft	X	feet of water	____	= ____	PV (gallons)
6" diameter	=	4.4 gal/ft	7.35 gal/ft	X	feet of water	____	= ____	PV (gallons)

Purge Method: peristaltic pump (disposable bailer / trash pump / pvc hand bail / in-line pump / single valve sampler / syringe) Duration: low flow

OBSERVATIONS:

	Time	Turbidity	pH	Temp. (°F)	Conduct. (µS/cm²)	DO (mg/L)	ORP	SWL
1st Volume:	1301	low	5.98	48.92	68	5.31	23.9	
2nd Volume:	1303	none	5.78	50.09	74	4.55	39.3	
3rd Volume:	1306	↓	5.62	50.71	68	4.10	54.0	
4th Volume:	1309	↓	5.64	50.92	84	3.94	59.4	
5th Volume:								

Total Volume of Water Purged From Well: < 1 gal

Purge Water Stored/Disposed of Where/How: On-Site 55-gallon drum

SAMPLES COLLECTED:

Depth to Water at time of sample collection: >80%

Sample Numbers(s):	Time:	Size/Number of Container(s):	Preservative:
MW-5	1312	(2) 40ml VOAs	HCl
		(1) 250ml poly	+HNO_3

COMMENTS: Approx 30-gals was purged by whale pump during well development.

Casing Capacities:

2-inch hole.....0.16 gal/lin ft.

4-inch hole.....0.65 gal/lin ft.

6.5-inch hole.....1.70 gal/lin ft.

8-inch hole.....2.60 gal/lin ft.

10-inch hole.....4.10 gal/lin ft.

Recharge Calculation at Time of Sample Collection:

Total Depth of Well: ____

Original Water Column: ____ x 0.80 = -( )

Collect sample when Depth to Water measures

Less than or equal to: ____

APPENDIX E

LABORATORY ANALYTICAL REPORTS

AND CHAIN-OF-CUSTODY FORMS

12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street

Tualatin, OR 97062

Report Summary

Wednesday December 23, 2009

Report Number: L436651
Samples Received: 12/15/09
Client Project: 190402025.200.0002

Description: Brunswick Meridian

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jarred Willis, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

11 Samples Reported: 12/22/09 14:37 Revised: 12/23/09 14:27

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-01

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-1-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 09:18

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.4	mg/kg	3060A/7196A	12/19/09	1
Chromium,Trivalent	36.	0.50	mg/kg	Calc.	12/17/09	1
ORP	170		mV	2580	12/17/09	1
pH	6.2		su	9045D	12/17/09	1
Total Solids	83.8		%	2540G	12/18/09	1
Mercury	BDL	0.024	mg/kg	7471	12/17/09	1
Arsenic	BDL	6.0	mg/kg	6010B	12/17/09	5
Barium	58.	0.30	mg/kg	6010B	12/17/09	1
Cadmium	0.84	0.30	mg/kg	6010B	12/17/09	1
Chromium	43.	0.60	mg/kg	6010B	12/17/09	1
Lead	1.3	0.30	mg/kg	6010B	12/17/09	1
Selenium	BDL	12.	mg/kg	6010B	12/17/09	10
Silver	BDL	3.0	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.060	mg/kg	8260B	12/17/09	1
Acrylonitrile	BDL	0.012	mg/kg	8260B	12/17/09	1
Benzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromodichloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromoform	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromomethane	BDL	0.0060	mg/kg	8260B	12/17/09	1
n-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
sec-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
tert-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Carbon tetrachloride	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chlorodibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chloroethane	BDL	0.0060	mg/kg	8260B	12/17/09	1
2-Chloroethyl vinyl ether	BDL	0.060	mg/kg	8260B	12/17/09	1
Chloroform	BDL	0.0060	mg/kg	8260B	12/17/09	1
Chloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
2-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
4-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dibromo-3-Chloropropane	BDL	0.0060	mg/kg	8260B	12/17/09	1
1,2-Dibromoethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Dibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-01 (PH) - 6.2@18.7c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-01

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-1-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 09:18

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,4-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Dichlorodifluoromethane	BDL	0.0060	mg/kg	8260B	12/17/09	1
1,1-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
cis-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
trans-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,3-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
cis-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
trans-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
2,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Di-isopropyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1
Ethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Hexachloro-1,3-Butadiene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Isopropylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
p-Isopropyltoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
2-Butanone (MEK)	BDL	0.012	mg/kg	8260B	12/17/09	1
Methylene Chloride	BDL	0.0060	mg/kg	8260B	12/17/09	1
4-Methyl-2-pentanone (MIBK)	BDL	0.012	mg/kg	8260B	12/17/09	1
Methyl tert-butyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1
Naphthalene	BDL	0.0060	mg/kg	8260B	12/17/09	1
n-Propylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Styrene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,1,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Tetrachloroethene	0.025	0.0012	mg/kg	8260B	12/17/09	1
Toluene	BDL	0.0060	mg/kg	8260B	12/17/09	1
1,2,3-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2,4-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,1-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0012	mg/kg	8260B	12/17/09	1
Trichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Trichlorofluoromethane	BDL	0.0060	mg/kg	8260B	12/17/09	1
1,2,3-Trichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2,4-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,3,5-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Vinyl chloride	BDL	0.0012	mg/kg	8260B	12/17/09	1
Xylenes, Total	BDL	0.0036	mg/kg	8260B	12/17/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-01 (PH) - 6.2@18.7c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-01

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-1-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 09:18

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	103.		% Rec.	8260B	12/17/09	1
4-Bromofluorobenzene	103.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-01 (PH) - 6.2@18.7c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-02

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-2-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:43

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.5	mg/kg	3060A/7196A	12/19/09	1
Chromium,Trivalent	34.	0.50	mg/kg	Calc.	12/17/09	1
ORP	140		mV	2580	12/17/09	1
pH	5.9		su	9045D	12/17/09	1
Total Solids	81.0		%	2540G	12/18/09	1
Mercury	BDL	0.025	mg/kg	7471	12/17/09	1
Arsenic	BDL	6.2	mg/kg	6010B	12/17/09	5
Barium	59.	0.31	mg/kg	6010B	12/17/09	1
Cadmium	0.84	0.31	mg/kg	6010B	12/17/09	1
Chromium	41.	0.62	mg/kg	6010B	12/17/09	1
Lead	1.6	0.31	mg/kg	6010B	12/17/09	1
Selenium	BDL	12.	mg/kg	6010B	12/17/09	10
Silver	BDL	3.1	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.062	mg/kg	8260B	12/17/09	1
Acrylonitrile	BDL	0.012	mg/kg	8260B	12/17/09	1
Benzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromodichloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromoform	BDL	0.0012	mg/kg	8260B	12/17/09	1
Bromomethane	BDL	0.0062	mg/kg	8260B	12/17/09	1
n-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
sec-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
tert-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Carbon tetrachloride	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chlorodibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Chloroethane	BDL	0.0062	mg/kg	8260B	12/17/09	1
2-Chloroethyl vinyl ether	BDL	0.062	mg/kg	8260B	12/17/09	1
Chloroform	BDL	0.0062	mg/kg	8260B	12/17/09	1
Chloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
2-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
4-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dibromo-3-Chloropropane	BDL	0.0062	mg/kg	8260B	12/17/09	1
1,2-Dibromoethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Dibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

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L436651-02 (PH) - 5.9@18.6c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

Date Received : December 15, 2009
Description : Brunswick Meridian

ESC Sample # : L436651-02

Site ID :

Sample ID : MW-2-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:43

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,4-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Dichlorodifluoromethane	BDL	0.0062	mg/kg	8260B	12/17/09	1
1,1-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
cis-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
trans-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,3-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
cis-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
trans-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1
2,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Di-isopropyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1
Ethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Hexachloro-1,3-Butadiene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Isopropylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
p-Isopropyltoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1
2-Butanone (MEK)	BDL	0.012	mg/kg	8260B	12/17/09	1
Methylene Chloride	BDL	0.0062	mg/kg	8260B	12/17/09	1
4-Methyl-2-pentanone (MIBK)	BDL	0.012	mg/kg	8260B	12/17/09	1
Methyl tert-butyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1
Naphthalene	BDL	0.0062	mg/kg	8260B	12/17/09	1
n-Propylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Styrene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,1,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
Tetrachloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Toluene	BDL	0.0062	mg/kg	8260B	12/17/09	1
1,2,3-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2,4-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,1-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0012	mg/kg	8260B	12/17/09	1
Trichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Trichlorofluoromethane	BDL	0.0062	mg/kg	8260B	12/17/09	1
1,2,3-Trichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,2,4-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
1,3,5-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1
Vinyl chloride	BDL	0.0012	mg/kg	8260B	12/17/09	1
Xylenes, Total	BDL	0.0037	mg/kg	8260B	12/17/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-02 (PH) - 5.9@18.6c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-02

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-2-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:43

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	102.		% Rec.	8260B	12/17/09	1
4-Bromofluorobenzene	108.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-02 (PH) - 5.9@18.6c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-03

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-3-15

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/08/09 14:19

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.1	mg/kg	3060A/7196A	12/19/09	1
Chromium,Trivalent	32.	0.50	mg/kg	Calc.	12/17/09	1
ORP	120		mV	2580	12/17/09	1
pH	6.3		su	9045D	12/17/09	1
Total Solids	94.6		%	2540G	12/18/09	1
Mercury	BDL	0.021	mg/kg	7471	12/17/09	1
Arsenic	BDL	10.	mg/kg	6010B	12/17/09	10
Barium	53.	0.26	mg/kg	6010B	12/17/09	1
Cadmium	0.89	0.26	mg/kg	6010B	12/17/09	1
Chromium	33.	0.53	mg/kg	6010B	12/17/09	1
Lead	1.9	0.26	mg/kg	6010B	12/17/09	1
Selenium	BDL	10.	mg/kg	6010B	12/17/09	10
Silver	BDL	2.6	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.053	mg/kg	8260B	12/17/09	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	12/17/09	1
Benzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromoform	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromomethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chloroethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
2-Chloroethyl vinyl ether	BDL	0.053	mg/kg	8260B	12/17/09	1
Chloroform	BDL	0.0053	mg/kg	8260B	12/17/09	1
Chloromethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dibromo-3-Chloropropane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-03 (PH) - 6.3@18.5c

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

Date Received : December 15, 2009
Description : Brunswick Meridian

ESC Sample # : L436651-03

Sample ID : MW-3-15

Site ID :

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/08/09 14:19

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Dichlorodifluoromethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	12/17/09	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Hexachloro-1,3-Butadiene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	12/17/09	1
Methylene Chloride	BDL	0.0053	mg/kg	8260B	12/17/09	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	12/17/09	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	12/17/09	1
Naphthalene	BDL	0.0053	mg/kg	8260B	12/17/09	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Styrene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Tetrachloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Toluene	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	12/17/09	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Trichlorofluoromethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2,3-Trichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	12/17/09	1
Xylenes, Total	BDL	0.0032	mg/kg	8260B	12/17/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-03 (PH) - 6.3@18.5c

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-03

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-3-15

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/08/09 14:19

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	101.		% Rec.	8260B	12/17/09	1
4-Bromofluorobenzene	104.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-03 (PH) - 6.3@18.5c

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-04

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-4-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 14:01

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.3	mg/kg	3060A/7196A	12/19/09	1
Chromium,Trivalent	44.	0.50	mg/kg	Calc.	12/17/09	1
ORP	120		mV	2580	12/17/09	1
pH	6.4		su	9045D	12/17/09	1
Total Solids	85.8		%	2540G	12/18/09	1
Mercury	0.024	0.023	mg/kg	7471	12/17/09	1
Arsenic	BDL	5.8	mg/kg	6010B	12/17/09	5
Barium	62.	0.29	mg/kg	6010B	12/17/09	1
Cadmium	1.0	0.29	mg/kg	6010B	12/17/09	1
Chromium	51.	0.58	mg/kg	6010B	12/17/09	1
Lead	1.8	0.29	mg/kg	6010B	12/17/09	1
Selenium	BDL	5.8	mg/kg	6010B	12/17/09	5
Silver	BDL	2.9	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.060	mg/kg	8260B	12/17/09	1.03
Acrylonitrile	BDL	0.012	mg/kg	8260B	12/17/09	1.03
Benzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Bromobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Bromodichloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Bromoform	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Bromomethane	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
n-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
sec-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
tert-Butylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Carbon tetrachloride	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Chlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Chlorodibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Chloroethane	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
2-Chloroethyl vinyl ether	BDL	0.060	mg/kg	8260B	12/17/09	1.03
Chloroform	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
Chloromethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
2-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
4-Chlorotoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2-Dibromo-3-Chloropropane	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
1,2-Dibromoethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Dibromomethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-04 (PH) - 6.4@18.3c

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-04

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-4-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 14:01

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,4-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Dichlorodifluoromethane	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
1,1-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2-Dichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
cis-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
trans-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,3-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
cis-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
trans-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
2,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Di-isopropyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Ethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Hexachloro-1,3-Butadiene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Isopropylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
p-Isopropyltoluene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
2-Butanone (MEK)	BDL	0.012	mg/kg	8260B	12/17/09	1.03
Methylene Chloride	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
4-Methyl-2-pentanone (MIBK)	BDL	0.012	mg/kg	8260B	12/17/09	1.03
Methyl tert-butyl ether	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Naphthalene	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
n-Propylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Styrene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1,1,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1,2,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Tetrachloroethene	0.0039	0.0012	mg/kg	8260B	12/17/09	1.03
Toluene	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
1,2,3-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2,4-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1,1-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1,2-Trichloroethane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Trichloroethene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Trichlorofluoromethane	BDL	0.0060	mg/kg	8260B	12/17/09	1.03
1,2,3-Trichloropropane	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,2,4-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
1,3,5-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Vinyl chloride	BDL	0.0012	mg/kg	8260B	12/17/09	1.03
Xylenes, Total	BDL	0.0036	mg/kg	8260B	12/17/09	1.03
Surrogate Recovery						
Toluene-d8	98.4		% Rec.	8260B	12/17/09	1.03

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-04 (PH) - 6.4@18.3c

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-04

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-4-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 14:01

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	97.1		% Rec.	8260B	12/17/09	1.03
4-Bromofluorobenzene	101.		% Rec.	8260B	12/17/09	1.03

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-04 (PH) - 6.4@18.3c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-05

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-5-5

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:00

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	110	mg/kg	3060A/7196A	12/19/09	50
Chromium,Trivalent	33.	0.50	mg/kg	Calc.	12/17/09	1
ORP	130		mV	2580	12/17/09	1
pH	6.3		su	9045D	12/17/09	1
Total Solids	93.2		%	2540G	12/18/09	1
Mercury	0.027	0.021	mg/kg	7471	12/17/09	1
Arsenic	BDL	11.	mg/kg	6010B	12/17/09	10
Barium	52.	0.27	mg/kg	6010B	12/17/09	1
Cadmium	1.0	0.27	mg/kg	6010B	12/17/09	1
Chromium	35.	0.54	mg/kg	6010B	12/17/09	1
Lead	4.7	0.27	mg/kg	6010B	12/17/09	1
Selenium	BDL	11.	mg/kg	6010B	12/17/09	10
Silver	BDL	2.7	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.054	mg/kg	8260B	12/17/09	1
Acrylonitrile	BDL	0.011	mg/kg	8260B	12/17/09	1
Benzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Bromobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Bromodichloromethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
Bromoform	BDL	0.0011	mg/kg	8260B	12/17/09	1
Bromomethane	BDL	0.0054	mg/kg	8260B	12/17/09	1
n-Butylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
sec-Butylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
tert-Butylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Carbon tetrachloride	BDL	0.0011	mg/kg	8260B	12/17/09	1
Chlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Chlorodibromomethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
Chloroethane	BDL	0.0054	mg/kg	8260B	12/17/09	1
2-Chloroethyl vinyl ether	BDL	0.054	mg/kg	8260B	12/17/09	1
Chloroform	BDL	0.0054	mg/kg	8260B	12/17/09	1
Chloromethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
2-Chlorotoluene	BDL	0.0011	mg/kg	8260B	12/17/09	1
4-Chlorotoluene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2-Dibromo-3-Chloropropane	BDL	0.0054	mg/kg	8260B	12/17/09	1
1,2-Dibromoethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
Dibromomethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2-Dichlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-05 (PH) - 6.3@18.3c
L436651-05 (CR6) - diluted due to sample color

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-05

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-5-5

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:00

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,4-Dichlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Dichlorodifluoromethane	BDL	0.0054	mg/kg	8260B	12/17/09	1
1,1-Dichloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2-Dichloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1-Dichloroethene	BDL	0.0011	mg/kg	8260B	12/17/09	1
cis-1,2-Dichloroethene	BDL	0.0011	mg/kg	8260B	12/17/09	1
trans-1,2-Dichloroethene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2-Dichloropropane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1-Dichloropropene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,3-Dichloropropane	BDL	0.0011	mg/kg	8260B	12/17/09	1
cis-1,3-Dichloropropene	BDL	0.0011	mg/kg	8260B	12/17/09	1
trans-1,3-Dichloropropene	BDL	0.0011	mg/kg	8260B	12/17/09	1
2,2-Dichloropropane	BDL	0.0011	mg/kg	8260B	12/17/09	1
Di-isopropyl ether	BDL	0.0011	mg/kg	8260B	12/17/09	1
Ethylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Hexachloro-1,3-Butadiene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Isopropylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
p-Isopropyltoluene	BDL	0.0011	mg/kg	8260B	12/17/09	1
2-Butanone (MEK)	BDL	0.011	mg/kg	8260B	12/17/09	1
Methylene Chloride	BDL	0.0054	mg/kg	8260B	12/17/09	1
4-Methyl-2-pentanone (MIBK)	BDL	0.011	mg/kg	8260B	12/17/09	1
Methyl tert-butyl ether	BDL	0.0011	mg/kg	8260B	12/17/09	1
Naphthalene	BDL	0.0054	mg/kg	8260B	12/17/09	1
n-Propylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Styrene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1,1,2-Tetrachloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1,2,2-Tetrachloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
Tetrachloroethene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Toluene	BDL	0.0054	mg/kg	8260B	12/17/09	1
1,2,3-Trichlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2,4-Trichlorobenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1,1-Trichloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1,2-Trichloroethane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0011	mg/kg	8260B	12/17/09	1
Trichloroethene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Trichlorofluoromethane	BDL	0.0054	mg/kg	8260B	12/17/09	1
1,2,3-Trichloropropane	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,2,4-Trimethylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
1,3,5-Trimethylbenzene	BDL	0.0011	mg/kg	8260B	12/17/09	1
Vinyl chloride	BDL	0.0011	mg/kg	8260B	12/17/09	1
Xylenes, Total	BDL	0.0032	mg/kg	8260B	12/17/09	1
Surrogate Recovery						
Toluene-d8	97.7		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-05 (PH) - 6.3@18.3c
L436651-05 (CR6) - diluted due to sample color

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-05

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-5-5

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/09/09 11:00

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	104.		% Rec.	8260B	12/17/09	1
4-Bromofluorobenzene	111.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-05 (PH) - 6.3@18.3c
L436651-05 (CR6) - diluted due to sample color

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
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7730 SW Mohawk Street
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December 23,2009

ESC Sample # : L436651-06

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-5-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/08/09 11:31

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.1	mg/kg	3060A/7196A	12/19/09	1
Chromium,Trivalent	51.	0.50	mg/kg	Calc.	12/17/09	1
ORP	120		mV	2580	12/17/09	1
pH	6.6		su	9045D	12/17/09	1
Total Solids	94.6		%	2540G	12/18/09	1
Mercury	0.021	0.021	mg/kg	7471	12/17/09	1
Arsenic	BDL	5.3	mg/kg	6010B	12/17/09	5
Barium	48.	0.26	mg/kg	6010B	12/17/09	1
Cadmium	0.87	0.26	mg/kg	6010B	12/17/09	1
Chromium	54.	0.53	mg/kg	6010B	12/17/09	1
Lead	1.7	0.26	mg/kg	6010B	12/17/09	1
Selenium	BDL	10.	mg/kg	6010B	12/17/09	10
Silver	BDL	2.6	mg/kg	6010B	12/17/09	5
Volatile Organics						
Acetone	BDL	0.053	mg/kg	8260B	12/17/09	1
Acrylonitrile	BDL	0.010	mg/kg	8260B	12/17/09	1
Benzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromodichloromethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromoform	BDL	0.0010	mg/kg	8260B	12/17/09	1
Bromomethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
n-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
sec-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
tert-Butylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Carbon tetrachloride	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chlorodibromomethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Chloroethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
2-Chloroethyl vinyl ether	BDL	0.053	mg/kg	8260B	12/17/09	1
Chloroform	BDL	0.0053	mg/kg	8260B	12/17/09	1
Chloromethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
2-Chlorotoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
4-Chlorotoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dibromo-3-Chloropropane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2-Dibromoethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Dibromomethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-06 (PH) - 6.6@17.9c

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-5-20

Collected By : ACZ
Collection Date : 12/08/09 11:31

ESC Sample # : L436651-06

Site ID :

Project # : 190402025.200.0002

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
1,3-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,4-Dichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Dichlorodifluoromethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,1-Dichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,3-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/kg	8260B	12/17/09	1
2,2-Dichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Di-isopropyl ether	BDL	0.0010	mg/kg	8260B	12/17/09	1
Ethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Hexachloro-1,3-Butadiene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Isopropylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
p-Isopropyltoluene	BDL	0.0010	mg/kg	8260B	12/17/09	1
2-Butanone (MEK)	BDL	0.010	mg/kg	8260B	12/17/09	1
Methylene Chloride	BDL	0.0053	mg/kg	8260B	12/17/09	1
4-Methyl-2-pentanone (MIBK)	BDL	0.010	mg/kg	8260B	12/17/09	1
Methyl tert-butyl ether	BDL	0.0010	mg/kg	8260B	12/17/09	1
Naphthalene	BDL	0.0053	mg/kg	8260B	12/17/09	1
n-Propylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Styrene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
Tetrachloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Toluene	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,1-Trichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2-Trichloroethane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/kg	8260B	12/17/09	1
Trichloroethene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Trichlorofluoromethane	BDL	0.0053	mg/kg	8260B	12/17/09	1
1,2,3-Trichloropropane	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/kg	8260B	12/17/09	1
Vinyl chloride	BDL	0.0010	mg/kg	8260B	12/17/09	1
Xylenes, Total	BDL	0.0032	mg/kg	8260B	12/17/09	1
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
L436651-06 (PH) - 6.6@17.9c

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-06

Date Received : December 15, 2009
Description : Brunswick Meridian

Site ID :

Sample ID : MW-5-20

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/08/09 11:31

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Dibromofluoromethane	101.		% Rec.	8260B	12/17/09	1
4-Bromofluorobenzene	108.		% Rec.	8260B	12/17/09	1

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:

The reported analytical results relate only to the sample submitted
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28
L436651-06 (PH) - 6.6@17.9c

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REPORT OF ANALYSIS

Amy Zach
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7730 SW Mohawk Street
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December 23,2009

ESC Sample # : L436651-07

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-1

Collected By : ACZ
Collection Date : 12/10/09 15:07

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	12/18/09	1
Arsenic	BDL	20.	ug/l	6010B	12/19/09	1
Barium	42.	5.0	ug/l	6010B	12/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	12/19/09	1
Chromium	12.	10.	ug/l	6010B	12/19/09	1
Lead	BDL	5.0	ug/l	6010B	12/19/09	1
Selenium	BDL	20.	ug/l	6010B	12/19/09	1
Silver	BDL	10.	ug/l	6010B	12/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	12/21/09	1
Acrolein	BDL	50.	ug/l	8260B	12/21/09	1
Acrylonitrile	BDL	10.	ug/l	8260B	12/21/09	1
Benzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	12/21/09	1
Bromoform	BDL	1.0	ug/l	8260B	12/21/09	1
Bromomethane	BDL	5.0	ug/l	8260B	12/21/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
Chloroethane	BDL	5.0	ug/l	8260B	12/21/09	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	12/21/09	1
Chloroform	BDL	5.0	ug/l	8260B	12/21/09	1
Chloromethane	BDL	2.5	ug/l	8260B	12/21/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	12/21/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-07

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-1

Collected By : ACZ
Collection Date : 12/10/09 15:07

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Hexachloro-1,3-Butadiene	BDL	1.0	ug/l	8260B	12/21/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	12/21/09	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	12/21/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	12/21/09	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	12/21/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Naphthalene	BDL	5.0	ug/l	8260B	12/21/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Styrene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	12/21/09	1
Tetrachloroethene	59.	1.0	ug/l	8260B	12/21/09	1
Toluene	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	12/21/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	12/21/09	1
Surrogate Recovery						
Toluene-d8	98.2		% Rec.	8260B	12/21/09	1
Dibromofluoromethane	96.3		% Rec.	8260B	12/21/09	1
4-Bromofluorobenzene	107.		% Rec.	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: 12/22/09 14:37 Revised: 12/23/09 14:28

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-08

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-2

Collected By : ACZ
Collection Date : 12/10/09 14:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	12/18/09	1
Arsenic	BDL	20.	ug/l	6010B	12/19/09	1
Barium	96.	5.0	ug/l	6010B	12/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	12/19/09	1
Chromium	26.	10.	ug/l	6010B	12/19/09	1
Lead	BDL	5.0	ug/l	6010B	12/19/09	1
Selenium	BDL	20.	ug/l	6010B	12/19/09	1
Silver	BDL	10.	ug/l	6010B	12/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	12/21/09	1
Acrolein	BDL	50.	ug/l	8260B	12/21/09	1
Acrylonitrile	BDL	10.	ug/l	8260B	12/21/09	1
Benzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	12/21/09	1
Bromoform	BDL	1.0	ug/l	8260B	12/21/09	1
Bromomethane	BDL	5.0	ug/l	8260B	12/21/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
Chloroethane	BDL	5.0	ug/l	8260B	12/21/09	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	12/21/09	1
Chloroform	BDL	5.0	ug/l	8260B	12/21/09	1
Chloromethane	BDL	2.5	ug/l	8260B	12/21/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	12/21/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-08

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-2

Collected By : ACZ
Collection Date : 12/10/09 14:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Hexachloro-1,3-Butadiene	BDL	1.0	ug/l	8260B	12/21/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	12/21/09	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	12/21/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	12/21/09	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	12/21/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Naphthalene	BDL	5.0	ug/l	8260B	12/21/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Styrene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	12/21/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Toluene	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	12/21/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	12/21/09	1
Surrogate Recovery						
Toluene-d8	98.9		% Rec.	8260B	12/21/09	1
Dibromofluoromethane	97.2		% Rec.	8260B	12/21/09	1
4-Bromofluorobenzene	104.		% Rec.	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: 12/22/09 14:37 Revised: 12/23/09 14:28

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-09

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-3

Collected By : ACZ
Collection Date : 12/10/09 15:56

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	12/18/09	1
Arsenic	BDL	20.	ug/l	6010B	12/19/09	1
Barium	87.	5.0	ug/l	6010B	12/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	12/19/09	1
Chromium	18.	10.	ug/l	6010B	12/19/09	1
Lead	BDL	5.0	ug/l	6010B	12/19/09	1
Selenium	BDL	20.	ug/l	6010B	12/19/09	1
Silver	BDL	10.	ug/l	6010B	12/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	12/21/09	1
Acrolein	BDL	50.	ug/l	8260B	12/21/09	1
Acrylonitrile	BDL	10.	ug/l	8260B	12/21/09	1
Benzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	12/21/09	1
Bromoform	BDL	1.0	ug/l	8260B	12/21/09	1
Bromomethane	BDL	5.0	ug/l	8260B	12/21/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
Chloroethane	BDL	5.0	ug/l	8260B	12/21/09	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	12/21/09	1
Chloroform	BDL	5.0	ug/l	8260B	12/21/09	1
Chloromethane	BDL	2.5	ug/l	8260B	12/21/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	12/21/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-09

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-3

Collected By : ACZ
Collection Date : 12/10/09 15:56

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Hexachloro-1,3-Butadiene	BDL	1.0	ug/l	8260B	12/21/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	12/21/09	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	12/21/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	12/21/09	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	12/21/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Naphthalene	BDL	5.0	ug/l	8260B	12/21/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Styrene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	12/21/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Toluene	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	12/21/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	12/21/09	1
Surrogate Recovery						
Toluene-d8	98.2		% Rec.	8260B	12/21/09	1
Dibromofluoromethane	96.5		% Rec.	8260B	12/21/09	1
4-Bromofluorobenzene	107.		% Rec.	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 12/22/09 14:37 Revised: 12/23/09 14:28

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-10

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-4

Collected By : ACZ
Collection Date : 12/10/09 13:39

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	12/18/09	1
Arsenic	BDL	20.	ug/l	6010B	12/19/09	1
Barium	96.	5.0	ug/l	6010B	12/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	12/19/09	1
Chromium	35.	10.	ug/l	6010B	12/19/09	1
Lead	7.2	5.0	ug/l	6010B	12/19/09	1
Selenium	BDL	20.	ug/l	6010B	12/19/09	1
Silver	BDL	10.	ug/l	6010B	12/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	12/21/09	1
Acrolein	BDL	50.	ug/l	8260B	12/21/09	1
Acrylonitrile	BDL	10.	ug/l	8260B	12/21/09	1
Benzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	12/21/09	1
Bromoform	BDL	1.0	ug/l	8260B	12/21/09	1
Bromomethane	BDL	5.0	ug/l	8260B	12/21/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
Chloroethane	BDL	5.0	ug/l	8260B	12/21/09	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	12/21/09	1
Chloroform	BDL	5.0	ug/l	8260B	12/21/09	1
Chloromethane	BDL	2.5	ug/l	8260B	12/21/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	12/21/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

ESC Sample # : L436651-10

Site ID :

Project # : 190402025.200.0002

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-4

Collected By : ACZ
Collection Date : 12/10/09 13:39

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Hexachloro-1,3-Butadiene	BDL	1.0	ug/l	8260B	12/21/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	12/21/09	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	12/21/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	12/21/09	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	12/21/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Naphthalene	BDL	5.0	ug/l	8260B	12/21/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Styrene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	12/21/09	1
Tetrachloroethene	13.	1.0	ug/l	8260B	12/21/09	1
Toluene	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
Trichloroethene	1.6	1.0	ug/l	8260B	12/21/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	12/21/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	12/21/09	1
Surrogate Recovery						
Toluene-d8	99.2		% Rec.	8260B	12/21/09	1
Dibromofluoromethane	99.1		% Rec.	8260B	12/21/09	1
4-Bromofluorobenzene	103.		% Rec.	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: 12/22/09 14:37 Revised: 12/23/09 14:28

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

Date Received : December 15, 2009
Description : Brunswick Meridian

Sample ID : MW-5

Collected By : ACZ
Collection Date : 12/10/09 13:12

ESC Sample # : L436651-11

Site ID :

Project # : 190402025.200.0002

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.20	ug/l	7470A	12/18/09	1
Arsenic	BDL	20.	ug/l	6010B	12/19/09	1
Barium	13.	5.0	ug/l	6010B	12/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	12/19/09	1
Chromium	BDL	10.	ug/l	6010B	12/19/09	1
Lead	BDL	5.0	ug/l	6010B	12/19/09	1
Selenium	BDL	20.	ug/l	6010B	12/19/09	1
Silver	14.	10.	ug/l	6010B	12/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	12/21/09	1
Acrolein	BDL	50.	ug/l	8260B	12/21/09	1
Acrylonitrile	BDL	10.	ug/l	8260B	12/21/09	1
Benzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	12/21/09	1
Bromoform	BDL	1.0	ug/l	8260B	12/21/09	1
Bromomethane	BDL	5.0	ug/l	8260B	12/21/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
Chloroethane	BDL	5.0	ug/l	8260B	12/21/09	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	8260B	12/21/09	1
Chloroform	BDL	5.0	ug/l	8260B	12/21/09	1
Chloromethane	BDL	2.5	ug/l	8260B	12/21/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	12/21/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

Amy Zach
Stantec Consulting - Tualatin, OR
7730 SW Mohawk Street
Tualatin, OR 97062

December 23,2009

Date Received : December 15, 2009
Description : Brunswick Meridian

ESC Sample # : L436651-11

Sample ID : MW-5

Site ID :

Project # : 190402025.200.0002

Collected By : ACZ
Collection Date : 12/10/09 13:12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	12/21/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Hexachloro-1,3-Butadiene	BDL	1.0	ug/l	8260B	12/21/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	12/21/09	1
2-Butanone (MEK)	BDL	10.	ug/l	8260B	12/21/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	12/21/09	1
4-Methyl-2-pentanone (MIBK)	BDL	10.	ug/l	8260B	12/21/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	12/21/09	1
Naphthalene	BDL	5.0	ug/l	8260B	12/21/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Styrene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	1.0	ug/l	8260B	12/21/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Toluene	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	12/21/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	12/21/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	12/21/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,2,3-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	12/21/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	12/21/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	12/21/09	1
Surrogate Recovery						
Toluene-d8	98.3		% Rec.	8260B	12/21/09	1
Dibromofluoromethane	98.3		% Rec.	8260B	12/21/09	1
4-Bromofluorobenzene	110.		% Rec.	8260B	12/21/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: 12/22/09 14:37 Revised: 12/23/09 14:28

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L436651-01	WG455320	SAMP	pH	R1043968	J3
	WG455464	SAMP	Arsenic	R1044830	O
	WG455464	SAMP	Selenium	R1044830	O
	WG455464	SAMP	Silver	R1044830	O
L436651-02	WG455464	SAMP	Arsenic	R1044830	O
	WG455464	SAMP	Selenium	R1044830	O
	WG455464	SAMP	Silver	R1044830	O
L436651-03	WG455472	SAMP	Arsenic	R1043769	O
	WG455472	SAMP	Selenium	R1043769	O
	WG455472	SAMP	Silver	R1043769	O
L436651-04	WG455472	SAMP	Arsenic	R1043769	O
	WG455472	SAMP	Selenium	R1043769	O
	WG455472	SAMP	Silver	R1043769	O
L436651-05	WG455472	SAMP	Arsenic	R1043769	O
	WG455472	SAMP	Selenium	R1043769	O
	WG455472	SAMP	Silver	R1043769	O
	WG455345	SAMP	Chromium,Hexavalent	R1047068	O
L436651-06	WG455472	SAMP	Arsenic	R1043769	O
	WG455472	SAMP	Selenium	R1043769	O
	WG455472	SAMP	Silver	R1043769	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
12/23/09 at 14:28:28

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L436651-01 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-02 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-03 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-04 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-05 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-06 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37

Sample: L436651-07 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37
Changed MDRCRA8 to MRCRA8 per NCF. AV 12/17
Sample: L436651-08 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37
Changed MDRCRA8 to MRCRA8 per NCF. AV 12/17
Sample: L436651-09 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37
Changed MDRCRA8 to MRCRA8 per NCF. AV 12/17
Sample: L436651-10 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37
Changed MDRCRA8 to MRCRA8 per NCF. AV 12/17
Sample: L436651-11 Account: SECORTOR Received: 12/15/09 09:00 Due Date: 12/21/09 00:00 RPT Date: 12/22/09 14:37
Changed MDRCRA8 to MRCRA8 per NCF. AV 12/17

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Stantec Consulting - Tualatin, OR
Amy Zach
7730 SW Mohawk Street

Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Arsenic	< 1	mg/kg			WG455472	12/17/09 11:50
Barium	< .25	mg/kg			WG455472	12/17/09 11:50
Cadmium	< .25	mg/kg			WG455472	12/17/09 11:50
Chromium	< .5	mg/kg			WG455472	12/17/09 11:50
Lead	< .25	mg/kg			WG455472	12/17/09 11:50
Selenium	< 1	mg/kg			WG455472	12/17/09 11:50
Silver	< .5	mg/kg			WG455472	12/17/09 11:50
pH	5.30	su			WG455320	12/17/09 16:02
Mercury	< .02	mg/kg			WG455380	12/17/09 12:29
Arsenic	< 1	mg/kg			WG455464	12/17/09 18:39
Barium	< .25	mg/kg			WG455464	12/17/09 18:39
Cadmium	< .25	mg/kg			WG455464	12/17/09 18:39
Chromium	< .5	mg/kg			WG455464	12/17/09 18:39
Lead	< .25	mg/kg			WG455464	12/17/09 18:39
Selenium	< 1	mg/kg			WG455464	12/17/09 18:39
Silver	< .5	mg/kg			WG455464	12/17/09 18:39
1,1,1,2-Tetrachloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1,1-Trichloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1,2,2-Tetrachloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1,2-Trichloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1-Dichloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,1-Dichloroethene	< .001	mg/kg			WG455597	12/17/09 15:57
1,1-Dichloropropene	< .001	mg/kg			WG455597	12/17/09 15:57
1,2,3-Trichlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,2,3-Trichloropropane	< .001	mg/kg			WG455597	12/17/09 15:57
1,2,4-Trichlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,2,4-Trimethylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,2-Dibromo-3-Chloropropane	< .005	mg/kg			WG455597	12/17/09 15:57
1,2-Dibromoethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,2-Dichlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,2-Dichloroethane	< .001	mg/kg			WG455597	12/17/09 15:57
1,2-Dichloropropane	< .001	mg/kg			WG455597	12/17/09 15:57
1,3,5-Trimethylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,3-Dichlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
1,3-Dichloropropane	< .001	mg/kg			WG455597	12/17/09 15:57
1,4-Dichlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
2,2-Dichloropropane	< .001	mg/kg			WG455597	12/17/09 15:57
2-Butanone (MEK)	< .01	mg/kg			WG455597	12/17/09 15:57
2-Chloroethyl vinyl ether	< .001	mg/kg			WG455597	12/17/09 15:57
2-Chlorotoluene	< .001	mg/kg			WG455597	12/17/09 15:57
4-Chlorotoluene	< .001	mg/kg			WG455597	12/17/09 15:57
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg			WG455597	12/17/09 15:57
Acetone	< .05	mg/kg			WG455597	12/17/09 15:57
Acrylonitrile	< .01	mg/kg			WG455597	12/17/09 15:57
Benzene	< .001	mg/kg			WG455597	12/17/09 15:57
Bromobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Bromodichloromethane	< .001	mg/kg			WG455597	12/17/09 15:57
Bromoform	< .001	mg/kg			WG455597	12/17/09 15:57
Bromomethane	< .005	mg/kg			WG455597	12/17/09 15:57
Carbon tetrachloride	< .001	mg/kg			WG455597	12/17/09 15:57

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Stantec Consulting - Tualatin, OR
Amy Zach
7730 SW Mohawk Street

Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Chlorobenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Chlorodibromomethane	< .001	mg/kg			WG455597	12/17/09 15:57
Chloroethane	< .005	mg/kg			WG455597	12/17/09 15:57
Chloroform	< .005	mg/kg			WG455597	12/17/09 15:57
Chloromethane	< .001	mg/kg			WG455597	12/17/09 15:57
cis-1,2-Dichloroethene	< .001	mg/kg			WG455597	12/17/09 15:57
cis-1,3-Dichloropropene	< .001	mg/kg			WG455597	12/17/09 15:57
Di-isopropyl ether	< .001	mg/kg			WG455597	12/17/09 15:57
Dibromomethane	< .001	mg/kg			WG455597	12/17/09 15:57
Dichlorodifluoromethane	< .005	mg/kg			WG455597	12/17/09 15:57
Ethylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Hexachloro-1,3-Butadiene	< .001	mg/kg			WG455597	12/17/09 15:57
Isopropylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Methyl tert-butyl ether	< .001	mg/kg			WG455597	12/17/09 15:57
Methylene Chloride	< .005	mg/kg			WG455597	12/17/09 15:57
n-Butylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
n-Propylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Naphthalene	< .005	mg/kg			WG455597	12/17/09 15:57
p-Isopropyltoluene	< .001	mg/kg			WG455597	12/17/09 15:57
sec-Butylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Styrene	< .001	mg/kg			WG455597	12/17/09 15:57
tert-Butylbenzene	< .001	mg/kg			WG455597	12/17/09 15:57
Tetrachloroethene	< .001	mg/kg			WG455597	12/17/09 15:57
Toluene	< .005	mg/kg			WG455597	12/17/09 15:57
trans-1,2-Dichloroethene	< .001	mg/kg			WG455597	12/17/09 15:57
trans-1,3-Dichloropropene	< .001	mg/kg			WG455597	12/17/09 15:57
Trichloroethene	< .001	mg/kg			WG455597	12/17/09 15:57
Trichlorofluoromethane	< .005	mg/kg			WG455597	12/17/09 15:57
Vinyl chloride	< .001	mg/kg			WG455597	12/17/09 15:57
Xylenes, Total	< .003	mg/kg			WG455597	12/17/09 15:57
4-Bromofluorobenzene		% Rec.	110.4	59-140	WG455597	12/17/09 15:57
Dibromofluoromethane		% Rec.	101.2	63-139	WG455597	12/17/09 15:57
Toluene-d8		% Rec.	102.4	84-116	WG455597	12/17/09 15:57
Total Solids	< .1	%			WG455687	12/18/09 13:53
Chromium,Hexavalent	< 2	mg/kg			WG455345	12/19/09 13:34
Arsenic	< .02	mg/l			WG455851	12/19/09 13:12
Barium	< .005	mg/l			WG455851	12/19/09 13:12
Cadmium	< .005	mg/l			WG455851	12/19/09 13:12
Chromium	< .01	mg/l			WG455851	12/19/09 13:12
Lead	< .005	mg/l			WG455851	12/19/09 13:12
Selenium	< .02	mg/l			WG455851	12/19/09 13:12
Silver	< .01	mg/l			WG455851	12/19/09 13:12
Mercury	< .0002	mg/l			WG455839	12/18/09 20:16
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,1,1-Trichloroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,1,2-Trichloroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,1-Dichloroethane	< .001	mg/l			WG455864	12/21/09 05:00

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Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1,1-Dichloroethene	< .001	mg/l			WG455864	12/21/09 05:00
1,1-Dichloropropene	< .001	mg/l			WG455864	12/21/09 05:00
1,2,3-Trichlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,2,3-Trichloropropane	< .001	mg/l			WG455864	12/21/09 05:00
1,2,3-Trimethylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,2,4-Trichlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,2,4-Trimethylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG455864	12/21/09 05:00
1,2-Dibromoethane	< .001	mg/l			WG455864	12/21/09 05:00
1,2-Dichlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,2-Dichloroethane	< .001	mg/l			WG455864	12/21/09 05:00
1,2-Dichloropropane	< .001	mg/l			WG455864	12/21/09 05:00
1,3,5-Trimethylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,3-Dichlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
1,3-Dichloropropane	< .001	mg/l			WG455864	12/21/09 05:00
1,4-Dichlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
2,2-Dichloropropane	< .001	mg/l			WG455864	12/21/09 05:00
2-Butanone (MEK)	< .01	mg/l			WG455864	12/21/09 05:00
2-Chloroethyl vinyl ether	< .001	mg/l			WG455864	12/21/09 05:00
2-Chlorotoluene	< .001	mg/l			WG455864	12/21/09 05:00
4-Chlorotoluene	< .001	mg/l			WG455864	12/21/09 05:00
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG455864	12/21/09 05:00
Acetone	< .05	mg/l			WG455864	12/21/09 05:00
Acrolein	< .05	mg/l			WG455864	12/21/09 05:00
Acrylonitrile	< .01	mg/l			WG455864	12/21/09 05:00
Benzene	< .001	mg/l			WG455864	12/21/09 05:00
Bromobenzene	< .001	mg/l			WG455864	12/21/09 05:00
Bromodichloromethane	< .001	mg/l			WG455864	12/21/09 05:00
Bromoform	< .001	mg/l			WG455864	12/21/09 05:00
Bromomethane	< .005	mg/l			WG455864	12/21/09 05:00
Carbon tetrachloride	< .001	mg/l			WG455864	12/21/09 05:00
Chlorobenzene	< .001	mg/l			WG455864	12/21/09 05:00
Chlorodibromomethane	< .001	mg/l			WG455864	12/21/09 05:00
Chloroethane	< .001	mg/l			WG455864	12/21/09 05:00
Chloroform	< .005	mg/l			WG455864	12/21/09 05:00
Chloromethane	< .001	mg/l			WG455864	12/21/09 05:00
cis-1,2-Dichloroethene	< .001	mg/l			WG455864	12/21/09 05:00
cis-1,3-Dichloropropene	< .001	mg/l			WG455864	12/21/09 05:00
Di-isopropyl ether	< .001	mg/l			WG455864	12/21/09 05:00
Dibromomethane	< .001	mg/l			WG455864	12/21/09 05:00
Dichlorodifluoromethane	< .005	mg/l			WG455864	12/21/09 05:00
Ethylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
Hexachloro-1,3-Butadiene	< .001	mg/l			WG455864	12/21/09 05:00
Isopropylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
Methyl tert-butyl ether	< .001	mg/l			WG455864	12/21/09 05:00
Methylene Chloride	< .005	mg/l			WG455864	12/21/09 05:00
n-Butylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
n-Propylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
Naphthalene	< .005	mg/l			WG455864	12/21/09 05:00
p-Isopropyltoluene	< .001	mg/l			WG455864	12/21/09 05:00
sec-Butylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
Styrene	< .001	mg/l			WG455864	12/21/09 05:00
tert-Butylbenzene	< .001	mg/l			WG455864	12/21/09 05:00
Tetrachloroethene	< .001	mg/l			WG455864	12/21/09 05:00
Toluene	< .005	mg/l			WG455864	12/21/09 05:00
trans-1,2-Dichloroethene	< .001	mg/l			WG455864	12/21/09 05:00
trans-1,3-Dichloropropene	< .001	mg/l			WG455864	12/21/09 05:00
Trichloroethene	< .001	mg/l			WG455864	12/21/09 05:00
Trichlorofluoromethane	< .005	mg/l			WG455864	12/21/09 05:00

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Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Vinyl chloride	< .001	mg/l			WG455864	12/21/09 05:00
Xylenes, Total	< .003	mg/l			WG455864	12/21/09 05:00
4-Bromofluorobenzene		% Rec.	109.2	75-128	WG455864	12/21/09 05:00
Dibromofluoromethane		% Rec.	91.51	79-125	WG455864	12/21/09 05:00
Toluene-d8		% Rec.	97.66	87-114	WG455864	12/21/09 05:00

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Arsenic	mg/kg	2.10	2.00	5.35	20	L436809-01	WG455472
Barium	mg/kg	120.	100.	19.0	20	L436809-01	WG455472
Cadmium	mg/kg	0.380	0.370	2.67	20	L436809-01	WG455472
Chromium	mg/kg	7.70	6.50	16.5	20	L436809-01	WG455472
Lead	mg/kg	5.50	4.40	22.6*	20	L436809-01	WG455472
Silver	mg/kg	0	0	0	20	L436809-01	WG455472
Selenium	mg/kg	0	0	0	20	L436809-01	WG455472
pH	su	6.10	6.20	1.63*	1	L436651-01	WG455320
Mercury	mg/kg	0	0	0	20	L436714-04	WG455380
Mercury	mg/kg	0	0	0	20	L436714-04	WG455380
ORP	mV	120.	120.	1.68	20	L436211-01	WG455308
ORP	mV	120.	120.	1.68	20	L436651-06	WG455308
Barium	mg/kg	49.0	48.0	1.24	20	L436651-02	WG455464
Cadmium	mg/kg	0.690	0.680	1.17	20	L436651-02	WG455464
Chromium	mg/kg	32.0	34.0	6.06	20	L436651-02	WG455464
Lead	mg/kg	1.40	1.30	8.82	20	L436651-02	WG455464
Arsenic	mg/kg	0	0	0	20	L436651-02	WG455464
Silver	mg/kg	0	0	0	20	L436651-02	WG455464
Selenium	mg/kg	0	0	0	20	L436651-02	WG455464
Total Solids	%	91.0	91.3	0.413	5	L436658-03	WG455687
Chromium,Hexavalent	mg/kg	0	0	0	20	L436651-01	WG455345
Arsenic	mg/l	0	0	0	20	L437125-04	WG455851
Barium	mg/l	0.0280	0.0290	3.15	20	L437125-04	WG455851
Cadmium	mg/l	0	0	0	20	L437125-04	WG455851
Chromium	mg/l	0	0	0	20	L437125-04	WG455851
Lead	mg/l	0	0.00279	NA	20	L437125-04	WG455851
Selenium	mg/l	0	0	0	20	L437125-04	WG455851
Silver	mg/l	0	0	0	20	L437125-04	WG455851
Mercury	mg/l	0	0	0	20	L437125-12	WG455839

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Arsenic	mg/kg	192	167.	87.0	78.6-120.8	WG455472

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Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Barium	mg/kg	420	392.	93.3	78.8-121.4	WG455472
Cadmium	mg/kg	70.1	62.4	89.0	78.5-121.5	WG455472
Chromium	mg/kg	168	164.	97.6	80.4-120.2	WG455472
Lead	mg/kg	113	113.	100.	77.3-122.1	WG455472
Selenium	mg/kg	176	151.	85.8	75.6-125.0	WG455472
Silver	mg/kg	115	116.	101.	66-133.9	WG455472
pH	su	9.68	9.60	99.2	97.9-100.8	WG455320
Mercury	mg/kg	8.77	10.1	115.	71.6-127.7	WG455380
ORP	mV	229	220.	96.1	95.6-104.37	WG455308
Arsenic	mg/kg	192	168.	87.5	78.6-120.8	WG455464
Barium	mg/kg	420	423.	101.	78.8-121.4	WG455464
Cadmium	mg/kg	70.1	64.2	91.6	78.5-121.5	WG455464
Chromium	mg/kg	168	160.	95.2	80.4-120.2	WG455464
Lead	mg/kg	113	105.	92.9	77.3-122.1	WG455464
Selenium	mg/kg	176	152.	86.4	75.6-125.0	WG455464
Silver	mg/kg	115	108.	93.9	66-133.9	WG455464
1,1,1,2-Tetrachloroethane	mg/kg	.025	0.0273	109.	73-134	WG455597
1,1,1-Trichloroethane	mg/kg	.025	0.0281	112.	62-135	WG455597
1,1,2,2-Tetrachloroethane	mg/kg	.025	0.0273	109.	74-129	WG455597
1,1,2-Trichloroethane	mg/kg	.025	0.0283	113.	77-124	WG455597
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	.025	0.0239	95.4	49-155	WG455597
1,1-Dichloroethane	mg/kg	.025	0.0248	99.2	61-134	WG455597
1,1-Dichloroethene	mg/kg	.025	0.0269	108.	53-136	WG455597
1,1-Dichloropropene	mg/kg	.025	0.0273	109.	63-132	WG455597
1,2,3-Trichlorobenzene	mg/kg	.025	0.0298	119.	62-146	WG455597
1,2,3-Trichloropropane	mg/kg	.025	0.0269	108.	70-133	WG455597
1,2,4-Trichlorobenzene	mg/kg	.025	0.0300	120.	61-148	WG455597
1,2,4-Trimethylbenzene	mg/kg	.025	0.0303	121.	68-135	WG455597
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0277	111.	61-134	WG455597
1,2-Dibromoethane	mg/kg	.025	0.0282	113.	76-127	WG455597
1,2-Dichlorobenzene	mg/kg	.025	0.0285	114.	77-123	WG455597
1,2-Dichloroethane	mg/kg	.025	0.0277	111.	58-141	WG455597
1,2-Dichloropropane	mg/kg	.025	0.0253	101.	71-128	WG455597
1,3,5-Trimethylbenzene	mg/kg	.025	0.0293	117.	71-133	WG455597
1,3-Dichlorobenzene	mg/kg	.025	0.0279	112.	71-132	WG455597
1,3-Dichloropropane	mg/kg	.025	0.0260	104.	76-120	WG455597
1,4-Dichlorobenzene	mg/kg	.025	0.0288	115.	72-123	WG455597
2,2-Dichloropropane	mg/kg	.025	0.0282	113.	50-147	WG455597
2-Butanone (MEK)	mg/kg	.125	0.107	85.4	51-131	WG455597
2-Chloroethyl vinyl ether	mg/kg	.125	0.138	110.	0-188	WG455597
2-Chlorotoluene	mg/kg	.025	0.0291	116.	73-128	WG455597
4-Chlorotoluene	mg/kg	.025	0.0303	121.	72-129	WG455597
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.121	96.9	61-143	WG455597
Acetone	mg/kg	.125	0.107	85.8	44-140	WG455597
Acrylonitrile	mg/kg	.125	0.0968	77.4	55-143	WG455597
Benzene	mg/kg	.025	0.0251	100.	65-128	WG455597
Bromobenzene	mg/kg	.025	0.0274	110.	75-123	WG455597
Bromodichloromethane	mg/kg	.025	0.0279	112.	66-126	WG455597
Bromoform	mg/kg	.025	0.0293	117.	64-139	WG455597

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Level II

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Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Bromomethane	mg/kg	.025	0.0285	114.	41-175	WG455597
Carbon tetrachloride	mg/kg	.025	0.0284	114.	60-140	WG455597
Chlorobenzene	mg/kg	.025	0.0293	117.	75-125	WG455597
Chlorodibromomethane	mg/kg	.025	0.0286	115.	72-137	WG455597
Chloroethane	mg/kg	.025	0.0271	109.	44-159	WG455597
Chloroform	mg/kg	.025	0.0267	107.	63-123	WG455597
Chloromethane	mg/kg	.025	0.0214	85.4	42-149	WG455597
cis-1,2-Dichloroethene	mg/kg	.025	0.0266	106.	71-129	WG455597
cis-1,3-Dichloropropene	mg/kg	.025	0.0266	106.	73-132	WG455597
Di-isopropyl ether	mg/kg	.025	0.0228	91.3	59-143	WG455597
Dibromomethane	mg/kg	.025	0.0272	109.	70-130	WG455597
Dichlorodifluoromethane	mg/kg	.025	0.0200	79.9	26-186	WG455597
Ethylbenzene	mg/kg	.025	0.0302	121.	74-128	WG455597
Hexachloro-1,3-Butadiene	mg/kg	.025	0.0320	128.	65-137	WG455597
Isopropylbenzene	mg/kg	.025	0.0286	114.	73-130	WG455597
Methyl tert-butyl ether	mg/kg	.025	0.0225	90.0	44-148	WG455597
Methylene Chloride	mg/kg	.025	0.0206	82.3	57-129	WG455597
n-Butylbenzene	mg/kg	.025	0.0330	132.	60-145	WG455597
n-Propylbenzene	mg/kg	.025	0.0295	118.	71-132	WG455597
Naphthalene	mg/kg	.025	0.0283	113.	61-142	WG455597
p-Isopropyltoluene	mg/kg	.025	0.0307	123.	67-138	WG455597
sec-Butylbenzene	mg/kg	.025	0.0293	117.	71-134	WG455597
Styrene	mg/kg	.025	0.0309	124.	76-133	WG455597
tert-Butylbenzene	mg/kg	.025	0.0288	115.	72-132	WG455597
Tetrachloroethene	mg/kg	.025	0.0293	117.	65-135	WG455597
Toluene	mg/kg	.025	0.0270	108.	70-120	WG455597
trans-1,2-Dichloroethene	mg/kg	.025	0.0250	99.9	61-133	WG455597
trans-1,3-Dichloropropene	mg/kg	.025	0.0291	117.	70-135	WG455597
Trichloroethene	mg/kg	.025	0.0268	107.	71-126	WG455597
Trichlorofluoromethane	mg/kg	.025	0.0285	114.	52-147	WG455597
Vinyl chloride	mg/kg	.025	0.0239	95.6	50-151	WG455597
Xylenes, Total	mg/kg	.075	0.0886	118.	74-127	WG455597
4-Bromofluorobenzene				104.6	59-140	WG455597
Dibromofluoromethane				100.1	63-139	WG455597
Toluene-d8				101.0	84-116	WG455597
Total Solids	%	50	50.0	100.	85-115	WG455687
Chromium,Hexavalent	mg/kg	100	99.7	99.7	50-143	WG455345
Arsenic	mg/l	1.13	1.10	97.3	85-115	WG455851
Barium	mg/l	1.13	1.14	101.	85-115	WG455851
Cadmium	mg/l	1.13	1.15	102.	85-115	WG455851
Chromium	mg/l	1.13	1.15	102.	85-115	WG455851
Lead	mg/l	1.13	1.19	105.	85-115	WG455851
Selenium	mg/l	1.13	1.07	94.7	85-115	WG455851
Silver	mg/l	1.13	1.11	98.2	85-115	WG455851
Mercury	mg/l	.003	0.00295	98.3	85-115	WG455839
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0280	112.	75-134	WG455864
1,1,1-Trichloroethane	mg/l	.025	0.0229	91.5	67-137	WG455864
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0258	103.	72-128	WG455864
1,1,2-Trichloroethane	mg/l	.025	0.0258	103.	79-123	WG455864

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Amy Zach
7730 SW Mohawk Street
Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	.025	0.0175	70.2	51-149	WG455864
1,1-Dichloroethane	mg/l	.025	0.0221	88.4	67-133	WG455864
1,1-Dichloroethene	mg/l	.025	0.0188	75.1	60-130	WG455864
1,1-Dichloropropene	mg/l	.025	0.0219	87.7	68-132	WG455864
1,2,3-Trichlorobenzene	mg/l	.025	0.0273	109.	63-138	WG455864
1,2,3-Trichloropropane	mg/l	.025	0.0233	93.2	68-130	WG455864
1,2,3-Trimethylbenzene	mg/l	.025	0.0253	101.	70-127	WG455864
1,2,4-Trichlorobenzene	mg/l	.025	0.0285	114.	65-137	WG455864
1,2,4-Trimethylbenzene	mg/l	.025	0.0253	101.	72-135	WG455864
1,2-Dibromo-3-Chloropropane	mg/l	.025	0.0263	105.	55-134	WG455864
1,2-Dibromoethane	mg/l	.025	0.0270	108.	75-126	WG455864
1,2-Dichlorobenzene	mg/l	.025	0.0272	109.	75-122	WG455864
1,2-Dichloroethane	mg/l	.025	0.0221	88.4	63-137	WG455864
1,2-Dichloropropane	mg/l	.025	0.0239	95.7	74-122	WG455864
1,3,5-Trimethylbenzene	mg/l	.025	0.0248	99.2	73-134	WG455864
1,3-Dichlorobenzene	mg/l	.025	0.0277	111.	73-131	WG455864
1,3-Dichloropropane	mg/l	.025	0.0257	103.	77-119	WG455864
1,4-Dichlorobenzene	mg/l	.025	0.0249	99.7	70-121	WG455864
2,2-Dichloropropane	mg/l	.025	0.0234	93.7	46-151	WG455864
2-Butanone (MEK)	mg/l	.125	0.0946	75.7	53-132	WG455864
2-Chloroethyl vinyl ether	mg/l	.125	0.111	89.0	0-171	WG455864
2-Chlorotoluene	mg/l	.025	0.0272	109.	74-128	WG455864
4-Chlorotoluene	mg/l	.025	0.0280	112.	74-130	WG455864
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.110	88.1	60-142	WG455864
Acetone	mg/l	.125	0.0906	72.4	48-134	WG455864
Acrolein	mg/l	.125	0.0797	63.8	6-182	WG455864
Acrylonitrile	mg/l	.125	0.104	83.0	60-140	WG455864
Benzene	mg/l	.025	0.0215	86.1	67-126	WG455864
Bromobenzene	mg/l	.025	0.0266	106.	76-123	WG455864
Bromodichloromethane	mg/l	.025	0.0252	101.	68-133	WG455864
Bromoform	mg/l	.025	0.0253	101.	60-139	WG455864
Bromomethane	mg/l	.025	0.0150	59.9	45-175	WG455864
Carbon tetrachloride	mg/l	.025	0.0230	92.1	64-141	WG455864
Chlorobenzene	mg/l	.025	0.0271	109.	77-125	WG455864
Chlorodibromomethane	mg/l	.025	0.0265	106.	73-138	WG455864
Chloroethane	mg/l	.025	0.0159	63.4	49-155	WG455864
Chloroform	mg/l	.025	0.0223	89.2	66-126	WG455864
Chloromethane	mg/l	.025	0.0178	71.1	45-152	WG455864
cis-1,2-Dichloroethene	mg/l	.025	0.0236	94.4	72-128	WG455864
cis-1,3-Dichloropropene	mg/l	.025	0.0225	90.0	73-131	WG455864
Di-isopropyl ether	mg/l	.025	0.0222	88.7	63-139	WG455864
Dibromomethane	mg/l	.025	0.0242	96.9	73-125	WG455864
Dichlorodifluoromethane	mg/l	.025	0.0265	106.	39-189	WG455864
Ethylbenzene	mg/l	.025	0.0277	111.	76-129	WG455864
Hexachloro-1,3-Butadiene	mg/l	.025	0.0269	108.	67-135	WG455864
Isopropylbenzene	mg/l	.025	0.0278	111.	73-132	WG455864
Methyl tert-butyl ether	mg/l	.025	0.0218	87.3	51-142	WG455864
Methylene Chloride	mg/l	.025	0.0210	84.2	64-125	WG455864
n-Butylbenzene	mg/l	.025	0.0278	111.	63-142	WG455864
n-Propylbenzene	mg/l	.025	0.0271	108.	71-132	WG455864
Naphthalene	mg/l	.025	0.0264	106.	56-145	WG455864
p-Isopropyltoluene	mg/l	.025	0.0249	99.7	68-138	WG455864
sec-Butylbenzene	mg/l	.025	0.0278	111.	70-135	WG455864
Styrene	mg/l	.025	0.0254	101.	78-130	WG455864
tert-Butylbenzene	mg/l	.025	0.0288	115.	72-134	WG455864
Tetrachloroethene	mg/l	.025	0.0262	105.	67-135	WG455864
Toluene	mg/l	.025	0.0244	97.8	72-122	WG455864
trans-1,2-Dichloroethene	mg/l	.025	0.0213	85.0	67-129	WG455864
trans-1,3-Dichloropropene	mg/l	.025	0.0259	104.	66-137	WG455864

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Quality Assurance Report
Level II

L436651

December 23, 2009

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Trichloroethene	mg/l	.025	0.0241	96.3	74-126	WG455864
Trichlorofluoromethane	mg/l	.025	0.0155	61.8	54-156	WG455864
Vinyl chloride	mg/l	.025	0.0207	82.8	55-153	WG455864
Xylenes, Total	mg/l	.075	0.0838	112.	75-128	WG455864
4-Bromofluorobenzene				109.4	75-128	WG455864
Dibromofluoromethane				92.78	79-125	WG455864
Toluene-d8				97.72	87-114	WG455864

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
pH	su	9.70	9.60	100.	97.9-100.8	1.04	20	WG455320
ORP	mV	220.	220.	96.0	95.6-104.37	0	20	WG455308
1,1,1,2-Tetrachloroethane	mg/kg	0.0258	0.0273	103.	73-134	5.45	20	WG455597
1,1,1-Trichloroethane	mg/kg	0.0246	0.0281	98.0	62-135	13.2	20	WG455597
1,1,2,2-Tetrachloroethane	mg/kg	0.0242	0.0273	97.0	74-129	11.8	20	WG455597
1,1,2-Trichloroethane	mg/kg	0.0249	0.0283	100.	77-124	12.6	20	WG455597
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0219	0.0239	88.0	49-155	8.40	20	WG455597
1,1-Dichloroethane	mg/kg	0.0224	0.0248	90.0	61-134	9.98	20	WG455597
1,1-Dichloroethene	mg/kg	0.0245	0.0269	98.0	53-136	9.62	20	WG455597
1,1-Dichloropropene	mg/kg	0.0250	0.0273	100.	63-132	8.91	20	WG455597
1,2,3-Trichlorobenzene	mg/kg	0.0275	0.0298	110.	62-146	7.83	20	WG455597
1,2,3-Trichloropropane	mg/kg	0.0245	0.0269	98.0	70-133	9.69	20	WG455597
1,2,4-Trichlorobenzene	mg/kg	0.0290	0.0300	116.	61-148	3.58	20	WG455597
1,2,4-Trimethylbenzene	mg/kg	0.0267	0.0303	107.	68-135	12.4	20	WG455597
1,2-Dibromo-3-Chloropropane	mg/kg	0.0266	0.0277	106.	61-134	4.02	21	WG455597
1,2-Dibromoethane	mg/kg	0.0254	0.0282	101.	76-127	10.6	20	WG455597
1,2-Dichlorobenzene	mg/kg	0.0264	0.0285	106.	77-123	7.54	20	WG455597
1,2-Dichloroethane	mg/kg	0.0254	0.0277	101.	58-141	8.79	20	WG455597
1,2-Dichloropropane	mg/kg	0.0230	0.0253	92.0	71-128	9.68	20	WG455597
1,3,5-Trimethylbenzene	mg/kg	0.0266	0.0293	106.	71-133	9.86	20	WG455597
1,3-Dichlorobenzene	mg/kg	0.0252	0.0279	101.	71-132	10.3	20	WG455597
1,3-Dichloropropane	mg/kg	0.0236	0.0260	94.0	76-120	9.55	20	WG455597
1,4-Dichlorobenzene	mg/kg	0.0270	0.0288	108.	72-123	6.27	20	WG455597
2,2-Dichloropropane	mg/kg	0.0268	0.0282	107.	50-147	5.21	20	WG455597
2-Butanone (MEK)	mg/kg	0.0973	0.107	78.0	51-131	9.32	25	WG455597
2-Chloroethyl vinyl ether	mg/kg	0.126	0.138	101.	0-188	8.57	39	WG455597
2-Chlorotoluene	mg/kg	0.0266	0.0291	106.	73-128	8.81	20	WG455597
4-Chlorotoluene	mg/kg	0.0271	0.0303	108.	72-129	11.0	20	WG455597
4-Methyl-2-pentanone (MIBK)	mg/kg	0.112	0.121	89.0	61-143	7.93	23	WG455597
Acetone	mg/kg	0.107	0.107	85.0	44-140	0.527	25	WG455597
Acrylonitrile	mg/kg	0.0908	0.0968	73.0	55-143	6.40	20	WG455597
Benzene	mg/kg	0.0231	0.0251	92.0	65-128	7.94	20	WG455597
Bromobenzene	mg/kg	0.0235	0.0274	94.0	75-123	15.3	20	WG455597
Bromodichloromethane	mg/kg	0.0254	0.0279	102.	66-126	9.20	20	WG455597
Bromoform	mg/kg	0.0263	0.0293	105.	64-139	10.7	20	WG455597
Bromomethane	mg/kg	0.0280	0.0285	112.	41-175	1.43	20	WG455597
Carbon tetrachloride	mg/kg	0.0261	0.0284	104.	60-140	8.58	20	WG455597
Chlorobenzene	mg/kg	0.0261	0.0293	104.	75-125	11.5	20	WG455597
Chlorodibromomethane	mg/kg	0.0260	0.0286	104.	72-137	9.59	20	WG455597
Chloroethane	mg/kg	0.0242	0.0271	97.0	44-159	11.5	20	WG455597
Chloroform	mg/kg	0.0250	0.0267	100.	63-123	6.64	20	WG455597
Chloromethane	mg/kg	0.0190	0.0214	76.0	42-149	11.7	20	WG455597
cis-1,2-Dichloroethene	mg/kg	0.0252	0.0266	101.	71-129	5.47	20	WG455597
cis-1,3-Dichloropropene	mg/kg	0.0251	0.0266	100.	73-132	5.70	20	WG455597

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Quality Assurance Report
Level II

L436651

December 23, 2009

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Di-isopropyl ether	mg/kg	0.0220	0.0228	88.0	59-143	3.90	20	WG455597
Dibromomethane	mg/kg	0.0252	0.0272	101.	70-130	7.93	20	WG455597
Dichlorodifluoromethane	mg/kg	0.0175	0.0200	70.0	26-186	13.1	22	WG455597
Ethylbenzene	mg/kg	0.0275	0.0302	110.	74-128	9.60	20	WG455597
Hexachloro-1,3-Butadiene	mg/kg	0.0291	0.0320	116.	65-137	9.24	20	WG455597
Isopropylbenzene	mg/kg	0.0260	0.0286	104.	73-130	9.48	20	WG455597
Methyl tert-butyl ether	mg/kg	0.0205	0.0225	82.0	44-148	9.42	20	WG455597
Methylene Chloride	mg/kg	0.0191	0.0206	76.0	57-129	7.18	20	WG455597
n-Butylbenzene	mg/kg	0.0312	0.0330	125.	60-145	5.69	20	WG455597
n-Propylbenzene	mg/kg	0.0270	0.0295	108.	71-132	8.80	20	WG455597
Naphthalene	mg/kg	0.0246	0.0283	98.0	61-142	13.9	20	WG455597
p-Isopropyltoluene	mg/kg	0.0275	0.0307	110.	67-138	10.9	20	WG455597
sec-Butylbenzene	mg/kg	0.0263	0.0293	105.	71-134	10.7	20	WG455597
Styrene	mg/kg	0.0276	0.0309	110.	76-133	11.1	20	WG455597
tert-Butylbenzene	mg/kg	0.0261	0.0288	104.	72-132	9.70	20	WG455597
Tetrachloroethene	mg/kg	0.0263	0.0293	105.	65-135	10.5	20	WG455597
Toluene	mg/kg	0.0254	0.0270	102.	70-120	6.02	20	WG455597
trans-1,2-Dichloroethene	mg/kg	0.0235	0.0250	94.0	61-133	5.89	20	WG455597
trans-1,3-Dichloropropene	mg/kg	0.0270	0.0291	108.	70-135	7.71	20	WG455597
Trichloroethene	mg/kg	0.0245	0.0268	98.0	71-126	8.75	20	WG455597
Trichlorofluoromethane	mg/kg	0.0258	0.0285	103.	52-147	10.1	20	WG455597
Vinyl chloride	mg/kg	0.0221	0.0239	88.0	50-151	7.70	20	WG455597
Xylenes, Total	mg/kg	0.0800	0.0886	107.	74-127	10.2	20	WG455597
4-Bromofluorobenzene				102.0	59-140			WG455597
Dibromofluoromethane				98.57	63-139			WG455597
Toluene-d8				101.2	84-116			WG455597
Chromium,Hexavalent	mg/kg	101.	99.7	101.	50-143	1.30	20	WG455345
1,1,1,2-Tetrachloroethane	mg/l	0.0284	0.0280	113.	75-134	1.25	20	WG455864
1,1,1-Trichloroethane	mg/l	0.0230	0.0229	92.0	67-137	0.603	20	WG455864
1,1,2,2-Tetrachloroethane	mg/l	0.0278	0.0258	111.	72-128	7.32	20	WG455864
1,1,2-Trichloroethane	mg/l	0.0264	0.0258	106.	79-123	2.30	20	WG455864
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0175	0.0175	70.0	51-149	0.541	20	WG455864
1,1-Dichloroethane	mg/l	0.0226	0.0221	90.0	67-133	2.34	20	WG455864
1,1-Dichloroethene	mg/l	0.0187	0.0188	75.0	60-130	0.398	20	WG455864
1,1-Dichloropropene	mg/l	0.0222	0.0219	89.0	68-132	1.38	20	WG455864
1,2,3-Trichlorobenzene	mg/l	0.0282	0.0273	113.	63-138	3.19	20	WG455864
1,2,3-Trichloropropane	mg/l	0.0248	0.0233	99.0	68-130	6.34	20	WG455864
1,2,3-Trimethylbenzene	mg/l	0.0257	0.0253	103.	70-127	1.65	20	WG455864
1,2,4-Trichlorobenzene	mg/l	0.0294	0.0285	118.	65-137	3.25	20	WG455864
1,2,4-Trimethylbenzene	mg/l	0.0253	0.0253	101.	72-135	0.147	20	WG455864
1,2-Dibromo-3-Chloropropane	mg/l	0.0294	0.0263	117.	55-134	11.1	20	WG455864
1,2-Dibromoethane	mg/l	0.0282	0.0270	113.	75-126	4.12	20	WG455864
1,2-Dichlorobenzene	mg/l	0.0283	0.0272	113.	75-122	3.95	20	WG455864
1,2-Dichloroethane	mg/l	0.0233	0.0221	93.0	63-137	5.46	20	WG455864
1,2-Dichloropropane	mg/l	0.0246	0.0239	98.0	74-122	2.85	20	WG455864
1,3,5-Trimethylbenzene	mg/l	0.0247	0.0248	99.0	73-134	0.485	20	WG455864
1,3-Dichlorobenzene	mg/l	0.0279	0.0277	112.	73-131	0.643	20	WG455864
1,3-Dichloropropane	mg/l	0.0263	0.0257	105.	77-119	2.26	20	WG455864
1,4-Dichlorobenzene	mg/l	0.0256	0.0249	102.	70-121	2.53	20	WG455864
2,2-Dichloropropane	mg/l	0.0233	0.0234	93.0	46-151	0.445	20	WG455864
2-Butanone (MEK)	mg/l	0.107	0.0946	86.0	53-132	12.4	20	WG455864
2-Chloroethyl vinyl ether	mg/l	0.119	0.111	96.0	0-171	7.06	27	WG455864
2-Chlorotoluene	mg/l	0.0273	0.0272	109.	74-128	0.143	20	WG455864
4-Chlorotoluene	mg/l	0.0282	0.0280	113.	74-130	0.672	20	WG455864
4-Methyl-2-pentanone (MIBK)	mg/l	0.125	0.110	100.	60-142	12.5	20	WG455864

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Quality Assurance Report
Level II

December 23, 2009

L436651

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Acetone	mg/l	0.100	0.0906	80.0	48-134	10.1	20	WG455864
Acrolein	mg/l	0.0870	0.0797	70.0	6-182	8.71	39	WG455864
Acrylonitrile	mg/l	0.114	0.104	91.0	60-140	9.13	20	WG455864
Benzene	mg/l	0.0220	0.0215	88.0	67-126	2.18	20	WG455864
Bromobenzene	mg/l	0.0273	0.0266	109.	76-123	2.72	20	WG455864
Bromodichloromethane	mg/l	0.0264	0.0252	106.	68-133	4.77	20	WG455864
Bromoform	mg/l	0.0274	0.0253	110.	60-139	7.83	20	WG455864
Bromomethane	mg/l	0.0152	0.0150	61.0	45-175	1.52	20	WG455864
Carbon tetrachloride	mg/l	0.0237	0.0230	95.0	64-141	2.85	20	WG455864
Chlorobenzene	mg/l	0.0270	0.0271	108.	77-125	0.394	20	WG455864
Chlorodibromomethane	mg/l	0.0280	0.0265	112.	73-138	5.79	20	WG455864
Chloroethane	mg/l	0.0165	0.0159	66.0	49-155	4.07	20	WG455864
Chloroform	mg/l	0.0228	0.0223	91.0	66-126	2.18	20	WG455864
Chloromethane	mg/l	0.0179	0.0178	72.0	45-152	0.546	20	WG455864
cis-1,2-Dichloroethene	mg/l	0.0239	0.0236	96.0	72-128	1.16	20	WG455864
cis-1,3-Dichloropropene	mg/l	0.0235	0.0225	94.0	73-131	4.27	20	WG455864
Di-isopropyl ether	mg/l	0.0229	0.0222	92.0	63-139	3.30	20	WG455864
Dibromomethane	mg/l	0.0256	0.0242	102.	73-125	5.64	20	WG455864
Dichlorodifluoromethane	mg/l	0.0263	0.0265	105.	39-189	0.818	24	WG455864
Ethylbenzene	mg/l	0.0273	0.0277	109.	76-129	1.31	20	WG455864
Hexachloro-1,3-Butadiene	mg/l	0.0266	0.0269	106.	67-135	1.12	20	WG455864
Isopropylbenzene	mg/l	0.0273	0.0278	109.	73-132	1.66	20	WG455864
Methyl tert-butyl ether	mg/l	0.0229	0.0218	92.0	51-142	4.87	20	WG455864
Methylene Chloride	mg/l	0.0215	0.0210	86.0	64-125	2.29	20	WG455864
n-Butylbenzene	mg/l	0.0282	0.0278	113.	63-142	1.41	20	WG455864
n-Propylbenzene	mg/l	0.0269	0.0271	108.	71-132	0.807	20	WG455864
Naphthalene	mg/l	0.0288	0.0264	115.	56-145	8.55	20	WG455864
p-Isopropyltoluene	mg/l	0.0248	0.0249	99.0	68-138	0.398	20	WG455864
sec-Butylbenzene	mg/l	0.0276	0.0278	110.	70-135	0.413	20	WG455864
Styrene	mg/l	0.0255	0.0254	102.	78-130	0.425	20	WG455864
tert-Butylbenzene	mg/l	0.0288	0.0288	115.	72-134	0.0561	20	WG455864
Tetrachloroethene	mg/l	0.0262	0.0262	105.	67-135	0.0248	20	WG455864
Toluene	mg/l	0.0248	0.0244	99.0	72-122	1.29	20	WG455864
trans-1,2-Dichloroethene	mg/l	0.0218	0.0213	87.0	67-129	2.56	20	WG455864
trans-1,3-Dichloropropene	mg/l	0.0269	0.0259	108.	66-137	4.01	20	WG455864
Trichloroethene	mg/l	0.0243	0.0241	97.0	74-126	0.717	20	WG455864
Trichlorofluoromethane	mg/l	0.0154	0.0155	62.0	54-156	0.222	20	WG455864
Vinyl chloride	mg/l	0.0210	0.0207	84.0	55-153	1.61	20	WG455864
Xylenes, Total	mg/l	0.0843	0.0838	112.	75-128	0.548	20	WG455864
4-Bromofluorobenzene				105.8	75-128			WG455864
Dibromofluoromethane				94.32	79-125			WG455864
Toluene-d8				98.69	87-114			WG455864

		Matrix Spike						
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Arsenic	mg/kg	47.5	2.00	50	91.0	75-125	L436809-01	WG455472
Barium	mg/kg	167.	100.	50	134.*	75-125	L436809-01	WG455472
Cadmium	mg/kg	46.6	0.370	50	92.5	75-125	L436809-01	WG455472
Chromium	mg/kg	55.4	6.50	50	97.8	75-125	L436809-01	WG455472
Lead	mg/kg	50.9	4.40	50	93.0	75-125	L436809-01	WG455472
Silver	mg/kg	50.7	0	50	101.	75-125	L436809-01	WG455472
Selenium	mg/kg	48.8	0	10	97.6	75-125	L436809-01	WG455472
Mercury	mg/kg	0.275	0	.25	110.	70-130	L436714-04	WG455380
Barium	mg/kg	93.3	48.0	50	90.6	75-125	L436651-02	WG455464

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Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Cadmium	mg/kg	47.1	0.680	50	92.8	75-125	L436651-02	WG455464
Chromium	mg/kg	80.8	34.0	50	93.6	75-125	L436651-02	WG455464
Lead	mg/kg	49.6	1.30	50	96.6	75-125	L436651-02	WG455464
Arsenic	mg/kg	42.4	0	10	84.8	75-125	L436651-02	WG455464
Silver	mg/kg	52.0	0	10	104.	75-125	L436651-02	WG455464
Selenium	mg/kg	37.6	0	5	75.2	75-125	L436651-02	WG455464
1,1,1,2-Tetrachloroethane	mg/kg	0.131	0	.025	105.	29-145	L436714-01	WG455597
1,1,1-Trichloroethane	mg/kg	0.133	0	.025	106.	23-147	L436714-01	WG455597
1,1,2,2-Tetrachloroethane	mg/kg	0.122	0	.025	97.6	18-150	L436714-01	WG455597
1,1,2-Trichloroethane	mg/kg	0.129	0	.025	103.	35-140	L436714-01	WG455597
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.112	0	.025	89.7	10-145	L436714-01	WG455597
1,1-Dichloroethane	mg/kg	0.115	0	.025	92.1	24-148	L436714-01	WG455597
1,1-Dichloroethene	mg/kg	0.129	0	.025	103.	10-149	L436714-01	WG455597
1,1-Dichloropropene	mg/kg	0.131	0	.025	105.	10-141	L436714-01	WG455597
1,2,3-Trichlorobenzene	mg/kg	0.142	0	.025	114.	10-129	L436714-01	WG455597
1,2,3-Trichloropropane	mg/kg	0.122	0	.025	97.2	30-148	L436714-01	WG455597
1,2,4-Trichlorobenzene	mg/kg	0.146	0	.025	117.	10-119	L436714-01	WG455597
1,2,4-Trimethylbenzene	mg/kg	0.140	0	.025	112.	10-145	L436714-01	WG455597
1,2-Dibromo-3-Chloropropane	mg/kg	0.117	0	.025	93.6	19-145	L436714-01	WG455597
1,2-Dibromoethane	mg/kg	0.130	0	.025	104.	24-145	L436714-01	WG455597
1,2-Dichlorobenzene	mg/kg	0.140	0	.025	112.	12-130	L436714-01	WG455597
1,2-Dichloroethane	mg/kg	0.134	0	.025	107.	21-155	L436714-01	WG455597
1,2-Dichloropropane	mg/kg	0.119	0.0169	.025	81.4	28-144	L436714-01	WG455597
1,3,5-Trimethylbenzene	mg/kg	0.137	0	.025	110.	10-135	L436714-01	WG455597
1,3-Dichlorobenzene	mg/kg	0.133	0	.025	106.	10-129	L436714-01	WG455597
1,3-Dichloropropane	mg/kg	0.125	0	.025	99.6	31-137	L436714-01	WG455597
1,4-Dichlorobenzene	mg/kg	0.141	0	.025	112.	10-121	L436714-01	WG455597
2,2-Dichloropropane	mg/kg	0.139	0	.025	112.	18-144	L436714-01	WG455597
2-Butanone (MEK)	mg/kg	0.479	0	.125	76.7	21-143	L436714-01	WG455597
2-Chloroethyl vinyl ether	mg/kg	0.609	0	.125	97.5	0-176	L436714-01	WG455597
2-Chlorotoluene	mg/kg	0.137	0	.025	110.	10-132	L436714-01	WG455597
4-Chlorotoluene	mg/kg	0.138	0	.025	110.	10-129	L436714-01	WG455597
4-Methyl-2-pentanone (MIBK)	mg/kg	0.531	0	.125	85.0	31-151	L436714-01	WG455597
Acetone	mg/kg	0.476	0.0295	.125	71.4	13-158	L436714-01	WG455597
Acrylonitrile	mg/kg	0.437	0	.125	69.8	20-154	L436714-01	WG455597
Benzene	mg/kg	0.121	0	.025	97.0	16-143	L436714-01	WG455597
Bromobenzene	mg/kg	0.122	0.000694	.025	96.9	14-135	L436714-01	WG455597
Bromodichloromethane	mg/kg	0.133	0	.025	107.	27-139	L436714-01	WG455597
Bromoform	mg/kg	0.136	0	.025	109.	21-144	L436714-01	WG455597
Bromomethane	mg/kg	0.155	0.00154	.025	123.	0-180	L436714-01	WG455597
Carbon tetrachloride	mg/kg	0.135	0	.025	108.	12-149	L436714-01	WG455597
Chlorobenzene	mg/kg	0.140	0	.025	112.	17-134	L436714-01	WG455597
Chlorodibromomethane	mg/kg	0.142	0	.025	113.	28-147	L436714-01	WG455597
Chloroethane	mg/kg	0.129	0	.025	103.	0-172	L436714-01	WG455597
Chloroform	mg/kg	0.131	0	.025	105.	28-138	L436714-01	WG455597
Chloromethane	mg/kg	0.0973	0	.025	77.8	10-158	L436714-01	WG455597
cis-1,2-Dichloroethene	mg/kg	0.129	0	.025	103.	21-147	L436714-01	WG455597
cis-1,3-Dichloropropene	mg/kg	0.126	0	.025	101.	17-145	L436714-01	WG455597
Di-isopropyl ether	mg/kg	0.114	0	.025	91.3	31-153	L436714-01	WG455597
Dibromomethane	mg/kg	0.126	0	.025	100.	24-147	L436714-01	WG455597
Dichlorodifluoromethane	mg/kg	0.0928	0	.025	74.2	0-192	L436714-01	WG455597
Ethylbenzene	mg/kg	0.139	0	.025	111.	12-137	L436714-01	WG455597
Hexachloro-1,3-Butadiene	mg/kg	0.152	0	.025	121.	10-123	L436714-01	WG455597
Isopropylbenzene	mg/kg	0.135	0	.025	108.	14-134	L436714-01	WG455597
Methyl tert-butyl ether	mg/kg	0.103	0	.025	82.8	21-157	L436714-01	WG455597
Methylene Chloride	mg/kg	0.100	0.000395	.025	79.9	12-149	L436714-01	WG455597
n-Butylbenzene	mg/kg	0.161	0	.025	128.	10-130	L436714-01	WG455597

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Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
n-Propylbenzene	mg/kg	0.138	0	.025	111.	10-130	L436714-01	WG455597
Naphthalene	mg/kg	0.133	0	.025	107.	0-146	L436714-01	WG455597
p-Isopropyltoluene	mg/kg	0.141	0	.025	113.	10-131	L436714-01	WG455597
sec-Butylbenzene	mg/kg	0.135	0	.025	108.	10-134	L436714-01	WG455597
Styrene	mg/kg	0.148	0	.025	118.	10-140	L436714-01	WG455597
tert-Butylbenzene	mg/kg	0.136	0	.025	109.	11-137	L436714-01	WG455597
Tetrachloroethene	mg/kg	0.135	0	.025	108.	10-131	L436714-01	WG455597
Toluene	mg/kg	0.128	0	.025	102.	12-136	L436714-01	WG455597
trans-1,2-Dichloroethene	mg/kg	0.118	0	.025	94.6	10-143	L436714-01	WG455597
trans-1,3-Dichloropropene	mg/kg	0.137	0	.025	110.	16-147	L436714-01	WG455597
Trichloroethene	mg/kg	0.125	0	.025	100.	10-155	L436714-01	WG455597
Trichlorofluoromethane	mg/kg	0.136	0	.025	109.	10-154	L436714-01	WG455597
Vinyl chloride	mg/kg	0.115	0	.025	91.7	10-159	L436714-01	WG455597
Xylenes, Total	mg/kg	0.411	0	.075	110.	10-138	L436714-01	WG455597
4-Bromofluorobenzene					103.0	59-140		WG455597
Dibromofluoromethane					103.7	63-139		WG455597
Toluene-d8					99.08	84-116		WG455597
Chromium,Hexavalent	mg/kg	19.6	0	20	98.0	80-120	L436651-06	WG455345
Arsenic	mg/l	1.16	0	1.13	103.	75-125	L437125-04	WG455851
Barium	mg/l	1.21	0.0290	1.13	104.	75-125	L437125-04	WG455851
Cadmium	mg/l	1.17	0	1.13	104.	75-125	L437125-04	WG455851
Chromium	mg/l	1.22	0	1.13	108.	75-125	L437125-04	WG455851
Lead	mg/l	1.24	0.00279	1.13	109.	75-125	L437125-04	WG455851
Selenium	mg/l	1.09	0	1.13	96.5	75-125	L437125-04	WG455851
Silver	mg/l	0.800	0	1.13	70.8*	75-125	L437125-04	WG455851
Mercury	mg/l	0.00291	0	.003	97.0	70-130	L437125-12	WG455839
1,1,1,2-Tetrachloroethane	mg/l	0.0328	0	.025	131.	45-152	L436626-06	WG455864
1,1,1-Trichloroethane	mg/l	0.0271	0	.025	108.	31-161	L436626-06	WG455864
1,1,2,2-Tetrachloroethane	mg/l	0.0356	0	.025	142.	49-149	L436626-06	WG455864
1,1,2-Trichloroethane	mg/l	0.0314	0	.025	126.	46-145	L436626-06	WG455864
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0209	0	.025	83.6	14-168	L436626-06	WG455864
1,1-Dichloroethane	mg/l	0.0269	0	.025	108.	30-159	L436626-06	WG455864
1,1-Dichloroethene	mg/l	0.0228	0	.025	91.0	10-162	L436626-06	WG455864
1,1-Dichloropropene	mg/l	0.0263	0	.025	105.	14-162	L436626-06	WG455864
1,2,3-Trichlorobenzene	mg/l	0.0345	0	.025	138.	32-143	L436626-06	WG455864
1,2,3-Trichloropropane	mg/l	0.0320	0	.025	128.	48-148	L436626-06	WG455864
1,2,3-Trimethylbenzene	mg/l	0.0307	0	.025	123.	36-141	L436626-06	WG455864
1,2,4-Trichlorobenzene	mg/l	0.0354	0	.025	142.	27-142	L436626-06	WG455864
1,2,4-Trimethylbenzene	mg/l	0.0296	0	.025	118.	29-153	L436626-06	WG455864
1,2-Dibromo-3-Chloropropane	mg/l	0.0424	0	.025	170.*	37-148	L436626-06	WG455864
1,2-Dibromoethane	mg/l	0.0347	0	.025	139.	41-149	L436626-06	WG455864
1,2-Dichlorobenzene	mg/l	0.0341	0	.025	136.	40-139	L436626-06	WG455864
1,2-Dichloroethane	mg/l	0.0283	0	.025	113.	29-167	L436626-06	WG455864
1,2-Dichloropropane	mg/l	0.0290	0	.025	116.	39-148	L436626-06	WG455864
1,3,5-Trimethylbenzene	mg/l	0.0286	0	.025	114.	33-149	L436626-06	WG455864
1,3-Dichlorobenzene	mg/l	0.0328	0	.025	131.	32-148	L436626-06	WG455864
1,3-Dichloropropane	mg/l	0.0316	0	.025	126.	44-142	L436626-06	WG455864
1,4-Dichlorobenzene	mg/l	0.0308	0	.025	123.	32-136	L436626-06	WG455864
2,2-Dichloropropane	mg/l	0.0285	0	.025	114.	14-158	L436626-06	WG455864
2-Butanone (MEK)	mg/l	0.148	0	.125	118.	32-151	L436626-06	WG455864
2-Chloroethyl vinyl ether	mg/l	0.0436	0	.125	34.8	0-175	L436626-06	WG455864

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Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
2-Chlorotoluene	mg/l	0.0314	0	.025	126.	35-147	L436626-06	WG455864
4-Chlorotoluene	mg/l	0.0327	0	.025	131.	33-147	L436626-06	WG455864
4-Methyl-2-pentanone (MIBK)	mg/l	0.171	0	.125	137.	40-160	L436626-06	WG455864
Acetone	mg/l	0.150	0.0104	.125	111.	25-157	L436626-06	WG455864
Acrolein	mg/l	0.116	0	.125	92.6	0-179	L436626-06	WG455864
Acrylonitrile	mg/l	0.162	0	.125	129.	37-162	L436626-06	WG455864
Benzene	mg/l	0.0260	0	.025	104.	16-158	L436626-06	WG455864
Bromobenzene	mg/l	0.0315	0	.025	126.	37-147	L436626-06	WG455864
Bromodichloromethane	mg/l	0.0313	0	.025	125.	45-147	L436626-06	WG455864
Bromoform	mg/l	0.0343	0	.025	137.	38-152	L436626-06	WG455864
Bromomethane	mg/l	0.0192	0	.025	77.0	0-191	L436626-06	WG455864
Carbon tetrachloride	mg/l	0.0283	0	.025	113.	22-168	L436626-06	WG455864
Chlorobenzene	mg/l	0.0317	0	.025	127.	33-148	L436626-06	WG455864
Chlorodibromomethane	mg/l	0.0333	0	.025	133.	48-151	L436626-06	WG455864
Chloroethane	mg/l	0.0202	0	.025	80.8	4-176	L436626-06	WG455864
Chloroform	mg/l	0.0272	0	.025	109.	37-147	L436626-06	WG455864
Chloromethane	mg/l	0.0220	0	.025	88.2	10-174	L436626-06	WG455864
cis-1,2-Dichloroethene	mg/l	0.0282	0	.025	113.	29-156	L436626-06	WG455864
cis-1,3-Dichloropropene	mg/l	0.0273	0	.025	109.	35-148	L436626-06	WG455864
Di-isopropyl ether	mg/l	0.0277	0	.025	111.	39-160	L436626-06	WG455864
Dibromomethane	mg/l	0.0317	0	.025	127.	36-152	L436626-06	WG455864
Dichlorodifluoromethane	mg/l	0.0335	0	.025	134.	0-200	L436626-06	WG455864
Ethylbenzene	mg/l	0.0317	0	.025	127.	29-150	L436626-06	WG455864
Hexachloro-1,3-Butadiene	mg/l	0.0326	0	.025	130.	28-144	L436626-06	WG455864
Isopropylbenzene	mg/l	0.0317	0	.025	127.	35-147	L436626-06	WG455864
Methyl tert-butyl ether	mg/l	0.0289	0	.025	116.	24-167	L436626-06	WG455864
Methylene Chloride	mg/l	0.0258	0	.025	103.	23-151	L436626-06	WG455864
n-Butylbenzene	mg/l	0.0334	0	.025	134.	22-151	L436626-06	WG455864
n-Propylbenzene	mg/l	0.0315	0	.025	126.	26-150	L436626-06	WG455864
Naphthalene	mg/l	0.0374	0.000330	.025	148.	24-160	L436626-06	WG455864
p-Isopropyltoluene	mg/l	0.0288	0	.025	115.	28-151	L436626-06	WG455864
sec-Butylbenzene	mg/l	0.0323	0	.025	129.	32-149	L436626-06	WG455864
Styrene	mg/l	0.0299	0	.025	120.	38-149	L436626-06	WG455864
tert-Butylbenzene	mg/l	0.0332	0	.025	133.	36-149	L436626-06	WG455864
Tetrachloroethene	mg/l	0.0296	0	.025	118.	13-157	L436626-06	WG455864
Toluene	mg/l	0.0291	0.000720	.025	114.	22-152	L436626-06	WG455864
trans-1,2-Dichloroethene	mg/l	0.0263	0	.025	105.	11-160	L436626-06	WG455864
trans-1,3-Dichloropropene	mg/l	0.0326	0	.025	130.	33-153	L436626-06	WG455864
Trichloroethene	mg/l	0.0284	0	.025	114.	18-163	L436626-06	WG455864
Trichlorofluoromethane	mg/l	0.0191	0	.025	76.6	10-177	L436626-06	WG455864
Vinyl chloride	mg/l	0.0254	0	.025	102.	0-179	L436626-06	WG455864
Xylenes, Total	mg/l	0.0969	0	.075	129.	27-151	L436626-06	WG455864
4-Bromofluorobenzene					104.8	75-128		WG455864
Dibromofluoromethane					95.52	79-125		WG455864
Toluene-d8					97.75	87-114		WG455864

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Arsenic	mg/kg	46.5	47.5	89.0	75-125	2.13	20	L436809-01	WG455472
Barium	mg/kg	147.	167.	94.0	75-125	12.7	20	L436809-01	WG455472
Cadmium	mg/kg	44.3	46.6	87.9	75-125	5.06	20	L436809-01	WG455472
Chromium	mg/kg	53.4	55.4	93.8	75-125	3.68	20	L436809-01	WG455472
Lead	mg/kg	49.7	50.9	90.6	75-125	2.39	20	L436809-01	WG455472
Silver	mg/kg	48.3	50.7	96.6	75-125	4.85	20	L436809-01	WG455472
Selenium	mg/kg	44.1	48.8	88.2	75-125	10.1	20	L436809-01	WG455472
Mercury	mg/kg	0.287	0.275	23.0*	70-130	4.27	20	L436714-04	WG455380

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Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MSD	Ref	%Rec	Limit	Duplicate RPD	Limit	Ref Samp	Batch
Barium	mg/kg	90.0	93.3	84.0	75-125	3.60	20	L436651-02	WG455464
Cadmium	mg/kg	45.8	47.1	90.2	75-125	2.80	20	L436651-02	WG455464
Chromium	mg/kg	78.6	80.8	89.2	75-125	2.76	20	L436651-02	WG455464
Lead	mg/kg	48.3	49.6	94.0	75-125	2.66	20	L436651-02	WG455464
Arsenic	mg/kg	40.8	42.4	81.6	75-125	3.85	20	L436651-02	WG455464
Silver	mg/kg	50.1	52.0	100.	75-125	3.72	20	L436651-02	WG455464
Selenium	mg/kg	39.3	37.6	78.6	75-125	4.42	20	L436651-02	WG455464
1,1,1,2-Tetrachloroethane	mg/kg	0.121	0.131	96.8	29-145	8.19	31	L436714-01	WG455597
1,1,1-Trichloroethane	mg/kg	0.127	0.133	101.	23-147	4.59	32	L436714-01	WG455597
1,1,2,2-Tetrachloroethane	mg/kg	0.125	0.122	100.	18-150	2.86	33	L436714-01	WG455597
1,1,2-Trichloroethane	mg/kg	0.125	0.129	100.	35-140	3.02	29	L436714-01	WG455597
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.103	0.112	82.3	10-145	8.59	35	L436714-01	WG455597
1,1-Dichloroethane	mg/kg	0.110	0.115	88.3	24-148	4.24	31	L436714-01	WG455597
1,1-Dichloroethene	mg/kg	0.123	0.129	98.7	10-149	4.51	34	L436714-01	WG455597
1,1-Dichloropropene	mg/kg	0.125	0.131	99.7	10-141	4.84	34	L436714-01	WG455597
1,2,3-Trichlorobenzene	mg/kg	0.129	0.142	103.	10-129	9.77	43	L436714-01	WG455597
1,2,3-Trichloropropane	mg/kg	0.128	0.122	102.	30-148	4.93	32	L436714-01	WG455597
1,2,4-Trichlorobenzene	mg/kg	0.132	0.146	106.	10-119	10.1	44	L436714-01	WG455597
1,2,4-Trimethylbenzene	mg/kg	0.122	0.140	97.4	10-145	13.7	41	L436714-01	WG455597
1,2-Dibromo-3-Chloropropane	mg/kg	0.138	0.117	110.	19-145	16.3	35	L436714-01	WG455597
1,2-Dibromoethane	mg/kg	0.128	0.130	102.	24-145	1.82	31	L436714-01	WG455597
1,2-Dichlorobenzene	mg/kg	0.125	0.140	99.8	12-130	11.2	35	L436714-01	WG455597
1,2-Dichloroethane	mg/kg	0.133	0.134	106.	21-155	1.22	29	L436714-01	WG455597
1,2-Dichloropropane	mg/kg	0.106	0.119	71.5	28-144	11.0	30	L436714-01	WG455597
1,3,5-Trimethylbenzene	mg/kg	0.119	0.137	95.0	10-135	14.4	39	L436714-01	WG455597
1,3-Dichlorobenzene	mg/kg	0.115	0.133	91.7	10-129	14.8	38	L436714-01	WG455597
1,3-Dichloropropane	mg/kg	0.119	0.125	95.0	31-137	4.74	29	L436714-01	WG455597
1,4-Dichlorobenzene	mg/kg	0.123	0.141	98.1	10-121	13.7	36	L436714-01	WG455597
2,2-Dichloropropane	mg/kg	0.131	0.139	105.	18-144	6.45	32	L436714-01	WG455597
2-Butanone (MEK)	mg/kg	0.565	0.479	90.4	21-143	16.4	37	L436714-01	WG455597
2-Chloroethyl vinyl ether	mg/kg	0.628	0.609	100.	0-176	3.08	50	L436714-01	WG455597
2-Chlorotoluene	mg/kg	0.120	0.137	95.9	10-132	13.4	37	L436714-01	WG455597
4-Chlorotoluene	mg/kg	0.122	0.138	97.4	10-129	12.3	38	L436714-01	WG455597
4-Methyl-2-pentanone (MIBK)	mg/kg	0.601	0.531	96.2	31-151	12.3	36	L436714-01	WG455597
Acetone	mg/kg	0.612	0.476	93.2	13-158	25.1	34	L436714-01	WG455597
Acrylonitrile	mg/kg	0.488	0.437	78.1	20-154	11.2	35	L436714-01	WG455597
Benzene	mg/kg	0.113	0.121	90.3	16-143	7.20	31	L436714-01	WG455597
Bromobenzene	mg/kg	0.108	0.122	85.6	14-135	12.3	39	L436714-01	WG455597
Bromodichloromethane	mg/kg	0.121	0.133	96.9	27-139	9.68	30	L436714-01	WG455597
Bromoform	mg/kg	0.136	0.136	109.	21-144	0.362	34	L436714-01	WG455597
Bromomethane	mg/kg	0.142	0.155	113.	0-180	8.56	41	L436714-01	WG455597
Carbon tetrachloride	mg/kg	0.125	0.135	99.8	12-149	7.65	34	L436714-01	WG455597
Chlorobenzene	mg/kg	0.127	0.140	102.	17-134	10.0	34	L436714-01	WG455597
Chlorodibromomethane	mg/kg	0.132	0.142	106.	28-147	6.84	32	L436714-01	WG455597
Chloroethane	mg/kg	0.121	0.129	96.6	0-172	6.83	38	L436714-01	WG455597
Chloroform	mg/kg	0.124	0.131	99.6	28-138	5.42	30	L436714-01	WG455597
Chloromethane	mg/kg	0.0898	0.0973	71.8	10-158	8.02	35	L436714-01	WG455597
cis-1,2-Dichloroethene	mg/kg	0.120	0.129	95.8	21-147	7.58	31	L436714-01	WG455597
cis-1,3-Dichloropropene	mg/kg	0.117	0.126	93.6	17-145	7.65	32	L436714-01	WG455597
Di-isopropyl ether	mg/kg	0.105	0.114	84.1	31-153	8.13	29	L436714-01	WG455597
Dibromomethane	mg/kg	0.121	0.126	96.4	24-147	4.06	30	L436714-01	WG455597
Dichlorodifluoromethane	mg/kg	0.0874	0.0928	69.9	0-192	5.95	38	L436714-01	WG455597
Ethylbenzene	mg/kg	0.127	0.139	101.	12-137	9.10	36	L436714-01	WG455597
Hexachloro-1,3-Butadiene	mg/kg	0.127	0.152	102.	10-123	17.8	50	L436714-01	WG455597
Isopropylbenzene	mg/kg	0.118	0.135	94.7	14-134	13.2	37	L436714-01	WG455597
Methyl tert-butyl ether	mg/kg	0.105	0.103	83.8	21-157	1.22	31	L436714-01	WG455597
Methylene Chloride	mg/kg	0.0958	0.100	76.4	12-149	4.47	31	L436714-01	WG455597

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Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MSD	Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
n-Butylbenzene	mg/kg	0.136	0.161	108.	10-130	16.8	48	L436714-01	WG455597
n-Propylbenzene	mg/kg	0.121	0.138	97.1	10-130	13.1	40	L436714-01	WG455597
Naphthalene	mg/kg	0.130	0.133	104.	0-146	2.43	43	L436714-01	WG455597
p-Isopropyltoluene	mg/kg	0.120	0.141	95.8	10-131	16.4	43	L436714-01	WG455597
sec-Butylbenzene	mg/kg	0.116	0.135	92.9	10-134	14.8	43	L436714-01	WG455597
Styrene	mg/kg	0.133	0.148	106.	10-140	10.4	35	L436714-01	WG455597
tert-Butylbenzene	mg/kg	0.118	0.136	94.4	11-137	14.2	39	L436714-01	WG455597
Tetrachloroethene	mg/kg	0.124	0.135	99.0	10-131	8.61	35	L436714-01	WG455597
Toluene	mg/kg	0.115	0.128	92.0	12-136	10.6	32	L436714-01	WG455597
trans-1,2-Dichloroethene	mg/kg	0.115	0.118	91.7	10-143	3.12	33	L436714-01	WG455597
trans-1,3-Dichloropropene	mg/kg	0.128	0.137	102.	16-147	6.87	32	L436714-01	WG455597
Trichloroethene	mg/kg	0.114	0.125	90.8	10-155	9.67	33	L436714-01	WG455597
Trichlorofluoromethane	mg/kg	0.128	0.136	102.	10-154	5.89	32	L436714-01	WG455597
Vinyl chloride	mg/kg	0.108	0.115	86.6	10-159	5.78	36	L436714-01	WG455597
Xylenes, Total	mg/kg	0.369	0.411	98.5	10-138	10.6	36	L436714-01	WG455597
4-Bromofluorobenzene				103.8	59-140				WG455597
Dibromofluoromethane				103.8	63-139				WG455597
Toluene-d8				98.82	84-116				WG455597
Chromium,Hexavalent	mg/kg	19.7	19.6	98.5	80-120	0.509	20	L436651-06	WG455345
Arsenic	mg/l	1.07	1.16	94.7	75-125	8.07	20	L437125-04	WG455851
Barium	mg/l	1.16	1.21	100.	75-125	4.22	20	L437125-04	WG455851
Cadmium	mg/l	1.12	1.17	99.1	75-125	4.37	20	L437125-04	WG455851
Chromium	mg/l	1.14	1.22	101.	75-125	6.78	20	L437125-04	WG455851
Lead	mg/l	1.15	1.24	102.	75-125	7.53	20	L437125-04	WG455851
Selenium	mg/l	0.984	1.09	87.1	75-125	10.2	20	L437125-04	WG455851
Silver	mg/l	0.743	0.800	65.8*	75-125	7.39	20	L437125-04	WG455851
Mercury	mg/l	0.00291	0.00291	97.0	70-130	0	20	L437125-12	WG455839
1,1,1,2-Tetrachloroethane	mg/l	0.0300	0.0328	120.	45-152	8.98	21	L436626-06	WG455864
1,1,1-Trichloroethane	mg/l	0.0246	0.0271	98.5	31-161	9.56	23	L436626-06	WG455864
1,1,2,2-Tetrachloroethane	mg/l	0.0323	0.0356	129.	49-149	9.80	22	L436626-06	WG455864
1,1,2-Trichloroethane	mg/l	0.0292	0.0314	117.	46-145	7.17	20	L436626-06	WG455864
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0189	0.0209	75.4	14-168	10.3	24	L436626-06	WG455864
1,1-Dichloroethane	mg/l	0.0242	0.0269	96.8	30-159	10.5	21	L436626-06	WG455864
1,1-Dichloroethene	mg/l	0.0202	0.0228	80.8	10-162	11.8	23	L436626-06	WG455864
1,1-Dichloropropene	mg/l	0.0241	0.0263	96.5	14-162	8.48	23	L436626-06	WG455864
1,2,3-Trichlorobenzene	mg/l	0.0304	0.0345	122.	32-143	12.6	33	L436626-06	WG455864
1,2,3-Trichloropropane	mg/l	0.0293	0.0320	117.	48-148	8.78	23	L436626-06	WG455864
1,2,3-Trimethylbenzene	mg/l	0.0270	0.0307	108.	36-141	12.6	25	L436626-06	WG455864
1,2,4-Trichlorobenzene	mg/l	0.0311	0.0354	124.	27-142	13.2	30	L436626-06	WG455864
1,2,4-Trimethylbenzene	mg/l	0.0267	0.0296	107.	29-153	10.1	27	L436626-06	WG455864
1,2-Dibromo-3-Chloropropane	mg/l	0.0368	0.0424	147.	37-148	14.0	27	L436626-06	WG455864
1,2-Dibromoethane	mg/l	0.0315	0.0347	126.	41-149	9.57	21	L436626-06	WG455864
1,2-Dichlorobenzene	mg/l	0.0298	0.0341	119.	40-139	13.3	23	L436626-06	WG455864
1,2-Dichloroethane	mg/l	0.0252	0.0283	101.	29-167	11.6	21	L436626-06	WG455864
1,2-Dichloropropane	mg/l	0.0259	0.0290	104.	39-148	11.3	20	L436626-06	WG455864
1,3,5-Trimethylbenzene	mg/l	0.0264	0.0286	105.	33-149	8.21	26	L436626-06	WG455864
1,3-Dichlorobenzene	mg/l	0.0299	0.0328	120.	32-148	9.22	24	L436626-06	WG455864
1,3-Dichloropropane	mg/l	0.0285	0.0316	114.	44-142	10.2	20	L436626-06	WG455864
1,4-Dichlorobenzene	mg/l	0.0270	0.0308	108.	32-136	13.2	23	L436626-06	WG455864
2,2-Dichloropropane	mg/l	0.0256	0.0285	102.	14-158	10.7	23	L436626-06	WG455864
2-Butanone (MEK)	mg/l	0.131	0.148	105.	32-151	11.7	26	L436626-06	WG455864

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Quality Assurance Report
Level II

L436651

December 23, 2009

Analyte	Units	Matrix Spike MSD	Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
2-Chloroethyl vinyl ether	mg/l	0.00896	0.0436	7.17	0-175	132.*	75	L436626-06	WG455864
2-Chlorotoluene	mg/l	0.0288	0.0314	115.	35-147	8.91	24	L436626-06	WG455864
4-Chlorotoluene	mg/l	0.0296	0.0327	118.	33-147	10.0	25	L436626-06	WG455864
4-Methyl-2-pentanone (MIBK)	mg/l	0.153	0.171	123.	40-160	11.0	28	L436626-06	WG455864
Acetone	mg/l	0.131	0.150	96.6	25-157	13.1	26	L436626-06	WG455864
Acrolein	mg/l	0.109	0.116	86.9	0-179	6.31	39	L436626-06	WG455864
Acrylonitrile	mg/l	0.145	0.162	116.	37-162	11.0	24	L436626-06	WG455864
Benzene	mg/l	0.0233	0.0260	93.2	16-158	10.8	21	L436626-06	WG455864
Bromobenzene	mg/l	0.0289	0.0315	116.	37-147	8.47	23	L436626-06	WG455864
Bromodichloromethane	mg/l	0.0278	0.0313	111.	45-147	11.6	20	L436626-06	WG455864
Bromoform	mg/l	0.0307	0.0343	123.	38-152	11.0	20	L436626-06	WG455864
Bromomethane	mg/l	0.0170	0.0192	67.9	0-191	12.6	35	L436626-06	WG455864
Carbon tetrachloride	mg/l	0.0259	0.0283	104.	22-168	9.01	24	L436626-06	WG455864
Chlorobenzene	mg/l	0.0288	0.0317	115.	33-148	9.58	22	L436626-06	WG455864
Chlorodibromomethane	mg/l	0.0296	0.0333	118.	48-151	11.9	21	L436626-06	WG455864
Chloroethane	mg/l	0.0184	0.0202	73.6	4-176	9.24	27	L436626-06	WG455864
Chloroform	mg/l	0.0243	0.0272	97.2	37-147	11.4	21	L436626-06	WG455864
Chloromethane	mg/l	0.0203	0.0220	81.0	10-174	8.48	28	L436626-06	WG455864
cis-1,2-Dichloroethene	mg/l	0.0252	0.0282	101.	29-156	11.3	22	L436626-06	WG455864
cis-1,3-Dichloropropene	mg/l	0.0237	0.0273	95.0	35-148	13.8	21	L436626-06	WG455864
Di-isopropyl ether	mg/l	0.0243	0.0277	97.2	39-160	13.2	21	L436626-06	WG455864
Dibromomethane	mg/l	0.0279	0.0317	112.	36-152	12.7	20	L436626-06	WG455864
Dichlorodifluoromethane	mg/l	0.0299	0.0335	120.	0-200	11.4	26	L436626-06	WG455864
Ethylbenzene	mg/l	0.0288	0.0317	115.	29-150	9.56	24	L436626-06	WG455864
Hexachloro-1,3-Butadiene	mg/l	0.0291	0.0326	116.	28-144	11.4	33	L436626-06	WG455864
Isopropylbenzene	mg/l	0.0290	0.0317	116.	35-147	8.74	25	L436626-06	WG455864
Methyl tert-butyl ether	mg/l	0.0257	0.0289	103.	24-167	11.9	22	L436626-06	WG455864
Methylene Chloride	mg/l	0.0231	0.0258	92.4	23-151	11.2	21	L436626-06	WG455864
n-Butylbenzene	mg/l	0.0298	0.0334	119.	22-151	11.4	29	L436626-06	WG455864
n-Propylbenzene	mg/l	0.0288	0.0315	115.	26-150	8.91	25	L436626-06	WG455864
Naphthalene	mg/l	0.0334	0.0374	132.	24-160	11.2	37	L436626-06	WG455864
p-Isopropyltoluene	mg/l	0.0267	0.0288	107.	28-151	7.61	27	L436626-06	WG455864
sec-Butylbenzene	mg/l	0.0295	0.0323	118.	32-149	8.78	26	L436626-06	WG455864
Styrene	mg/l	0.0270	0.0299	108.	38-149	10.3	23	L436626-06	WG455864
tert-Butylbenzene	mg/l	0.0308	0.0332	123.	36-149	7.62	26	L436626-06	WG455864
Tetrachloroethene	mg/l	0.0274	0.0296	110.	13-157	7.39	24	L436626-06	WG455864
Toluene	mg/l	0.0259	0.0291	101.	22-152	11.7	22	L436626-06	WG455864
trans-1,2-Dichloroethene	mg/l	0.0237	0.0263	94.7	11-160	10.5	23	L436626-06	WG455864
trans-1,3-Dichloropropene	mg/l	0.0291	0.0326	116.	33-153	11.1	22	L436626-06	WG455864
Trichloroethene	mg/l	0.0257	0.0284	103.	18-163	10.2	21	L436626-06	WG455864
Trichlorofluoromethane	mg/l	0.0171	0.0191	68.2	10-177	11.5	24	L436626-06	WG455864
Vinyl chloride	mg/l	0.0234	0.0254	93.6	0-179	8.35	26	L436626-06	WG455864
Xylenes, Total	mg/l	0.0884	0.0969	118.	27-151	9.16	23	L436626-06	WG455864
4-Bromofluorobenzene				106.7	75-128				WG455864
Dibromofluoromethane				92.71	79-125				WG455864
Toluene-d8				96.79	87-114				WG455864

Batch number /Run number / Sample number cross reference

WG455472: R1043769 R1043770: L436651-03 04 05 06 03
WG455320: R1043968: L436651-01 02 03 04 05 06
WG455380: R1043989: L436651-01 02 03 04 05 06
WG455308: R1044593: L436651-01 02 03 04 05 06
WG455464: R1044830: L436651-01 02
WG455597: R1044971: L436651-01 02 03 04 05 06
WG455687: R1045815: L436651-01 02 03 04 05 06
WG455345: R1047068: L436651-01 02 03 04 05 06
WG455851: R1047552 R1047553: L436651-08 09 10 11 07

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Est. 1970

Stantec Consulting - Tualatin, OR
Amy Zach
7730 SW Mohawk Street

Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

WG455839: R1047768: L436651-07 08 09 10 11
WG455864: R1049748: L436651-07 08 09 10 11

* * Calculations are performed prior to rounding of reported values .
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Stantec Consulting - Tualatin, OR
Amy Zach
7730 SW Mohawk Street

Tualatin, OR 97062

Quality Assurance Report
Level II

L436651

December 23, 2009

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Stantec Consulting - Tualatin, OR

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Billing information:

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Chain of Custody
Page 1 of 2

C016

ESC LABORATORY SCIENCES
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Fax: (615) 758-5859

Report to: Amy Zach

Email: ross.simmons@stantec.com amy.zach@stantec.com, ~~peter~~

Project Description: Brunswick-Meridian

City/State Collected: Arlington, WA

Phone: (503) 691-2030
FAX: (503) 692-7074

Client Project #: 190402025.200.0002

Lab Project #: SECORTOR-MERIDIAN

Collected by (print): ACZ

Site/Facility ID#:

P.O.#:

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed: Std 5 to 7 day

Email? __No X Yes
FAX? __No __Yes

Acctnum: SECORTOR (lab use only)
Template/Prelogin: T61917/P305258
Cooler #: 12/4/09 HC
Shipped Via: FedEx Standard

Sample ID	PID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl	VOC Screen 2ozClr-NoPres	RCRA Total Metals, Chromium III, &Chromium VI by EPA 6010, 7471, & 7196 (4oz clr-NoPres)		Remarks/Contaminant	Sample # (lab only)
MW-1-20	0.0	Grab	SS	20	12-09-09	09 18	86	X	X		X	X			L436651-01
MW-2-20	0.0		SS	20	12-09-09	11 43	86	X	X		X	X			02
MW-3-15	0.0		SS	15	12-08-09	14 19	86	X	X		X	X			03
MW-4-20	0.0		SS	20	12-09-09	1401	86	X	X		X	X			04
MW-5-5	6.9		SS	5	12-08-09	1100	86	X	X		X	X			05
MW-5-20	0.0		SS	20	12-08-09	1131	86	X	X		X	X			06
			~~SS~~				5	X	X		X				
			~~SS~~				5	X	X		X				
			~~SS~~				5	X	X		X				

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

9606 7465 9850

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	12-14-09	11 25	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____
Temp: 4.0c Bottles Received: 50
Date: 12/15/09 Time: 0900

Condition: (lab use only)
COC Seal Intact: ___ Y ___ N ✓ NA
pH Checked: C2 NCF: YES

Stantec Consulting - Tualatin, OR

7730 SW Mohawk Street
Tualatin,OR 97062

Billing information:

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Tualatin,OR 97062

Chain of Custody
Page 2 of 2

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Mt. Juliet, TN 37122

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Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: Amy Zach

Email: ross.simmons@stantec.com
amy.zach@stantec.com, [redacted]

Project Description: Brunswick - Meridian

City/State Collected: Arlington, WA

Phone: (503) 691-2030
FAX: (503) 692-7074

Client Project #: 190402025.200.0002

Lab Project #: SECORTOR-MERIDIAN

Collected by (print): ACZ & JLN

Site/Facility ID#:

P.O.#:

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day.....100%
___ Two Day.....50%
___ Three Day.....25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

Acctnum: SECORTOR (lab use only)
Template/Prelogin: T61917/ P305258
Cooler #: 12/4/09 MC
Shipped Via: FedEX Standard

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TS 2ozClr-NoPres	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40ml/Amb-HCl	VOC Screen 2ozClr-NoPres	RCRA Dissolved Metals EPA 6010& 7471 (250ml poly - HNO3)	Remarks/Contaminant	Sample # (lab only)
		SS				5	X	X		X			
MW-1	Grab	GW	--	12-10-09	1507	23			X		X		L736651-07
MW-2	↓	GW	--	↓	1425	23			X		X		08
MW-3		GW	--		1556	23			X		X		09
MW-4		GW	--		1339	23			X		X		10
MW-5		GW	--		1312	23			X		X		11
		GW				2			X				
		GW				2			X				

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

9669 7461 0598 50

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
[signature]	12-14-09	1125	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			[signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 4.0 °C Bottles Received: 50

Date: 12/15/09 Time: 0900

Condition: (lab use only)

COC Seal Intact: ___Y ___N ✓NA

pH Checked: <2 NCF: YES