In Situ Chemical Oxidation and Groundwater Monitoring Report

Former Bayliner Marine Facility
17825 59th Avenue NE
Arlington, Washington

Facility/Site ID No.: 51332889
VCP No.: NW2270

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Sign-off Sheet

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Stantec

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ABBREVIATIONS

°C	degrees Celsius
µg/L	micrograms per Liter
bgs	Below Ground Surface
CUL	Cleanup Level
DO	Dissolved Oxygen
Ecology	Washington State Department of Ecology
ESN-NW	Environmental Services Network Northwest
ft/ft	Vertical feet per horizontal foot
GI	General Industry
IDW	Investigation Derived Waste
ISCO	In Situ Chemical Oxidation
MSL	Mean Sea Level
MTCA	Model Toxics Control Act
MW	Monitoring Well
$NaMnO_4$	Sodium Permanganate
NOD	Natural Oxidant Demand
ORP	Oxygen Reduction Potential
PCE	Tetrachloroethane
RemOx®	RemOx® L ISCO Reagent
RI/FS	Remedial Investigation and Feasibility Study
Stantec	Stantec Consulting Services Inc.
TCE	Trichloroethene
UIC	Underground Injection Control
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound

1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) was retained by Brunswick Corporation (Brunswick) to complete a program of in situ chemical oxidation (ISCO) and groundwater monitoring at the Former Bayliner Marine Facility located at 17825 59th Avenue NE, Arlington, Snohomish County, Washington (the "Site").

Previous investigations identified the presence of tetrachloroethene (PCE) in shallow groundwater associated with a former septic leach field near Building 11. Trichloroethene (TCE), a degradation by-product of PCE, was detected in one monitoring well (MW-4) at the beginning of the baseline groundwater monitoring program in December 2009, however, TCE has not been detected since that time nor has it ever been detected in any of the other on-Site wells. TCE is not considered a constituent of concern at the Site.

Several remedial alternatives and estimated costs were presented in the *Remedial Investigation and Feasibility Study* (RI/FS) prepared by Stantec dated January 7, 2011. The ISCO and groundwater monitoring program was determined to be the most viable of the proactive remedial alternatives for reducing PCE concentrations in groundwater. The *Work Plan* describing the ISCO and groundwater monitoring program was approved for implementation at the Site by the Washington State Department of Ecology (Ecology) on September 25, 2012.

This *In Situ Chemical Oxidation and Groundwater Monitoring Report* is organized as follows:

- Section 1.0 describes the Purpose and Scope of Work of the ISCO remedial approach and the regulatory status of the Site;
- Section 2.0 describes the Site facility, background, regional geology, and hydrogeology;
- Section 3.0 describes the specific methods and procedures involved in the ISCO and post-injection groundwater monitoring program;
- Section 4.0 provides a discussion of the PCE plume geometry, anticipated groundwater flow direction, and hydraulic gradient;
- Section 5.0 presents a summary of the findings and conclusions for the ISCO approach; and,
- Section 6.0 presents a list of previous reports and online resources used in the preparation of this report.

1.1 PURPOSE AND SCOPE OF WORK

The Scope of Work was completed to achieve a No Further Action (NFA) determination for the Site though Ecology's Voluntary Cleanup Program (VCP). The ISCO and groundwater monitoring program was one of several remedial alternatives presented in the *RI/FS* dated January 7, 2011. Stantec prepared a *Work Plan for In Situ Chemical Oxidation Program* which was reviewed and approved for implementation on September 25, 2012 by the VCP Site Manager, Mr. Dale Myers.

Stantec's Scope of Work consisted of the following tasks:

- Preparation of a *Site-specific Health and Safety Plan*;
- Completing utility clearance work to locate subsurface utilities located in the public right-of-way;
- Obtaining approval for subsurface chemical injection from Ecology;
- Registration of the planned injection points under Ecology's Underground Injection Control (UIC) Program;
- Completion of ISCO soil probe injections in the former septic area adjacent to Building 11. Approximately 8,160 gallons of 5% sodium permanganate ($NaMnO_4$) solution was injected in 12 locations within and upgradient of the former septic tank leach field at the southeast corner of the building.
- Completion of two monthly post-injection groundwater monitoring events to document water quality parameters;
- Completion of four rounds (3-month, 6-month, 12-month, and 15-month) of post-injection groundwater sampling to document concentrations of PCE in the eight on-site monitoring wells; and,
- Preparation of this *In Situ Chemical Oxidation and Groundwater Monitoring Report* documenting the ISCO injection and post-injection groundwater monitoring program.

1.2 REGULATORY STATUS

The Site operated as a fiberglass boat manufacturing facility from 1968 until operations ceased in December 2008. Concentrations of PCE above the Model Toxics Control Act (MTCA) Method A Cleanup levels (CULs) were identified in the *Phase II Environmental Site Assessment* completed in June 2009. The Site was entered into the VCP on March 3, 2010 and assigned VCP No. NW2270. The following documents, prepared by Stantec, were provided to Ecology with the VCP Application:

- *Phase I Environmental Site Assessment, Bayliner Marine*, dated April 3rd, 2009;
- *Phase II Environmental Site Assessment, Bayliner Marine*, dated June 25th 2009;
- *Environmental Site Investigation Report*, dated December 23rd, 2009; and,
- *Additional Site Investigation Report*, dated April 9th, 2010;

Subsequent documents submitted for Ecology's review included;

- *Quarterly Groundwater Monitoring Reports* between February 2010 and October 2011;
- *Remedial Investigation and Feasibility Study*, dated January 11th, 2011; and,
- *Work Plan for In-Situ Chemical Oxidation, Former US Marine/Bayliner Marine*, dated September 24, 2012.

The VCP listing for the Site was extended in August 2014 by Mr. Myers pending the results of the ISCO and groundwater monitoring program.

2.0 FACILITY DESCRIPTION

2.1 SITE LOCATION

The former Bayliner Marine Site is a 32.8-acre industrial property located east of Arlington Airport. The Site contains three office buildings and 13 industrial buildings constructed between 1969 and 1996. The Site also includes employee parking lots, outdoor equipment storage areas, and three stormwater retention ponds. The Site operated as a fiberglass boat manufacturing facility from 1968 until operations ceased in December 2008. Prior to 1968, the Site consisted of undeveloped land.

Figure 1 in a Site Location Map and ***Figure 2*** is Site Plan with an overview of site features.

2.2 SITE DESCRIPTION

Historic uses of the Site and adjoining properties are described in detail in the March 2009 Phase I Environmental Site Assessment (ESA) report. The Site was undeveloped land prior to 1968, when it was developed as a fiberglass boat manufacturing plant. Building #4, constructed in 1969, was the first manufacturing building on the site. Other buildings were added between 1971 and 1996. The facility operated continuously as a fiberglass boat manufacturing plant from 1968 to 2008.

According to the City of Arlington Development Services office, the Site has a current zoning designation of GI (General Industry). Potable water is supplied to the site by the City of Arlington, and electrical power is serviced by Snohomish Public Utility District.

Floor trench drains are present in Buildings #3, #4, and #10. According to Bayliner personnel, these drains discharge to the retention ponds on the south side of the property. Exterior stormwater drains from around the property are also routed to the retention ponds. Sanitary sewage from sinks and toilets within the buildings originally discharged to two on-site septic systems. Maps reviewed in the records of the Snohomish County Health Department depict the septic leach field locations to be as shown on **Figure 2.** One of the leach fields was located between Building #9 and Building #12A. The other was just outside the southeast corner of Building #11. According to a sewer permit technician with the City of Arlington, the septic systems were decommissioned and the Site buildings were connected to the municipal sanitary sewer between 1987 and 2005.

The majority of the former Bayliner Marine facility is covered by buildings or paved surfaces, minimizing the risk for migration of PCE vapors to ambient outdoor air. Indoor air samples collected in April 2010 in Buildings #4, #8, #10, #11, #14, and #17 found that PCE concentrations in the indoor air were below the applicable indoor air CUL. Indoor air sampling at the Site is discussed in greater detail in the *Additional Subsurface Investigation Report* dated April 9th 2010 and the *RI/FS* for the Site dated January 11th, 2011.

2.3 SURROUNDING LAND USE

The Site is located in an area of moderately dense industrial and commercial development. Current uses of surrounding properties are described below:

- The Site is bounded on the north by 180th Street Northeast. Across the street from the northwest portion of the Site is Campbell and Neilson Auto Wrecking (18021 59th Avenue Northeast). According to reasonably ascertainable records, this area was undeveloped land prior to construction of the auto wrecking facility in the late 1990s.

- Land across 180th Street Northeast from the north-central portion of the Site appears to have never been developed.

- Across 180th Street Northeast from the northeast portion of the Site is undeveloped land that was part of the Stella-Jones wood preserving plant (6520 188th Street Northeast). The undeveloped land covers approximately 28 acres known as Parcel B. Portions of Parcel B have historically been used by Stella-Jones for storage of untreated wood and for pole peeling. The wood treating facility began operation in the mid-1960s. No wood treating has ever been reported to have occurred on Parcel B.

- The Site is bordered on the east by a currently vacant former manufacturing building. Further to the east are a Burlington Northern Santa Fe (BNSF) railroad line, smaller commercial structures, and 67th Avenue Northeast. A residential neighborhood beyond 67th Avenue to the east was developed beginning in the late 1980s.

- The adjoining land to the south appears to have never been developed.

- The Site is bounded on the west by 59th Avenue Northeast. Arlington Municipal Airport has been present across the street to the west since the mid-1950s. Airplane hangar and fueling areas of the airport are located approximately 0.25 mile further north.

2.4 REGIONAL SETTING AND GEOLOGY

The physiographic features and rock units of the Arlington area represent the end product of a complex geologic process. The glacially derived sands and gravels of Pleistocene age are the most recent deposits in the area, and various units of this group serve as the major aquifers in the area.

The Stillaguamish sand member is an outwash deposit which accumulated to a thickness of about 200 feet at a time when the melting ice temporarily blocked the river at the north end of Getchell Hill and caused the Stillaguamish drainage to pass southward through a spillway now followed by the Pilchuck River. The deposits are largely fine sand and clay but contain much coarser material towards the top and especially around the margin opposite points of tributary-

stream debouchments. Review of well logs in the region confirms the presence of significant, discontinuous layers of clay within the sand aquifers.

According to the United States Geological Survey 7.5-minute topographic map for the Smokey Point, Washington quadrangle (1981), the Site is situated at an elevation of approximately 133 feet above mean sea level (MSL). The general topographic gradient in the vicinity is toward the northwest. The area to the north, south, and west is relatively flat and slopes downward slightly toward the Stillaguamish River, located approximately 1.4 miles to the northwest. However, an area of low hills rise steeply just to the east of the Site, reaching to ridges of up to 350 feet above MSL within less than one-half-mile.

The Site is underlain by Lynnwood loamy sand soils. Lynnwood soils have generally high infiltration rates and are considered to be well-drained to excessively-drained sands and gravels. The nearest surface water bodies are the Middle Fork of Quilceda Creek, approximately 0.4 miles south of the Site, and Portage Creek about 1.1 mile north of the Site. According to the U.S. Fish & Wildlife Service National Wetlands Mapper, the nearest identified wetland areas are approximately 0.75 of a mile southeast and 1.5 miles northwest of the Site.

Logged subsurface soils at the Site consist of fine-to-coarse-grain sand with traces of gravel. Similar soil conditions were noted at all depth intervals in all of the previous borings, with the only noticeable difference being slight variation in the amount of gravel. Static water levels, recorded in well monitoring events since December 2009, ranged between 14 and 22 feet below ground surface (bgs). Variation in static water levels since December 2009 has been between 2 to 3 feet.

2.5 REGIONAL HYDROGEOLOGY

Top-of-casing elevations surveyed for each monitoring well have been used to determine the relative potentiometric surface elevation at each well location, the average hydraulic gradient across the Site, and the direction of groundwater flow. Groundwater flow direction has been toward the northwest, with the gradient ranging from 0.0018 feet per foot (ft/ft) in September 2013 to 0.0021 ft/ft in September 2014.

Water well logs, reviewed at the Ecology web site, identified approximately 136 wells within a 0.5 mile radius of the Site. The majority of the wells (60 wells) were located upgradient or cross-gradient from the Site. Of the 16 well logs from the downgradient quadrant, 15 are listed in the ¼ section directly northwest of the Site (T31N, R03E, Section 22, SE ¼ of the NW ¼). Fourteen of those 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 Site. 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, the well supplies 2 percent of the City's overall water supply.

The well construction log for the City of Arlington water supply well does not indicate the presence of a confining layer in the stratigraphy at the Site. However, a layer of fine sand with yellow clay was logged from 103 to 112 feet bgs and is interpreted to be an aquitard separating an upper and lower water bearing unit. This layer of sand and clay is below the shallow water bearing zone and above the well screen interval and lower water bearing unit. The continuity of this lower permeability layer is unknown.

3.0 FIELD ACTIVITIES

3.1 IN SITU CHEMICAL OXIDATION INJECTION

3.1.1 Oxidant Solution and Dosing

RemOx® L ISCO reagent (RemOx®), is a pre-mixed sodium permanganate ($NaMnO_4$) liquid solution, containing 40 percent $NaMnO_4$ by weight. RemOx® is manufactured by the Carus Corporation specifically for environmental applications such as remediation of groundwater and contains very low quantities of impurities relative to $NaMnO_4$ manufactured for industrial applications.

The appropriate mass of oxidant injected into the subsurface is dependent on the contaminant concentration and the Natural Oxidant Demand (NOD) of soils within the treatment area. Stantec submitted two soil samples to its Treatability Testing Services Group to determine NOD and other design parameters for implementation of ISCO as a remedial option. The samples had moderate to high NOD indicating ISCO using permanganate oxidation was a viable remedial option if the contact limitations between the oxidant and chlorinated compound impacts can be minimized within the subsurface soils.

Stantec utilized the oxidant dosing calculation spreadsheet developed by Carus to estimate an appropriate oxidant mass and dilution factor. The dosing spreadsheet takes into account the estimated volume of area to be treated, average contaminant concentrations in groundwater, site-specific NOD, and the desired oxidant solution concentration.

Based on these calculations, an estimated total of 8,923 pounds, or approximately 780 gallons, of RemOx® 40% solution was an appropriate mass for injection. Prior to injection, the RemOx® solution was diluted with potable water to yield a solution containing approximately 5% $NaMnO_4$ by weight. A total volume of 680 gallons of 5% solution was targeted for injection at each of the 12 injection points shown in ***Figure 3***. Actual volumes injected at each location varied depending on the ability of the subsurface formation to accept the solution. The injection volumes are presented in ***Table 1***.

3.1.2 Oxidant Injection Procedures

Environmental Services Network Northwest (ESN-NW) of Olympia, Washington, conducted the injection under the direct supervision of Stantec between May 30 and June 6, 2013. Prior to injection at each point, approximately 680 gallon batches of an approximate 5% $NaMnO_4$ solution were prepared within clean, empty plastic totes (provided by ESN-NW) by combining approximately 70 gallons of 40% sodium permanganate solution with approximately 610 gallons of clean water to produce a 5% solution for injection.

Pressure gauges were installed on $NaMnO_4$ delivery piping to enable continual pressure monitoring of the system and prevent over pressurization of the drill rods due to variable formation density. At no time during injection did delivery piping or drill rod pressure exceed 50 pounds per square inch.

Injection points were advanced utilizing direct-push technology to initially advance the drill rod to total depth of the injection interval, typically 22 feet bgs. Injection then commenced with a pneumatic diaphragm pump connected directly to the drill rod while the rods were slowly retracted from the borehole to facilitate uniform $NaMnO_4$ application throughout the injection depth interval (9‘ to 22 ‘ bgs).

The treatment area included $NaMnO_4$ injections in the following locations:

- Nine points (IP-1 through 8 and IP- 11) in the suspected source area (the former septic leach field) at the southeast corner of Building 11; and,
- Three points (IP-9, IP-10 and IP-12) on the hydraulically downgradient (north) side of Building 11.

During injection, static groundwater levels were monitored using an electronic water level indicator in nearby wells (MW-1 and MW-8) to ensure that groundwater mounding was not occurring and to confirm that no oxidant was being transported to the surface via the wells. Groundwater was also periodically checked for any purple coloration indicating permanganate migration was occurring. On the final day of injection (June 6, 2013), groundwater within the source area well (MW-1) exhibited a light purple coloration.

Following injection, each borehole was properly abandoned with hydrated bentonite and surface restoration was completed by concrete to match the surrounding grade.

3.2 PERFORMANCE MONITORING PROGRAM

In accordance with the *Work Plan* and Ecology’s UIC registration, following completion of ISCO injection, post-injection monitoring was conducted for a period of 15 months. The objectives of the post-injection monitoring were: **1)** to evaluate oxidant persistence and fate in the subsurface; **2**) evaluate chemical concentration trends in groundwater at and downgradient from the treatment areas; and **3**) to assess the potential generation and fate of oxidant injection by-products (e.g., hexavalent chromium).

The post-injection monitoring was intended to supplement data collected from the baseline and periodic sampling conducted since December 2009. The initial round of groundwater sampling was conducted on December 10, 2009. Quarterly groundwater monitoring was conducted in 2010 to establish a groundwater quality trend. Groundwater monitoring was conducted annually in 2011 and was conducted following the injection event according to the *Work Plan*.

The $NaMnO_4$ solution injected has a distinct purple color, which is easily identified when present in groundwater. Experience from other sites where ISCO has been performed has shown that when groundwater is visibly purple or pink in color from the presence of unreacted $NaMnO_4$, dissolved phase Volatile Organic Compounds (VOCs) are not present. Accordingly, during post-injection monitoring, wells exhibiting purple color were not analyzed for VOCs until after the $NaMnO_4$ solution had dissipated and is was no longer visibly present.

To meet the monitoring objectives, four post-injection monitoring events were conducted. Visual monitoring was conducted at 1-month and 2-months post-injection. Groundwater sampling was conducted at 3-months, 6-months, and 12-months, and 15-months post injection. Details regarding each planned monitoring event are described below.

All performance monitoring was conducted in accordance with the low-flow purging and sampling procedures previously used to conduct groundwater monitoring at the Site. Details of the performance monitoring program are provided below.

3.2.1 Monthly Monitoring

Visual monitoring events were conducted for the first two months following the ISCO event. During these events, groundwater in MW-1, MW-2, and MW-8 was assessed for color observation and to determine oxidant distribution and persistence. A slight purple tint was observed in MW-1 during the July and August 2013 monitoring events. This indicated the presence of permanganate solution in the immediate injection area two months after the treatment.

In addition to the active presence of unreacted permanganate as indicated by color, the wells were also monitored during each event for the following field parameters:

- pH;
- Oxygen Reduction Potential (ORP);
- Temperature;
- Dissolved Oxygen (DO); and,
- Conductivity.

3.2.2 Three Month Sampling Event

During the 3-month event, groundwater samples from the full monitoring well network (MW-1 through MW-8) were collected and submitted for VOC analysis (by EPA Method 8260B). None of the wells exhibited any purple or pink discoloration during this event.

3.2.3 Six and 12 Month Sampling Events

The 6- and 12-month sampling events were conducted in the same way as the 3-month sampling event. All eight on-site wells in the network were sampled and submitted for VOC analysis.

3.2.4 15 Month Sampling Event

One additional round of groundwater sampling, which was not included in the *Work Plan,* was conducted per Client request on September 16, 2014. This event was conducted at 15 months post injection to establish an additional quarter of post-injection PCE concentration in all on-site wells.

3.3 GROUNDWATER SAMPLING METHODS

Groundwater sampling was conducted according to the previously discussed schedule in all eight on-Site wells. Sampling consisted of measuring the depth to groundwater (DTW), purging using low-flow purging techniques, measuring field parameters, sampling using low-flow sampling techniques, and submitting the samples to a certified laboratory for VOC analysis under standard turn-around times. Each of these procedures is discussed in more detail in the following sections.

3.3.1 Groundwater Level Measurements

Prior to groundwater sampling, field personnel measured the depth-to-water (DTW) in all monitoring wells to the nearest 0.01 foot using an electronic water level indicator. Water levels were measured within four hours of sampling to achieve a consistent data set representing groundwater elevation patterns at a point in time. Stantec complied groundwater elevation contour and flow direction maps for each monitoring event using the DTW information.

Field personnel decontaminated the water level indicator prior to each use by spray rinsing the probe and any part of the cable that was submerged with a spray rinse using a solution of Liquinox™ and distilled water followed by a distilled water rinse. The DTW was measured from the reference point on the northern side of the well casing to the static water level inside the well casing and was recorded along with the time the measurement and water quality parameters on the Water Sample Field Data Sheets. Water Sample Field Data Sheets from all post-injection sampling events are included as ***Appendix A***.

3.3.2 Well Purging and Sampling Parameters

Monitoring wells were purged prior to sampling using a peristaltic pump and the dedicated tubing in each of the wells. Low flow purging was conducted in general accordance with procedures described in Low Flow (Minimal Drawdown) Groundwater Sampling Procedures (USEPA 1996).

Purging was accomplished by starting the pump system at a low flow rate, (approximately 0.2 to 0.5 liters per minute) and slowly increasing the pumping rate. The water level in the well was checked periodically to maintain a drawdown of less than or equal to 0.33 feet. If drawdown is greater than 0.33 feet, the flow rate was decreased. Purge water was discharged through a flow cell for field parameter measurements and was contained in 5-gallon buckets until it could be transferred to the 55-gallon collection drum.

Temperature, pH, specific conductance, dissolved oxygen (DO), and oxidation-reduction potential (ORP), were measured and recorded during purging. In addition, notes were taken describing the appearance and/or odor of the water. Purging was conducted until field parameters stabilize to within the following ranges:

- pH ± 0.1 pH units
- Specific conductance ± 3 percent
- Temperature ± 0.1° Celsius

3.3.3 Groundwater Sampling Methods

Following purging, the sampling pump was used to obtain groundwater samples following low-flow well sampling procedures. Groundwater samples were collected into laboratory-cleaned, pre-labeled 40-milliliter volatile organic analysis (VOA) sample vials were pre-preserved with hydrochloric acid.

The groundwater samples were collected using the slowest pumping rate reasonably achievable with the sampling pump. To check for headspace, VOA vials were capped, inverted, and checked for air bubbles. Each groundwater sample was submitted for analysis of VOCs using EPA Method 8260. All samples were handled and transported using standard Chain-of-Custody protocols and were kept in an iced cooler pending submittal to the analytical laboratory.

3.3.4 Sample Handling

After collection, all samples were placed in coolers with enough bagged ice to maintain an internal temperature of 4°C for the duration of the sampling and transportation to the laboratory. Samples were delivered to Fremont Analytical for analysis after each sampling event following the procedures outlined in the previous section. Fremont Analytical's address and contact information is:

Fremont Analytical
3600 Fremont Avenue North
Seattle, WA 98103
Contact: Mr. Mike Ridgeway, (206) 352-3790

3.3.5 Equipment Decontamination Procedures

Each of the monitoring wells was equipped with dedicated plastic tubing. Purging and sampling equipment that came into direct contact with sample media, sample containers, or the inside of a probe or monitoring well was single-use, disposable equipment that was replaced between each sampling event. Non-dedicated, multiple-use sampling equipment, i.e. the parameter meter flow cell, was decontaminated prior to use and between each sample location.

3.3.6 Disposal of Investigation Derived Waste

Monitoring well purge water and other Investigation Derived Waste (IDW) was retained on-site in properly labeled Department of Transportation (DOT)-approved 55-gallon steel drums pending characterization for disposal. Stantec personnel coordinated characterization of drum contents and disposal according to established procedures. Disposal of purge water was coordinated with client representatives. IDW was manifested to a treatment, storage, and disposal (TSD) facility permitted to accept the material by Stericycle (formerly PSC), a licensed waste disposal subcontractor. All drums of IDW were removed from the Site in September 2014. The disposal manifest for the purge water and other IDW is included as ***Appendix B.***

3.4 GROUNDWATER SAMPLING ANALYTICAL RESULTS

Post-injection groundwater sampling results indicate the extent of the PCE plume is defined. The plume is stable, confined to the property, and concentrations are decreasing in the presumed source area.

Concentrations of PCE exceeding the MTCA Method A Cleanup Level were detected in MW-1 and MW-8. MW-1 is located at the southeast corner of Building 11 and is considered closest to the suspected source of the contamination. MW-8 is located on the north side of Building 11 and is considered the closest downgradient well. TCE was detected in MW-4 in December 2009 but has not been detected in MW-4 or any of the other on-Site wells sampled during any subsequent sampling.

In MW-1, the PCE concentrations ranged from 35 micrograms per liter (µg/L) in the September 6, 2013 sampling round to 36.5 µg/L in the September 16, 2014 sampling round. The PCE concentration has decreased from 59 µg/L since monitoring began in December 2009.

In MW-8, the PCE concentration ranged from 34 µg/L in the September 6, 2013 sampling round to 42.4 µg/L in the September 16, 2014 sampling round.

PCE concentrations below the MTCA Method A CUL were detected in MW-4, located along the northern boundary of the Site, and in MW-5, located at the northwest corner of the Site during the post-injection monitoring. The PCE concentration in MW-4 ranged from 3.1 µg/L in the November 26, 2013 sampling round to 3.92 µg/L in the September 16, 2014 sampling round. In

MW-5, PCE was detected at a concentration of 3.1 µg/L in the September 6, 2013 sampling round and has not been detected since.

PCE has never been detected in MW-2, MW-3, MW-6, or MW-7.

Cumulative analytical results from the groundwater sampling program since December 2009 are summarized in ***Table 2*** and are presented on ***Figure 4***.

Water quality parameters measured during post-injection monitoring and sampling are presented in ***Table 3***.

Complete laboratory results and chain-of-custody documentation are included in ***Appendix C***.

4.0 PCE PLUME CHARACTERISTICS

The area of PCE impact in groundwater is defined by PCE concentrations exceeding the MTCA Method A CUL of 5 µg/L in MW-1 and MW-8, PCE concentrations below the MTCA Method A CUL in MW-4 and MW-5, and no detections of PCE in MW-2, MW-3, MW-6, or MW-7. PCE concentrations exceeding 40 µg/L are limited to the presumed source area, the former septic leach field located at the southeast corner of Building 11. The PCE plume trends to the northwest towards MW-4, which appears to the northwestern extent of PCE impacts. No PCE has ever been detected in MW-7, located approximately 80 linear feet further to the northwest in the westbound lane of 180th Street NE. In addition, no PCE impacts have ever been detected in MW-2, located in the central part of the Site north of Building 10. The estimated extent of the PCE impact in groundwater is shown in ***Figure 5***.

4.1 GROUNDWATER FLOW DIRECTION

Groundwater flow direction at the Site has been consistently to the northwest since the monitoring program began in December 2009. A northwesterly flow direction was indicated during the four post-injection groundwater sampling rounds since September 2013. Groundwater Elevation Contour Maps for each of the post-injection sampling rounds are presented in ***Figures 6 through 9***.

4.2 GROUNDWATER GRADIENT

The topographic gradient across the Site is shallow and generally to the northwest towards the Stillaguamish River located approximately 1.4 miles from the Site. The hydraulic gradient calculated from the measured static groundwater elevations varied from 0.0018 ft/ft in September 2013 to 0.0026 ft/ft in June 2014. This gradient is consistent with previous gradients calculated during the baseline monitoring program initiated in December 2009.

The PCE concentrations observed during the baseline and post-injection monitoring programs are consistent with a northwesterly flow direction and shallow hydraulic gradient across the Site. The PCE plume is concentrated in the vicinity of Building 11 and trends northwesterly towards MW-4. The plume has not been detected beyond the northern Site boundary based on the absence of PCE detected in MW-7. The plume also appears to be narrow based on the absence of PCE in either MW-2 or MW-6.

5.0 SUMMARY AND CONCLUSIONS

Stantec has completed a program of in situ chemical oxidation and post-injection groundwater monitoring at the Former Bayliner Marine Facility in Arlington, Washington. The ISCO and post-injection monitoring were conducted per the Work Plan approved by Ecology in September 2012. Based on field observations and analytical data, the following is concluded:

- Boat manufacturing activities at the Site ceased in December 2008 and the presumed PCE source area, the septic tank leach field, is no longer in use. According to City of Arlington public works information, the septic systems were decommissioned and the Site buildings were connected to the municipal sanitary sewer between 1987 and 2005.

- In situ chemical injection of the $NaMnO_4$ oxidizing agent was completed between May 30 and June 6, 2013. Approximately 8,160 gallons of 5% $NaMnO_4$ solution was injected in 12 locations within and upgradient of the former septic tank leach field at the southeast corner of Building 11.

- Two months of post-injection visual water quality monitoring were conducted in MW-1, MW-8, and MW-2 beginning one month after the ISCO injection A slight purple discoloration was noted in the source area well (MW-1) two months after completion of the injection indicating continued presence and diffusion of $NaMnO_4$ solution in the immediate treatment area.

- A full year of post-injection groundwater sampling was conducted in all eight of the on-site monitoring wells beginning three months after the ISCO injection. Static groundwater levels and water quality parameters were measured and recorded during each of the sampling rounds.

- The PCE concentration in MW-1 has been largely unchanged during the post-injection monitoring program but has decreased from the earliest sampling event in December 2009. The PCE concentration in MW-8, located immediately downgradient of the source area, has remained largely unchanged during the post-injection monitoring.

- PCE concentrations obtained during the post-injection groundwater monitoring program define a narrow PCE plume concentrated in the vicinity of the former septic tank leach field near MW-1 and tending to the northwest toward MW-4. PCE concentrations below the MTCA Method A CUL were detected in MW-4 in the last three rounds of groundwater sampling. PCE has never been detected in MW-7 located approximately 80 linear feet downgradient of MW-4 and there is no indication of current PCE impacts beyond the northern Site boundary.

- The inferred groundwater flow direction has been consistently to the northwest following the general topographic gradient of the Site. The groundwater gradient at the Site is shallow varying between 0.0018 and 0.0026 ft/ft.

- Indoor air samples collected in April 2010 in Buildings #4, #8, #10, #11, #14 and #17 found that PCE concentrations in the indoor air were below the applicable indoor air CUL. Consequently, there is no apparent impact to indoor air as a result of the PCE-contaminated groundwater in the area of highest PCE concentration beneath Building 11.

Based on the results of this investigation, Stantec concludes that the ISCO program initiated in June 2013 has been effective in maintaining PCE concentrations but largely ineffective in reducing PCE concentration within the plume area. Previous investigations indicated that the low concentrations of PCE in groundwater pose a very limited risk of direct exposure or indoor air exposure in a fully developed industrial setting, and present no threat of exposure to off-Site receptors. The Disproportionate Cost Analysis and results of the ISCO program demonstrate that it is not practical to initiate additional proactive remedial options or to establish Method A CULs throughout the Site.

Sufficient groundwater monitoring data has been collected since December 2009 to delineate the nature, degree, and extent of the PCE contamination. It is apparent that overall PCE concentrations in groundwater have been declining, likely as a result of natural degradation and attenuation processes. PCE concentration should continue to decrease steadily since PCE use at the Site has ceased and the septic tank leach field at Building 11 has been decommissioned.

A *Technical Memorandum* discussing a proposed closure strategy for the Site will be submitted under separate cover.

6.0 REFERENCES

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TABLES

Table 1
ISCO Injection Volumes
Former Bayliner Marine Facility - Arlington, Washington

Injection Point	Injection Date	Injection Depth Range (ft. bgs)		Total Volume Injected[1] (gallons)	Average Flowrate (GPM)
		Top	Bottom		
IP-1	5/30/2013	9	22	680	5.5
IP-2	5/31/2013	9	22	680	5.0
IP-3	6/4/2013	9	22	680	5.2
IP-4	6/3/2013	9	22	680	5.5
IP-5	5/31/2013	9	22	680	5.0
IP-6	6/4/2013	9	22	680	4.5
IP-7	6/3/2013	9	22	680	5.5
IP-8	5/30/2013	9	22	680	5.5
IP-9	6/6/2013	9	22	680	5.0
IP-10	6/5/2013	9	22	680	5.5
IP-11	6/6/2013	8	15	680	5.5
IP-12	6/5/2013	9	22	680	5.5

ft. bgs = feet below ground surface
GPM = gallons per minute
[1] Approximate 5% solution of $NaMnO_4$

Table 2
Summary of Groundwater Monitoring Results
Former Bayliner Marine Facility - Arlington, Washington

Well/Borehole ID	Sample Collection Date	Total Depth of Well (feet)	Top of Casing Elev. (ft MSL)	Screened Int. (ft. bgs)		Screened Int. (ft. MSL)		Depth to GW (ft)	GW Elev. (ft. MSL)	Volatile Organic Compounds[1] (VOCs) in µg/L		
				Top	Bottom	Top	Bottom			Tetrachloroethene (PCE)	Trichloroethene (TCE)	All Remaining VOCs
B-1	5/20/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-2	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.5	ND	ND
B-3	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.3	ND	ND
B-4	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**42**	ND	ND
B-5	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**31**	ND	ND
B-6	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**18**	ND	ND
B-7	5/21/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-8	2/18/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-9	2/18/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-10	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-11	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-12	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-13	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-14 (16-20')[2]	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**45**	ND	ND
B-14 (30-34')[2]	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**40**	ND	ND
B-14 (44-48')[2]	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
B-15	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**40**	ND	ND
B-16 (18-22')	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.9	ND	ND
B-16 (32-36')	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**7.3**	ND	Ethylbenzene = 3.4
B-16 (46-50')	3/19/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	ND
MW-1	12/10/2009	29.95	129.42	15	30	114.42	99.42	18.89	110.53	**59**	ND	ND
	2/18/2010	29.95	129.42	15	30	114.42	99.42	16.71	112.71	**48**	ND	ND
	5/26/2010	29.95	129.42	15	30	114.42	99.42	16.51	112.91	**50**	ND	ND
	9/9/2010	29.95	129.42	15	30	114.42	99.42	19.22	110.2	**57**	ND	ND
	12/20/2010	29.95	129.42	15	30	114.42	99.42	17.28	112.14	**43**	ND	ND
	9/22/2011	30.10	129.42	15	30	114.42	99.42	16.53	112.89	**32**	ND	ND
	9/6/2013	30.10	129.42	15	30	114.42	99.42	17.05	112.37	**35**	ND	ND
	11/26/2013	30.10	129.42	15	30	114.42	99.42	18.28	111.14	**35**	ND	ND
	6/5/2014	30.10	129.42	15	30	114.42	99.42	13.72	115.7	**30.6**	ND	ND
	9/16/2014	30.10	129.42	15	30	114.42	99.42	18.10	111.32	**36.5**	ND	ND
MW-2	12/10/2009	27.25	129.68	15	30	114.68	99.68	20.02	109.66	ND	ND	ND
	2/18/2010	27.25	129.68	15	30	114.68	99.68	17.64	112.04	ND	ND	ND
	5/26/2010	27.25	129.68	15	30	114.68	99.68	17.41	112.27	ND	ND	ND
	9/9/2010	27.25	129.68	15	30	114.68	99.68	18.48	111.2	ND	ND	ND
	12/20/2010	27.25	129.68	15	30	114.68	99.68	18.49	111.19	ND	ND	ND
	9/22/2011	29.30	129.68	15	30	114.68	99.68	16.80	112.88	ND	ND	ND
	9/6/2013	29.30	129.68	15	30	114.68	99.68	17.40	112.28	ND	ND	ND
	11/26/2013	29.30	129.68	15	30	114.68	99.68	18.92	110.76	ND	ND	ND
	6/5/2014	29.30	129.68	15	30	114.68	99.68	14.63	115.05	ND	ND	ND
	9/16/2014	29.30	129.68	15	30	114.68	99.68	18.67	111.01	ND	ND	ND
MW-3	12/10/2009	24.30	129.90	10	25	119.90	104.90	16.89	113.01	ND	ND	ND
	2/18/2010	24.30	129.90	10	25	119.90	104.90	15.02	114.88	ND	ND	ND
	5/26/2010	24.30	129.90	10	25	119.90	104.90	14.85	115.05	ND	ND	ND
	9/9/2010	24.30	129.90	10	25	119.90	104.90	19.20	110.70	ND	ND	ND
	12/20/2010	24.30	129.90	10	25	119.90	104.90	15.28	114.62	ND	ND	ND
	9/22/2011	24.00	129.90	10	25	119.90	104.90	15.39	114.51	ND	ND	ND
	9/6/2013	24.00	129.90	10	25	119.90	104.90	15.89	114.01	ND	ND	ND
	11/26/2013	24.00	129.90	10	25	119.90	104.90	16.77	113.13	ND	ND	ND
	6/5/2014	24.00	129.90	10	25	119.90	104.90	12.24	117.66	ND	ND	ND
	9/16/2014	24.00	129.90	10	25	119.90	104.90	16.70	113.20	ND	ND	ND

Table 2
Summary of Groundwater Monitoring Results
Former Bayliner Marine Facility - Arlington, Washington

Well/Borehole ID	Sample Collection Date	Total Depth of Well (feet)	Top of Casing Elevation (ft. MSL)	Screened Int. Top	Screened Int. Bottom	Screened Interval Top	Screened Interval Bottom	Depth to Groundwater (feet)	Groundwater Elevation (ft. MSL)	Volatile Organic Compounds[1] (VOCs) Tetrachloroethene (PCE)	Trichloroethene (TCE)	All Remaining VOCs
MW-4	12/10/2009	28.40	130.42	15	30	115.42	100.42	21.20	109.22	**13**	**16**	ND
	2/18/2010	28.40	130.42	15	30	115.42	100.42	18.55	111.87	**5.3**	ND	ND
	5/26/2010	28.40	130.42	15	30	115.42	100.42	18.24	112.18	**5**	ND	ND
	9/9/2010	28.40	130.42	15	30	115.42	100.42	19.79	110.63	**5.2**	ND	ND
	12/20/2010	28.40	130.42	15	30	115.42	100.42	19.62	110.80	**7.7**	ND	ND
	9/22/2011	28.60	130.42	15	30	115.42	100.42	17.10	113.32	2.4	ND	ND
	9/6/2013	28.60	130.42	15	30	115.42	100.42	17.74	112.68	ND	ND	ND
	11/26/2013	28.60	130.42	15	30	115.42	100.42	19.61	110.81	3.1	ND	ND
	6/5/2014	28.60	130.42	15	30	115.42	100.42	15.26	115.16	1.73	ND	ND
	9/16/2014	28.60	130.42	15	30	115.42	100.42	19.25	111.17	3.92	ND	ND
MW-5	12/10/2009	33.95	130.39	20	35	110.39	95.39	21.96	108.43	ND	ND	ND
	2/18/2010	33.95	130.39	20	35	110.39	95.39	19.45	110.94	ND	ND	ND
	5/26/2010	33.95	130.39	20	35	110.39	95.39	19.17	111.22	ND	ND	ND
	9/9/2010	33.95	130.39	20	35	110.39	95.39	20.50	109.89	ND	ND	ND
	12/20/2010	33.95	130.39	20	35	110.39	95.39	20.38	110.01	ND	ND	ND
	9/22/2011	33.80	130.39	20	35	110.39	95.39	17.91	112.48	ND	ND	ND
	9/6/2013	33.80	130.39	20	35	110.39	95.39	18.16	112.23	3.1	ND	ND
	11/26/2013	33.80	130.39	20	35	110.39	95.39	20.37	110.02	ND	ND	ND
	6/5/2014	33.80	130.39	20	35	110.39	95.39	16.36	114.03	ND	ND	ND
	9/16/2014	33.80	130.39	20	35	110.39	95.39	20.07	110.32	ND	ND	ND
MW-6	2/19/2010	25.00	130.39	15	25	114.59	104.59	16.68	113.71	ND	ND	ND
	5/26/2010	25.00	130.39	15	25	114.59	104.59	16.51	113.88	ND	ND	ND
	9/9/2010	25.00	130.39	15	25	114.59	104.59	19.21	111.18	ND	ND	ND
	12/20/2010	25.00	130.39	15	25	114.59	104.59	16.40	113.99	ND	ND	ND
	9/22/2011	25.20	130.39	15	25	114.59	104.59	16.42	113.97	ND	ND	ND
	9/6/2013	25.20	130.39	15	25	114.59	104.59	16.99	113.40	ND	ND	ND
	11/26/2013	25.20	130.39	15	25	114.59	104.59	17.85	112.54	ND	ND	ND
	6/5/2014	25.20	130.39	15	25	114.59	104.59	13.51	116.88	ND	ND	ND
	9/16/2014	25.20	130.39	15	25	114.59	104.59	17.92	112.47	ND	ND	ND
MW-7	2/19/2010	30.00	131.27	15	30	116.27	101.27	19.90	111.37	ND	ND	ND
	5/26/2010	30.00	131.27	15	30	116.27	101.27	19.61	111.66	ND	ND	ND
	9/9/2010	30.00	131.27	15	30	116.27	101.27	21.13	110.14	ND	ND	ND
	12/20/2010	30.00	131.27	15	30	116.27	101.27	20.89	110.38	ND	ND	ND
	9/22/2011	30.20	131.27	15	30	116.27	101.27	18.38	112.89	ND	ND	ND
	9/6/2013	30.20	131.27	15	30	116.27	101.27	18.85	112.42	ND	ND	ND
	11/26/2013	30.20	131.27	15	30	116.27	101.27	20.92	110.35	ND	ND	ND
	6/5/2014	30.20	131.27	15	30	116.27	101.27	16.62	114.65	ND	ND	ND
	9/16/2014	30.20	131.27	15	30	116.27	101.27	20.57	110.70	ND	ND	ND
MW-8	9/22/2011	26.70	NM	12	27	NM	NM	16.76	NM	**25**	ND	ND
	9/6/2013	26.70	NM	12	27	NM	NM	17.32	NM	**34**	ND	ND
	11/26/2013	26.70	NM	12	27	NM	NM	18.67	NM	**34**	ND	ND
	6/5/2014	26.70	NM	12	27	NM	NM	14.11	NM	**36.9**	ND	ND
	9/16/2014	26.70	NM	12	27	NM	NM	18.42	NM	**42.4**	ND	ND
MTCA Method A Cleanup Level										5	5	See comments

ˆ = VOCs analyzed via United States Environmental Protection Agency Method 8260B
ˇ = Discrete-depth groundwater samples were collected from borings B-14 and B-16. Groundwater samples collected by installing a temporary well casing in borehole with screened interval indicated by depths in parentheses.
˜ = MTCA Method A Cleanup Level for Ethylbenzene = 700 µg/L
ND = Non Detect at the laboratory's Reported Detection Limit; all reporting limits are below MTCA Method A Cleanup Level
NM = Not Measured
MTCA - Model Toxics Control Act
ft. bgs = feet below ground surface
ft. MSL = feet above mean sea level
(µg/L) = micrograms per liter

Table 3
Water Quality Parameters
Former Bayliner Marine Facility - Arlington, Washington

Well ID	Sample Date	Reading Time	Total Purge Volume (gallons)	Temperature (Degrees Celsius)	Electrical Conductivity (µmhos/cm)	Dissolved Oxygen (%)	pH (Standard Units)	ORP (mV)
MW-1	7/10/2013	NA	NA	19.94	0.005	114.0	6.44	163.6
	8/8/2013	NA	NA	20.26	0.160	135.0	7.42	35.5
	9/6/2013	14:33	2.5	12.22	0.067	79.4	6.81	491.3
	11/26/2013	14:35	2.5	11.74	0.241	83.9	6.29	157.7
	6/5/2014	14:15	3.0	11.76	3.576*	90.5	3.20	211.4
	9/16/2014	15:22	2.8	11.84	0.698	87.9	6.02	144.7
MW-2	7/10/2013	NA	NA	19.98	0.000	110.2	6.56	255.1
	8/8/2013	NA	NA	24.96	0.008	139.0	7.45	-12.0
	9/6/2013	13:23	2.2	13.39	0.079	66.1	5.90	153.7
	11/26/2013	10:53	2.5	12.08	0.274	68.7	6.22	154.0
	6/5/2014	12:37	2.7	13.25	4.206*	73.9	2.04	275.8
	9/16/2014	13:58	2.3	13.55	1.138	76.0	5.74	165.9
MW-3	7/10/2013	NA	NA	13.34	0.003	155.0	6.48	240.1
	8/8/2013	NA	NA	20.70	0.000	187.0	6.89	26.6
	9/6/2013	10:28	2.5	11.69	0.036	10.1	5.83	135.5
	11/26/2013	10:15	2.5	10.34	0.146	82.0	5.19	198.1
	6/5/2014	9:32	2.8	10.04	2.044*	92.7	4.57	191.6
	9/16/2014	9:15	1.3	NA	NA	NA	NA	NA
MW-4	9/6/2013	12:25	2.1	14.51	0.110	78.7	6.05	139.5
	11/26/2013	11:45	2.6	13.76	0.388	80.6	6.46	152.8
	6/5/2014	11:45	2.6	13.76	4.300*	84.4	2.21	254.1
	9/16/2014	12:36	2.6	13.76	1.182	86.4	6.15	162.9
MW-5	9/6/2013	12:52	2.3	14.54	0.079	87.3	6.48	109.1
	11/26/2013	14:26	2.0	14.31	0.275	95.1	6.57	155.1
	6/5/2014	14:26	3.3	13.32	4.423*	89.6	3.05	192.7
	9/16/2014	13:16	2.4	14.15	1.050	89.0	6.23	148.6
MW-6	9/6/2013	11:45	2.2	12.95	0.064	86.8	6.08	122.3
	11/26/2013	12:53	2.3	11.88	0.233	89.3	6.07	170.3
	6/5/2014	10:07	3.3	11.05	3.118*	91.3	4.88	178.6
	9/16/2014	10:13	2.4	11.39	0.849	90.5	7.02	135.5
MW-7	9/6/2013	11:10	2.5	14.24	0.103	76.2	5.82	144.4
	11/26/2013	12:20	2.2	14.03	0.319	44.0	6.25	158.9
	6/5/2014	10:47	3.0	11.28	2.265*	93.8	4.29	189.4
	9/16/2014	11:08	2.6	11.81	0.926	91.3	6.40	161.0
MW-8	7/10/2013	NA	NA	18.86	0.004	92.9	8.64	231.2
	8/8/2013	NA	NA	21.60	0.014	137.0	7.55	27.0
	9/6/2013	13:58	2.5	12.97	0.051	81.7	5.99	148.5
	11/26/2013	13:53	2.6	11.81	0.231	90.3	6.01	177.7
	6/5/2013	13:23	3.5	11.51	3.140*	82.6	1.47	306.6
	9/16/2013	14:34	2.5	12.11	0.685	81.0	5.84	166.0

NA = Not Analyzed, not available, or not applicable

ORP = Oxidation reduction potential

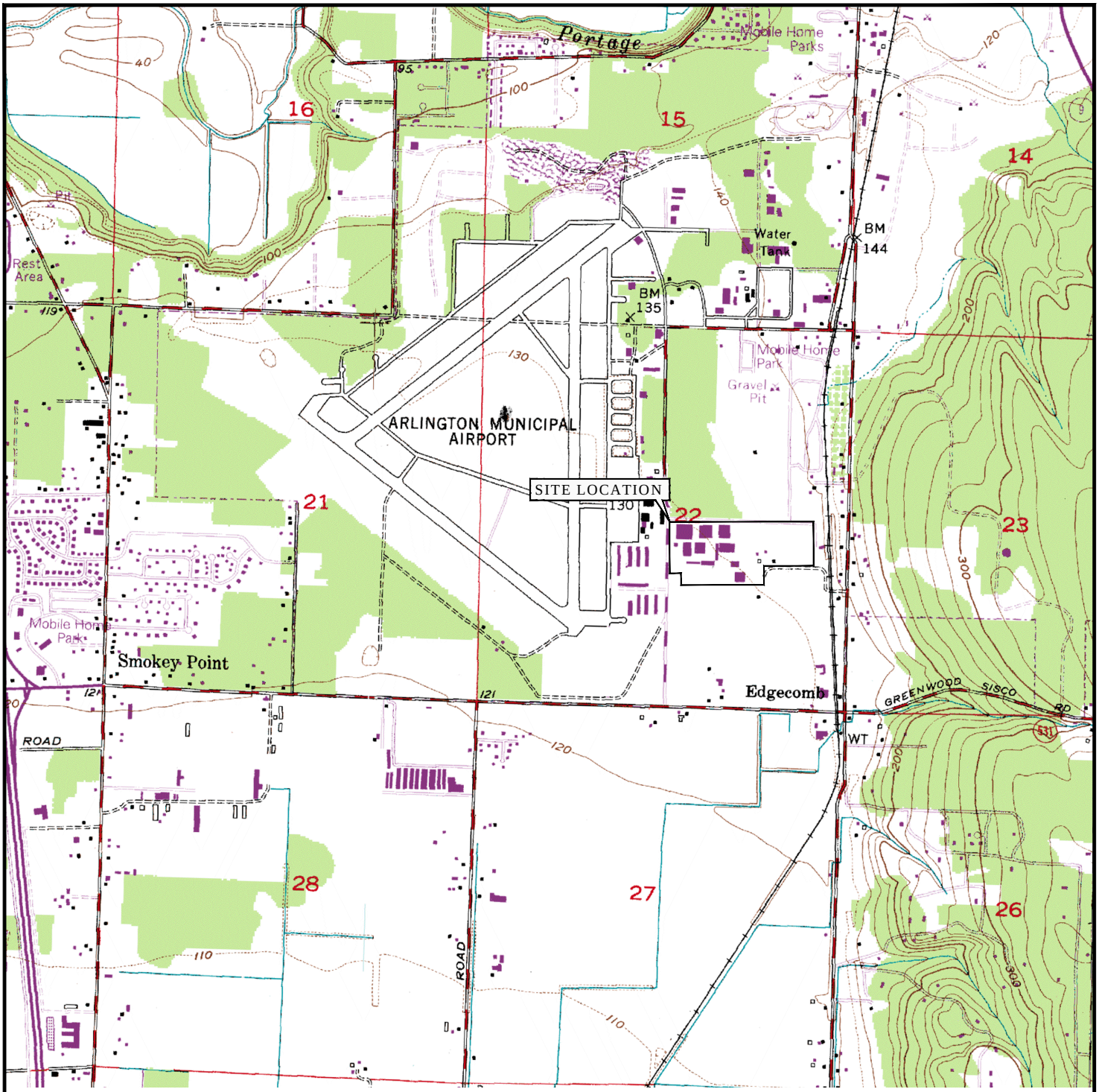
mV= Millivolts

µmhos/cm = micromhos per centimeter

* = Conductivity measured in milliSiemens per centimeter (mS/cm)

Dissolved oxygen, pH, ORP, electrical conductivity, and temperature measured using field monitoring equipment (such as Horiba Multi-Parameter Water Quality Meter)

FIGURES



1 1/2 0 1

SCALE IN MILE

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE IN FEET

REFERENCE: WA Digital Raster Graphics(http://rocky2.ess.washington.edu/data/raster/drgclip/index.html)
7.5 Minute Series, NAD27 WA State Planes, N Zone,Trimmed
Block o48122b2; Downloaded September 2011

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
PHONE: (425) 869-9448 FAX: (425) 869-1190

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

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-SLM.dwg|AAndrews|Nov 13, 2014 at 21:33|Layout: F1

CAMBELL/NEILSON AUTO WRECKING

UNDEVELOPED LAND

STELLA-JONES LUMBER YARD

RESIN ROOM

AQUA WASH WASTE BLDG

MW-7

180th STREET NE

MW-5

MW-4

ARLINGTON AIRPORT

59th AVENUE NE

BUILDING 1

BUILDING 2

BUILDING 3

BUILDING 4

MW-6

EMPLOYEE PARKING

BOAT STORAGE

OFFICE BLDG. 6

OFFICE BLDG. 5

BUILDING 7

BUILDING 8

FORMER SEPTIC LEACH FIELD

OFFICE BLDG. 9

BUILDING 12A

MW-2

DR

DR

MW-8

BUILDING 10

BUILDING 11

MW-1

DISPENSER ISLAND

WATER RETENTION POND #2

WATER RETENTION POND #3

FORMER SEPTIC LEACH FIELD

BUILDING 12

EMPLOYEE PARKING

BUILDING 16

BUILDING 17

BUILDING 14

UNDEVELOPED LAND

FENCE

GATE

COOK INVESTMENTS

MW-3

WATER RETENTION POND #1

UNDEVELOPED LAND

ANCHOR SELF STORAGE

JET CITY EQUIPMENT RENTAL

LEGEND

- SUBJECT PROPERTY BOUNDARY
- MONITORING WELL LOCATION
- 10,000-GALLON RESIN AST
- 10,000-GALLON DIESEL AST
- 5,000-GALLON GASOLINE AST
- AQUA WASH WASTE AST
- PROPANE TANK
- AST — ABOVE GROUND STORAGE TANK
- CATCH BASIN
- DR — DRAIN LINE

N

0 140 280

APPROXIMATE SCALE (FEET)

Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
PHONE: (425) 869-9448 FAX: (425) 869-1190

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

SITE PLAN

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:V:\1878\CADD_files\Other_offices_work\WASHINGTON\BaylinerMarine-2013-2014_GWE_GWA.dwg|aandrews|Nov 06, 2014 at 9:08|Layout: F2-SP

BUILDING 2

BUILDING 3

BUILDING 4

MW-6

EMPLOYEE PARKING

BOAT STORAGE

ILDING 7

BUILDING 8

MW-2

MW-8

IP-12

IP-9

IP-10

BUILDING 11

IP-4

IP-2

IP-6

MW-1

IP-8

IP-11

IP-7

IP-1

IP-5

IP-3

FORMER SEPTIC LEACH FIELD

ILDING 10

NG

BUILDING 17

BUILDING 14

FENCE

GATE

MW-3

WATER RETENTION POND #2

WATER RETEN POND #

DISPENSER ISLAND

LEGEND

- SUBJECT PROPERTY BOUNDARY
- MONITORING WELL LOCATION
- 10,000-GALLON RESIN AST
- 10,000-GALLON DIESEL AST
- 5,000-GALLON GASOLINE AST
- AQUA WASH WASTE AST
- PROPANE TANK
- AST — ABOVE GROUND STORAGE TANK
- CATCH BASIN
- DR — DRAIN LINE
- INJECTION POINT

0 80 160

APPROXIMATE SCALE (FEET)

Stantec

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BELLEVUE, WASHINGTON 98004
PHONE: (425) 869-9448 FAX: (425) 869-1190

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

SITE PLAN WITH ISCO INJECTION POINTS

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-isco_inj.dwg|AAndrews|Nov 13, 2014 at 21:19|Layout: F5-SP

CAMBELL/NEILSON AUTO WRECKING

RESIN ROOM

AQUA WASH WASTE BLDG

UNDEVELOPED LAND

STELLA-JONES LUMBER YARD

180th STREET NE

ARLINGTON AIRPORT

59th AVENUE NE

MW-7

MW-5

MW-4

MW-5	PCE	TCE
12/10/09	ND	ND
2/18/10	ND	ND
5/26/10	ND	ND
9/9/10	ND	ND
12/20/10	ND	ND
9/22/11	ND	ND
9/6/13	3.1	ND
11/26/13	ND	ND
6/5/14	ND	ND
9/16/14	ND	ND

MW-7	PCE	TCE
12/10/09	ND	ND
2/18/10	ND	ND
5/26/10	ND	ND
9/9/10	ND	ND
12/20/10	ND	ND
9/22/11	ND	ND
9/6/13	ND	ND
11/26/13	ND	ND
6/5/14	ND	ND
9/16/14	ND	ND

MW-4	PCE	TCE
12/10/09	13	16
2/18/10	5.3	ND
5/26/10	5.0	ND
9/9/10	5.2	ND
12/20/10	7.7	ND
12/20/10	7.7	ND
9/6/13	ND	ND
11/26/13	3.1	ND
6/5/14	1.73	ND
9/16/14	3.92	ND

MW-8	PCE	TCE
9/22/11	25	ND
9/6/13	34	ND
11/26/13	40	ND
6/5/14	36.9	ND
9/16/14	42.4	ND

MW-6	PCE	TCE
12/10/09	ND	ND
2/18/10	ND	ND
5/26/10	ND	ND
9/9/10	ND	ND
12/20/10	ND	ND
9/22/11	ND	ND
9/6/13	ND	ND
11/26/13	ND	ND
6/5/14	ND	ND
9/16/14	ND	ND

MW-1	PCE	TCE
12/10/09	59	ND
2/18/10	48	ND
5/26/10	50	ND
9/9/10	57	ND
12/20/10	43	ND
9/22/11	32	ND
9/6/13	35	ND
11/26/13	35	ND
6/5/14	30.6	ND
9/16/14	36.5	ND

MW-2	PCE	TCE
12/10/09	ND	ND
2/18/10	ND	ND
5/26/10	ND	ND
9/9/10	ND	ND
12/20/10	ND	ND
9/22/11	ND	ND
9/6/13	ND	ND
11/26/13	ND	ND
6/5/14	ND	ND
9/16/14	ND	ND

MW-3	PCE	TCE
12/10/09	ND	ND
2/18/10	ND	ND
5/26/10	ND	ND
9/9/10	ND	ND
12/20/10	ND	ND
9/22/11	ND	ND
9/6/13	ND	ND
11/26/13	ND	ND
6/5/14	ND	ND
9/16/14	ND	ND

BUILDING 3

BUILDING 4

BUILDING 7

BUILDING 8

BUILDING 10

BUILDING 11

BUILDING 12

BUILDING 12A

BUILDING 14

BUILDING 17

OFFICE BLDG. 6

OFFICE BLDG. 5

OFFICE BLDG. 9

FORMER SEPTIC LEACH FIELD

FORMER SEPTIC LEACH FIELD

EMPLOYEE PARKING

EMPLOYEE PARKING

BOAT STORAGE

COOK INVESTMENTS

JET CITY EQUIPMENT RENTAL

MW-2

MW-8

MW-1

MW-6

MW-3

DISPENSER ISLAND

WATER RETENTION POND #1

WATER RETENTION POND #2

WATER RETENTION POND #3

FENCE

GATE

DR

LEGEND

- SUBJECT PROPERTY BOUNDARY
- MONITORING WELL LOCATION
- MONITORING WELL LOCATION INSTALLED ON 9/14/11
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- ND NON-DETECT
- 10,000-GALLON RESIN AST
- 10,000-GALLON DIESEL AST
- 5,000-GALLON GASOLINE AST
- AQUA WASH WASTE AST
- PROPANE TANK
- AST ABOVE GROUND STORAGE TANK

N

ALL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L)

MTCA METHOD A CLEANUP CRITERIA (µg/L)	
TETRACHLOROETHENE	5
TRICHLOROETHENE	5

0 140 280

APPROXIMATE SCALE (FEET)

Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
PHONE:(425) 869-9448 FAX:(425) 869-1190

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

SITE PLAN WITH GROUNDWATER ANALYTICAL RESULTS

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:24|Layout: GWA

CAMBELL/NEILSON AUTO WRECKING

MW-7	PCE
9/16/14	ND

RESIN ROOM

AQUA WASH WASTE BLDG

UNDEVELOPED LAND

STELLA-JONES LUMBER YARD

180th STREET NE

ARLINGTON AIRPORT

59th AVENUE NE

MW-5	PCE
9/16/14	ND

MW-4	PCE
9/16/14	3.92

MW-6	PCE
9/16/14	ND

MW-8	PCE
9/16/14	42.4

MW-11	PCE
9/16/14	36.5

MW-2	PCE
9/16/14	ND

MW-3	PCE
9/16/14	ND

BUILDING 1

BUILDING 2

BUILDING 3

BUILDING 4

BUILDING 7

BUILDING 8

BUILDING 10

BUILDING 11

BUILDING 12

BUILDING 12A

BUILDING 14

BUILDING 16

BUILDING 17

OFFICE BLDG. 6

OFFICE BLDG. 5

OFFICE BLDG. 9

FORMER SEPTIC LEACH FIELD

FORMER SEPTIC LEACH FIELD

EMPLOYEE PARKING

EMPLOYEE PARKING

BOAT STORAGE

COOK INVESTMENTS

JET CITY EQUIPMENT RENTAL

ANCHOR SELF STORAGE

UNDEVELOPED LAND

FENCE

GATE

DISPENSER ISLAND

WATER RETENTION POND #1

WATER RETENTION POND #2

WATER RETENTION POND #3

MW-1

MW-2

MW-3

MW-4

MW-5

MW-6

MW-7

MW-8

N

0 140 280

APPROXIMATE SCALE (FEET)

LEGEND

- SUBJECT PROPERTY BOUNDARY
- MONITORING WELL LOCATION
- 10,000-GALLON RESIN AST
- 10,000-GALLON DIESEL AST
- 5,000-GALLON GASOLINE AST
- AQUA WASH WASTE AST
- PROPANE TANK
- AST — ABOVE GROUND STORAGE TANK
- CATCH BASIN
- DR — DRAIN LINE
- PCE — TETRACHLOROETHENE
- ND — NON-DETECT
- ESTIMATED CONCENTRATION OF PCE PLUME (5µg/L)
- ESTIMATED CONCENTRATION OF PCE PLUME (40µg/L)

ALL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (µg/L)

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
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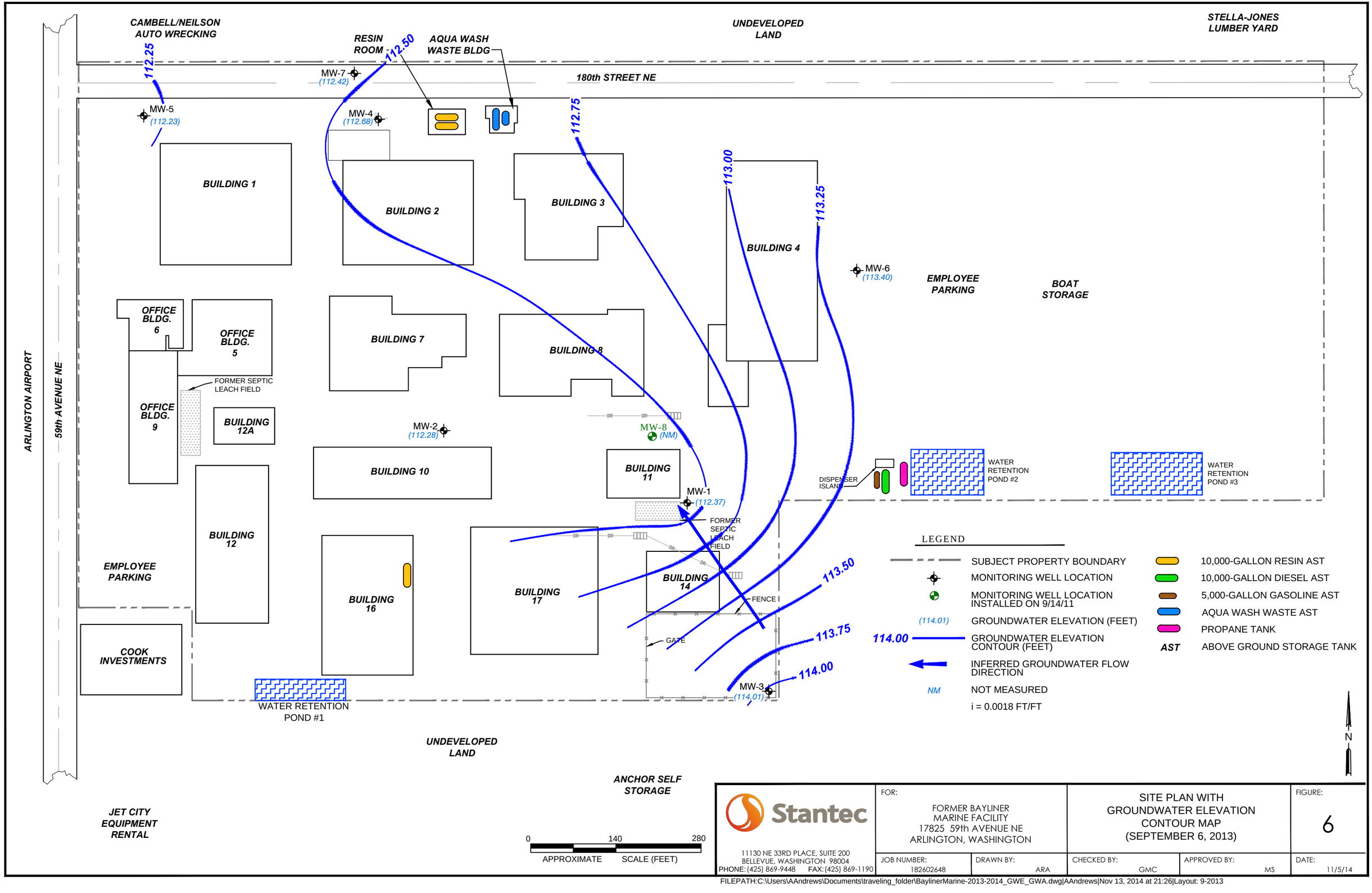
FOR:
FORMER BAYLINER MARINE FACILITY
17825 59th AVENUE NE
ARLINGTON, WASHINGTON

PCE CONCENTRATION IN GROUNDWATER (µg/L) (SEPTEMBER 16, 2014)

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:24|Layout: PCE GW



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PHONE: (425) 869-9448 FAX: (425) 869-1190

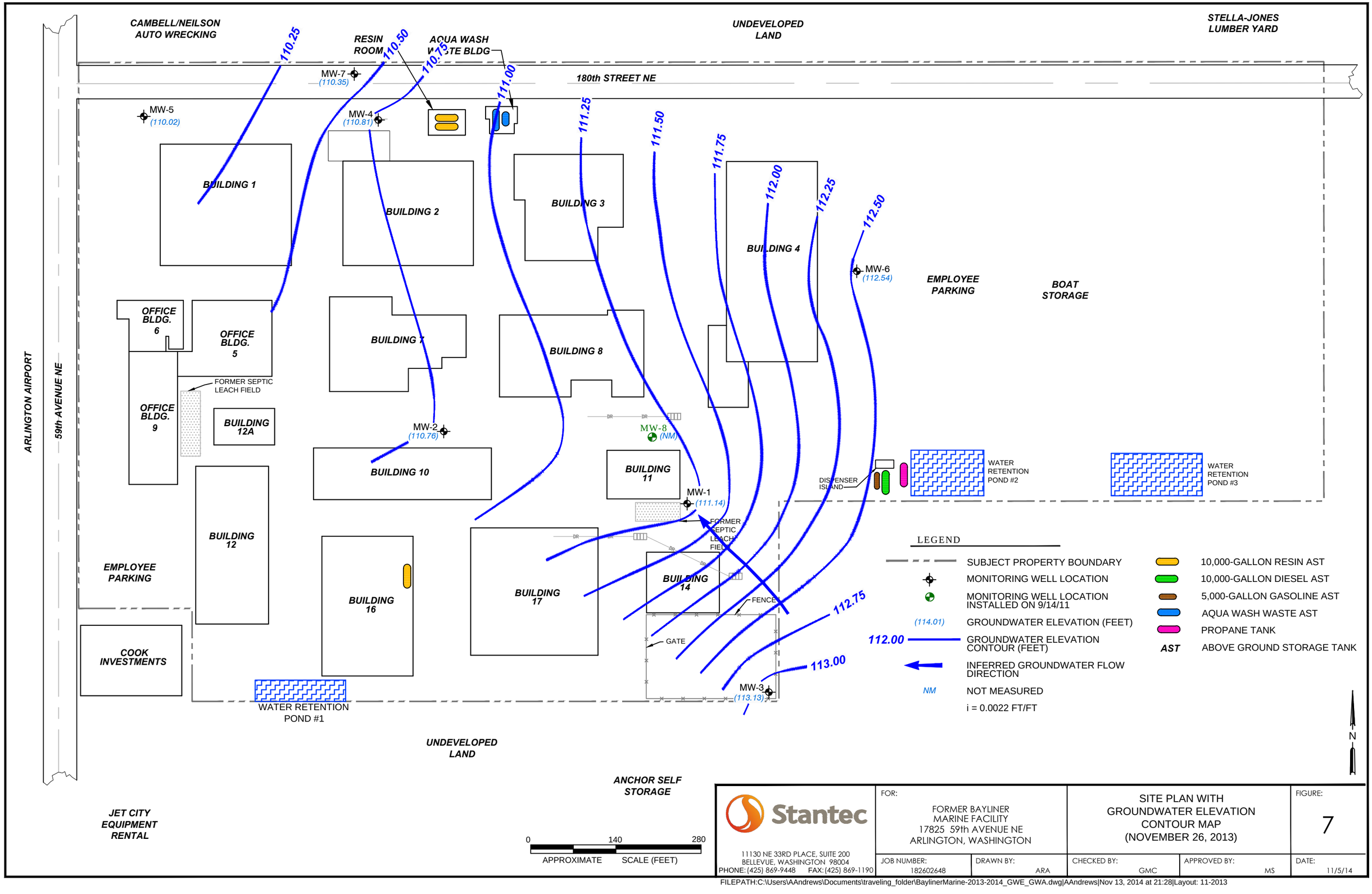
FOR:
FORMER BAYLINER MARINE FACILITY
17825 59th AVENUE NE
ARLINGTON, WASHINGTON

SITE PLAN WITH GROUNDWATER ELEVATION CONTOUR MAP (SEPTEMBER 6, 2013)

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:26|Layout: 9-2013



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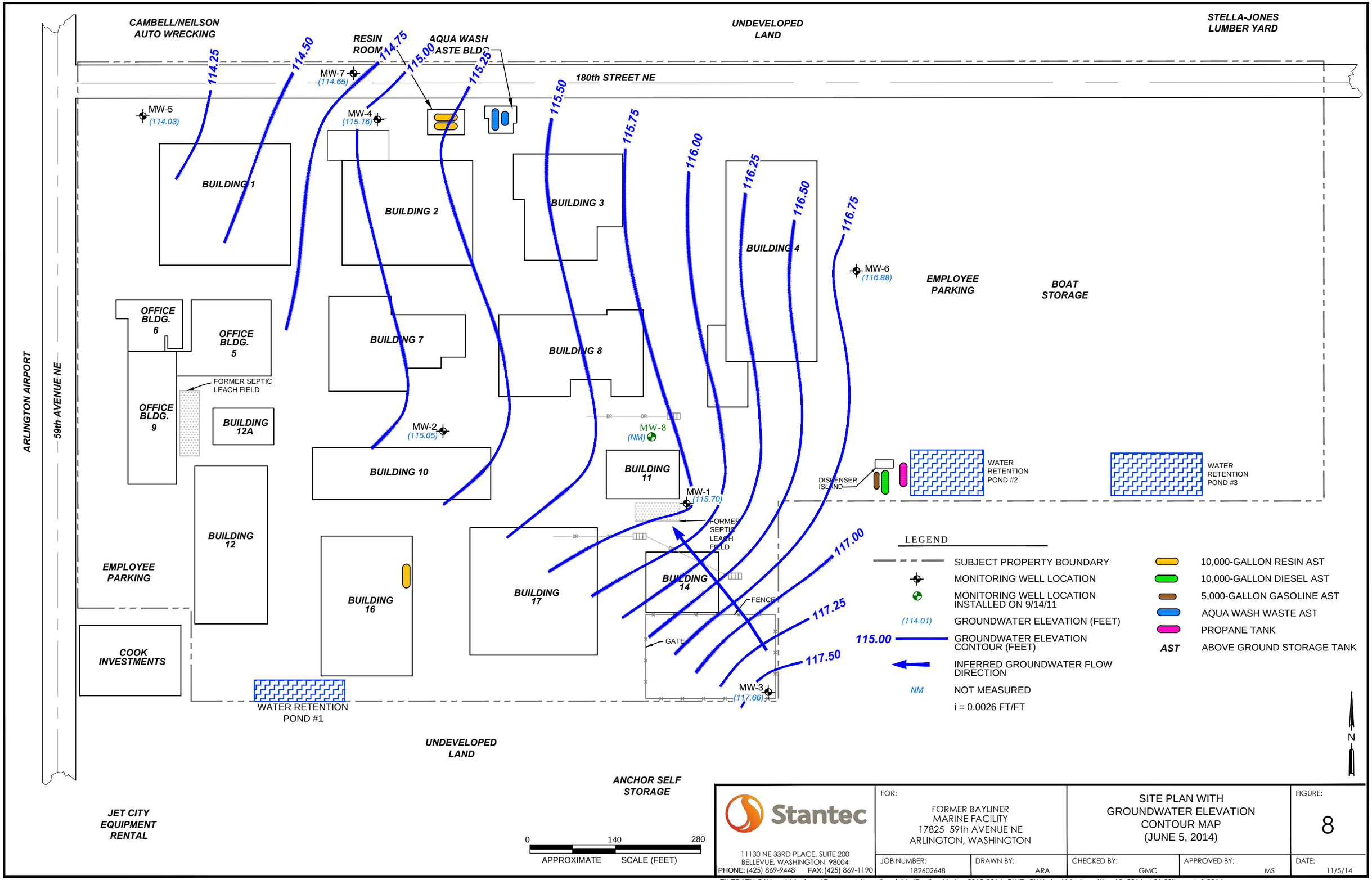
FOR:
FORMER BAYLINER MARINE FACILITY
17825 59th AVENUE NE
ARLINGTON, WASHINGTON

SITE PLAN WITH GROUNDWATER ELEVATION CONTOUR MAP (NOVEMBER 26, 2013)

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:28|Layout: 11-2013



Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
PHONE: (425) 869-9448 FAX: (425) 869-1190

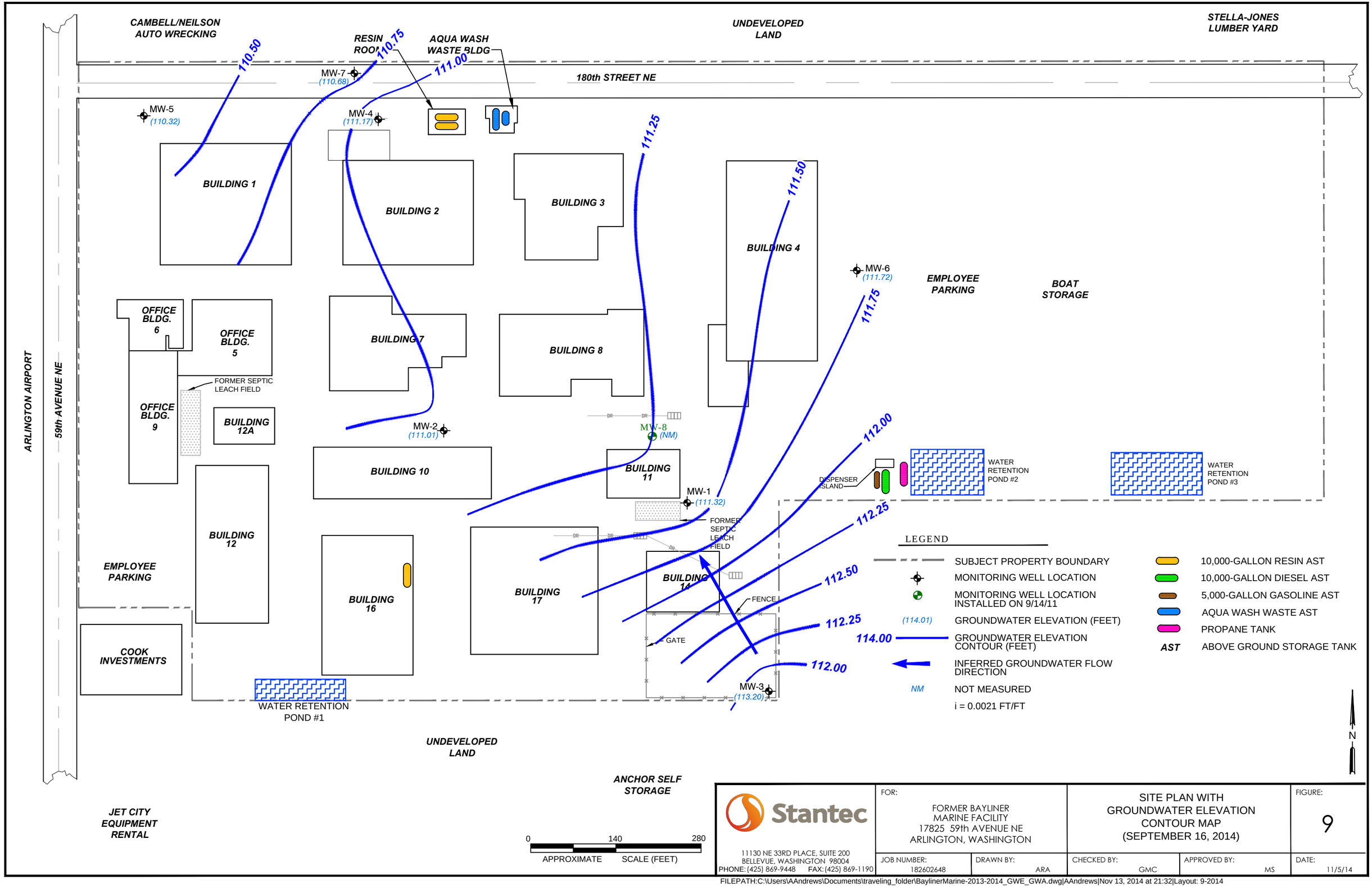
FOR:
FORMER BAYLINER MARINE FACILITY
17825 59th AVENUE NE
ARLINGTON, WASHINGTON

SITE PLAN WITH GROUNDWATER ELEVATION CONTOUR MAP (JUNE 5, 2014)

FIGURE: 8

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:30|Layout: 6-2014



Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON 98004
PHONE: (425) 869-9448 FAX: (425) 869-1190

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

SITE PLAN WITH GROUNDWATER ELEVATION CONTOUR MAP (SEPTEMBER 16, 2014)

FIGURE: 9

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
182602648	ARA	GMC	MS	11/5/14

FILEPATH:C:\Users\AAndrews\Documents\traveling_folder\BaylinerMarine-2013-2014_GWE_GWA.dwg|AAndrews|Nov 13, 2014 at 21:32|Layout: 9-2014

APPENDIX A
WATER SAMPLE FIELD DATA SHEETS

Sample Order #1

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec
PROJECT #: 182602648 PURGED BY: GMC WELL I.D.: Mw-3
CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: Mw-3
LOCATION: Mw-3 Bayliner Marine Arlington

DATE PURGED 9/6/13 START (2400hr) _____ END (2400hr) _____
DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) _____ LOW-FLOW USED _____
SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46)
Casing Volume: (liters per foot) 2.28 gallons

DEPTH TO BOTTOM (feet) = 30.10'
DEPTH TO WATER (feet) = 15.89'
WATER COLUMN HEIGHT (feet) = 14.21'
ACTUAL PURGE (GL) = 2.5 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees C)	CONDUCTIVITY (umhos/cm)	DO % 11.4 pH (units)	COLOR (visual) slight Murk	O.R.P.
9/6/13	1010	.1	14.92	0.046	6.36	Clear	95.6
	1012	.2	12.21	0.057	6.23	Clear	102.7
	1016	.4	11.72	0.052 10.10	6.01	Clear	115.2
	1019	.6	11.57	0.037	5.88	"	124.6
	1023	.8	11.71	0.037	5.85	"	131.5
✓	1028	1.1	11.69	0.036	5.83	"	135.5
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: _____ SAMPLE DTW: _____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4 #-HCL VOA'S PER WELL

ANALYSES:
~~NWTPH-g & BTEX~~ HVOCs

PURGING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓

SAMPLING EQUIPMENT:
YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: good
WELL VAULT CONDITION: Good SEAL PRESENT?: Yes BOLTS PRESENT?: Yes
WELL INTEGRITY: Good WELL TAG: No LOCK#: No

REMARKS: water in vault

SIGNATURE: MM Lemire

Page of

Sample order #2

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec
PROJECT #: 18260648 PURGED BY: GMC WELL I.D.: MW-7
CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-7
LOCATION: Bayliner Arlington

DATE PURGED 9/6/13 START (2400hr) 10:40 END (2400hr) 1110
DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 11:15 LOW-FLOW USED yes
SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46)
Casing Volume: (liters per foot) 1.6 gallons

DEPTH TO BOTTOM (feet) = 29.30'
DEPTH TO WATER (feet) = 18.85'
WATER COLUMN HEIGHT (feet) = 10.45'
ACTUAL PURGE (GL) = 2.5 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	DO	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1048	0	14.57	0.094	95.2	5.87	Slight Murk	157.3
	1056	.5	14.59	0.101		5.84	"	146.3
	1059	.5	15.09	0.104	80.2	5.79	"	145.1
	1102	1	14.22	0.102		5.79	"	146.3
	1105	1.5	14.25	0.102	76.2	5.81	"	145.2
	1110	2.0	14.24	0.103		5.82	"	144.4
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4 3-HCL VOA'S PER WELL

ANALYSES:
~~MW TPH-G & BTEX~~ HVOC

PURGING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓

SAMPLING EQUIPMENT:
YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ____ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: good
WELL VAULT CONDITION: Fair SEAL PRESENT?: No BOLTS PRESENT?: Yes
WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No
REMARKS: No water in vault

SIGNATURE: M Lomil

Sample Order #3

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec
PROJECT #: 182602648 PURGED BY: GMC WELL I.D.: MW-6
CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-6
LOCATION: Bayliner Arlington

DATE PURGED 9/6/13 START (2400hr) 1125 END (2400hr) 1145
DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1150 LOW-FLOW USED ✓
SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46)
Casing Volume: (liters per foot) 1.12 gallons

DEPTH TO BOTTOM (feet) = ~~FB~~ 24.0'
DEPTH TO WATER (feet) = 16.99'
WATER COLUMN HEIGHT (feet) = 7.01'
ACTUAL PURGE (GL) = 2.2 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1127	0	15.39	0.078	90.5	6.27	very slightly murky	143.1
	1130	.1	13.16	0.067	90.6	6.25	"	125.0
	1133	.3	13.04	0.066	88.5	6.20	"	119.4
	1136	.5	13.05	0.065	86.1	6.18	"	117.6
	1139	1	13.02	0.064	84.3	6.17	"	118.1
	1142	1.5	12.98	0.065	85.6	6.11	"	120.6
	1145	2.0	12.95	0.064	86.8	6.08	"	122.3
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4 ~~8~~-HCL VOA'S PER WELL

ANALYSES:
~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓

SAMPLING EQUIPMENT:
YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: Good
WELL VAULT CONDITION: Good SEAL PRESENT?: No BOLTS PRESENT?: yes
WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No

REMARKS: water in vault

SIGNATURE: [signature]

Page ____ of ____

Sample order #4

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec
PROJECT #: 182602648 PURGED BY: GMC WELL I.D.: MW-4
CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-4
LOCATION: Bay liner Marine Arlington

DATE PURGED 9/6/13 START (2400hr) 1210 END (2400hr) 1225
DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1230 LOW-FLOW USED ✓
SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46)
Casing Volume: (liters per foot) 1.74 gallons.

DEPTH TO BOTTOM (feet) = 28.60'
DEPTH TO WATER (feet) = 17.74'
WATER COLUMN HEIGHT (feet) = 10.86'
ACTUAL PURGE (GL) = 2.1 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	DO% ↓	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1210	0	14.60	0.109	80.8	6.03	clear	163.0
	1213	.3	14.57	0.108	80.8	6.06	clear	150.7
	1216	.6	14.54	0.109	80.9	6.05	clear	145.4
	1219	1.0	14.53	0.110	80.2	6.04	clear	143.2
	1222	1.9	14.51	0.109	79.7	6.05	clear	141.1
↓	1225	2.0	14.51	0.110	78.1	6.05	clear	139.5
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
6/~~8~~-HCL VOA'S PER WELL

ANALYSES:
~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓

SAMPLING EQUIPMENT:
YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: Good
WELL VAULT CONDITION: Fair SEAL PRESENT?: Yes BOLTS PRESENT?: Yes
WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No

REMARKS: Water in Vault

SIGNATURE: JM Comb

Sample Order #5

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec

PROJECT #: _____ PURGED BY: GMC WELL I.D.: MW-5

CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-5

LOCATION: Bayliner – Arlington

DATE PURGED 9/6/13 START (2400hr) 1240 END (2400hr) 1252

DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1255 LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46) 2.5 gallons

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 33.80'

DEPTH TO WATER (feet) = 18.16'

WATER COLUMN HEIGHT (feet) = 15.64'

ACTUAL PURGE (GL) = 2.3 gal

FIELD MEASUREMENTS DO%

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1240	0	15.37	0.076 129.4	6.64	clear	149.4
	1243	.5	14.58	0.082 89.5	6.56	clear	126.8
	1246	1	14.62	0.082 89.4	6.56	clear	124.6
	1249	1.5	14.55	0.079 89.3	6.54	clear	119.3
	1252	2.0	14.54	0.079 87.3	6.48	clear	109.1
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: _____ SAMPLE DTW: _____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

4 3-HCL VOA'S PER WELL

ANALYSES:

~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ____ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good SEAL PRESENT?: Yes BOLTS PRESENT?: Yes

WELL INTEGRITY: Good WELL TAG: No LOCK#: No

REMARKS: Water in Vault

SIGNATURE: [signature]

Page ____ of ____

Sample order #6

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec
PROJECT #: 182602648 PURGED BY: GMC WELL I.D.: MW-2
CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-2
LOCATION: Bayliner - Arlington

DATE PURGED 9/6/13 START (2400hr) 1305 END (2400hr) 1323
DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1325 LOW-FLOW USED yes
SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46) 1.25 gallons
Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 25.20'
DEPTH TO WATER (feet) = 17.40'
WATER COLUMN HEIGHT (feet) = 7.8'
ACTUAL PURGE (GL) = 2.2 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO% 171.4 ↓	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1305	0	14.63	0.090		6.28	brown	174.4
	1308	.1	14.01	0.087		6.20	"	171.0
	1311	.3	13.16	0.083	70.1	6.05	clearing	161.0
	1314	.8	13.38	0.080	68.1	5.98	"	156.2
	1317	1.2	13.41	0.080	66.9	5.93	"	154.2
	1320	1.6	13.36	0.080	66.5	5.94	"	152.9
↓	1323	2.0	13.39	0.079	66.1	5.90	"	153.7
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4 ~~0~~ HCL VOA'S PER WELL

ANALYSES:
~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: Good
WELL VAULT CONDITION: Good SEAL PRESENT?: Yes BOLTS PRESENT?: Yes
WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No
REMARKS: Water in Vault

SIGNATURE: [signature]

Sample Order #7

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec

PROJECT #: _____ PURGED BY: GMC WELL I.D.: MW-8

CLIENT NAME: Brunswick SAMPLED BY: GMC SAMPLE I.D.: MW-8

LOCATION: Bayline Arlington

DATE PURGED 9/6/13 START (2400hr) 1340 END (2400hr) 1358 GMC

DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1400 LOW-FLOW USED yes

SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46) 2.06 gallons
Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.20'

DEPTH TO WATER (feet) = 17.32'

WATER COLUMN HEIGHT (feet) = 12.88'

ACTUAL PURGE (GL) = 2.5 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
9/6/13	1340	0	13.57	0.052	240.1	6.41	slightly murky	165.3
	1343	.2	13.14	0.051	107.4	6.33	"	161.1
	1346	.6	12.98	0.051	90.2	6.20	"	152.0
	1349	1.0	12.97	0.051	84.8	6.14	clearing	149.6
	1352	1.5	12.99	0.050	85.3	6.08	"	146.1
	1355	1.9	12.96	0.050	83.4	6.02	"	147.3
	1358	2.7	12.97	0.051	81.7	5.99	"	148.5
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: _____ SAMPLE DTW: _____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4 ~~6~~-HCL VOA'S PER WELL

ANALYSES:
~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good WELL CASING CONDITION: good

WELL VAULT CONDITION: good SEAL PRESENT?: Yes BOLTS PRESENT?: Yes

WELL INTEGRITY: good WELL TAG: Yes LOCK#: No

REMARKS: water in vault

SIGNATURE: [signature]

Page ____ of ____

Sample Order #8

Stantec

WATER SAMPLE FIELD DATA SHEET

Stantec

PROJECT #: 182602648 (Brunswick) PURGED BY: GMC WELL I.D.: MW-1

CLIENT NAME: Baytiner SAMPLED BY: GMC SAMPLE I.D.: MW-1

LOCATION: Baytiner - Arlington

DATE PURGED 9/6/13 START (2400hr) 1715 END (2400hr) 1733

DATE SAMPLED 9/6/13 SAMPLE TIME (2400hr) 1435 LOW-FLOW USED yes

SAMPLE TYPE: Groundwater x Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER: 2" ✓ (0.16) 4" ____ (0.6) 6" ____ (1.46) 1.54 gallons

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 26.70'

DEPTH TO WATER (feet) = ~~17.22~~ 17.05' GMC

WATER COLUMN HEIGHT (feet) = 9.65'

ACTUAL PURGE (GL) = 2.5 gals

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO % ↓	pH (units)	COLOR (visual)	O.R.P.
~~9/6/13~~	1415	0	13.08	0.062	100.1	6.59	clear	447.0
	1418	.2	12.43	0.060	91.5	6.77	clear	470.8
	1421	.6	12.15	0.059	88.0	6.75	"	482.7
	1424	1.0	12.11	0.059	86.3	6.70	"	490.1
	1427	1.4	12.18	0.061	85.2	6.68	"	493.0
	1430	1.8	12.18	0.064	83.2	6.70	"	492.1
	1433	2.2	12.22	0.067	79.4	6.81	"	491.3
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

6 x 40-HCL VOA'S PER WELL

ANALYSES:

~~NWTPH-g & BTEX~~ HVOC

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good SEAL PRESENT?: Yes BOLTS PRESENT?: Yes

WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No

REMARKS: water in Vault

SIGNATURE: by M Cant

Page ____ of ____

Sample Order #1

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-3

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-3

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 0954 | END (2400hr) 1015

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1020 | LOW-FLOW USED Yes

SAMPLE TYPE: Groundwater x | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER: 2" ✓ (0.16) | 4" ___ (0.6) | 6" ___ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 24.00' 1.15 gal

DEPTH TO WATER (feet) = 16.77'

WATER COLUMN HEIGHT (feet) = 7.23'

ACTUAL PURGE (GL) = 2.5 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
11/26/13	0956	0	9.49	0.177	99.4	5.4	murky	198.6
	0959	.5	9.99	0.162	91.1	5.22	clearing	220.3
	1002	.75	10.21	0.156	88.6	4.98	clearing	218.4
	1005	1.1	10.25	0.153	89.1	5.03	clearing	212.5
	1008	1.6	10.35	0.149	86.3	5.08	clearing	206.7
	1011	2.1	10.34	0.147	80.1	5.17	clearing	201.1
	1015	2.5	10.34	0.146	82.0	5.19	slightly cloudy	198.1
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ___ SAMPLE DTW: ___

QTY OF SAMPLE VESSELS & PRESERVATIVE: 4-HCL VOA'S PER WELL

ANALYSES: HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ___

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: Good | WELL TAG: yes | LOCK#: No

REMARKS: water/ice in well box

SIGNATURE:

Sample Order #2

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-2

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-2

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1035 | END (2400hr) 1055

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1100 | LOW-FLOW USED yes

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 29.30' 1.66 gal

DEPTH TO WATER (feet) = 18.92'

WATER COLUMN HEIGHT (feet) = 10.38'

ACTUAL PURGE (GL) = 2.05

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
11/26/13	0	0	11.59	0.285	169	4.85	clear	202.3
	1038	.2	11.80	0.283	123	5.26	clear	184.8
	1041	.4	11.89	0.272	80.1	6.05	clear	158.0
	1044	.89	11.99	0.271	70.3	6.16	clear	155.6
	1047	1.4	12.05	0.272	69.1	6.18	clear	155.7
	1050	1.8	12.07	0.274	69.0	6.21	clear	154.1
	1053	2.02	12.08	0.274	68.7	6.22	clear	154.0
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

4-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good | SEAL PRESENT?: No | BOLTS PRESENT?: yes

WELL INTEGRITY: Good | WELL TAG: ? | LOCK#: No

REMARKS: water/ice in well vault

SIGNATURE: MM Comit

Sample Order #3

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-4

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-4

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1125 | END (2400hr) 1145

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1145 | LOW-FLOW USED yes

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 28.60' 1.4 gal.

DEPTH TO WATER (feet) = 19.61'

WATER COLUMN HEIGHT (feet) = 8.99'

ACTUAL PURGE (GL) = 2.6 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
11/26/13	1125	0	13.08	0.385	90.1	4.97	clear	188.1
	1128	.2	13.72	0.388	90.1	6.25	clear	149.9
	1131	.6	13.74	0.388	88.6	6.45	clear	148.1
	1134	1	13.73	0.387	88.1	6.48	clear	149.1
	1137	1.5	13.72	0.388	87.7	6.47	clear	151.2
	1140	1.9	13.76	0.387	88.1	6.44	clear	152.7
	1145	2.4	13.76	0.388	80.6	6.46	clear	152.8
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
4-HCL VOA'S PER WELL	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: good

WELL VAULT CONDITION: Good SEAL PRESENT?: yes BOLTS PRESENT?: ✓

WELL INTEGRITY: Good WELL TAG: ? LOCK#: No

REMARKS: water/ice in well vault

SIGNATURE: MM Gmit

Page ____ of ____

Sample Order #4

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-7

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-7

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1205 | END (2400hr) 1220

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1225 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.20' 1.48 gal.

DEPTH TO WATER (feet) = 20.92'

WATER COLUMN HEIGHT (feet) = 9.28'

ACTUAL PURGE (GL) = 2.2 gals

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
11/26/13	1205	0	13.94	0.326	98.1	6.20	clear	156.2
	1208	.2	14.00	0.324	99.3	6.47	clear	152.1
	1211	.7	13.96	0.321	97.3	6.50	clear	152.6
	1214	1.2	13.93	0.319	96.3	6.41	clear	156.9
	1217	1.7	14.01	0.318	95.1	6.31	clear	158.7
	1220	2.2	14.03	0.319	94.0	6.25	clear	158.9
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
4-HCL VOA'S PER WELL	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good WELL CASING CONDITION: ____

WELL VAULT CONDITION: Good SEAL PRESENT?: ~~Yes~~ No BOLTS PRESENT?: Yes

WELL INTEGRITY: Good WELL TAG: Yes LOCK#: No

REMARKS: ____

SIGNATURE: [signature]

Page ____ of ____

Stantec

WATER SAMPLE FIELD DATA SHEET

Sample Order #5

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-6

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-6

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 12:35 | END (2400hr) 1253

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1255 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 25.20' | 1.17 gal.

DEPTH TO WATER (feet) = 17.85'

WATER COLUMN HEIGHT (feet) = 7.35'

ACTUAL PURGE (GL) = ~~2.3~~ gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. °C (degrees F)	CONDUCTIVITY DO% (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
11/26/13	1235	0	11.68	0.236 96.1	6.82	clear	137.7
	1238	.2	11.90	0.233 95.3	6.41	clear	155.0
	1241	.7	11.90	0.232 94.2	6.29	clear	165.7
	1244	1.1	11.90	0.233 93.1	6.24	clear	168.6
	1247	1.6	11.88	0.234 92.1	6.19	clear	169.4
	1250	2.1	11.90	0.234 90.0	6.12	clear	169.5
↓	1253	2.5	11.88	0.233 89.3	6.07	clear	170.3
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

4-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good | SEAL PRESENT?: No | BOLTS PRESENT?: yes

WELL INTEGRITY: Good | WELL TAG: yes | LOCK#: No

REMARKS: ____

SIGNATURE: [signature]

Stantec

WATER SAMPLE FIELD DATA SHEET

Sample Order #6

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-8

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-8

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1335 | END (2400hr) 1353

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1355 | LOW-FLOW USED yes

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 26.70' 1.2 gal

DEPTH TO WATER (feet) = 18.67'

WATER COLUMN HEIGHT (feet) = 8.03'

ACTUAL PURGE (GL) = 2.6 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees C)	CONDUCTIVITY (umhos/cm)	DO %	pH (units)	COLOR (visual)	O.R.P.
11/26/13	1335	0	11.48	0.355	232	5.94	clear	174.5
	1338	.2	11.55	0.283	141	6.08	clear	171.5
	1341	.6	11.64	0.258	109	6.10	clear	171.7
	1344	1.1	11.69	0.237	101	6.02	clear	173.9
	1347	1.5	11.78	0.233	94	5.99	clear	176.7
	1350	1.9	11.79	0.230	93	6.00	clear	177.1
	1353	2.4	11.81	0.231	90	6.01	clear	177.7
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

4-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: Good | WELL TAG: yes | LOCK#: No

REMARKS: No discoloration,

SIGNATURE: [signature]

Sample order #7

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-5

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-5

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1410 | END (2400hr) 1426

DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1430 | LOW-FLOW USED Yes

SAMPLE TYPE: Groundwater x | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER: 2" ✓ (0.16) | 4" ___ (0.6) | 6" ___ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 33.80' 2.14 gal.

DEPTH TO WATER (feet) = 20.37'

WATER COLUMN HEIGHT (feet) = 13.43'

ACTUAL PURGE (GL) = 2.0 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
11/26/13	1410	0	13.64	0.282 110.1	5.89	clear	174.1
	1413	.3	14.36	0.279 100.1	6.75	clear	151.0
	1417	.6	14.31	0.277 98.7	6.76	clear	150.3
	1420	1.1	14.34	0.275 97.1	6.55	clear	157.0
	1423	1.6	14.31	0.275 96.3	6.60	clear	154.0
	1426	2.0	14.31	0.275 95.1	6.57	clear	155.1
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ___ SAMPLE DTW: ___

QTY OF SAMPLE VESSELS & PRESERVATIVE:

4-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ___

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good

WELL VAULT CONDITION: Good | SEAL PRESENT?: No | BOLTS PRESENT?: Yes

WELL INTEGRITY: Good | WELL TAG: yes | LOCK#: No

REMARKS: Water in well vault

SIGNATURE: [signature]

Sample Order #8

Stantec — WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-1
CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-1
LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 11/26/13 | START (2400hr) 1435 | END (2400hr) 1455
DATE SAMPLED 11/26/13 | SAMPLE TIME (2400hr) 1500 | LOW-FLOW USED ✓
SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)
Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.10' 1.89 gal.
DEPTH TO WATER (feet) = 18.28'
WATER COLUMN HEIGHT (feet) = 11.82' 11.61 ACTUAL PURGE (GL) = 2.5 gal

FIELD MEASUREMENTS 1435 0.239 6.61 Clear

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	DO%	pH (units)	COLOR (visual)	O.R.P. 147.1
11/26/13	~~0956~~	0	~~9.49~~	~~0.177~~	99.1	~~5.44~~	~~Murky~~	198.6
	1438	.2	11.63	0.228	93.2	6.50	clear	156.9
	1441	.6	11.67	0.230	89.1	6.49	clear	158.6
	1444	1.1	11.71	0.237	87.6	6.43	clear	159.9
	1447	1.6	11.73	0.238	86.1	6.40	clear	159.8
↓	1450	2.1	11.76	0.236	84.1	6.40	clear	159.6
	1453	2.5	11.74	0.241	83.9	6.29	clear	157.7
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%		≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:
4-HCL VOA'S PER WELL

ANALYSES:
HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: Good | WELL CASING CONDITION: Good
WELL VAULT CONDITION: Good | SEAL PRESENT?: Yes | BOLTS PRESENT?: Yes
WELL INTEGRITY: Good | WELL TAG: Yes | LOCK#: No
REMARKS: No discoloration

SIGNATURE: [signature] 1.56

Sample Order #1

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-3

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-3

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 0911 | END (2400hr) 0932

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 0933 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.10'

DEPTH TO WATER (feet) = 12.24'

WATER COLUMN HEIGHT (feet) = 17.86 x .16 = 2.8 gal | ACTUAL PURGE (GL) = 2.9 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY ~~(umhos/cm)~~ MS/CM	pH (units)	DO% ↓	COLOR (visual)	O.R.P.
6/5/14	0911	.2	9.75	2,033	7.76	67.2	clear	109.4
	0914	.4	9.81	2.016	6.64	76.8	clear	151.2
	0917	.8	9.90	2.003	6.05	83.5	clear	166.5
	0920	1.2	9.90	2.009	5.57	88.3	clear	177.9
	0923	1.6	9.82	2.040	5.21	90.7	clear	186.9
	0926	2.0	9.93	1.995	4.83	92.4	clear	194.0
	0929	2.4	10.00	2.011	4.68	92.7	clear	195.8
↓	0932	2.8	10.04	2.044	4.57	92.7	clear	191.6
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES yes | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: well Box is full of water. Bailed down prior to gauge and purge.

SIGNATURE: [signature]

Sample Order #2

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-7

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-7

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 1026 | END (2400hr) 1048

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1050 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 29.30'

DEPTH TO WATER (feet) = 16.62'

WATER COLUMN HEIGHT (feet) = 12.68' x .16 = 2.02 | ACTUAL PURGE (GL) = 3.0 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY ~~(umhos/cm)~~ ms/cm	pH (units)	DO%	COLOR (visual)	O.R.P.
6/5/14	1026	0.1	11.56	2.383	7.03	118.1	clear	106.5
	1029	.4	11.24	2.287	6.02	95.1	clear	148.2
	1032	.7	11.23	2.234	5.29	93.4	clear	170.0
	1035	1.0	11.24	2.277	4.79	93.6	clear	179.8
	1038	1.4	11.29	2.258	4.57	94.3	clear	183.0
	1041	1.9	11.27	2.269	4.48	93.9	clear	183.4
	1044	2.3	11.31	2.262	4.33	94.3	clear	187.7
↓	1047	2.8	11.28	2.265	4.29	93.8	clear	189.4
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 x HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: ____ | LOCK#: No

REMARKS: well Box is dry

SIGNATURE: [signature]

Page ____ of ____

Sample Order #3

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-6

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-6

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 946 | END (2400hr) 1008

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1010 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER: 2" ✓ (0.16) | 4" ___ (0.6) | 6" ___ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 25.20'

DEPTH TO WATER (feet) = 13.51'

WATER COLUMN HEIGHT (feet) = 11.68' x .16 = 3.03 | ACTUAL PURGE (GL) = 3.4 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY ~~(umhos/cm)~~ ms/cm	pH (units)	DO %	COLOR (visual)	O.R.P.
6/5/14	~~946~~ 946	.1	11.40	3.176	7.45	106.4	clear	107.1
	0949	.3	11.33	3.155	7.23	96.2	clear	116.5
	0952	.8	11.28	3.126	6.19	89.7	clear	150.9
	0955	1.3	11.33	3.157	5.90	90.0	clear	158.0
	0958	1.8	11.16	3.125	5.43	90.8	clear	166.9
	~~09~~1001	2.3	11.09	3.129	5.13	91.3	clear	171.2
	1004	2.8	11.07	3.129	4.93	91.4	clear	176.1
	1007	3.3	11.05	3.118	4.88	91.3	clear	178.6

Calculated Variance of Final Three Samples:

Acceptable Variance Limits: | ≤ 10% | ≤ 3% | ≤ 0.1 | | ≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ___ | SAMPLE DTW: ___

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 x-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ___

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: well box is full of water. Bail down prior to gauge and purge.

SIGNATURE: [signature]

Page ___ of ___

Sample order #4

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-4

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-4

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 1114 | END (2400hr) 1136

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1138 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER: 2" ___ (0.16) | 4" ___ (0.6) | 6" ___ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 28.60'

DEPTH TO WATER (feet) = 15.26'

WATER COLUMN HEIGHT (feet) = 13.34' x .16 = 2.13 | ACTUAL PURGE (GL) = 2.4 gals.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY mS/cm (umhos/cm)	pH (units)	DO%	COLOR (visual)	O.R.P.
6/5/14	1114	.1	13.59	4.279	6.45	113.6	clear	112.3
	1117	.4	12.94	4.239	5.68	86.1	clear	141.9
	1120	.7	12.89	4.210	4.72	83.8	clear	186.7
	1123	1.0	12.86	4.244	4.19	84.1	clear	210.6
	1126	1.4	12.83	4.289	3.72	84.5	clear	225.3
	1129	1.7	12.85	4.218	3.14	84.5	clear	238.9
	1132	2.0	12.75	4.206	2.72	84.0	clear	245.8
↓	1135	2.3	12.74	4.300	2.21	84.4	clear	254.1
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ___ | SAMPLE DTW: ___

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 A-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ___

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes (1 missing)

WELL INTEGRITY: good | WELL TAG: ___ | LOCK#: No

REMARKS: Well box is full of water. Baled down prior to gauge and sample.

SIGNATURE: JM Comi

Page ___ of ___

Sample Order #5

Stantec — WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-5
CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-5
LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) ~~1215~~ 1444 | END (2400hr) 1509
DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1510 | LOW-FLOW USED ✓
SAMPLE TYPE: Groundwater x | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER: 2" ✓ (0.16) | 4" ___ (0.6) | 6" ___ (1.46)
Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 33.80'
DEPTH TO WATER (feet) = ~~14.63~~ 16.36'
WATER COLUMN HEIGHT (feet) = 17.44' x .16 = 2.8 | ACTUAL PURGE (GL) = 3.3 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
6/5/14	~~1401~~ 1444	.1	~~14.01~~ 14.01	~~4.323~~ 4.420	~~6.96~~ 6.55	~~90.8~~ 152.1 clear	~~125.6~~ 112.5
1447	~~1218~~	.3	13.42	4.415	5.73	95.2 clear	142.9
1450	~~1221~~	.7	13.39	4.416	5.02	90.7 clear	166.5
1453	~~1224~~	1.0	13.35	4.414	4.56	90.2 clear	174.3
1456	~~1227~~	1.4	13.36	4.438	4.22	90.2 clear	177.6
1459	~~1230~~	1.8	13.38	4.412	3.87	89.2 clear	180.9
1502	~~1235~~	2.2	13.31	4.426	3.52	90.1 clear	185.3
1503	~~1237~~	2.6	13.34	4.419	3.38	90.3 clear	187.6
1508	→	3.2	13.32	4.423	3.05	89.6 clear	192.7
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ___ | SAMPLE DTW: ___

QTY OF SAMPLE VESSELS & PRESERVATIVE:
3 HCL VOA'S PER WELL

ANALYSES:
HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ___

WELL PAD CONDITION: Good | WELL CASING CONDITION: good
WELL VAULT CONDITION: Good | SEAL PRESENT?: Yes | BOLTS PRESENT?: Yes
WELL INTEGRITY: Good | WELL TAG: Yes | LOCK#: No

REMARKS: Gate locked came back at 3:00 PM

SIGNATURE: [signature]

Page ___ of ___

Sample Order #6

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-2

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-2

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 1215 | END (2400hr) 1238

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1240 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 25.20'

DEPTH TO WATER (feet) = 14.63'

WATER COLUMN HEIGHT (feet) = 10.57' x .16 = 1.7 gal | ACTUAL PURGE (GL) = 2.7 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. °C (degrees F)	CONDUCTIVITY mS/cm (umhos/cm)	pH (units)	DO %	COLOR (visual)	O.R.P.
6/5/14	1215	.1	19.01	4.323	6.96	90.8	clear	125.6
	1218	.4	13.33	4.296	5.66	76.7	clear	182.9
	1221	.7	13.43	4.304	5.08	75.8	clear	201.0
	1224	1.0	13.15	4.293	4.44	75.1	clear	219.0
	1227	1.4	13.40	4.288	3.79	74.9	clear	233.6
	1230	1.8	13.39	4.256	3.22	75.4	clear	241.9
	1233	2.2	13.40	4.252	2.50	75.7	clear	250.0
	1237	2.6	13.25	4.206	2.04	73.9	clear	275.8
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 A-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: Well box full of water. Bailed ~~and~~ prior to gauge and purge.

SIGNATURE: [signature]

Page ____ of ____

Sample Order #7

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-8

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-8

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 1258 | END (2400hr) 1323

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1325 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.20'

DEPTH TO WATER (feet) = 14.11'

WATER COLUMN HEIGHT (feet) = 16.09 x .16 = 2.58 gal | ACTUAL PURGE (GL) = 3.5 gal

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY ~~(umhos/cm)~~ mS/cm	pH (units)	DO % ↓	COLOR (visual)	O.R.P.
6/5/14	1258	.1	12.66	3.347	6.31	67.4	clear	127.1
	1301	.4	11.57	3.251	5.09	69.2	clear	180.7
	1304	.9	11.53	3.107	4.15	75.7	clear	222.3
	1307	1.4	11.44	3.044	3.49	82.4	clear	250.3
	1310	1.8	11.56	3.116	3.17	82.8	clear	260.9
	1313	2.3	11.53	3.105	2.80	83.1	clear	278.4
	1317	2.7	11.53	3.209	2.25	82.8	clear	289.9
	1320	3.1	11.55	3.119	1.95	82.7	clear	296.5
↓	1323	3.5	11.51	3.190	1.47	82.6	clear	306.6
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 #-HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: well box is dry

SIGNATURE: [signature]

Sample Order #8

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-1

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-1

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 6/5/14 | START (2400hr) 1354 | END (2400hr) 1418

DATE SAMPLED 6/5/14 | SAMPLE TIME (2400hr) 1420 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 26.70'

DEPTH TO WATER (feet) = 13.72'

WATER COLUMN HEIGHT (feet) = 12.98 x .16 = 2.07 | ACTUAL PURGE (GL) = 3.0

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. °C (degrees F)	CONDUCTIVITY mS/cm (umhos/cm)	pH (units) DO % ↓	COLOR (visual)	O.R.P.
6/5/14	1354	.1	12.28	3.215	6.71 99.6	clear	116.0
	1357	.4	11.65	3.158	5.42 98.1	clear	176.0
	1400	.8	11.52	3.329	4.97 97.1	clear	181.9
	1403	1.2	11.50	3.366	4.81 92.6	clear	183.1
	1406	1.7	11.61	3.384	4.38 92.1	clear	186.8
	1409	2.1	11.56	3.440	3.96 91.1	clear	193.2
	1412	2.5	11.61	3.415	3.67 90.9	clear	193.8
↓	1415	2.9	11.76	3.576	3.20 90.5	clear	211.4
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 HCL VOA'S PER WELL

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00 ✓	YSI MPS 556 ✓

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: well box full of water. Bail prior to gauge and purge.

SIGNATURE:

Page ____ of ____

Sample Order #1

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-3

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-3

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 8:45 | END (2400hr) 9:15

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 0916 | LOW-FLOW USED No

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot) Purged with Bailer

DEPTH TO BOTTOM (feet) = 24.00'

DEPTH TO WATER (feet) = 16.70' = 3.5 gallons

WATER COLUMN HEIGHT (feet) = 7.3' x .16 = 1.17 | ACTUAL PURGE (GL) = 1.3 gallons

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
9/16/14						clear	
		No Parameters		Collected			
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
3 HCL-preserved VOAs per well	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES N/A | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: ~~No~~ Yes

WELL INTEGRITY: ____ | WELL TAG: ____ | LOCK#: No

REMARKS: well box was full of water bailed out with cup. well was blocked ~~by~~ to vehicle access due to equipment, parked boat trailer.

SIGNATURE: ____ Page ____ of ____

Sample Order #32

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-6

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-6

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 9:55 | END (2400hr) 10:13

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 10:15 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 25.20'

DEPTH TO WATER (feet) = 17.92'

WATER COLUMN HEIGHT (feet) = 7.28' x .16 = 1.16 | ACTUAL PURGE (GL) = 12.4 gals.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. °C (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO %	COLOR (visual)	O.R.P.
9/16/14	9:55	0	11.92	~~1.211~~ 0.857	8.53	97.2	clear	101.7
	9:58	.3	11.40	0.854	8.13	96.1	clear	113.4
	10:01	.6	11.40	0.852	7.77	95.0	clear	119.3
	10:04	1.0	11.42	0.852	7.50	93.8	clear	124.3
	10:07	1.4	11.37	0.840	7.26	91.7	clear	129.6
	10:10	1.8	11.37	0.843	7.14	91.5	clear	132.2
	10:13	2.2	11.39	0.849	7.02	90.5	clear	135.5
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
3 HCL-preserved VOAs per well	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: ____ | LOCK#: None

REMARKS: well vault full of water. Bailed out

SIGNATURE: JM Camp

Page ____ of ____

Sample Order # 23

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-7

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-7

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 10:50 | END (2400hr) 11:12

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 11:105 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.20

DEPTH TO WATER (feet) = 20.59

WATER COLUMN HEIGHT (feet) = 9.61 x .16 = 1.53

ACTUAL PURGE (GL) = 2.6 gal.

FIELD MEASUREMENTS

DO%

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
9/16/14	10:50	0	12.30	0.944	7.25 117.1	clear	128.6
	10:53	.4	12.02	0.931	7.01 110.3	clear	132.7
	10:56	.8	11.84	0.914	6.85 95.3	clear	146.7
	10:59	1.2	11.84	0.941	6.70 93.1	clear	151.8
	11:02	1.5	11.82	0.928	6.59 92.3	clear	154.9
	11:05	1.8	11.80	0.921	6.47 92.0	clear	158.8
	11:08	2.12	11.81	0.926	6.40 91.3	clear	161.0
	11:11	2.5					
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 HCL-preserved VOAs per well

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: No | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: ____

SIGNATURE: [signature]

Sample Order #4

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-4

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-4

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 1215 | END (2400hr) 1235

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 1235 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 28.60'

DEPTH TO WATER (feet) = 19.25'

WATER COLUMN HEIGHT (feet) = ~~2.6~~ 9.35' x .16 = 1.5 ACTUAL PURGE (GL) = 2.6

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO%	COLOR (visual)	O.R.P.
9/16/14	1215	0	14.30	1.185	6.78	113.2	Clear	141.7
	1218	.4	13.99	1.160	6.61	92.7	Clear	148.6
	1221	.8	13.91	1.162	6.56	91.5	clear	150.0
	1224	1.2	13.83	1.157	6.43	89.0	clear	155.0
	1227	1.6	13.84	1.154	6.27	88.2	clear	159.9
	1230	2.0	13.90	1.155	6.21	87.3	clear	162.0
	1233	2.4	13.88	1.157	6.16	87.3	clear	162.7
↓	1236	2.6	13.76	1.182	6.15	86.4	clear	162.9
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 HCL-preserved VOAs per well

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes 2 of 3

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: well vault full of water. Bailed out.

SIGNATURE: [signature]

Sample Order #5

Stantec — WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-5
CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-5
LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) ~~1255~~ | END (2400hr) 1315
DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 1316 | LOW-FLOW USED ✓
SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)
Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 33.80'
DEPTH TO WATER (feet) = 20.07'
WATER COLUMN HEIGHT (feet) = 13.73 x .16 = 2.20 | ACTUAL PURGE (GL) = 2.4 gal.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO %	COLOR (visual)	O.R.P.
9/16/14	1255	0	14.52	1.065	6.67	111.0	clear	142.9
	1258	.4	14.19	1.047	6.61	94.6	clear	146.1
	1301	.8	14.16	1.056	6.42	91.0	clear	151.8
	1304	1.2	14.16	1.057	6.30	90.0	clear	154.8
	1307	1.5	14.13	1.059	6.26	89.3	clear	155.0
	1310	1.8	14.17	1.049	6.24	88.8	clear	154.2
	1313	2.2	14.13	1.055	6.22	88.5	clear	151.4
↓	1316	2.4	14.15	1.050	6.23	89.0	clear	148.6
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE: 3 HCL-preserved VOAs per well
ANALYSES: HVOCs by EPA 8260

PURGING EQUIPMENT: Cole Parmer Environmental Sampler Model# 7175-00
SAMPLING EQUIPMENT: YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good
WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes
WELL INTEGRITY: good | WELL TAG: yes | LOCK#: N/A

REMARKS: ____

SIGNATURE: [signature]

Sample Order #6

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-2

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-2

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 1340 | END (2400hr) 1358

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 1400 | LOW-FLOW USED ____

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 29.30'

DEPTH TO WATER (feet) = 18.67'

WATER COLUMN HEIGHT (feet) = 10.63' x .16 = 1.7 gals | ACTUAL PURGE (GL) = 2.3 gals.

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO%	COLOR (visual)	O.R.P.
9/16/14	1340	0	15.30	1.224	6.84	154.4	clear	133.9
	1343	.4	13.36	1.147	6.63	141.7	clear	142.0
	1346	.8	13.35	1.139	6.29	152.3	clear	152.8
	1349	1.2	13.45	1.128	5.98	77.2	clear	162.1
	1352	1.5	13.49	1.134	5.90	76.4	clear	164.0
	1355	1.9	13.51	1.138	5.83	75.7	clear	165.1
	1358	2.3	13.55	1.136	5.74	76.0	clear	165.9
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
3 HCL-preserved VOAs per well	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: N/A

REMARKS: ____

SIGNATURE: [signature] | Page ____ of ____

Sample Order #7

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-8

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-8

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) ~~1410~~ 1415 | END (2400hr) 1434

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 1435 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ | 4" ____ | 6" ____

Casing Volume: (liters per foot) (0.16) | (0.6) | (1.46)

DEPTH TO BOTTOM (feet) = 26.70'

DEPTH TO WATER (feet) = 18.42'

WATER COLUMN HEIGHT (feet) = 8.28' x .16 = 1.32 | ACTUAL PURGE (GL) = 2.5

FIELD MEASUREMENTS

DO%

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. C (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	O.R.P.
9/16/14	1405	0	15.11	0.804	6.12 336.0	clear	147.3
	1418	.4	11.77	0.712	6.26 147.1	clear	174.4
	1421	.8	11.93	0.692	5.98 83.1	clear	161.4
	1424	1.2	11.98	0.691	5.88 81.9	clear	165.0
	1428	1.6	11.96	0.680	5.85 82.1	clear	165.6
	1431	2.0	12.03	0.691	5.84 80.8	clear	165.7
	1434	2.4	12.11	0.685	5.84 81.0	clear	166.0
Calculated Variance of Final Three Samples:							
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1		≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:	ANALYSES:
3 HCL-preserved VOAs per well	HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: ____

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: N/A

REMARKS: No water in vault.

SIGNATURE: [signature]

Page ____ of ____

Sample Order #8

Stantec

WATER SAMPLE FIELD DATA SHEET

PROJECT #: Bayliner Marine | PURGED BY: GMC | WELL I.D.: MW-1

CLIENT NAME: Brunswick Corporation | SAMPLED BY: GMC | SAMPLE I.D.: MW-1

LOCATION: 17825 59th Avenue NE Arlington, Washington

DATE PURGED 9/16/14 | START (2400hr) 1458 | END (2400hr) 1222

DATE SAMPLED 9/16/14 | SAMPLE TIME (2400hr) 1525 | LOW-FLOW USED ✓

SAMPLE TYPE: Groundwater x | Surface Water ____ | Treatment Effluent ____ | Other ____

CASING DIAMETER: 2" ✓ (0.16) | 4" ____ (0.6) | 6" ____ (1.46)

Casing Volume: (liters per foot)

DEPTH TO BOTTOM (feet) = 30.10

DEPTH TO WATER (feet) = 18.10

WATER COLUMN HEIGHT (feet) = 12.0 x .16 = 1.92 | ACTUAL PURGE (GL) = 2.8 gals

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (GL)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	DO%	COLOR (visual)	O.R.P.
9/16/14	1458	0	12.10	0.671	6.54	141.0	clear	145.2
	1501	.4	11.54	0.652	6.34	93.8	clear	154.5
	1504	.8	11.50	0.635	6.09	94.2	clear	164.6
	1507	1.1	11.65	0.642	5.94	90.7	clear	165.1
	1510	1.4	11.66	0.659	5.93	90.2	clear	169.3
	1513	1.7	11.77	0.650	5.94	90.6	clear	161.4
	1516	2.0	11.79	0.668	5.97	89.9	clear	155.4
	1519	2.4	11.85	0.671	5.99	89.6	clear	148.7
	1522	2.7	11.84	0.698	6.02	87.9	clear	144.7
Calculated Variance of Final Three Samples:								
Acceptable Variance Limits:			≤ 10%	≤ 3%	≤ 0.1			≤ 10%

DEPTH TO PURGE INTAKE DURING PURGE: ____ | SAMPLE DTW: ____

QTY OF SAMPLE VESSELS & PRESERVATIVE:

3 HCL-preserved VOAs per well

ANALYSES:

HVOCs by EPA 8260

PURGING EQUIPMENT:	SAMPLING EQUIPMENT:
Cole Parmer Environmental Sampler Model# 7175-00	YSI MPS 556

Flow Through Cell Disconnected Prior to Sample Collection?: YES ✓ | NO ____

WELL PAD CONDITION: good | WELL CASING CONDITION: good

WELL VAULT CONDITION: good | SEAL PRESENT?: yes | BOLTS PRESENT?: yes

WELL INTEGRITY: good | WELL TAG: yes | LOCK#: No

REMARKS: ____

SIGNATURE: Ivy M Lamb

Page ____ of ____

APPENDIX B
IDW DISPOSAL MANIFEST

*** 24 HOUR EMERGENCY RESPONSE, CALL (877) 577-2669 ***

SHIPPING PAPER

Lading Manifest: 263845-14

	DELIVERY DATE / JOB # 697200
SHIPPER / CUSTOMER: US MARINE - BAYLINER	POINT OF CONTACT: DAVID SELIG
ADDRESS: 17825 59TH AVE NE	PHONE #: (847)735-44364436
CITY, STATE, ZIP: ARLINGTON WA 98223	
CARRIER / TRANSPORTER: BURLINGTON ENVIRONMENTAL, LLC	PHONE #: (253)383-3044
CONSIGNEE / FACILITY: BURLINGTON ENVIRONMENTAL, LLC.	POINT OF CONTACT
ADDRESS: 20249 77TH AVENUE SOUTH	PHONE #: (253)872-8030
CITY, STATE, ZIP: KENT , WA 98032	

HM	US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	Containers No.	Containers Type	Total Quantity	UOM
A	MATERIAL NOT REGULATED BY DOT	10	DM	3706	P
B					
C					
D					

Special Handling Instruction and Additional Information:

a) 657037-00 - MONITORING WELL DEVELOPMENT WATER - WA505 (3)

Placards Provided YES_____ NO_____

SHIPPER'S CERTIFICATION: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.

		MONTH	DAY	YEAR
(SHIPPER) PRINT OR TYPE NAME: X Greg McCormick for Bayliner	SIGNATURE: X	09	16	14
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME: X Otis Foster	SIGNATURE: X	09	16	14
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME: X	SIGNATURE: X			

SHIPPER

APPENDIX C
LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

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September 13, 2013

Greg McCormick, Project Manager
Stantec
12034 134th Ct NE, Suite 102
Redmond, WA 98052

Dear Mr. McCormick:

Included are the results from the testing of material submitted on September 9, 2013 from the Bayliner Facility Arlington WA, 182602648, F&BI 309119 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
STN0913R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 9, 2013 by Friedman & Bruya, Inc. from the Stantec Bayliner Facility Arlington WA, 182602648, F&BI 309119 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Stantec
309119 -01	MW-1
309119 -02	MW-2
309119 -03	MW-3
309119 -04	MW-4
309119 -05	MW-5
309119 -06	MW-6
309119 -07	MW-7
309119 -08	MW-8

1,2,3-Trichlorobenzene in the 8260C matrix spike, laboratory control sample and laboratory control sample duplicate failed the acceptance criteria. The data were flagged accordingly.

Bromomethane in the 8260C matrix spike, laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analyte was not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-01
Date Analyzed:	09/09/13	Data File:	090927.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	35
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-02
Date Analyzed:	09/09/13	Data File:	090928.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-03
Date Analyzed:	09/09/13	Data File:	090929.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-4	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-04
Date Analyzed:	09/09/13	Data File:	090930.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	97	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-5	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-05
Date Analyzed:	09/09/13	Data File:	090931.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	3.1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-06
Date Analyzed:	09/09/13	Data File:	090932.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-07
Date Analyzed:	09/09/13	Data File:	090933.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	95	50	150
4-Bromofluorobenzene	95	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8	Client:	Stantec
Date Received:	09/09/13	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	309119-08
Date Analyzed:	09/09/13	Data File:	090934.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	96	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	34
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Stantec
Date Received:	Not Applicable	Project:	Bayliner Facility Arlington WA, F&BI 309119
Date Extracted:	09/09/13	Lab ID:	03-1713 mb
Date Analyzed:	09/09/13	Data File:	090907.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	96	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1 jl

Date of Report: 09/13/13
Date Received: 09/09/13
Project: Bayliner Facility Arlington WA, 182602648, F&BI 309119

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 309093-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	92	55-144
Chloromethane	ug/L (ppb)	50	<10	90	67-131
Vinyl chloride	ug/L (ppb)	50	<0.2	82	61-139
Bromomethane	ug/L (ppb)	50	<1	142 vo	66-129
Chloroethane	ug/L (ppb)	50	<1	89	68-126
Trichlorofluoromethane	ug/L (ppb)	50	<1	96	71-128
Acetone	ug/L (ppb)	250	<10	95	48-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	95	71-123
Methylene chloride	ug/L (ppb)	50	<5	95	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	102	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	96	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	79-113
2,2-Dichloropropane	ug/L (ppb)	50	<1	98	58-132
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	73-119
Chloroform	ug/L (ppb)	50	<1	98	80-112
2-Butanone (MEK)	ug/L (ppb)	250	<10	107	69-123
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	95	78-113
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	105	79-116
1,1-Dichloropropene	ug/L (ppb)	50	<1	91	67-121
Carbon tetrachloride	ug/L (ppb)	50	<1	113	72-123
Benzene	ug/L (ppb)	50	<0.35	94	79-109
Trichloroethene	ug/L (ppb)	50	<1	97	75-109
1,2-Dichloropropane	ug/L (ppb)	50	<1	103	80-111
Bromodichloromethane	ug/L (ppb)	50	<1	105	78-117
Dibromomethane	ug/L (ppb)	50	<1	99	80-112
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	111	79-123
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	101	76-120
Toluene	ug/L (ppb)	50	<1	95	73-117
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	108	75-122
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	103	81-111
2-Hexanone	ug/L (ppb)	250	<10	109	75-126
1,3-Dichloropropane	ug/L (ppb)	50	<1	100	81-111
Tetrachloroethene	ug/L (ppb)	50	<1	93	72-113
Dibromochloromethane	ug/L (ppb)	50	<1	117	69-129
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	106	83-114
Chlorobenzene	ug/L (ppb)	50	<1	95	75-115
Ethylbenzene	ug/L (ppb)	50	<1	97	71-120
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	106	78-122
m,p-Xylene	ug/L (ppb)	100	<2	97	63-128
o-Xylene	ug/L (ppb)	50	<1	96	64-129
Styrene	ug/L (ppb)	50	<1	99	70-122
Isopropylbenzene	ug/L (ppb)	50	<1	96	76-118
Bromoform	ug/L (ppb)	50	<1	118	49-138
n-Propylbenzene	ug/L (ppb)	50	<1	98	74-117
Bromobenzene	ug/L (ppb)	50	<1	98	70-121
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	99	81-112
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	103	79-120
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	98	72-119
2-Chlorotoluene	ug/L (ppb)	50	<1	96	77-114
4-Chlorotoluene	ug/L (ppb)	50	<1	96	81-109
tert-Butylbenzene	ug/L (ppb)	50	<1	98	81-116
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	96	74-118
sec-Butylbenzene	ug/L (ppb)	50	<1	95	77-118
p-Isopropyltoluene	ug/L (ppb)	50	<1	93	64-132
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	96	81-111
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	91	78-110
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	91	81-111
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	110	69-129
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	82	74-115
Hexachlorobutadiene	ug/L (ppb)	50	<1	77	67-120
Naphthalene	ug/L (ppb)	50	<1	89	63-136
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	76 vo	79-115

Date of Report: 09/13/13
Date Received: 09/09/13
Project: Bayliner Facility Arlington WA, 182602648, F&BI 309119

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	91	94	54-149	3
Chloromethane	ug/L (ppb)	50	89	91	67-133	2
Vinyl chloride	ug/L (ppb)	50	80	83	73-132	4
Bromomethane	ug/L (ppb)	50	136 vo	152 vo	69-123	11
Chloroethane	ug/L (ppb)	50	91	92	68-126	1
Trichlorofluoromethane	ug/L (ppb)	50	96	99	70-132	3
Acetone	ug/L (ppb)	250	94	96	44-145	2
1,1-Dichloroethene	ug/L (ppb)	50	96	98	75-119	2
Methylene chloride	ug/L (ppb)	50	91	92	63-132	1
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	105	105	70-122	0
trans-1,2-Dichloroethene	ug/L (ppb)	50	98	98	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	98	100	80-116	2
2,2-Dichloropropane	ug/L (ppb)	50	104	105	62-141	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	94	95	81-111	1
Chloroform	ug/L (ppb)	50	98	99	81-109	1
2-Butanone (MEK)	ug/L (ppb)	250	101	103	53-140	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	95	96	79-109	1
1,1,1-Trichloroethane	ug/L (ppb)	50	105	108	80-116	3
1,1-Dichloropropene	ug/L (ppb)	50	90	92	78-112	2
Carbon tetrachloride	ug/L (ppb)	50	114	118	72-128	3
Benzene	ug/L (ppb)	50	92	94	81-108	2
Trichloroethene	ug/L (ppb)	50	95	97	77-108	2
1,2-Dichloropropane	ug/L (ppb)	50	100	102	82-109	2
Bromodichloromethane	ug/L (ppb)	50	105	106	76-120	1
Dibromomethane	ug/L (ppb)	50	96	97	80-110	1
4-Methyl-2-pentanone	ug/L (ppb)	250	105	106	59-142	1
cis-1,3-Dichloropropene	ug/L (ppb)	50	97	100	76-128	3
Toluene	ug/L (ppb)	50	91	94	83-108	3
trans-1,3-Dichloropropene	ug/L (ppb)	50	103	106	76-128	3
1,1,2-Trichloroethane	ug/L (ppb)	50	97	98	82-110	1
2-Hexanone	ug/L (ppb)	250	102	104	53-145	2
1,3-Dichloropropane	ug/L (ppb)	50	93	94	83-110	1
Tetrachloroethene	ug/L (ppb)	50	90	92	78-109	2
Dibromochloromethane	ug/L (ppb)	50	117	120	63-140	3
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	101	103	85-113	2
Chlorobenzene	ug/L (ppb)	50	93	94	84-108	1
Ethylbenzene	ug/L (ppb)	50	93	96	84-110	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	108	110	76-125	2
m,p-Xylene	ug/L (ppb)	100	95	97	84-112	2
o-Xylene	ug/L (ppb)	50	96	99	82-113	3
Styrene	ug/L (ppb)	50	99	101	84-116	2
Isopropylbenzene	ug/L (ppb)	50	96	98	81-122	2
Bromoform	ug/L (ppb)	50	123	126	40-161	2
n-Propylbenzene	ug/L (ppb)	50	92	95	81-115	3
Bromobenzene	ug/L (ppb)	50	93	95	80-113	2
1,3,5-Trimethylbenzene	ug/L (ppb)	50	95	98	83-117	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	97	100	79-118	3
1,2,3-Trichloropropane	ug/L (ppb)	50	90	94	74-116	4
2-Chlorotoluene	ug/L (ppb)	50	89	93	79-112	4
4-Chlorotoluene	ug/L (ppb)	50	92	95	81-113	3
tert-Butylbenzene	ug/L (ppb)	50	92	96	81-119	4
1,2,4-Trimethylbenzene	ug/L (ppb)	50	92	96	83-116	4
sec-Butylbenzene	ug/L (ppb)	50	91	94	83-116	3
p-Isopropyltoluene	ug/L (ppb)	50	91	93	82-119	2
1,3-Dichlorobenzene	ug/L (ppb)	50	92	96	83-111	4
1,4-Dichlorobenzene	ug/L (ppb)	50	89	91	82-109	2
1,2-Dichlorobenzene	ug/L (ppb)	50	90	92	83-111	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	107	110	62-133	3
1,2,4-Trichlorobenzene	ug/L (ppb)	50	85	88	77-117	3
Hexachlorobutadiene	ug/L (ppb)	50	80	83	74-118	4
Naphthalene	ug/L (ppb)	50	88	91	75-131	3
1,2,3-Trichlorobenzene	ug/L (ppb)	50	79 vo	81 vo	82-115	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

309119

SAMPLE CHAIN OF CUSTODY

FE 09-09-13 1 V2 1

Send Report To Greg McCormick
Company Stantec
Address 12034 134th Court NE Suite
City, State, ZIP Redmond, WA 102
Phone #(425) 298-1000 Fax # (425)298-1019

SAMPLERS (*signature*)
PROJECT NAME/NO. Bayliner Facility Arlington, WA
PO#
REMARKS

Page # 1 of 1

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS							Notes
MW-1	01 A-D	9/6/13	1435	W	4				X									
MW-2	02		1325	W	4				X									
MW-3	03		1030	W	4				X									
MW-4	04		1230	W	4				X									
MW-5	05		1255	W	4				X									
MW-6	06		1150	W	4				X									
MW-7	07		1115	W	4				X									
MW-8	08	↓	1400	W	4				X									
																		Samples received at 4

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Greg McCormick	Stantec	9/9/13	9:00
Received by:	Svava Mincea	Postal Express	9/9/13	10:50
Relinquished by:				
Received by:	DO VO	F-B2	9-9-13	13:02

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Kurt Johnson, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 5, 2013

Greg McCormick, Project Manager
Stantec
12034 134th Ct NE, Suite 102
Redmond, WA 98052

Dear Mr. McCormick:

Included are the results from the testing of material submitted on November 27, 2013 from the Bayliner Marine 182602648, F&BI 311536 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
STN1205R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 27, 2013 by Friedman & Bruya, Inc. from the Stantec Bayliner Marine 182602648, F&BI 311536 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Stantec
311536 -01	MW-1
311536 -02	MW-2
311536 -03	MW-3
311536 -04	MW-4
311536 -05	MW-5
311536 -06	MW-6
311536 -07	MW-7
311536 -08	MW-8

Several compounds in the 8260C matrix spike, laboratory control sample and laboratory control sample duplicate exceeded the acceptance criteria. The analytes were not detected in the sample, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-1	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-01
Date Analyzed:	11/27/13	Data File:	112714.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	35
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-2	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-02
Date Analyzed:	11/27/13	Data File:	112715.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-3	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-03
Date Analyzed:	11/27/13	Data File:	112716.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-4	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-04
Date Analyzed:	11/27/13	Data File:	112717.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	3.7
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-5	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-05
Date Analyzed:	11/27/13	Data File:	112718.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-6	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-06
Date Analyzed:	11/27/13	Data File:	112719.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-7	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-07
Date Analyzed:	11/27/13	Data File:	112720.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-8	Client:	Stantec
Date Received:	11/27/13	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	311536-08
Date Analyzed:	11/27/13	Data File:	112721.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	40
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Stantec
Date Received:	Not Applicable	Project:	Bayliner Marine 182602648, F&BI 311536
Date Extracted:	11/27/13	Lab ID:	03-2450 mb
Date Analyzed:	11/27/13	Data File:	112707.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	50	150
Toluene-d8	103	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Methylene chloride	<5	o-Xylene	<1
Methyl t-butyl ether (MTBE)	<1	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<0.35	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<10
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1

Date of Report: 12/05/13
Date Received: 11/27/13
Project: Bayliner Marine 182602648, F&BI 311536

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 311536-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	95	55-144
Chloromethane	ug/L (ppb)	50	<10	98	67-131
Vinyl chloride	ug/L (ppb)	50	<0.2	97	61-139
Bromomethane	ug/L (ppb)	50	<1	196 vo	66-129
Chloroethane	ug/L (ppb)	50	<1	96	68-126
Trichlorofluoromethane	ug/L (ppb)	50	<1	96	71-128
Acetone	ug/L (ppb)	250	<10	70	48-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	92	71-123
Methylene chloride	ug/L (ppb)	50	<5	104	61-126
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	103	68-125
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	94	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	98	79-113
2,2-Dichloropropane	ug/L (ppb)	50	<1	86	58-132
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	99	73-119
Chloroform	ug/L (ppb)	50	<1	101	80-112
2-Butanone (MEK)	ug/L (ppb)	250	<10	84	69-123
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	105	78-113
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	97	79-116
1,1-Dichloropropene	ug/L (ppb)	50	<1	95	67-121
Carbon tetrachloride	ug/L (ppb)	50	<1	97	72-123
Benzene	ug/L (ppb)	50	<0.35	93	79-109
Trichloroethene	ug/L (ppb)	50	<1	93	75-109
1,2-Dichloropropane	ug/L (ppb)	50	<1	101	80-111
Bromodichloromethane	ug/L (ppb)	50	<1	106	78-117
Dibromomethane	ug/L (ppb)	50	<1	104	80-112
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	107	79-123
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	104	76-120
Toluene	ug/L (ppb)	50	<1	94	73-117
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	103	75-122
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	99	81-111
2-Hexanone	ug/L (ppb)	250	<10	94	75-126
1,3-Dichloropropane	ug/L (ppb)	50	<1	95	81-111
Tetrachloroethene	ug/L (ppb)	50	<1	87	72-113
Dibromochloromethane	ug/L (ppb)	50	<1	111	69-129
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	102	83-114
Chlorobenzene	ug/L (ppb)	50	<1	95	75-115
Ethylbenzene	ug/L (ppb)	50	<1	94	71-120
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	104	78-122
m,p-Xylene	ug/L (ppb)	100	<2	95	63-128
o-Xylene	ug/L (ppb)	50	<1	98	64-129
Styrene	ug/L (ppb)	50	<1	99	70-122
Isopropylbenzene	ug/L (ppb)	50	<1	96	76-118
Bromoform	ug/L (ppb)	50	<1	111	49-138
n-Propylbenzene	ug/L (ppb)	50	<1	91	74-117
Bromobenzene	ug/L (ppb)	50	<1	92	70-121
1,3,5-Trimethylbenzene	ug/L (ppb)	50	<1	95	81-112
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	101	79-120
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	96	72-119
2-Chlorotoluene	ug/L (ppb)	50	<1	93	77-114
4-Chlorotoluene	ug/L (ppb)	50	<1	94	81-109
tert-Butylbenzene	ug/L (ppb)	50	<1	97	81-116
1,2,4-Trimethylbenzene	ug/L (ppb)	50	<1	96	74-118
sec-Butylbenzene	ug/L (ppb)	50	<1	93	77-118
p-Isopropyltoluene	ug/L (ppb)	50	<1	93	64-132
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	91	81-111
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	88	78-110
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	95	81-111
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	117	69-129
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	92	74-115
Hexachlorobutadiene	ug/L (ppb)	50	<1	92	67-120
Naphthalene	ug/L (ppb)	50	<1	100	63-136
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	95	79-115

Date of Report: 12/05/13
Date Received: 11/27/13
Project: Bayliner Marine 182602648, F&BI 311536

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	99	95	54-149	4
Chloromethane	ug/L (ppb)	50	101	100	67-133	1
Vinyl chloride	ug/L (ppb)	50	99	94	73-132	5
Bromomethane	ug/L (ppb)	50	204 vo	203 vo	69-123	0
Chloroethane	ug/L (ppb)	50	98	96	68-126	2
Trichlorofluoromethane	ug/L (ppb)	50	98	94	70-132	4
Acetone	ug/L (ppb)	250	97	99	44-145	2
1,1-Dichloroethene	ug/L (ppb)	50	93	91	75-119	2
Methylene chloride	ug/L (ppb)	50	105	106	63-132	1
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	110	111	70-122	1
trans-1,2-Dichloroethene	ug/L (ppb)	50	97	94	76-118	3
1,1-Dichloroethane	ug/L (ppb)	50	102	100	80-116	2
2,2-Dichloropropane	ug/L (ppb)	50	97	96	62-141	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	102	101	81-111	1
Chloroform	ug/L (ppb)	50	105	104	81-109	1
2-Butanone (MEK)	ug/L (ppb)	250	103	106	53-140	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	115 vo	117 vo	79-109	2
1,1,1-Trichloroethane	ug/L (ppb)	50	101	99	80-116	2
1,1-Dichloropropene	ug/L (ppb)	50	99	96	78-112	3
Carbon tetrachloride	ug/L (ppb)	50	102	99	72-128	3
Benzene	ug/L (ppb)	50	99	98	81-108	1
Trichloroethene	ug/L (ppb)	50	97	96	77-108	1
1,2-Dichloropropane	ug/L (ppb)	50	111 vo	113 vo	82-109	2
Bromodichloromethane	ug/L (ppb)	50	117	119	76-120	2
Dibromomethane	ug/L (ppb)	50	114 vo	116 vo	80-110	2
4-Methyl-2-pentanone	ug/L (ppb)	250	122	126	59-142	3
cis-1,3-Dichloropropene	ug/L (ppb)	50	120	122	76-128	2
Toluene	ug/L (ppb)	50	93	89	83-108	4
trans-1,3-Dichloropropene	ug/L (ppb)	50	114	113	76-128	1
1,1,2-Trichloroethane	ug/L (ppb)	50	102	102	82-110	0
2-Hexanone	ug/L (ppb)	250	103	103	53-145	0
1,3-Dichloropropane	ug/L (ppb)	50	102	101	83-110	1
Tetrachloroethene	ug/L (ppb)	50	86	82	78-109	5
Dibromochloromethane	ug/L (ppb)	50	116	116	63-140	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	108	108	85-113	0
Chlorobenzene	ug/L (ppb)	50	96	93	84-108	3
Ethylbenzene	ug/L (ppb)	50	94	90	84-110	4
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	103	100	76-125	3
m,p-Xylene	ug/L (ppb)	100	96	91	84-112	5
o-Xylene	ug/L (ppb)	50	97	93	82-113	4
Styrene	ug/L (ppb)	50	104	100	84-116	4
Isopropylbenzene	ug/L (ppb)	50	94	88	81-122	7
Bromoform	ug/L (ppb)	50	121	119	40-161	2
n-Propylbenzene	ug/L (ppb)	50	91	87	81-115	4
Bromobenzene	ug/L (ppb)	50	94	92	80-113	2
1,3,5-Trimethylbenzene	ug/L (ppb)	50	94	90	83-117	4
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	103	103	79-118	0
1,2,3-Trichloropropane	ug/L (ppb)	50	99	100	74-116	1
2-Chlorotoluene	ug/L (ppb)	50	92	90	79-112	2
4-Chlorotoluene	ug/L (ppb)	50	95	92	81-113	3
tert-Butylbenzene	ug/L (ppb)	50	94	88	81-119	7
1,2,4-Trimethylbenzene	ug/L (ppb)	50	94	91	83-116	3
sec-Butylbenzene	ug/L (ppb)	50	90	87	83-116	3
p-Isopropyltoluene	ug/L (ppb)	50	93	87	82-119	7
1,3-Dichlorobenzene	ug/L (ppb)	50	92	91	83-111	1
1,4-Dichlorobenzene	ug/L (ppb)	50	89	86	82-109	3
1,2-Dichlorobenzene	ug/L (ppb)	50	94	92	83-111	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	116	117	62-133	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	91	90	77-117	1
Hexachlorobutadiene	ug/L (ppb)	50	92	88	74-118	4
Naphthalene	ug/L (ppb)	50	96	97	75-131	1
1,2,3-Trichlorobenzene	ug/L (ppb)	50	93	93	82-115	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

311536

SAMPLE CHAIN OF CUSTODY

ME 11-27-13 V3

Page # 1 of 1

Send Report To Greg McCormick

Company Stantec

Address 11130 NE 33rd Pl, Suite 200

City, State, ZIP Bellevue, WA 98004

Phone # (425) 922-6392 Fax # (425) 869-1190

SAMPLERS (signature)

PROJECT NAME/NO. Bayliner Marine No. 182602648

PO#

REMARKS

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS							Notes
						ANALYSES REQUESTED												
MW-1	01 A-D	11/26/13	1500	W	4				X									
MW-2	02		1100	W	4				X									
MW-3	03		1020	W	4				X									
MW-4	04		1145	W	4				X									
MW-5	05		1430	W	4				X									
MW-6	06		1255	W	4				X									
MW-7	07		1225	W	4				X									
MW-8	08	↓	1355	W	4				X									
																		Samples received at 4° C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Greg McCormick	Stantec	11/27/13	
Received by:	DOVO	F&BI	11	12:15
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Stantec Consulting Corporation
Greg McCormick
11130 NE 33rd Pl, Suite 200
Bellevue, WA 98004

RE: Bayliner Facility
Lab ID: 1406070

June 15, 2014

Attention Greg McCormick:

Fremont Analytical, Inc. received 8 sample(s) on 6/6/2014 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Michael Dee
Sr. Chemist / Principal

Date: *06/15/2014*

CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility
Lab Order: 1406070

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1406070-001	MW-1	06/05/2014 2:20 PM	06/06/2014 11:50 AM
1406070-002	MW-2	06/05/2014 2:40 PM	06/06/2014 11:50 AM
1406070-003	MW-3	06/05/2014 9:33 AM	06/06/2014 11:50 AM
1406070-004	MW-4	06/05/2014 11:38 AM	06/06/2014 11:50 AM
1406070-005	MW-5	06/05/2014 3:10 PM	06/06/2014 11:50 AM
1406070-006	MW-6	06/05/2014 10:10 AM	06/06/2014 11:50 AM
1406070-007	MW-7	06/05/2014 10:50 AM	06/06/2014 11:50 AM
1406070-008	MW-8	06/05/2014 1:25 PM	06/06/2014 11:50 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1406070**
Date: **6/15/2014**

CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 2:20:00 PM
Project: Bayliner Facility
Lab ID: 1406070-001
Matrix: Water
Client Sample ID: MW-1

Volatile Organic Compounds by EPA Method 8260

Batch ID: R14768 Analyst: EM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 1:42:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 1:42:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 1:42:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Tetrachloroethene (PCE)	30.6	1.00		µg/L	1	6/7/2014 1:42:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 1:42:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 2:20:00 PM
Project: Bayliner Facility
Lab ID: 1406070-001
Matrix: Water
Client Sample ID: **MW-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 1:42:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 1:42:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 1:42:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 1:42:00 PM
Surr: Dibromofluoromethane	98.5	61.7-130		%REC	1	6/7/2014 1:42:00 PM
Surr: Toluene-d8	98.5	62.1-129		%REC	1	6/7/2014 1:42:00 PM
Surr: 1-Bromo-4-fluorobenzene	93.2	66.8-124		%REC	1	6/7/2014 1:42:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 2:40:00 PM
Project: Bayliner Facility
Lab ID: 1406070-002
Matrix: Water
Client Sample ID: **MW-2**

Volatile Organic Compounds by EPA Method 8260

Batch ID: R14768 Analyst: EM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 3:56:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 3:56:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 3:56:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 3:56:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 2:40:00 PM
Project: Bayliner Facility
Lab ID: 1406070-002
Matrix: Water
Client Sample ID: **MW-2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 3:56:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 3:56:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 3:56:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 3:56:00 PM
Surr: Dibromofluoromethane	102	61.7-130		%REC	1	6/7/2014 3:56:00 PM
Surr: Toluene-d8	99.6	62.1-129		%REC	1	6/7/2014 3:56:00 PM
Surr: 1-Bromo-4-fluorobenzene	94.3	66.8-124		%REC	1	6/7/2014 3:56:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 9:33:00 AM
Project: Bayliner Facility
Lab ID: 1406070-003
Matrix: Water
Client Sample ID: **MW-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 4:26:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 4:26:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 4:26:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 4:26:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 9:33:00 AM
Project: Bayliner Facility
Lab ID: 1406070-003
Matrix: Water
Client Sample ID: **MW-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 4:26:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 4:26:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 4:26:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 4:26:00 PM
Surr: Dibromofluoromethane	98.1	61.7-130		%REC	1	6/7/2014 4:26:00 PM
Surr: Toluene-d8	98.3	62.1-129		%REC	1	6/7/2014 4:26:00 PM
Surr: 1-Bromo-4-fluorobenzene	94.0	66.8-124		%REC	1	6/7/2014 4:26:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 11:38:00 AM
Project: Bayliner Facility
Lab ID: 1406070-004
Matrix: Water
Client Sample ID: **MW-4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 4:55:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 4:55:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 4:55:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Tetrachloroethene (PCE)	1.73	1.00		µg/L	1	6/7/2014 4:55:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 4:55:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 11:38:00 AM
Project: Bayliner Facility
Lab ID: 1406070-004
Matrix: Water
Client Sample ID: **MW-4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 4:55:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 4:55:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 4:55:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 4:55:00 PM
Surr: Dibromofluoromethane	101	61.7-130		%REC	1	6/7/2014 4:55:00 PM
Surr: Toluene-d8	99.6	62.1-129		%REC	1	6/7/2014 4:55:00 PM
Surr: 1-Bromo-4-fluorobenzene	93.2	66.8-124		%REC	1	6/7/2014 4:55:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 3:10:00 PM
Project: Bayliner Facility
Lab ID: 1406070-005
Matrix: Water
Client Sample ID: MW-5

Volatile Organic Compounds by EPA Method 8260

Batch ID: R14768 Analyst: EM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 5:25:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 5:25:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 5:25:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 5:25:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 3:10:00 PM
Project: Bayliner Facility
Lab ID: 1406070-005
Matrix: Water
Client Sample ID: **MW-5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 5:25:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 5:25:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 5:25:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 5:25:00 PM
Surr: Dibromofluoromethane	98.8	61.7-130		%REC	1	6/7/2014 5:25:00 PM
Surr: Toluene-d8	98.1	62.1-129		%REC	1	6/7/2014 5:25:00 PM
Surr: 1-Bromo-4-fluorobenzene	94.0	66.8-124		%REC	1	6/7/2014 5:25:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 10:10:00 AM
Project: Bayliner Facility
Lab ID: 1406070-006
Matrix: Water
Client Sample ID: MW-6

Volatile Organic Compounds by EPA Method 8260

Batch ID: R14768 Analyst: EM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 5:54:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 5:54:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 5:54:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 5:54:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 10:10:00 AM
Project: Bayliner Facility
Lab ID: 1406070-006
Matrix: Water
Client Sample ID: **MW-6**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 5:54:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 5:54:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 5:54:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 5:54:00 PM
Surr: Dibromofluoromethane	99.4	61.7-130		%REC	1	6/7/2014 5:54:00 PM
Surr: Toluene-d8	97.9	62.1-129		%REC	1	6/7/2014 5:54:00 PM
Surr: 1-Bromo-4-fluorobenzene	94.4	66.8-124		%REC	1	6/7/2014 5:54:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 10:50:00 AM
Project: Bayliner Facility
Lab ID: 1406070-007
Matrix: Water
Client Sample ID: **MW-7**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 6:24:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 6:24:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 6:24:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 6:24:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 10:50:00 AM
Project: Bayliner Facility
Lab ID: 1406070-007
Matrix: Water
Client Sample ID: **MW-7**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 6:24:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 6:24:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 6:24:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 6:24:00 PM
Surr: Dibromofluoromethane	101	61.7-130		%REC	1	6/7/2014 6:24:00 PM
Surr: Toluene-d8	98.5	62.1-129		%REC	1	6/7/2014 6:24:00 PM
Surr: 1-Bromo-4-fluorobenzene	93.3	66.8-124		%REC	1	6/7/2014 6:24:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 1:25:00 PM
Project: Bayliner Facility
Lab ID: 1406070-008
Matrix: Water
Client Sample ID: **MW-8**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Chloromethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Vinyl chloride	ND	0.200		µg/L	1	6/7/2014 6:53:00 PM
Bromomethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Chloroethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Methylene chloride	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	6/7/2014 6:53:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Chloroform	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Benzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/7/2014 6:53:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Dibromomethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Toluene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Tetrachloroethene (PCE)	36.9	1.00		µg/L	1	6/7/2014 6:53:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	6/7/2014 6:53:00 PM
Chlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Ethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
m,p-Xylene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1406070**
Date Reported: **6/15/2014**

Client: Stantec Consulting Corporation
Collection Date: 6/5/2014 1:25:00 PM
Project: Bayliner Facility
Lab ID: 1406070-008
Matrix: Water
Client Sample ID: **MW-8**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R14768		Analyst: EM
o-Xylene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Styrene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Bromoform	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Bromobenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/7/2014 6:53:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	6/7/2014 6:53:00 PM
Naphthalene	ND	1.00		µg/L	1	6/7/2014 6:53:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/7/2014 6:53:00 PM
Surr: Dibromofluoromethane	101	61.7-130		%REC	1	6/7/2014 6:53:00 PM
Surr: Toluene-d8	98.7	62.1-129		%REC	1	6/7/2014 6:53:00 PM
Surr: 1-Bromo-4-fluorobenzene	94.8	66.8-124		%REC	1	6/7/2014 6:53:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406058-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303767**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.0	1.00	20.00	0	85.1	33.3	122				
Chloromethane	16.5	1.00	20.00	0	82.3	48.2	145				
Vinyl chloride	18.6	0.200	20.00	2.662	79.7	58.1	158				
Bromomethane	18.0	1.00	20.00	0	90.0	31.5	135				
Trichlorofluoromethane (CFC-11)	20.5	1.00	20.00	0	102	54.7	138				
Chloroethane	16.9	1.00	20.00	0	84.7	49.9	143				
1,1-Dichloroethene	17.6	1.00	20.00	0	87.8	63	141				
Methylene chloride	17.4	1.00	20.00	0	86.8	61.6	135				
trans-1,2-Dichloroethene	17.4	1.00	20.00	0	87.0	63.5	138				
Methyl tert-butyl ether (MTBE)	16.4	1.00	20.00	0	82.1	60.9	132				
1,1-Dichloroethane	17.8	1.00	20.00	0	88.9	67.8	136				
2,2-Dichloropropane	17.0	2.00	20.00	0	85.1	31.5	121				
cis-1,2-Dichloroethene	25.0	1.00	20.00	8.527	82.4	67.1	123				
Chloroform	19.0	1.00	20.00	0	95.1	66.7	136				
1,1,1-Trichloroethane (TCA)	18.5	1.00	20.00	0	92.3	64.2	146				
1,1-Dichloropropene	18.3	1.00	20.00	0	91.4	73.8	136				
Carbon tetrachloride	19.8	1.00	20.00	0	99.0	62.7	146				
1,2-Dichloroethane (EDC)	20.0	1.00	20.00	0	100	63.4	137				
Benzene	17.8	1.00	20.00	0	89.1	65.4	138				
Trichloroethene (TCE)	18.6	0.500	20.00	0	92.8	60.4	134				
1,2-Dichloropropane	17.9	1.00	20.00	0	89.5	62.6	138				
Bromodichloromethane	19.7	1.00	20.00	0	98.5	59.4	139				
Dibromomethane	19.6	1.00	20.00	0	97.9	63.6	139				
cis-1,3-Dichloropropene	19.0	1.00	20.00	0	95.0	63.8	132				
Toluene	18.8	1.00	20.00	0	94.2	64	139				
trans-1,3-Dichloropropene	19.6	1.00	20.00	0	98.1	57.7	125				
1,1,2-Trichloroethane	19.2	1.00	20.00	0	96.2	59.4	127				
1,3-Dichloropropane	19.3	1.00	20.00	0	96.7	64.3	135				
Tetrachloroethene (PCE)	19.1	1.00	20.00	0	95.3	50.3	133				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406058-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303767**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	20.0	1.00	20.00	0	99.9	61.6	139				
1,2-Dibromoethane (EDB)	19.2	0.0600	20.00	0	95.9	63.2	134				
Chlorobenzene	18.3	1.00	20.00	0	91.6	65.8	134				
1,1,1,2-Tetrachloroethane	19.3	1.00	20.00	0	96.7	65.4	135				
Ethylbenzene	18.0	1.00	20.00	0	89.9	64.5	136				
m,p-Xylene	37.0	1.00	40.00	0	92.4	63.3	135				
o-Xylene	18.3	1.00	20.00	0	91.4	65.4	134				
Styrene	18.0	1.00	20.00	0	89.8	59.1	134				
Isopropylbenzene	18.7	1.00	20.00	0	93.7	56	147				
Bromoform	20.6	1.00	20.00	0	103	57.7	139				
1,1,2,2-Tetrachloroethane	20.0	1.00	20.00	0	99.8	59.8	146				
n-Propylbenzene	18.6	1.00	20.00	0	93.1	57.6	142				
Bromobenzene	18.2	1.00	20.00	0	91.1	63.6	130				
1,3,5-Trimethylbenzene	18.6	1.00	20.00	0	92.8	59.9	136				
2-Chlorotoluene	17.6	1.00	20.00	0	88.2	61.7	134				
4-Chlorotoluene	17.9	1.00	20.00	0	89.7	58.4	134				
tert-Butylbenzene	18.9	1.00	20.00	0	94.4	66.8	141				
1,2,3-Trichloropropane	20.5	1.00	20.00	0	103	62.4	129				
1,2,4-Trichlorobenzene	17.7	2.00	20.00	0	88.5	50.9	133				
sec-Butylbenzene	19.0	1.00	20.00	0	94.8	56	146				
4-Isopropyltoluene	18.4	1.00	20.00	0	92.0	56.4	136				
1,3-Dichlorobenzene	18.5	1.00	20.00	0	92.3	58.2	128				
1,4-Dichlorobenzene	18.1	1.00	20.00	0	90.4	60.1	123				
n-Butylbenzene	19.1	1.00	20.00	0	95.3	54.6	135				
1,2-Dichlorobenzene	18.4	1.00	20.00	0	91.9	65.4	133				
1,2-Dibromo-3-chloropropane	21.8	1.00	20.00	0	109	51.8	142				
1,2,4-Trimethylbenzene	17.9	1.00	20.00	0	89.4	63.7	132				
Hexachlorobutadiene	18.8	4.00	20.00	0	93.8	58.1	130				
Naphthalene	19.1	1.00	20.00	0	95.6	54.5	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406058-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303767**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	18.0	4.00	20.00	0	90.2	57	131				
Surr: Dibromofluoromethane	48.2		50.00		96.3	61.7	130				
Surr: Toluene-d8	51.7		50.00		103	62.1	129				
Surr: 1-Bromo-4-fluorobenzene	51.8		50.00		104	66.8	124				

Sample ID: **1406058-003ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303769**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406058-003ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303769**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406058-003ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303769**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	51.9		50.00		104	61.7	130		0		
Surr: Toluene-d8	53.6		50.00		107	62.1	129		0		
Surr: 1-Bromo-4-fluorobenzene	46.2		50.00		92.4	66.8	124		0		

Sample ID: **1406062-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303777**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406062-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303777**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1406062-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **BATCH** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303777**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	52.1		50.00		104	61.7	130		0		
Surr: Toluene-d8	51.7		50.00		103	62.1	129		0		
Surr: 1-Bromo-4-fluorobenzene	46.3		50.00		92.7	66.8	124		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-R14768** SampType: **LCS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **LCSW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303780**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	12.5	1.00	20.00	0	62.5	43	136				
Chloromethane	23.9	1.00	20.00	0	120	43.9	139				
Vinyl chloride	20.4	0.200	20.00	0	102	53.6	139				
Bromomethane	20.0	1.00	20.00	0	100	44.8	148				
Trichlorofluoromethane (CFC-11)	13.7	1.00	20.00	0	68.4	63.7	133				
Chloroethane	12.6	1.00	20.00	0	62.9	53	141				
1,1-Dichloroethene	14.0	1.00	20.00	0	70.2	65.6	136				
Methylene chloride	18.7	1.00	20.00	0	93.6	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.6	71.7	129				
Methyl tert-butyl ether (MTBE)	19.5	1.00	20.00	0	97.7	67.7	131				
1,1-Dichloroethane	19.8	1.00	20.00	0	98.9	67.9	134				
2,2-Dichloropropane	14.8	2.00	20.00	0	74.1	33.7	152				
cis-1,2-Dichloroethene	20.1	1.00	20.00	0	101	71.1	130				
Chloroform	19.9	1.00	20.00	0	99.4	76.7	124				
1,1,1-Trichloroethane (TCA)	18.7	1.00	20.00	0	93.7	71	131				
1,1-Dichloropropene	20.2	1.00	20.00	0	101	74.5	126				
Carbon tetrachloride	17.7	1.00	20.00	0	88.6	66.2	134				
1,2-Dichloroethane (EDC)	20.6	1.00	20.00	0	103	70	129				
Benzene	21.2	1.00	20.00	0	106	76	123				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	65.2	136				
1,2-Dichloropropane	19.8	1.00	20.00	0	99.0	70.5	130				
Bromodichloromethane	17.9	1.00	20.00	0	89.5	74.6	127				
Dibromomethane	19.0	1.00	20.00	0	94.9	75.5	126				
cis-1,3-Dichloropropene	17.8	1.00	20.00	0	89.2	62.6	137				
Toluene	20.6	1.00	20.00	0	103	71.5	130				
trans-1,3-Dichloropropene	17.6	1.00	20.00	0	88.2	58.5	142				
1,1,2-Trichloroethane	19.7	1.00	20.00	0	98.7	76	124				
1,3-Dichloropropane	19.6	1.00	20.00	0	98.1	73.5	127				
Tetrachloroethene (PCE)	20.5	1.00	20.00	0	102	47.5	147				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-R14768** SampType: **LCS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **LCSW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303780**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	17.9	1.00	20.00	0	89.3	67.2	134				
1,2-Dibromoethane (EDB)	19.1	0.0600	20.00	0	95.3	73.6	125				
Chlorobenzene	20.5	1.00	20.00	0	102	73.9	126				
1,1,1,2-Tetrachloroethane	19.1	1.00	20.00	0	95.3	76.8	124				
Ethylbenzene	20.1	1.00	20.00	0	100	72	130				
m,p-Xylene	41.5	1.00	40.00	0	104	73	131				
o-Xylene	20.1	1.00	20.00	0	101	72.1	131				
Styrene	20.3	1.00	20.00	0	102	64.3	140				
Isopropylbenzene	20.7	1.00	20.00	0	103	73.9	128				
Bromoform	17.0	1.00	20.00	0	85.0	63.8	135				
1,1,2,2-Tetrachloroethane	18.3	1.00	20.00	0	91.6	62.9	132				
n-Propylbenzene	20.7	1.00	20.00	0	103	74.5	127				
Bromobenzene	19.9	1.00	20.00	0	99.5	71	131				
1,3,5-Trimethylbenzene	20.6	1.00	20.00	0	103	73.1	128				
2-Chlorotoluene	20.2	1.00	20.00	0	101	70.8	130				
4-Chlorotoluene	20.0	1.00	20.00	0	99.8	70.1	131				
tert-Butylbenzene	21.0	1.00	20.00	0	105	68.2	131				
1,2,3-Trichloropropane	19.2	1.00	20.00	0	95.8	67.7	131				
1,2,4-Trichlorobenzene	20.4	2.00	20.00	0	102	72.4	127				
sec-Butylbenzene	20.7	1.00	20.00	0	103	72	129				
4-Isopropyltoluene	20.7	1.00	20.00	0	103	69.2	130				
1,3-Dichlorobenzene	21.0	1.00	20.00	0	105	72.4	129				
1,4-Dichlorobenzene	20.9	1.00	20.00	0	104	70.6	128				
n-Butylbenzene	21.3	1.00	20.00	0	107	73.8	127				
1,2-Dichlorobenzene	20.3	1.00	20.00	0	101	74.2	129				
1,2-Dibromo-3-chloropropane	16.7	1.00	20.00	0	83.6	63.1	136				
1,2,4-Trimethylbenzene	20.4	1.00	20.00	0	102	73.4	127				
Hexachlorobutadiene	21.0	4.00	20.00	0	105	58.6	138				
Naphthalene	20.6	1.00	20.00	0	103	62	136				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-R14768** SampType: **LCS** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **LCSW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303780**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	20.5	4.00	20.00	0	103	66.4	132				
Surr: Dibromofluoromethane	48.4		50.00		96.7	61.7	130				
Surr: Toluene-d8	50.4		50.00		101	62.1	129				
Surr: 1-Bromo-4-fluorobenzene	51.6		50.00		103	66.8	124				

Sample ID: **MB-R14768** SampType: **MBLK** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **MBLKW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303781**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-R14768** SampType: **MBLK** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **MBLKW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303781**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0600									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1406070
CLIENT: Stantec Consulting Corporation
Project: Bayliner Facility

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-R14768** SampType: **MBLK** Units: **µg/L** Prep Date: **6/7/2014** RunNo: **14768**
Client ID: **MBLKW** Batch ID: **R14768** Analysis Date: **6/7/2014** SeqNo: **303781**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	50.9		50.00		102	61.7	130				
Surr: Toluene-d8	50.4		50.00		101	62.1	129				
Surr: 1-Bromo-4-fluorobenzene	45.4		50.00		90.8	66.8	124				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Sample Log-In Check List

Client Name:	**STANTEC**	Work Order Number:	**1406070**
Logged by:	**Clare Griggs**	Date Received:	**6/6/2014 11:50:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all coolers received at a temperature of >0°C to 10.0°C	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is the headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C	Condition
Cooler	2.5	Good
Sample	5.9	Good

Fremont Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No (internal): 1406070

Date: 6/6/14

Page: 1 of: 1

Client: Stantec Consulting
Address: 11130 NE 33rd Place, Suite 200
City, State, Zip: Bellevue, WA
Tel: (425)922-6392
Reports To (PM): Greg McCormick
Fax:
Email: greg.mccormick@stantec.com

Project Name: Bayliner Facility
Location: Arlington, Washington
Collected by: Greg McCormick
Project No: 182602648

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, WW = Waste Water

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOC (EPA 8260)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SEMI VOA (EPA 8270)	PAH (EPA 8270 - SIM)	PCBs (EPA 8082)	Metals** (6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	VOCs by 8260				Comments/Depth
1	MW-1	6/5/14	1420	W													X					
2	MW-2		1240	W													X					
3	MW-3		0933	W													X					
4	MW-4		1138	W													X					
5	MW-5		1510	W													X					
6	MW-6		1010	W													X					
7	MW-7		1050	W													X					
8	MW-8	↓	1325	W													X					
9																						
10																						

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Special Remarks:

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/6/14	x	
x 2440log	6/6/14	x [signature]	11:20AM 6/6/14 11:50

TAT -> SameDay^ NextDay^ 2 Day 3 Day STD

^Please coordinate with the lab in advance

C: 2.5

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Stantec Consulting Corporation
Greg McCormick
11130 NE 33rd Pl, Suite 200
Bellevue, WA 98004

RE: Bayliner Marine
Lab ID: 1409171

September 25, 2014

Attention Greg McCormick:

Fremont Analytical, Inc. received 10 sample(s) on 9/17/2014 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President

Date: *09/25/2014*

CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine
Lab Order: 1409171

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1409171-001	MW-1	09/16/2014 3:25 PM	09/17/2014 1:40 PM
1409171-002	MW-2	09/16/2014 2:00 PM	09/17/2014 1:40 PM
1409171-003	MW-3	09/16/2014 9:16 AM	09/17/2014 1:40 PM
1409171-004	MW-4	09/16/2014 12:35 PM	09/17/2014 1:40 PM
1409171-005	MW-5	09/16/2014 1:16 PM	09/17/2014 1:40 PM
1409171-006	MW-6	09/16/2014 10:15 AM	09/17/2014 1:40 PM
1409171-007	MW-7	09/16/2014 11:15 AM	09/17/2014 1:40 PM
1409171-008	MW-8	09/16/2014 2:35 PM	09/17/2014 1:40 PM
1409171-009	Soil Cuttings	09/16/2014 3:30 PM	09/17/2014 1:40 PM
1409171-010	Trip Blank	09/10/2014 9:18 AM	09/17/2014 1:40 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1409171**
Date: **9/25/2014**

CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 3:25:00 PM
Project: Bayliner Marine
Lab ID: 1409171-001
Matrix: Water
Client Sample ID: **MW-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/22/2014 10:56:00 PM
Chloromethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2014 10:56:00 PM
Bromomethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Chloroethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2014 10:56:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Chloroform	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Benzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2014 10:56:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Toluene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Tetrachloroethene (PCE)	36.5	1.00		µg/L	1	9/22/2014 10:56:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2014 10:56:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 3:25:00 PM
Project: Bayliner Marine
Lab ID: 1409171-001
Matrix: Water
Client Sample ID: **MW-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Styrene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Bromoform	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/22/2014 10:56:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2014 10:56:00 PM
Naphthalene	ND	1.00		µg/L	1	9/22/2014 10:56:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/22/2014 10:56:00 PM
Surr: Dibromofluoromethane	99.0	61.7-130		%REC	1	9/22/2014 10:56:00 PM
Surr: Toluene-d8	93.7	40.1-139		%REC	1	9/22/2014 10:56:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	68.2-127		%REC	1	9/22/2014 10:56:00 PM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 2:00:00 PM
Project: Bayliner Marine
Lab ID: 1409171-002
Matrix: Water
Client Sample ID: **MW-2**

Volatile Organic Compounds by EPA Method 8260

Batch ID: R16913 Analyst: BC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/22/2014 11:24:00 PM
Chloromethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2014 11:24:00 PM
Bromomethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Chloroethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2014 11:24:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Chloroform	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Benzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2014 11:24:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Toluene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2014 11:24:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 2:00:00 PM
Project: Bayliner Marine
Lab ID: 1409171-002
Matrix: Water
Client Sample ID: **MW-2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Styrene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Bromoform	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/22/2014 11:24:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2014 11:24:00 PM
Naphthalene	ND	1.00		µg/L	1	9/22/2014 11:24:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/22/2014 11:24:00 PM
Surr: Dibromofluoromethane	97.3	61.7-130		%REC	1	9/22/2014 11:24:00 PM
Surr: Toluene-d8	94.5	40.1-139		%REC	1	9/22/2014 11:24:00 PM
Surr: 1-Bromo-4-fluorobenzene	95.3	68.2-127		%REC	1	9/22/2014 11:24:00 PM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**

Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation **Collection Date:** 9/16/2014 9:16:00 AM

Project: Bayliner Marine

Lab ID: 1409171-003 **Matrix:** Water

Client Sample ID: **MW-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/22/2014 11:52:00 PM
Chloromethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2014 11:52:00 PM
Bromomethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Chloroethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2014 11:52:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Chloroform	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Benzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2014 11:52:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Toluene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2014 11:52:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 9:16:00 AM
Project: Bayliner Marine
Lab ID: 1409171-003
Matrix: Water
Client Sample ID: **MW-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Styrene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Bromoform	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/22/2014 11:52:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2014 11:52:00 PM
Naphthalene	ND	1.00		µg/L	1	9/22/2014 11:52:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/22/2014 11:52:00 PM
Surr: Dibromofluoromethane	98.1	61.7-130		%REC	1	9/22/2014 11:52:00 PM
Surr: Toluene-d8	95.5	40.1-139		%REC	1	9/22/2014 11:52:00 PM
Surr: 1-Bromo-4-fluorobenzene	95.6	68.2-127		%REC	1	9/22/2014 11:52:00 PM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 12:35:00 PM
Project: Bayliner Marine
Lab ID: 1409171-004
Matrix: Water
Client Sample ID: **MW-4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/23/2014 12:20:00 AM
Chloromethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2014 12:20:00 AM
Bromomethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Chloroethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2014 12:20:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Chloroform	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Benzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2014 12:20:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Toluene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Tetrachloroethene (PCE)	3.92	1.00		µg/L	1	9/23/2014 12:20:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2014 12:20:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 12:35:00 PM
Project: Bayliner Marine
Lab ID: 1409171-004
Matrix: Water
Client Sample ID: **MW-4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Styrene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Bromoform	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/23/2014 12:20:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2014 12:20:00 AM
Naphthalene	ND	1.00		µg/L	1	9/23/2014 12:20:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/23/2014 12:20:00 AM
Surr: Dibromofluoromethane	98.0	61.7-130		%REC	1	9/23/2014 12:20:00 AM
Surr: Toluene-d8	96.2	40.1-139		%REC	1	9/23/2014 12:20:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.2	68.2-127		%REC	1	9/23/2014 12:20:00 AM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 1:16:00 PM
Project: Bayliner Marine
Lab ID: 1409171-005
Matrix: Water
Client Sample ID: **MW-5**

Volatile Organic Compounds by EPA Method 8260

Batch ID: R16913 Analyst: BC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/23/2014 12:48:00 AM
Chloromethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2014 12:48:00 AM
Bromomethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Chloroethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2014 12:48:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Chloroform	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Benzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2014 12:48:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Toluene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2014 12:48:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 1:16:00 PM
Project: Bayliner Marine
Lab ID: 1409171-005
Matrix: Water
Client Sample ID: **MW-5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Styrene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Bromoform	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/23/2014 12:48:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 12:48:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2014 12:48:00 AM
Naphthalene	1.16	1.00		µg/L	1	9/23/2014 12:48:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/23/2014 12:48:00 AM
Surr: Dibromofluoromethane	97.2	61.7-130		%REC	1	9/23/2014 12:48:00 AM
Surr: Toluene-d8	93.6	40.1-139		%REC	1	9/23/2014 12:48:00 AM
Surr: 1-Bromo-4-fluorobenzene	94.8	68.2-127		%REC	1	9/23/2014 12:48:00 AM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 10:15:00 AM
Project: Bayliner Marine
Lab ID: 1409171-006
Matrix: Water
Client Sample ID: **MW-6**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/23/2014 1:16:00 AM
Chloromethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2014 1:16:00 AM
Bromomethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Chloroethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2014 1:16:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Chloroform	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Benzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2014 1:16:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Toluene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2014 1:16:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 10:15:00 AM
Project: Bayliner Marine
Lab ID: 1409171-006
Matrix: Water
Client Sample ID: **MW-6**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Styrene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Bromoform	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/23/2014 1:16:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2014 1:16:00 AM
Naphthalene	ND	1.00		µg/L	1	9/23/2014 1:16:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/23/2014 1:16:00 AM
Surr: Dibromofluoromethane	97.2	61.7-130		%REC	1	9/23/2014 1:16:00 AM
Surr: Toluene-d8	95.9	40.1-139		%REC	1	9/23/2014 1:16:00 AM
Surr: 1-Bromo-4-fluorobenzene	94.5	68.2-127		%REC	1	9/23/2014 1:16:00 AM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 11:15:00 AM
Project: Bayliner Marine
Lab ID: 1409171-007
Matrix: Water
Client Sample ID: **MW-7**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/23/2014 1:44:00 AM
Chloromethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2014 1:44:00 AM
Bromomethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Chloroethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2014 1:44:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Chloroform	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Benzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2014 1:44:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Toluene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2014 1:44:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 11:15:00 AM
Project: Bayliner Marine
Lab ID: 1409171-007
Matrix: Water
Client Sample ID: **MW-7**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Styrene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Bromoform	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/23/2014 1:44:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2014 1:44:00 AM
Naphthalene	ND	1.00		µg/L	1	9/23/2014 1:44:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/23/2014 1:44:00 AM
Surr: Dibromofluoromethane	97.1	61.7-130		%REC	1	9/23/2014 1:44:00 AM
Surr: Toluene-d8	96.4	40.1-139		%REC	1	9/23/2014 1:44:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.3	68.2-127		%REC	1	9/23/2014 1:44:00 AM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 2:35:00 PM
Project: Bayliner Marine
Lab ID: 1409171-008
Matrix: Water
Client Sample ID: **MW-8**

Volatile Organic Compounds by EPA Method 8260

Batch ID: R16913 Analyst: BC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	*	µg/L	1	9/23/2014 2:13:00 AM
Chloromethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2014 2:13:00 AM
Bromomethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Chloroethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2014 2:13:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Chloroform	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Benzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2014 2:13:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Toluene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Tetrachloroethene (PCE)	42.4	1.00		µg/L	1	9/23/2014 2:13:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2014 2:13:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 2:35:00 PM
Project: Bayliner Marine
Lab ID: 1409171-008
Matrix: Water
Client Sample ID: **MW-8**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R16913		Analyst: BC
o-Xylene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Styrene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Bromoform	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	9/23/2014 2:13:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2014 2:13:00 AM
Naphthalene	ND	1.00		µg/L	1	9/23/2014 2:13:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	9/23/2014 2:13:00 AM
Surr: Dibromofluoromethane	97.9	61.7-130		%REC	1	9/23/2014 2:13:00 AM
Surr: Toluene-d8	93.8	40.1-139		%REC	1	9/23/2014 2:13:00 AM
Surr: 1-Bromo-4-fluorobenzene	92.2	68.2-127		%REC	1	9/23/2014 2:13:00 AM

NOTES:
* - Flagged value is not within established control limits.

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 3:30:00 PM
Project: Bayliner Marine
Lab ID: 1409171-009
Matrix: Soil
Client Sample ID: Soil Cuttings

Volatile Organic Compounds by EPA Method 8260

Batch ID: 8830 Analyst: BC

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.203		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Chloromethane	ND	0.203		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Vinyl chloride	ND	0.00677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Bromomethane	ND	0.305		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Chloroethane	ND	0.203		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1-Dichloroethene	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Methylene chloride	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
trans-1,2-Dichloroethene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1-Dichloroethane	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
2,2-Dichloropropane	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
cis-1,2-Dichloroethene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Chloroform	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1-Dichloropropene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Carbon tetrachloride	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2-Dichloroethane (EDC)	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Benzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Trichloroethene (TCE)	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2-Dichloropropane	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Bromodichloromethane	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Dibromomethane	ND	0.135		mg/Kg-dry	1	9/25/2014 12:31:00 PM
cis-1,3-Dichloropropene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Toluene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
trans-1,3-Dichloropropylene	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1,2-Trichloroethane	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,3-Dichloropropane	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Tetrachloroethene (PCE)	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Dibromochloromethane	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2-Dibromoethane (EDB)	ND	0.0169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Chlorobenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1,1,2-Tetrachloroethane	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Ethylbenzene	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
m,p-Xylene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1409171**
Date Reported: **9/25/2014**

Client: Stantec Consulting Corporation
Collection Date: 9/16/2014 3:30:00 PM
Project: Bayliner Marine
Lab ID: 1409171-009
Matrix: Soil
Client Sample ID: **Soil Cuttings**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 8830		Analyst: BC
o-Xylene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Styrene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Isopropylbenzene	ND	0.271		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Bromoform	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
n-Propylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Bromobenzene	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,3,5-Trimethylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
2-Chlorotoluene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
4-Chlorotoluene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
tert-Butylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2,3-Trichloropropane	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2,4-Trichlorobenzene	ND	0.169		mg/Kg-dry	1	9/25/2014 12:31:00 PM
sec-Butylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
4-Isopropyltoluene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,3-Dichlorobenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,4-Dichlorobenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
n-Butylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2-Dichlorobenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2-Dibromo-3-chloropropane	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2,4-Trimethylbenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Hexachlorobutadiene	ND	0.338		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Naphthalene	ND	0.102		mg/Kg-dry	1	9/25/2014 12:31:00 PM
1,2,3-Trichlorobenzene	ND	0.0677		mg/Kg-dry	1	9/25/2014 12:31:00 PM
Surr: Dibromofluoromethane	94.2	63.7-129		%REC	1	9/25/2014 12:31:00 PM
Surr: Toluene-d8	103	64.3-131		%REC	1	9/25/2014 12:31:00 PM
Surr: 1-Bromo-4-fluorobenzene	99.9	63.1-141		%REC	1	9/25/2014 12:31:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R16889		Analyst: KZ
Percent Moisture	85.3			wt%	1	9/22/2014 9:11:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-8830** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **LCSS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.527	0.0600	1.000	0	52.7	37.2	139				
Chloromethane	0.707	0.0600	1.000	0	70.7	38.8	132				
Vinyl chloride	0.959	0.00200	1.000	0	95.9	56.1	130				
Bromomethane	1.68	0.0900	1.000	0	168	41.3	148				S
Trichlorofluoromethane (CFC-11)	1.29	0.0500	1.000	0	129	42.9	147				
Chloroethane	3.69	0.0600	1.000	0	369	37.1	144				S
1,1-Dichloroethene	1.49	0.0500	1.000	0	149	49.7	142				S
Methylene chloride	0.917	0.0200	1.000	0	91.7	54.5	131				
trans-1,2-Dichloroethene	1.02	0.0200	1.000	0	102	68	130				
Methyl tert-butyl ether (MTBE)	0.921	0.0500	1.000	0	92.1	59.1	138				
1,1-Dichloroethane	1.11	0.0200	1.000	0	111	65.5	132				
2,2-Dichloropropane	0.908	0.0500	1.000	0	90.8	28.1	149				
cis-1,2-Dichloroethene	1.17	0.0200	1.000	0	117	71.3	135				
Chloroform	1.13	0.0200	1.000	0	113	67.5	129				
1,1,1-Trichloroethane (TCA)	1.16	0.0200	1.000	0	116	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.33	0.0200	1.000	0	133	63.4	137				
1,2-Dichloroethane (EDC)	1.14	0.0300	1.000	0	114	61.9	136				
Benzene	0.975	0.0200	1.000	0	97.5	64.3	133				
Trichloroethene (TCE)	1.26	0.0200	1.000	0	126	65.5	137				
1,2-Dichloropropane	1.15	0.0200	1.000	0	115	63.2	142				
Bromodichloromethane	1.30	0.0200	1.000	0	130	76.1	136				
Dibromomethane	1.05	0.0400	1.000	0	105	70	130				
cis-1,3-Dichloropropene	1.13	0.0200	1.000	0	113	59.1	143				
Toluene	0.943	0.0200	1.000	0	94.3	67.3	138				
trans-1,3-Dichloropropylene	1.13	0.0300	1.000	0	113	49.2	149				
1,1,2-Trichloroethane	1.26	0.0300	1.000	0	126	74.5	129				
1,3-Dichloropropane	1.08	0.0500	1.000	0	108	70	130				
Tetrachloroethene (PCE)	1.08	0.0200	1.000	0	108	52.7	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-8830** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **LCSS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	1.35	0.0300	1.000	0	135	70.6	144				
1,2-Dibromoethane (EDB)	1.11	0.00500	1.000	0	111	70	130				
Chlorobenzene	0.978	0.0200	1.000	0	97.8	76.1	123				
1,1,1,2-Tetrachloroethane	1.22	0.0300	1.000	0	122	74.8	131				
Ethylbenzene	1.01	0.0300	1.000	0	101	74	129				
m,p-Xylene	1.94	0.0200	2.000	0	97.0	79.8	128				
o-Xylene	0.991	0.0200	1.000	0	99.1	72.7	124				
Styrene	1.04	0.0200	1.000	0	104	76.8	130				
Isopropylbenzene	1.00	0.0800	1.000	0	100	70	130				
Bromoform	1.35	0.0200	1.000	0	135	67	154				
1,1,2,2-Tetrachloroethane	1.05	0.0200	1.000	0	105	60	130				
n-Propylbenzene	0.941	0.0200	1.000	0	94.1	74.8	125				
Bromobenzene	1.06	0.0300	1.000	0	106	49.2	144				
1,3,5-Trimethylbenzene	0.916	0.0200	1.000	0	91.6	74.6	123				
2-Chlorotoluene	0.960	0.0200	1.000	0	96.0	76.7	129				
4-Chlorotoluene	0.962	0.0200	1.000	0	96.2	77.5	125				
tert-Butylbenzene	0.971	0.0200	1.000	0	97.1	66.2	130				
1,2,3-Trichloropropane	0.978	0.0200	1.000	0	97.9	67.9	136				
1,2,4-Trichlorobenzene	1.01	0.0500	1.000	0	101	65.6	137				
sec-Butylbenzene	0.968	0.0200	1.000	0	96.8	75.6	133				
4-Isopropyltoluene	0.951	0.0200	1.000	0	95.1	76.8	131				
1,3-Dichlorobenzene	1.00	0.0200	1.000	0	100	72.8	128				
1,4-Dichlorobenzene	0.923	0.0200	1.000	0	92.3	72.6	126				
n-Butylbenzene	0.951	0.0200	1.000	0	95.1	65.3	136				
1,2-Dichlorobenzene	0.965	0.0200	1.000	0	96.5	72.8	126				
1,2-Dibromo-3-chloropropane	1.35	0.0300	1.000	0	135	61.2	139				
1,2,4-Trimethylbenzene	0.971	0.0200	1.000	0	97.1	77.5	129				
Hexachlorobutadiene	0.987	0.100	1.000	0	98.7	42	151				
Naphthalene	0.983	0.0300	1.000	0	98.3	62.3	134				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-8830** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **LCSS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	0.980	0.0200	1.000	0	98.0	62.1	140				
Surr: Dibromofluoromethane	2.75		2.500		110	63.7	129				
Surr: Toluene-d8	2.51		2.500		100	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	2.52		2.500		101	63.1	141				

NOTES:
S - Outlying spike recoveries associated with this sample (high bias). Sample is non-detect, no further action required.

Sample ID: **MB-8830** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **MBLKS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0600									
Chloromethane	ND	0.0600									
Vinyl chloride	ND	0.00200									
Bromomethane	ND	0.0900									
Trichlorofluoromethane (CFC-11)	ND	0.0500									
Chloroethane	ND	0.0600									
1,1-Dichloroethene	ND	0.0500									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
2,2-Dichloropropane	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-8830** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **MBLKS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0300									
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-8830** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **MBLKS** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **340927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	2.48		2.500		99.1	63.7	129				
Surr: Toluene-d8	2.55		2.500		102	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	2.43		2.500		97.1	63.1	141				

Sample ID: **1409224-010BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341132**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0241						0		30	
Chloromethane	ND	0.0241						0		30	
Vinyl chloride	ND	0.000804						0		30	
Bromomethane	ND	0.0362						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0201						0		30	
Chloroethane	ND	0.0241						0		30	
1,1-Dichloroethene	ND	0.0201						0		30	
Methylene chloride	ND	0.00804						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409224-010BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341132**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.00804						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0201						0		30	
1,1-Dichloroethane	ND	0.00804						0		30	
2,2-Dichloropropane	ND	0.0201						0		30	
cis-1,2-Dichloroethene	ND	0.00804						0		30	
Chloroform	ND	0.00804						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.00804						0		30	
1,1-Dichloropropene	ND	0.00804						0		30	
Carbon tetrachloride	ND	0.00804						0		30	
1,2-Dichloroethane (EDC)	ND	0.0121						0		30	
Benzene	ND	0.00804						0		30	
Trichloroethene (TCE)	ND	0.00804						0		30	
1,2-Dichloropropane	ND	0.00804						0		30	
Bromodichloromethane	ND	0.00804						0		30	
Dibromomethane	ND	0.0161						0		30	
cis-1,3-Dichloropropene	ND	0.00804						0		30	
Toluene	ND	0.00804						0		30	
trans-1,3-Dichloropropylene	ND	0.0121						0		30	
1,1,2-Trichloroethane	ND	0.0121						0		30	
1,3-Dichloropropane	ND	0.0201						0		30	
Tetrachloroethene (PCE)	ND	0.00804						0		30	
Dibromochloromethane	ND	0.0121						0		30	
1,2-Dibromoethane (EDB)	ND	0.00201						0		30	
Chlorobenzene	ND	0.00804						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0121						0		30	
Ethylbenzene	ND	0.0121						0		30	
m,p-Xylene	ND	0.00804						0		30	
o-Xylene	ND	0.00804						0		30	
Styrene	ND	0.00804						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409224-010BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341132**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	0.0322						0		30	
Bromoform	ND	0.00804						0		30	
1,1,2,2-Tetrachloroethane	ND	0.00804						0		30	
n-Propylbenzene	ND	0.00804						0		30	
Bromobenzene	ND	0.0121						0		30	
1,3,5-Trimethylbenzene	ND	0.00804						0		30	
2-Chlorotoluene	ND	0.00804						0		30	
4-Chlorotoluene	ND	0.00804						0		30	
tert-Butylbenzene	ND	0.00804						0		30	
1,2,3-Trichloropropane	0.0272	0.00804						0.02720	0.0591	30	
1,2,4-Trichlorobenzene	ND	0.0201						0		30	
sec-Butylbenzene	ND	0.00804						0		30	
4-Isopropyltoluene	ND	0.00804						0		30	
1,3-Dichlorobenzene	ND	0.00804						0		30	
1,4-Dichlorobenzene	ND	0.00804						0		30	
n-Butylbenzene	ND	0.00804						0		30	
1,2-Dichlorobenzene	ND	0.00804						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0121						0		30	
1,2,4-Trimethylbenzene	ND	0.00804						0		30	
Hexachlorobutadiene	ND	0.0402						0		30	
Naphthalene	ND	0.0121						0		30	
1,2,3-Trichlorobenzene	ND	0.00804						0		30	
Surr: Dibromofluoromethane	0.957		1.005		95.3	63.7	129		0		
Surr: Toluene-d8	1.02		1.005		102	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.02		1.005		102	63.1	141		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409224-012BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341135**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.812	0.0789	1.314	0	61.8	43.5	121				
Chloromethane	1.05	0.0789	1.314	0	79.9	45	130				
Vinyl chloride	1.27	0.00263	1.314	0	96.5	51.2	146				
Bromomethane	1.10	0.118	1.314	0	83.5	21.3	120				
Trichlorofluoromethane (CFC-11)	1.44	0.0657	1.314	0	109	35	131				
Chloroethane	0.955	0.0789	1.314	0	72.7	43.8	117				
1,1-Dichloroethene	1.64	0.0657	1.314	0	125	61.9	141				
Methylene chloride	1.33	0.0263	1.314	0.01611	99.8	54.7	142				
trans-1,2-Dichloroethene	1.34	0.0263	1.314	0	102	52	136				
Methyl tert-butyl ether (MTBE)	1.45	0.0657	1.314	0	110	54.4	132				
1,1-Dichloroethane	1.53	0.0263	1.314	0	116	51.8	141				
2,2-Dichloropropane	1.15	0.0657	1.314	0	87.8	36	123				
cis-1,2-Dichloroethene	1.58	0.0263	1.314	0	121	58.6	136				
Chloroform	1.46	0.0263	1.314	0	111	53.2	129				
1,1,1-Trichloroethane (TCA)	1.42	0.0263	1.314	0	108	58.3	145				
1,1-Dichloropropene	1.42	0.0263	1.314	0	108	55.1	138				
Carbon tetrachloride	1.34	0.0263	1.314	0	102	53.3	144				
1,2-Dichloroethane (EDC)	1.57	0.0394	1.314	0	120	51.3	139				
Benzene	1.37	0.0263	1.314	0	104	63.5	133				
Trichloroethene (TCE)	1.67	0.0263	1.314	0	127	68.6	132				
1,2-Dichloropropane	1.57	0.0263	1.314	0	120	59	136				
Bromodichloromethane	1.42	0.0263	1.314	0	108	50.7	141				
Dibromomethane	1.30	0.0526	1.314	0	99.0	50.6	137				
cis-1,3-Dichloropropene	1.47	0.0263	1.314	0	112	50.4	138				
Toluene	1.31	0.0263	1.314	0.009727	98.7	63.4	132				
trans-1,3-Dichloropropylene	1.46	0.0394	1.314	0	111	44.1	147				
1,1,2-Trichloroethane	1.66	0.0394	1.314	0	126	51.6	137				
1,3-Dichloropropane	1.47	0.0657	1.314	0	112	53.1	134				
Tetrachloroethene (PCE)	1.48	0.0263	1.314	0	113	35.6	158				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409224-012BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341135**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	1.41	0.0394	1.314	0	108	55.3	140				
1,2-Dibromoethane (EDB)	1.43	0.00657	1.314	0	109	50.4	136				
Chlorobenzene	1.31	0.0263	1.314	0	99.4	60	133				
1,1,1,2-Tetrachloroethane	1.44	0.0394	1.314	0	110	53.1	142				
Ethylbenzene	1.39	0.0394	1.314	0	106	54.5	134				
m,p-Xylene	2.70	0.0263	2.629	0	103	53.1	132				
o-Xylene	1.36	0.0263	1.314	0	104	53.3	139				
Styrene	1.43	0.0263	1.314	0	109	51.1	132				
Isopropylbenzene	1.39	0.105	1.314	0	106	58.9	138				
Bromoform	1.42	0.0263	1.314	0	108	57.9	130				
1,1,2,2-Tetrachloroethane	1.35	0.0263	1.314	0	103	51.9	131				
n-Propylbenzene	1.34	0.0263	1.314	0	102	53.6	140				
Bromobenzene	1.42	0.0394	1.314	0	108	54.2	140				
1,3,5-Trimethylbenzene	1.31	0.0263	1.314	0	99.5	51.8	136				
2-Chlorotoluene	1.31	0.0263	1.314	0	99.9	51.6	136				
4-Chlorotoluene	1.35	0.0263	1.314	0	103	50.1	139				
tert-Butylbenzene	1.37	0.0263	1.314	0	104	50.5	135				
1,2,3-Trichloropropane	1.30	0.0263	1.314	0	99.1	50.5	131				
1,2,4-Trichlorobenzene	1.40	0.0657	1.314	0	106	50.8	130				
sec-Butylbenzene	1.40	0.0263	1.314	0	106	52.6	141				
4-Isopropyltoluene	1.39	0.0263	1.314	0	106	52.9	134				
1,3-Dichlorobenzene	1.33	0.0263	1.314	0	101	52.6	131				
1,4-Dichlorobenzene	1.23	0.0263	1.314	0	93.7	52.9	129				
n-Butylbenzene	1.36	0.0263	1.314	0	104	52.6	130				
1,2-Dichlorobenzene	1.28	0.0263	1.314	0	97.6	55.8	129				
1,2-Dibromo-3-chloropropane	1.51	0.0394	1.314	0	115	40.5	131				
1,2,4-Trimethylbenzene	1.40	0.0263	1.314	0	107	50.6	137				
Hexachlorobutadiene	1.34	0.131	1.314	0	102	40.6	158				
Naphthalene	1.38	0.0394	1.314	0	105	52.3	124				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409224-012BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/24/2014** RunNo: **17002**
Client ID: **BATCH** Batch ID: **8830** Analysis Date: **9/25/2014** SeqNo: **341135**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.35	0.0263	1.314	0	103	54.4	124				
Surr: Dibromofluoromethane	3.10		3.286		94.4	63.7	129				
Surr: Toluene-d8	3.33		3.286		101	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	3.39		3.286		103	63.1	141				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409154-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339648**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	*
Chloromethane	ND	1.00						0		30	
Vinyl chloride	5.20	0.200						5.210	0.192	30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	2.17	1.00						0	200	30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	7.43	1.00						12.15	48.2	30	R
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	100	1.00						75.42	28.0	30	E
Trichloroethene (TCE)	3.17	0.500						4.690	38.7	30	R
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	1.98	1.00						1.540	25.0	30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409154-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339648**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	1.82	1.00						1.390	26.8	30	
m,p-Xylene	5.28	1.00						3.800	32.6	30	R
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	7.70	1.00						5.980	25.1	30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	4.80	1.00						3.330	36.2	30	R
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	1.12	1.00						1.200	6.90	30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	3.06	2.00						8.640	95.4	30	R
sec-Butylbenzene	2.73	1.00						2.420	12.0	30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	2.33	1.00						2.140	8.50	30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	1.30	1.00						0	200	30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	20.7	1.00						22.83	9.69	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409154-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339648**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	ND	4.00						18.41	200	30	R
Surr: Dibromofluoromethane	53.5		50.00		107	61.7	130		0		
Surr: Toluene-d8	48.2		50.00		96.4	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	50.6		50.00		101	68.2	127		0		

NOTES:
R - High RPD observed. The method is in control as indicated by the laboratory control sample (LCS).
* - Flagged value is not within established control limits.

Sample ID: **LCS-R16913** SampType: **LCS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **LCSW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339654**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	5.92	1.00	20.00	0	29.6	43	136				S
Chloromethane	11.1	1.00	20.00	0	55.7	43.9	139				
Vinyl chloride	12.9	0.200	20.00	0	64.4	53.6	139				
Bromomethane	12.9	1.00	20.00	0	64.6	44.8	148				
Trichlorofluoromethane (CFC-11)	16.4	1.00	20.00	0	81.8	63.7	133				
Chloroethane	16.8	1.00	20.00	0	84.2	53	141				
1,1-Dichloroethene	16.2	1.00	20.00	0	81.2	65.6	136				
Methylene chloride	17.0	1.00	20.00	0	85.1	67.1	131				
trans-1,2-Dichloroethene	17.6	1.00	20.00	0	87.9	71.7	129				
Methyl tert-butyl ether (MTBE)	19.9	1.00	20.00	0	99.4	67.7	131				
1,1-Dichloroethane	18.3	1.00	20.00	0	91.3	67.9	134				
2,2-Dichloropropane	17.5	2.00	20.00	0	87.6	33.7	152				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	88.9	71.1	130				
Chloroform	15.9	1.00	20.00	0	79.4	76.7	124				
1,1,1-Trichloroethane (TCA)	14.8	1.00	20.00	0	74.1	71	131				
1,1-Dichloropropene	14.9	1.00	20.00	0	74.6	74.5	126				
Carbon tetrachloride	15.1	1.00	20.00	0	75.3	66.2	134				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-R16913** SampType: **LCS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **LCSW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339654**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloroethane (EDC)	16.9	1.00	20.00	0	84.6	70	129				
Benzene	18.2	1.00	20.00	0	90.9	73.1	126				
Trichloroethene (TCE)	17.4	0.500	20.00	0	86.8	65.2	136				
1,2-Dichloropropane	19.6	1.00	20.00	0	98.1	70.5	130				
Bromodichloromethane	17.0	1.00	20.00	0	84.8	74.6	127				
Dibromomethane	19.6	1.00	20.00	0	98.2	75.5	126				
cis-1,3-Dichloropropene	18.3	1.00	20.00	0	91.3	62.6	137				
Toluene	16.4	1.00	20.00	0	81.8	61.3	145				
trans-1,3-Dichloropropene	19.9	1.00	20.00	0	99.7	58.5	142				
1,1,2-Trichloroethane	19.6	1.00	20.00	0	98.1	76	124				
1,3-Dichloropropane	18.2	1.00	20.00	0	91.2	73.5	127				
Tetrachloroethene (PCE)	18.3	1.00	20.00	0	91.6	47.5	147				
Dibromochloromethane	20.8	1.00	20.00	0	104	67.2	134				
1,2-Dibromoethane (EDB)	21.7	0.0600	20.00	0	108	73.6	125				
Chlorobenzene	16.3	1.00	20.00	0	81.7	73.9	126				
1,1,1,2-Tetrachloroethane	18.4	1.00	20.00	0	91.8	76.8	124				
Ethylbenzene	15.9	1.00	20.00	0	79.6	72	130				
m,p-Xylene	32.9	1.00	40.00	0	82.3	73	131				
o-Xylene	17.3	1.00	20.00	0	86.6	72.1	131				
Styrene	17.4	1.00	20.00	0	87.0	64.3	140				
Isopropylbenzene	16.1	1.00	20.00	0	80.6	73.9	128				
Bromoform	19.0	1.00	20.00	0	94.9	63.8	135				
1,1,2,2-Tetrachloroethane	21.8	1.00	20.00	0	109	62.9	132				
n-Propylbenzene	16.7	1.00	20.00	0	83.5	74.5	127				
Bromobenzene	18.3	1.00	20.00	0	91.4	71	131				
1,3,5-Trimethylbenzene	16.1	1.00	20.00	0	80.6	73.1	128				
2-Chlorotoluene	16.6	1.00	20.00	0	83.3	70.8	130				
4-Chlorotoluene	16.3	1.00	20.00	0	81.4	70.1	131				
tert-Butylbenzene	17.6	1.00	20.00	0	88.1	68.2	131				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **LCS-R16913** SampType: **LCS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **LCSW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339654**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	19.6	1.00	20.00	0	98.0	67.7	131				
1,2,4-Trichlorobenzene	18.7	2.00	20.00	0	93.5	67.6	129				
sec-Butylbenzene	17.3	1.00	20.00	0	86.6	72	129				
4-Isopropyltoluene	18.8	1.00	20.00	0	94.0	69.2	130				
1,3-Dichlorobenzene	17.0	1.00	20.00	0	85.2	72.4	129				
1,4-Dichlorobenzene	18.0	1.00	20.00	0	89.9	70.6	128				
n-Butylbenzene	17.3	1.00	20.00	0	86.6	73.8	127				
1,2-Dichlorobenzene	19.9	1.00	20.00	0	99.3	74.2	129				
1,2-Dibromo-3-chloropropane	16.4	1.00	20.00	0	82.2	63.1	136				
1,2,4-Trimethylbenzene	16.7	1.00	20.00	0	83.6	73.4	127				
Hexachlorobutadiene	24.2	4.00	20.00	0	121	58.6	138				
Naphthalene	17.2	1.00	20.00	0	85.8	50.4	140				
1,2,3-Trichlorobenzene	12.3	4.00	20.00	0	61.6	50.2	139				
Surr: Dibromofluoromethane	49.4		50.00		98.9	61.7	130				
Surr: Toluene-d8	48.0		50.00		95.9	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	47.3		50.00		94.5	68.2	127				

NOTES:
S - Outlying spike recovery for Dichlorodifluoromethane (low bias). Samples will be qualified with an *.

Sample ID: **MB-R16913** SampType: **MBLK** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **MBLKW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									*
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-R16913** SampType: **MBLK** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **MBLKW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0600									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-R16913** SampType: **MBLK** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **MBLKW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	49.2		50.00		98.4	61.7	130				
Surr: Toluene-d8	47.1		50.00		94.3	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	46.7		50.00		93.3	68.2	127				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **MB-R16913** SampType: **MBLK** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **MBLKW** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339655**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **1409236-005AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339717**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	4.32	1.00	20.00	0	21.6	33.3	122				S*
Chloromethane	9.76	1.00	20.00	0.2000	47.8	48.2	145				S
Vinyl chloride	11.2	0.200	20.00	0	55.9	58.1	158				S
Bromomethane	12.9	1.00	20.00	0.5800	61.8	31.5	135				
Trichlorofluoromethane (CFC-11)	15.6	1.00	20.00	0	77.8	54.7	138				
Chloroethane	15.2	1.00	20.00	0	75.9	49.9	143				
1,1-Dichloroethene	19.7	1.00	20.00	0	98.7	63	141				
Methylene chloride	18.3	1.00	20.00	0	91.4	61.6	135				
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	102	63.5	138				
Methyl tert-butyl ether (MTBE)	20.8	1.00	20.00	0	104	60.9	132				
1,1-Dichloroethane	21.5	1.00	20.00	0	108	67.8	136				
2,2-Dichloropropane	19.6	2.00	20.00	0	98.0	31.5	121				
cis-1,2-Dichloroethene	21.5	1.00	20.00	0	107	67.1	123				
Chloroform	18.4	1.00	20.00	0	92.0	66.7	136				
1,1,1-Trichloroethane (TCA)	17.8	1.00	20.00	0	89.2	64.2	146				
1,1-Dichloropropene	18.2	1.00	20.00	0	90.9	73.8	136				
Carbon tetrachloride	17.5	1.00	20.00	0	87.7	62.7	146				
1,2-Dichloroethane (EDC)	18.6	1.00	20.00	0	92.8	63.4	137				
Benzene	21.6	1.00	20.00	0	108	65.4	138				
Trichloroethene (TCE)	20.6	0.500	20.00	0	103	60.4	134				
1,2-Dichloropropane	22.8	1.00	20.00	0	114	62.6	138				
Bromodichloromethane	19.1	1.00	20.00	0	95.4	59.4	139				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409236-005AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339717**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromomethane	21.8	1.00	20.00	0.1400	108	63.6	139				
cis-1,3-Dichloropropene	20.7	1.00	20.00	0	104	63.8	132				
Toluene	19.2	1.00	20.00	0	96.0	64	139				
trans-1,3-Dichloropropene	21.4	1.00	20.00	0	107	57.7	125				
1,1,2-Trichloroethane	21.7	1.00	20.00	0	108	59.4	127				
1,3-Dichloropropane	19.1	1.00	20.00	0	95.6	64.3	135				
Tetrachloroethene (PCE)	21.9	1.00	20.00	0	110	50.3	133				
Dibromochloromethane	22.0	1.00	20.00	0	110	61.6	139				
1,2-Dibromoethane (EDB)	22.7	0.0600	20.00	0	113	63.2	134				
Chlorobenzene	19.1	1.00	20.00	0	95.4	65.8	134				
1,1,1,2-Tetrachloroethane	20.2	1.00	20.00	0	101	65.4	135				
Ethylbenzene	18.9	1.00	20.00	0	94.7	64.5	136				
m,p-Xylene	38.4	1.00	40.00	0	96.1	63.3	135				
o-Xylene	19.6	1.00	20.00	0	98.2	65.4	134				
Styrene	19.8	1.00	20.00	0	99.1	59.1	134				
Isopropylbenzene	19.5	1.00	20.00	0	97.4	56	147				
Bromoform	23.6	1.00	20.00	0.2600	117	57.7	139				
1,1,2,2-Tetrachloroethane	21.9	1.00	20.00	0	109	59.8	146				
n-Propylbenzene	20.0	1.00	20.00	0	99.8	57.6	142				
Bromobenzene	20.8	1.00	20.00	0	104	63.6	130				
1,3,5-Trimethylbenzene	18.7	1.00	20.00	0.1100	93.0	59.9	136				
2-Chlorotoluene	19.2	1.00	20.00	0	96.2	61.7	134				
4-Chlorotoluene	19.3	1.00	20.00	0	96.6	58.4	134				
tert-Butylbenzene	20.7	1.00	20.00	0	103	66.8	141				
1,2,3-Trichloropropane	20.8	1.00	20.00	0	104	62.4	129				
1,2,4-Trichlorobenzene	22.4	2.00	20.00	1.990	102	50.9	133				
sec-Butylbenzene	20.4	1.00	20.00	0	102	56	146				
4-Isopropyltoluene	21.9	1.00	20.00	0.1000	109	56.4	136				
1,3-Dichlorobenzene	19.6	1.00	20.00	0	97.8	58.2	128				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1409171
CLIENT: Stantec Consulting Corporation
Project: Bayliner Marine

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: **1409236-005AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/22/2014** RunNo: **16913**
Client ID: **BATCH** Batch ID: **R16913** Analysis Date: **9/22/2014** SeqNo: **339717**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	19.9	1.00	20.00	0	99.4	60.1	123				
n-Butylbenzene	20.6	1.00	20.00	0.1900	102	54.6	135				
1,2-Dichlorobenzene	22.5	1.00	20.00	0	112	65.4	133				
1,2-Dibromo-3-chloropropane	20.8	1.00	20.00	1.210	98.0	51.8	142				
1,2,4-Trimethylbenzene	18.7	1.00	20.00	0.5300	91.1	63.7	132				
Hexachlorobutadiene	26.7	4.00	20.00	0.5000	131	58.1	130				S
Naphthalene	21.3	1.00	20.00	11.35	50.0	54.5	132				S
1,2,3-Trichlorobenzene	18.4	4.00	20.00	2.550	79.3	57	131				
Surr: Dibromofluoromethane	49.2		50.00		98.3	61.7	130				
Surr: Toluene-d8	47.9		50.00		95.8	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	49.1		50.00		98.3	68.2	127				

NOTES:
S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.
* - Flagged value is not within established control limits.

Sample Log-In Check List

Client Name:	**STANTEC**	Work Order Number:	**1409171**
Logged by:	**Clare Griggs**	Date Received:	**9/17/2014 1:40:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all coolers received at a temperature of >0°C to 10.0°C	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is the headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp ºC	Condition
Cooler	5.0	Good
Sample	4.1	Good
Temp Blank	6.7	Good

Fremont Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No (internal): 1409171

Date: 9/16/14

Page: 1 of: 1

Client: Stantec Consulting
Address: 11130 NE 33rd Place, Suite 200
City, State, Zip: Bellevue, WA Tel: (425) 922-6392
Reports To (PM): Greg McCormick Fax: (425) 869-1190

Project Name: Bayliner Marine
Location: 17825 59th Ave NE Arlington, WA
Collected by: Greg McCormick
Email: greg.mccormick@stantec.com
Project No: 182602648

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, WW = Waste Water

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOC (EPA 8260)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SEMI VOC (EPA 8270)	PAH (EPA 8270 - SIM)	PCBs (EPA 8082)	Metals** (6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)	Comments/Depth
1	MW-1	9/16/14	1525	W	X														
2	MW-2		1400	W	X														
3	MW-3		0916	W	X														
4	MW-4 GMC 1235		~~1400~~	W	X														
5	MW-5		1316	W	X														
6	MW-6		1015	W	X														
7	MW-7		1115	W	X														
8	MW-8		1435	W	X														
9	Soil Cuttings	↓	1530	S	X														
10																			

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Relinquished	Date/Time	Received	Date/Time
x [signature]	9/17/14 10:00AM	x [signature]	9/17/14 1340
Relinquished	Date/Time	Received	Date/Time
x		x	

Special Remarks:

TAT -> SameDay^ NextDay^ 2 Day 3 Day (STD)

^Please coordinate with the lab in advance