Queens West Development

Parcel 9

QUEENS, NEW YORK

2014 Periodic Review Report and Annual Certification

NYSDEC BCP Number: C241049

ATC Project Number:

Z015003100

Prepared for:

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JANUARY, 2015

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 BACKGROUND 2
2.1 SITE DESCRIPTION 2
2.2 REMEDIAL INVESTIGATION FINDINGS 2
2.2.1 Geology, Hydrogeology and Subsurface Characteristics 2
2.2.2 Nature and Extent of Contamination 2
2.3 SITE REMEDIATION 3
2.3.1 Soil Excavation 3
2.3.2 Engineering Controls 4
2.3.3 Institutional Controls 5
3.0 SITE COVER OPERATION AND MAINTENANCE 7
3.1 SITE COVER INSPECTION 7
4.0 VAPOR MITIGATION SYSTEM OPERATION & MAINTENANCE 8
4.1 ROUTINE SYSTEM CHECKS 8
4.2 PERIODIC INSPECTIONS 8
5.0 MONITORING 9
5.1 GROUNDWATER MONITORING 9
5.1.1 Monitoring Well Sampling 9
5.2 DISCUSSION 9
5.2.1 Groundwater Monitoring Results 9
6.0 CONCLUSIONS AND RECOMMENDATIONS 11
7.0 INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION 12

FIGURES

Figure 1 - Site Location Map
Figure 2 - Queens West Development Parcels
Figure 3 - Site Plan and Engineering Controls
Figure 4 - BTEX and Naphthalene Concentrations in Groundwater

TABLES

Table 1 - Vapor Mitigation System Blower Runtimes
Table 2 - Vapor Mitigation System Operational Data
Table 3 - Groundwater Fluid Level Measurements
Table 4 - Groundwater Sampling Analytical Results - Volatile Organic Compounds
Table 5 - Groundwater Sampling Analytical Results – Semi-volatile Organic Compounds

APPENDICES

Appendix A - Site Cover Inspection Log and Photographs
Appendix B - Vapor Mitigation System Inspection Logs
Appendix C - Monitoring Well Sampling Logs
Appendix D - Groundwater Sampling Analytical Results
Appendix E - Site-wide Inspection Log
Appendix F - Institutional and Engineering Control Certification Form
Appendix G - NYSDEC Site Management Modification Approval Letters

1.0 INTRODUCTION

In January of 2014, AvalonBay Communities Inc., (AvalonBay), retained Cardno ATC to prepare the Periodic Review Report (PRR) for 2014 (formerly referred to as Site Management Report) and Annual Certification of Institutional and Engineering Controls for the site, which is identified as Queens West Development – Parcel 9. The following introductory and background discussions are according to the PRR prepared by AKRF Engineering, P.C. (AKRF) and dated February 2008.

The Queens West Development is a project of the Queens West Development Corporation (QWDC), a subsidiary of New York State's Empire State Development Corporation (NYSEDC), under the collective sponsorship of the Port Authority of New York and New Jersey, the New York City Economic Development Corporation (NYCEDC), and Empire State Development Corporation. The overall Queens West Development site comprises 74 acres along the East River in Hunters Point, Queens, extending from Anable Basin to the north to Newtown Creek to the south (Figure 1). Stage I of the development involved construction of residential buildings on the portion of the site between 47th Road and 50th Avenue. The development sites in this area were designated as Parcels 8, 9, 10, and 11, as shown on Figure 2.

In August 1998, a Voluntary Cleanup Agreement (VCA) was entered into between New York State Department of Environmental Conservation (NYSDEC) and QWDC. This agreement covered Parcels 8, 9, and 11 and the portion of Center Boulevard between Parcels 8 and 9. In July 2000, the VCA was amended to allow it to be divided into separate agreements for each parcel, which would be executed by the designated developer for the parcel. Accordingly, after AvalonBay was selected as the developer of Parcels 8, 9, and 11, AvalonBay executed separate agreements for each of the three parcels in September 2000. In March 2004, AvalonBay requested that NYSDEC transition Parcels 8 and 9 into the Brownfield Cleanup Program (BCP), with the BCP Agreements for both parcels being signed by the NYSDEC and becoming effective on June 28, 2005.

Subsurface contamination at Parcel 9 was remediated between August 2005 and May 2006 in accordance with the NYSDEC-approved Remedial Work Plan (revised August 2005). The site remediation was documented in a Final Engineering Report (FER) dated December 2006, and on-going site management requirements were specified in a Site Management Plan (SMP), which was included as an attachment to the FER. NYSDEC issued a Certificate of Completion for Parcel 9 on December 29, 2006. The purpose of this PRR and Annual Certification is to document on-going site management activities associated with Engineering and Institutional Controls for the site during the 2014 calendar year, and to certify those controls in accordance with the SMP.

2.0 BACKGROUND

2.1 SITE DESCRIPTION

Parcel 9 is located in the Hunters Point section of Queens, New York. The parcel is bound by 5th Street on the east, 48th Avenue on the south, Center Boulevard on the west, and 47th Road on the north. It has a total area of approximately 1.79 acres, and is defined as Lots 1, 5, and 19 of Tax Block 19 of Queens County. The site is currently occupied by an L-shaped high-rise apartment building located in the western and southwestern portions of the site, a multi-level parking garage located in the eastern portion of the site, with townhouses located south of the garage, along 48th Avenue. Approximately 2,300 square feet of retail space are located on the ground floor of the residential building, along Center Boulevard. A courtyard and driveway are located in the center of the site, providing access to the parking garage and loading dock from 47th Road. A Site Plan is provided as Figure 3.

2.2 REMEDIAL INVESTIGATION FINDINGS

2.2.1 Geology, Hydrogeology and Subsurface Characteristics

The geotechnical studies conducted prior to site redevelopment indicated that the top 10 to 12 feet of soil on the parcel consisted of historic urban fill material. This was underlain in most borings by a layer of alluvial sand up to 17 feet thick. A stratum of soft gray organic silty clay, generally less than 10 feet thick and representing old marsh deposits, was present inter-layered in the sand at many locations. Below the sand and organic deposits was a layer of glacial till up to 30 feet thick. This consisted of compact fine to coarse sand with some gravel, silt, clay, clay pockets, and boulders. The surface of the till was found at an elevation of -10 to -12 feet (Queens Borough Datum) over most of the parcel, dipping sharply to a depth of -30 feet in the southwest corner of the parcel. Bedrock was encountered at elevation -20 to -30 feet over most of the parcel, dipping in the southwest corner, to a minimum elevation of -55 feet.

Groundwater studies performed at the site and in surrounding areas indicated a general groundwater flow direction towards the west or southwest, with some tidal influence at locations close to the river. A localized groundwater depression in 47th Road, approximately 150 feet west of 5th Street, was noted in some studies. It is speculated that this depression was due to a leak in the storm sewer piping that runs under 47th Road.

2.2.2 Nature and Extent of Contamination

Soil Contamination

Cumulative results from the previous studies on Parcel 9 indicated the presence of two separate types of soil contamination on the site. Petroleum contamination, including the presence of light non-aqueous phase liquid (LNAPL) was centered in the north-central portion of the site. Coal tar contamination, including the presence of dense non-aqueous phase liquid (DNAPL), was found in the southwestern portion of the site, and along the western boundary of the site adjacent to Center Boulevard.

The petroleum-contaminated soil was characterized by high levels of benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as other relatively light, monocyclic hydrocarbons, including cyclohexane and methylcyclohexane. Naphthalene was present in the petroleum-contaminated soil, but at lower levels than the monocyclic compounds. The heavier polycyclic aromatic hydrocarbons (PAHs) were present at relatively low concentrations (except for samples from the historic fill layer).

An area of deep contamination was identified in the southwestern portion of the site where DNAPL was found. This area corresponded to a low point in the lower confining layer (till or clay) where it is not unexpected that DNAPL would tend to accumulate. A second area of coal tar contamination was identified further north along the western boundary of the site. The coal tar-contaminated soil was characterized by high levels of naphthalene and 2-methylnaphthalene, with BTEX present, but at lower levels than naphthalene.

The surface soils on the site were characterized as historic fill material incorporating ash as well as brick, concrete, and other demolition debris. The fill contained higher and more variable concentrations of metals and heavy PAHs than the underlying native soils. Metals were detected generally at concentrations typical of soil background levels. Above-background concentrations of mercury were detected in a few soil samples. However, these appeared to be randomly distributed in the fill.

Groundwater Contamination

Petroleum and coal tar-related volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) were present at elevated levels in groundwater samples from wells in the northwest quadrant of Parcel 9, and in the area of coal tar contamination at the southwestern corner and along the western edge of the parcel. The most common compounds detected were BTEX, naphthalene, and 2-methylnaphthalene. In general, the higher levels of naphthalene were associated with the coal tar contamination along the western edge of the site, and the higher levels of benzene were associated with the petroleum contamination in the north-central portion of the site. Metals were generally either not detected or detected at concentrations well below the Class GA groundwater standards. Polychlorinated biphenyls (PCBs) and pesticides were not detected in any of the groundwater samples analyzed.

2.3 SITE REMEDIATION

2.3.1 Soil Excavation

Remediation of the petroleum and coal tar contamination identified on Parcel 9 commenced in August 2005. The remediation was conducted in accordance with the approved Remedial Work Plan (RWP), dated May 2005 (Revised August 2005). The selected remedy consisted of excavating soil containing contaminant concentrations exceeding the Site-Specific Soil Action Levels (SSSALs), with soil excavation conducted under a temporary containment structure equipped with an air handling system to control fugitive odors and dust. The remedy also included installation of a permanent subsurface containment wall, constructed of steel sheet piles driven into the low permeability till layer, to facilitate soil removal and isolate the site from off-site contamination. The remediation program also included pumping out and removing several underground storage tanks that were discovered during soil excavation activities.

Excavation and off-site disposal of all contaminated soil from within the containment wall was completed on March 30, 2006. During remediation activities, soil excavation was terminated generally at the till layer based on field screening indicating the end of gross contamination and technical limitations of excavating the till, which consisted of densely packed clay, silt, and gravel, and contained numerous cobbles and boulders. Contaminated soil was removed from the southwestern portion of the excavation to the top of a dense clay layer at approximately 27 to 34 feet below grade, on top of the till layer. DNAPL was observed in an approximately six-inch interval in sandy material just above the clay layer, indicating that the clay was acting as a confining layer preventing downward migration of DNAPL in this portion of the site. These observations were consistent with findings from previous investigations, which identified

DNAPL in monitoring wells in the southwestern corner of the parcel.

Between March 30 and May 25, 2006, additional soil remediation was conducted outside of the sheeting line in an area of historic fill containing elevated naphthalene concentrations and three areas where underground storage tanks were discovered during excavation for foundations in the proposed parking garage area.

2.3.2 Engineering Controls

In addition to soil excavation and disposal, the RWP included the installation of engineering controls to prevent exposure to residual subsurface contamination at the site. The engineering controls, which consist of a site cover, hydraulic barrier, and sub-slab vapor mitigation system, are described in more detail below.

Site Cover

At the time that the FER was submitted, the site cover consisted of: concrete building foundations in the area of the high-rise residential building, townhouses, and portions of the garage; and a temporary cover of at least two feet of clean fill meeting NYSDEC TAGM 4046 RSCOs in the future courtyard area and the remaining portion of the garage not paved with concrete. Following completion of the building construction in the second half of 2007, a permanent site cover was installed in all areas not already covered by building foundations, and included: concrete over the entire garage area; paving in portions of the courtyard area; and two feet of top soil in the remainder of the courtyard and all perimeter landscaped areas.

Hydraulic Barrier

As described in Section 2.3.1., permanent interlocking steel sheeting was installed around the entire soil remediation area to facilitate excavation for soil remediation. The sheeting was installed such that it will also serve as a hydraulic barrier to isolate the site from off-site contamination. This was accomplished by driving the sheeting into the low-permeability till or clay layer, and sealing the seams in the sheeting with hydrocarbon-resistant Adeka gaskets to prevent infiltration of contaminants back onto the site. The hydraulic barrier was installed below grade, and does not require maintenance; however, routine groundwater monitoring is conducted as specified in the SMP to gauge the effectiveness of the barrier.

Vapor Mitigation System

Site remediation included the installation of a vapor mitigation system under the residential tower and townhouses. The system consists of a vapor barrier, a sub-slab gas collection network, steel pipe risers, and aboveground blowers/instrumentation. The vapor barrier consists of a 60-mil thick, spray-applied, LiquidBoot® gas vapor membrane. The subsurface gas collection pipe network consists of Schedule 40, 4-inch diameter PVC piping with 0.02-inch slots installed in a 12-inch thick layer of gas-permeable aggregate. The slotted piping is installed in four separate zones under the on-site residential buildings, as follows:

- Zone 1 - Northern wing of high-rise building (facing Center Boulevard)
- Zone 2 - Central tower portion of high-rise building
- Zone 3 - Southern wing of high-rise building (facing 48th Avenue)
- Zone 4 - Townhouses

In each zone, a length of solid 4-inch diameter Schedule 40 PVC piping leads from the slotted piping network to an interior riser. Temporary blower assemblies were connected to the risers and activated on December 22, 2006. Following completion of the building mechanical rooms, the temporary blowers were taken out of service and the permanent blowers were installed at their designated locations and activated on December 4, 2007.

2.3.3 Institutional Controls

Institutional controls incorporated into the site remedy include an environmental easement to prohibit certain on-site uses, and implementation of a SMP specifying soil management, operation, maintenance, monitoring, and reporting procedures during future site use. These Institutional Controls are described in more detail below.

Site Management Plan

A SMP was prepared to describe procedures and protocols for post-remediation management of the site. This SMP includes four plans: an Institutional and Engineering Control Plan for implementation and management of institutional and engineering controls; a Monitoring Plan for implementation of site monitoring; an Operation and Maintenance Plan for operation of the sub-slab vapor mitigation system; and a Site Management Reporting Plan for submittal of data, information, recommendations and certifications to NYSDEC The Institutional and Engineering Control Plan portion of the SMP includes detailed procedures for handling residual on-site contamination during future soil disturbance activities.

At the end of the 2012 reporting year, Cardno ATC requested that the groundwater sampling be reduced from quarterly to semi-annual and that the quarterly vapor sampling be discontinued along with the use of the GAC adsorbers (which are located at Zone 4). A letter dated June 3, 2013 received from NYSDEC indicating the request to change the frequency of groundwater monitoring from quarterly to semi-annually was approved. Subsequently, a letter was received from NYSDEC dated December 20, 2013 indicating that the quarterly sampling at the four SSDS zones may be discontinued.

Environmental Easement

An environmental easement has been recorded for the site and includes the following site use restrictions:

- Use of the site for "Restricted Residential Use".
- All engineering controls (including the site cover and sub slab vapor depressurization and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan. No Engineering and Institutional Controls may be discontinued without a NYSDEC- approved amendment or extinguishment of the Environmental Easement and/or Site Management Plan.
- Annual inspections, certifications of Institutional & Engineering controls, Site usage, and Site Management Reporting to NYSDEC must be conducted in accordance with the NYSDEC-approved Site Management Plan.
- All future soil disturbance activities on the site that will impact residual contaminated material, including, but not limited to, building construction or expansion, sub-grade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved Site Management Plan.

- Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved Site Management Plan.

- Groundwater and other environmental or public health monitoring required by the NYSDEC-approved Site Management Plan, and reporting of information thus obtained, must be performed in a manner specified in that Plan.

- On-site environmental monitoring devices, including but not limited to, groundwater monitor wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved Site Management Plan.

- The use of the groundwater underlying the site is prohibited without treatment rendering it safe for intended purpose.

- Vegetable gardens are prohibited.

- The site may not be used for a higher level of use such as unrestricted residential, without proper notification of NYSDEC of the change of use, approval of that use by the NYSDEC, and an amendment of the Site Management Plan approved by NYSDEC.

The environmental easement includes: a description of the use restrictions; a map showing the area of the restrictions; and a copy of the NYSDEC-approved SMP. The property deed and all subsequent instruments of conveyance will contain language indicating that the site is subject to the environmental easement. A copy of the environmental easement is included as an appendix to the SMP.

3.0 SITE COVER OPERATION AND MAINTENANCE

3.1 SITE COVER INSPECTION

Cardno ATC conducted an inspection of the entire site cover on December 11, 2014 to check the asphalt/concrete paving for cracking and/or signs of wear, and check for erosion of the soil cover in unpaved areas. All paving was found to be intact, with no signs of cracking or damage. No erosion was noted in the landscaped areas. Photographs documenting the December 11, 2014 inspection and a copy of the site cover inspection log are provided in Appendix A.

4.0 VAPOR MITIGATION SYSTEM OPERATION & MAINTENANCE

4.1 ROUTINE SYSTEM CHECKS

On-site representatives from AvalonBay conducted routine checks of the vapor mitigation system throughout the year to: ensure that the blowers were operational; record the blower runtimes as indicated on the control panels; and note any unusual conditions, such as leaks or odors. Routine checks were conducted on an approximately daily to weekly basis during the 2014 calendar year. Blower runtime data is summarized in Table 1. Copies of the routine system check log sheets are provided in Appendix B.

The zone 3 meter display was replaced on December 13, 2008, at which time the AKRF technician was able to decipher a final reading of 7415.4 hours from the broken meter. This value will be added to all subsequent readings from the new meter to calculate a total runtime for the Zone 3 blower.

Blower downtime for each zone was calculated by subtracting the blower runtimes logged during the routine system checks (converted to days), from the number of calendar days elapsed during the reporting period, as summarized in Table 1. No blower downtime was calculated for Zones 1, 2 3, and 4.

4.2 PERIODIC INSPECTIONS

Periodic system inspections were conducted by Cardno ATC personnel on a monthly basis. Copies of the inspection log sheets are provided in Appendix B. Activities conducted during the inspections included recording vacuum gauge and flow meter readings and adjusting system components to optimize system efficiency. All readings are summarized in Table 2. Vacuum readings generally ranged from 7.0 to 14.0 inches of water ("H2O) and total flow readings ranged from 214 to 343 cubic feet per minute (CFM), which are within the normal operating range of the blower. Lower vacuum readings of 4 to 6 "H2O were noted at the Zone 4 blower resulting from losses caused by the granulated activated carbon (GAC) adsorbers; however, these readings were within the operational range for the blower. The differential between pre-filter and post-filter vacuum readings was less than 1"H2O for all blowers. Vapor discharge sampling was discontinued and the GAC adsorbers were removed during the 2013 reporting period.

5.0 MONITORING

5.1 GROUNDWATER MONITORING

5.1.1 Monitoring Well Sampling

Groundwater samples were collected on a semi-annual basis during the 2014 reporting period, as summarized in the following table:

Sampling Dates	Wells Sampled
May 7, 2014	MW-2; MW-8; MW-11R; MW-12R; MW-14; MW-15; MW-16
October 7, 2014	MW-2; MW-8; MW-11R; MW-12R; MW-14; MW-15; MW-16

All samples were collected using low-flow sampling procedures in accordance with the project standard operating procedures (SOPs). The samples were submitted to CHEMTECH Consulting Group in Mountainside, New Jersey, a NYSDOH-approved laboratory and were analyzed for VOCs by EPA Method 8260 and SVOCs by EPA Method 8270. In addition, the depth to water was measured in all monitoring wells to determine groundwater elevation and flow patterns, and potential LNAPL was gauged at each well using an oil-water interface probe and/or weighted tape. Groundwater sampling logs are provided in Appendix C. Groundwater monitoring analytical results are discussed in Section 5.2.1.

5.2 DISCUSSION

5.2.1 Groundwater Monitoring Results

Fluid Level Measurements

Fluid level measurements collected in the monitoring wells are summarized in Table 3. No measurable LNAPL or DNAPL was detected in any of the wells during the 2014 reporting period. Table 3 summarizes the water table elevations during the two sampling events. These elevations were calculated by subtracting the measured depths to water from the surveyed top of casing elevations for each well. The elevations ranged from 1.31 feet to -1.09 feet, relative to the Queens Borough Datum. Due to the large differences in water table elevations between adjacent monitoring wells, meaningful contours could not be developed from the data. The variability in elevations throughout the site can likely be attributed to subsurface obstructions and heterogeneities caused by utility conduits and vaults, variable backfill, and the sheet pile containment wall. These large-scale trends are consistent with the regional southwesterly groundwater flow direction documented in previous studies of the Queens West Development area.

Groundwater Analytical Results

Groundwater sampling analytical results for VOCs and SVOCs are provided in Appendix D and summarized in Tables 4 and 5, respectively. These tables also list the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQVs) for Class GA Groundwater. Figure 4 illustrates the benzene, toluene, ethylbenzene and xylene (BTEX) and naphthalene concentrations detected in the monitoring wells during the two 2014 sampling events. Figure 4 also shows BTEX and naphthalene concentrations detected in the post-remediation monitoring wells during the previous reporting period (in September 2013). Benzene, toluene, ethylbenzene, xylene, and naphthalene concentrations within the containment wall (i.e., in wells MW-11R and MW-12R) were all non-detected during the 2014 reporting period. The

results indicate that the groundwater containment wall is effectively isolating the Parcel 9 site from contamination on surrounding properties, allowing natural attenuation of residual groundwater contamination within the barrier.

MW-8, located downgradient of the northwestern corner of the containment wall, exhibited maximum total BTEX and naphthalene concentrations of 169 µg/l and 640 µg/l, respectively; and MW-2, located downgradient from the southwestern corner of the containment wall, exhibited maximum total BTEX concentrations of 203 µg/l. Napthalene was not detected during the 2014 monitoring events in MW-2. These concentrations can be attributed to known coal tar and petroleum contamination in off-site areas not addressed by the Parcel 9 remediation.

BTEX concentrations in well MW-16, located in the eastern portion of the site, upgradient of the containment wall were all non-detected for each of the sampling events in 2014 with the exception of ethylbenzene, which was detected during the October 2014 sampling event at a concentration of 0.23 µg/l, which is below the standard of 5 µg/l. BTEX and naphthalene concentrations for MW-14 were all not detected in the May 2014 monitoring event and were either below or only slightly exceeded their respective AWQVs during the October 2014 monitoring event. These results are consistent with the findings from previous investigations, which did not identify significant soil or groundwater contamination in the eastern portion of the site. MW-15, located in the 48th Street sidewalk, just outside of the southeastern corner of the containment wall, contained a maximum benzene concentration of 11.5 µg/l, during the October 2014 sampling event.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A site wide inspection was conducted on December 11, 2014, as specified in the SMP to ensure that all aspects of the remedy were in-place and effective. A copy of the Site-Wide Inspection log is included in Appendix E. The inspection included a review of the site cover/vapor mitigation system monitoring logs and groundwater data. Based on this review and the data evaluation summarized in this report, the following conclusions and recommendations were developed:

- The permanent site cover is present and in good condition throughout all portions of the site.
- The active sub-slab vapor mitigation system was operated on a nearly continuous basis in for all four (4) zones (Zones 1, 2, 3, and 4) throughout the 2014 reporting period.
- All vacuum and flow rate measurements collected from the vapor mitigation system during the 2014 reporting period were within the operational ranges for the system blowers.
- During the 2014 reporting period, contaminant levels in groundwater within the containment wall for MW-11R and MW-12R were all non-detected. The results indicate that the groundwater containment wall is effectively isolating the Parcel 9 site from contamination on surrounding properties, allowing natural attenuation of residual groundwater contamination within the barrier.

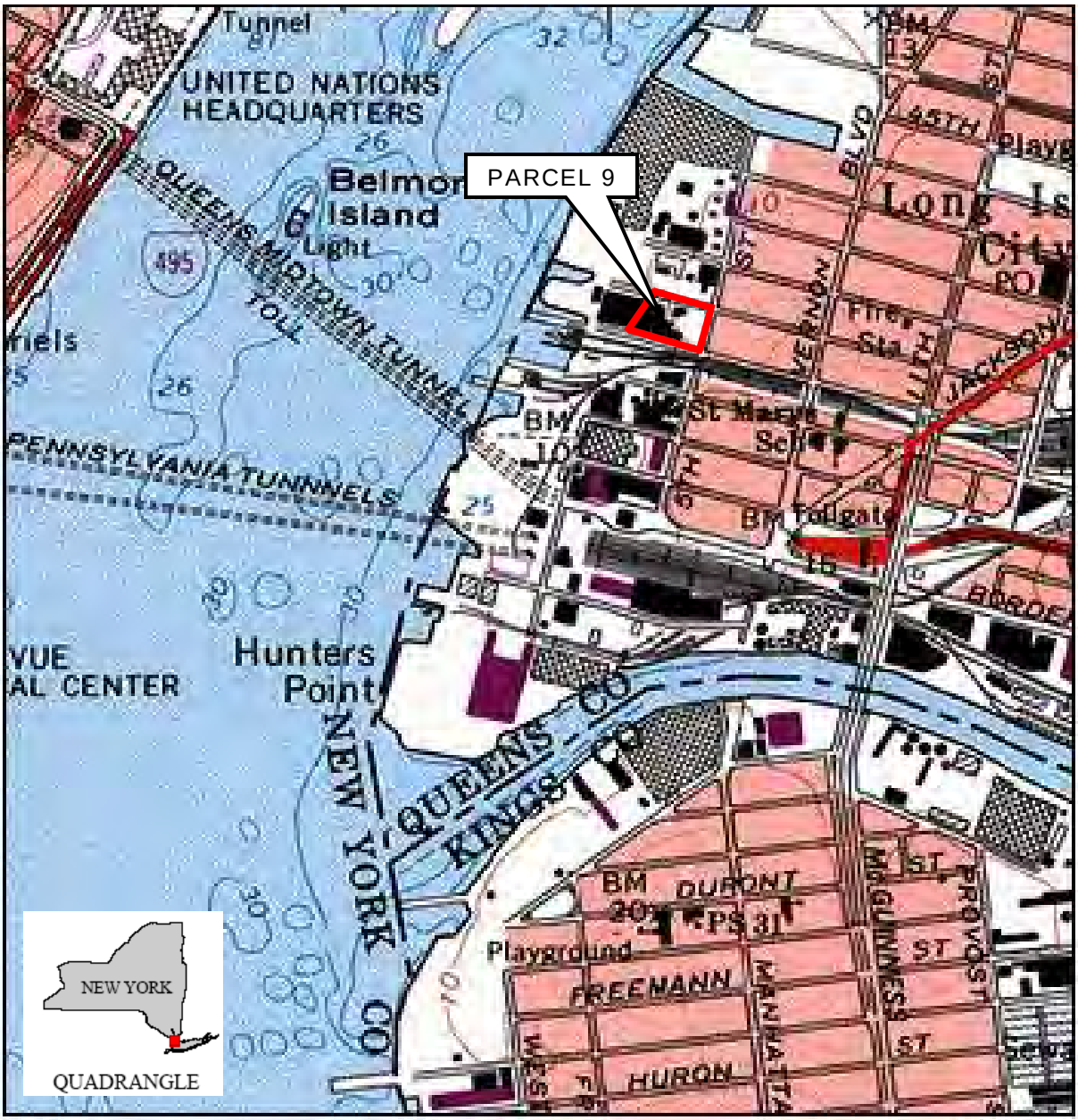
Based on review of the analytical and filed data for the 2014 reporting year, Cardno ATC has the following recommendations:

- Continue the monitoring and reporting for the 2015 reporting period as identified in the modified SMP, dated February, 2014.

7.0 INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION

The IC/EC Certification Form for the site was completed based on results from the site monitoring and inspections described in the report. A copy of the form is provided as Appendix F. The Certification Form indicates that all ICs/ECs at the site remain in place and effective.

FIGURES



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N

USGS TOPO, Brooklyn, NY Quad.

FIGURE 1 – SITE LOCATION MAP

Client:	Avalon Bay Communities
Site:	Queens West Parcel 9
Project No.:	Z015003100
Year:	1995
Scale:	As shown



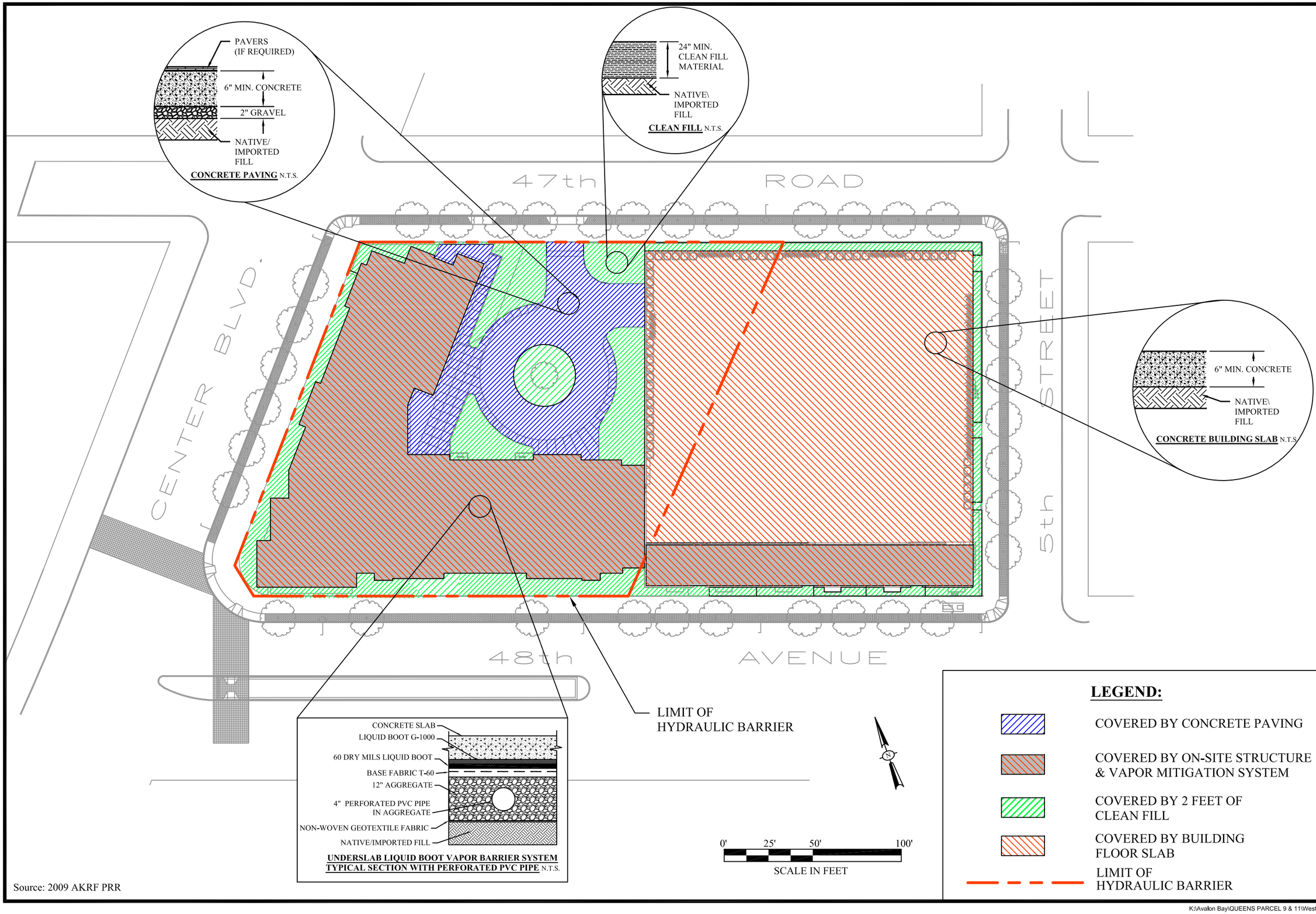
FIGURE 2 – QUEENS WEST DEVELOPMENT PARCELS

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N

Client: Avalon Bay Communities
Site: Queens West Parcel 9
Project No.: Z015003100



Source: 2009 AKRF PRR

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QUEENS WEST PARCEL 9
QUEENS, NEW YORK

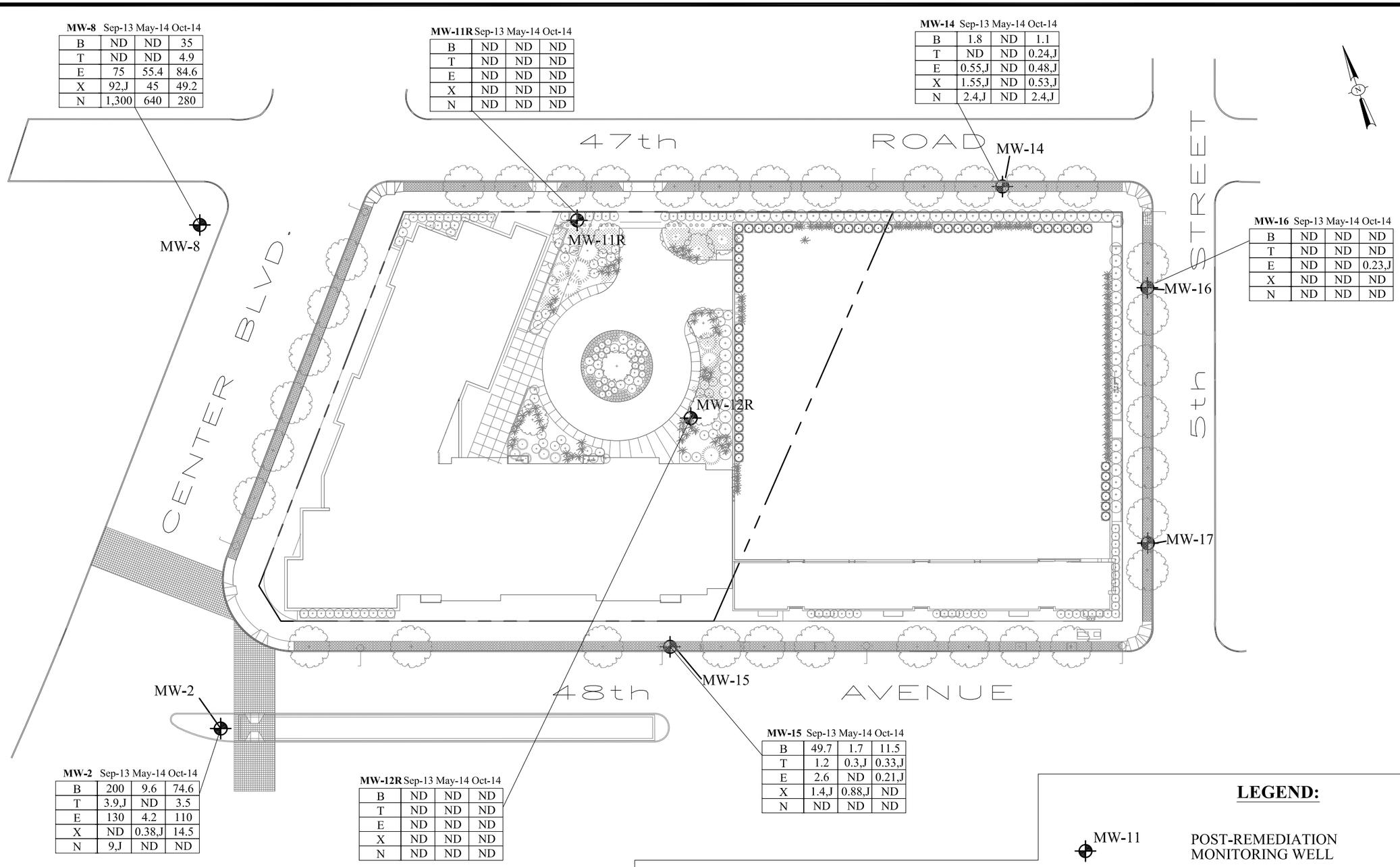
SITE PLAN & ENGINEERING CONTROLS

DATE
JANUARY 2015

SCALE
As shown

PROJECT No.
Z015003100

FIGURE
3



MW-8 Sep-13 May-14 Oct-14

B	ND	ND	35
T	ND	ND	4.9
E	75	55.4	84.6
X	92,J	45	49.2
N	1,300	640	280

MW-11R Sep-13 May-14 Oct-14

B	ND	ND	ND
T	ND	ND	ND
E	ND	ND	ND
X	ND	ND	ND
N	ND	ND	ND

MW-14 Sep-13 May-14 Oct-14

B	1.8	ND	1.1
T	ND	ND	0.24,J
E	0.55,J	ND	0.48,J
X	1.55,J	ND	0.53,J
N	2.4,J	ND	2.4,J

MW-16 Sep-13 May-14 Oct-14

B	ND	ND	ND
T	ND	ND	ND
E	ND	ND	0.23,J
X	ND	ND	ND
N	ND	ND	ND

MW-2 Sep-13 May-14 Oct-14

B	200	9.6	74.6
T	3.9,J	ND	3.5
E	130	4.2	110
X	ND	0.38,J	14.5
N	9,J	ND	ND

MW-12R Sep-13 May-14 Oct-14

B	ND	ND	ND
T	ND	ND	ND
E	ND	ND	ND
X	ND	ND	ND
N	ND	ND	ND

MW-15 Sep-13 May-14 Oct-14

B	49.7	1.7	11.5
T	1.2	0.3,J	0.33,J
E	2.6	ND	0.21,J
X	1.4,J	0.88,J	ND
N	ND	ND	ND

ABBREVIATIONS

B	BENZENE
E	ETHYL BENZENE
T	TOLUENE
X	M/P-XYLENES AND O-XYLENE
N	NAPHTHALENE

LEGEND:

MW-11 POST-REMEDIATION MONITORING WELL

MW-1 PRE-EXISTING MONITORING WELL

LIMITS OF HYDRAULIC BARRIER

COMPOUND NAME

B	130

CONCENTRATION IN MICROGRAMS PER LITER (µg/L)

ND: Not detected
NS: Not Sampled
J: Indicates an estimated value.

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QUEENS WEST PARCEL 9
QUEENS, NEW YORK

BTEX & NAPTHALENE CONCENTRATIONS IN GROUNDWATER (2014)

DATE
JANUARY 2015

SCALE
As shown

PROJECT No.
Z015003100

FIGURE
4

M:\ACADD-WORKS\GROUND WATER INVESTIGATION\Z015003100

TABLES

TABLE 1
VAPOR MITIGATION SYSTEM BLOWER RUNTIME DATA
QUEENS WEST DEVELOPMENT - PARCEL 9

Date	Zone 1				Zone 2				Zone 3				Zone 4			
	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]	On/Off	Runtime (hrs)	Runtime (days)[1]	Est. Downtime (days)[2]
1/31/2014	On	52,003	2166.8	0.0	On	54,007	2250.3	0.0	On	44,469	1852.9	0.0	On	53,150	2214.6	0.0
2/19/2014	On	52,542	2189.2	0.0	On	54,453	2268.9	0.0	On	44,912	1871.3	0.0	On	53,598	2233.3	0.0
3/26/2014	On	53,296	2220.7	0.0	On	55,297	2304.0	0.0	On	45,758	1906.6	0.0	On	54,443	2268.5	0.0
4/30/2014	On	54,132	2255.5	0.0	On	56,133	2338.9	0.0	On	46,761	1948.4	0.0	On	55,279	2303.3	0.0
5/29/2014	On	54,834	2284.8	0.0	On	56,835	2368.1	0.0	On	47,295	1970.6	0.0	On	55,982	2332.6	0.0
6/26/2014	On	55,504	2312.7	0.0	On	57,505	2396.0	0.0	On	47,963	1998.5	0.0	On	56,650	2360.4	0.0
7/31/2014	On	56,345	2347.7	0.0	On	58,346	2431.1	0.0	On	48,802	2033.4	0.0	On	57,468	2394.5	0.0
8/29/2014	On	57,042	2376.7	0.0	On	59,042	2460.1	0.0	On	49,502	2062.6	0.0	On	58,188	2424.5	0.0
9/30/2014	On	57,810	2408.8	0.0	On	59,811	2492.1	0.0	On	50,270	2094.6	0.0	On	58,597	2441.6	0.0
10/30/2014	On	58,527	2438.6	0.0	On	60,528	2522.0	0.0	On	50,987	2124.5	0.0	On	59,675	2486.4	0.0
11/20/2014	On	59,033	2459.7	0.0	On	61,034	2543.1	0.0	On	51,493	2145.5	0.0	On	60,180	2507.5	0.0
12/11/2014	On	59,532	2480.5	0.0	On	61,533	2563.9	0.0	On	60,680	2528.3	0.0	On	60,680	2528.3	0.0

Notes:

[1] Estimated Runtime (days) = Runtime (hours)/24

[2] Estimated Downtime = # Calendar Days - Runtime (days)

*Total Zone 3 runtime calculated by adding reading at new meter to final reading pulled from broken meter (7415.4).

TABLE 2
VAPOR MITIGATION SYSTEM VACUUM AND FLOW RATE READINGS
QUEENS WEST DEVELOPMENT - PARCEL 9

	Zone 1			Zone 2			Zone 3				Zone 4			
	Vacuum at Filter		Flow	Vacuum at Filter		Flow	Vacuum at Filter		Flow		Vacuum at Filter		Flow	
Date	Pre ("H_2O)	Post ("H_2O)	(CFM)	Pre ("H_2O)	Post ("H_2O)	(CFM)	Pre ("H_2O)	Post ("H_2O)	Riser (CFM)	Total(CFM)	Pre ("H_2O)	Post ("H_2O)	Riser (CFM)	Total(CFM)
1/31/2014	7.0	7.0	325	10.0	10.0	342	13.0	13.5	590	272	4.0	4.5	451	252
2/19/2014	7.0	7.0	324	10.0	10.0	330	12.5	13.0	519	261	4.5	5.0	450	252
3/26/2014	7.0	7.0	324	9.5	10.0	332	12.5	13.0	539	266	5.0	5.5	480	308
4/30/2014	7.0	7.5	322	10.0	10.0	343	13.0	13.0	419	243	5.0	5.5	484	312
5/29/2014	7.5	7.5	320	10.0	10.0	341	13.5	13.8	600	307	5.5	6.0	600	307
6/26/2014	7.5	7.5	320	10.0	10.0	330	13.0	13.5	359	214	5.0	5.5	603	307
7/31/2014	7.5	8.0	318	10.0	10.0	340	13.0	14.0	329	241	5.5	6.0	608	308
8/29/2014	7.5	7.5	320	10.0	10.0	340	12.5	13.0	339	246	5.5	6.0	599	306
9/30/2014	7.5	7.5	321	10.0	10.0	335	12.5	13.0	369	253	5.5	6.0	589	306
10/30/2014	7.5	7.5	320	10.0	10.0	341	12.5	13.0	419	265	5.5	6.0	592	307
11/20/2014	7.0	7.5	324	9.5	9.5	345	12.0	12.0	489	285	5.0	5.5	600	307
12/11/2014	7.0	7.5	322	10.0	10.0	336	12.0	12.5	419	305	5.0	5.5	600	306

Notes:
Pre - Reading taken before air filter.
Post - Reading taken after air filter.
Riser - Flow reading taken before dilution valve.
Total - flow reading taken after dilution valve.

TABLE 3
WATER LEVEL MEASUREMENTS and PRODUCT THICKNESS
QUEENS WEST DEVELOPMENT - PARCEL 9

Well	Total Well Depth (feet)	Top of Casing Elev. (feet)	May 2014				Oct-14			
			DTP	DTW	Product Thickness	ELEV	DTP	DTW	Product Thickness	ELEV
MW-2	**32.21**	**8.93**	ND	7.94	0.00	0.99	ND	9.40	0.00	-0.47
MW-8	**29.4**	**10.30**	ND	9.71	0.00	0.59	ND	10.64	0.00	-0.34
MW-11R	**20.15**	**10.52**	ND	10.70	0.00	-0.18	ND	10.40	0.00	0.12
MW-12R	**17.95**	**10.46**	ND	9.2	0.00	1.26	ND	9.15	0.00	1.31
MW-14	**18.11**	**8.30**	ND	7.41	0.01	0.89	ND	8.14	0.00	0.16
MW-15	**17.55**	**7.24**	ND	6.28	0.00	0.96	ND	7.51	0.00	-0.27
MW-16	**13.61**	**7.22**	ND	7.17	0.00	0.05	ND	8.31	0.00	-1.09

Notes:

ND - Not detected

DTP - Depth to product in feet

DTW - Depth to water in feet

ELEV - Water table elevation in feet above the Queens Borough Datum, which is 2.725 feet above the mean sea level referenced to the National Geodetic Vertical Datum (NGVD) of 1929.

Table 4
GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID Lab Sample ID Date Sampled Dilution units=ug/L	NYSDEC Class GA AWQV	MW2 F2255-09 5/7/2014 1	MW-2 F4207-09 10/7/2014 1	MW8 F2255-08DL 5/7/2014 10	MW-8 F4207-08DL 10/7/2014 5	MW11R F2255-02 5/7/2014 1	MW-11R F4207-02 10/7/2014 1	MW-12R F2255-01 5/7/2014 1	MW-12R F4207-01 10/7/2014 1	MW14 F2255-07 5/7/2014 1	MW-14 F4207-07 10/7/2014 1	MW-14 (DUP) F4207-10 10/7/2014 1	MW15 F2255-06 5/7/2014 1	MW-15 F4207-06 10/7/2014 1	MW16 F2255-05 5/7/2014 1	MW-16 (DUP) F2255-10 5/7/2014 1	MW-16 F4207-05 10/7/2014 1	FB F2255-11 5/7/2014 1	FB F4207-12 10/7/2014 1	TB F2255-12 5/7/2014 1	TB F4207-11 10/7/2014 1
1,1,1-Trichloroethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	**1**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	**0.6**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	**1**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Hexanone	**50**	1.9 U	1.9 U	19.4 UD	19.4 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Acetone	**50**	0.5 U	0.5 U	5 UD	5 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	**1**	**9.6**	**74.6**	2 UD	**35** D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**1.2**	**1.1**	**1.7**	**11.5**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	**50**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	**50**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon disulfide	**60**	0.2 U	0.23 J	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1	0.2 U	0.2 U	0.2 U	0.2 U
Carbon tetrachloride	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	**7**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	**0.4**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromochloromethane	**50**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	**5**	4.2	**110**	**55.4** D	**84.6** D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.5 J	0.48 J	0.2 U	0.21 J	0.2 U	0.2 U	0.23 J	0.2 U	0.2 U	0.2 U	0.2 U
Methylene Chloride	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Styrene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.28 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	**5**	0.2 U	3.5	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.24 J	0.22 J	0.3 J	0.33 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	**5**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride	**2**	0.2 U	0.2 U	2 UD	2 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Xylenes, Total	**5**	0.38 J	**14.5**	**45** D	**49.2** D	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.69 J	0.53 J	0.88 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Notes:
AWQVs - Ambient Water Quality Standards and Guidance Values listed in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1

U - Analyzed for but not detected.

J - Indicates an estimated value.

B - Analyte was detected in assocated blank, as well as in the sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

ug/L - micrograms per liter.

Bold - exceeds TOGS

FB - Field Blank

TB - Trip Blank

Table 5
GROUNDWATER ANALYTICAL RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS
QUEENS WEST DEVELOPMENT - PARCEL 9

Client ID	NYSDEC	MW2	MW-2	MW8	MW-8	MW11R	MW-11R	MW-12R	MW-12R	MW14	MW-14	MW-14 (DUP)	MW15	MW-15	MW16	MW-16 (DUP)	MW-16	FB	FB
Lab Sample ID	Class GA	F2255-09	F4207-09DL	F2255-08DL	F4207-08DL	F2255-02	F4207-02	F2255-01	F4207-01	F2255-07	F4207-07	F4207-10	F2255-06	F4207-06	F2255-05	F2255-10	F4207-05	F2255-11	F4207-12
Date Sampled	AWQV	5/7/2014	10/7/2014	5/7/2014	10/7/2014	5/7/2014	10/7/2014	5/7/2014	10/7/2014	5/7/2014	10/7/2014	10/7/2014	5/7/2014	10/7/2014	5/7/2014	5/7/2014	10/7/2014	5/7/2014	10/7/2014
Dilution		1	5	10	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Units=ug/L																			
1,2,4-Trichlorobenzene	5	0.14 U	0.71 UD	1.5 UD	0.71 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichlorobenzene	3	0.25 U	1.3 UD	2.6 UD	1.3 UD	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U
1,3-Dichlorobenzene	3	0.12 U	0.61 UD	1.3 UD	0.61 UD	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	3	0.18 U	1.3 UD	2 UD	1.3 UD	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
2,2'-oxybis[1-chloropropane]	5	0.35 U	1.8 UD	1.7 UD	1.8 UD	0.35 U	0.36 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.35 U	0.36 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U
2,4,5-Trichlorophenol	NS	2.3 U	11.6 UD	4 UD	11.6 UD	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
2,4,6-Trichlorophenol	NS	2.1 U	10.8 UD	5.7 UD	10.8 UD	2.1 U	2.2 U	2.1 U	2.2 U	2.1 U	2.2 U	2.2 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.2 U
2,4-Dichlorophenol	5	3.2 U	16.4 UD	6.7 UD	16.4 UD	3.2 U	3.3 U	3.2 U	3.3 U	3.2 U	3.3 U	3.3 U	3.2 U	3.3 U	3.2 U	3.2 U	3.3 U	3.2 U	3.3 U
2,4-Dimethylphenol	50	0.7 U	3.6 UD	7.2 UD	3.6 UD	0.7 U	0.18 U	0.7 U	0.18 U	0.7 U	0.18 U	0.18 U	0.7 U	0.18 U	0.7 U	0.7 U	0.18 U	0.7 U	0.18 U
2,4-Dinitrophenol	10	1.9 U	9.6 UD	21.2 UD	9.6 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrotoluene	5	2.1 U	10.8 UD	10.1 UD	10.8 UD	2.1 U	2.2 U	2.1 U	2.2 U	2.1 U	2.2 U	2.2 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.2 U
2,6-Dinitrotoluene	5	0.27 U	1.4 UD	0.27 UD	1.4 UD	0.27 U	0.28 U	0.27 U	0.28 U	0.27 U	0.28 U	0.28 U	0.27 U	0.28 U	0.27 U	0.27 U	0.28 U	0.27 U	0.28 U
2-Chloronaphthalene	10	0.15 U	0.77 UD	3.2 UD	0.77 UD	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
2-Chlorophenol	NS	0.19 U	0.97 UD	5.5 UD	0.97 UD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Methylnaphthalene	NS	0.19 U	0.97 UD	3.2 UD	0.97 UD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Methylphenol	NS	1.8 U	9.2 UD	2.4 UD	9.2 UD	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
2-Nitroaniline	5	4.2 U	21.6 UD	4.9 UD	21.6 UD	**6**	4.3 U	4.2 U	4.3 U	4.2 U	4.3 U	4.3 U	4.2 U	4.3 U	4.2 U	4.2 U	4.3 U	4.2 U	4.3 U
2-Nitrophenol	NS	4.4 U	22.4 UD	5.3 UD	22.4 UD	4.4 U	4.5 U	4.4 U	4.5 U	4.4 U	4.5 U	4.5 U	4.4 U	4.5 U	4.4 U	4.4 U	4.5 U	4.4 U	4.5 U
3,3'-Dichlorobenzidine	5	3.6 U	18.3 UD	10.1 UD	18.3 UD	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.7 U	3.6 U	3.7 U	3.6 U	3.6 U	3.7 U	3.6 U	3.7 U
3-Nitroaniline	5	2 U	10.3 UD	10.1 UD	10.3 UD	2 U	2.1 U	2 U	2.1 U	2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2 U	2.1 U	2 U	2.1 U
4,6-Dinitro-2-methylphenol	NS	1.9 U	9.5 UD	7.5 UD	9.5 UD	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	NS	0.42 U	2.1 UD	2.3 UD	2.1 UD	0.42 U	0.43 U	0.42 U	0.43 U	0.42 U	0.43 U	0.43 U	0.42 U	0.43 U	0.42 U	0.42 U	0.43 U	0.42 U	0.43 U
4-Chloro-3-methylphenol	NS	1.7 U	8.8 UD	4 UD	8.8 UD	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U
4-Chloroaniline	5	2.6 U	13.5 UD	10.1 UD	13.5 UD	2.6 U	2.7 U	2.6 U	2.7 U	2.6 U	2.7 U	2.7 U	2.6 U	2.7 U	2.6 U	2.6 U	2.7 U	2.6 U	2.7 U
4-Chlorophenyl phenyl ether	NS	0.27 U	1.4 UD	2.1 UD	1.4 UD	0.27 U	0.28 U	0.27 U	0.28 U	0.27 U	0.28 U	0.28 U	0.27 U	0.28 U	0.27 U	0.27 U	0.28 U	0.27 U	0.28 U
4-Nitroaniline	5	2.5 U	12.7 UD	13.7 UD	12.7 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Nitrophenol	NS	3.9 U	19.7 UD	20.2 UD	19.7 UD	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U
Acenaphthene	20	25.2	**160** D	**110** D	**230** D	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	**21.3**	19.9	**22.5**	2.3 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Acenaphthylene	NS	0.16 U	0.82 UD	7.1 UD	0.82 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Anthracene	50	0.3 U	1.5 UD	1.6 UD	1.5 UD	0.3 U	0.31 U	0.3 U	0.31 U	0.3 U	0.31 U	0.31 U	2.4 J	0.31 U	0.3 U	0.3 U	0.31 U	0.3 U	0.31 U
Benzo[a]anthracene	0.002	0.12 U	0.61 UD	1.6 UD	0.61 UD	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	**2.7**	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Benzo[a]pyrene	NS	0.17 U	0.87 UD	1.4 UD	0.87 UD	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	2.4 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Benzo[b]fluoranthene	0.002	0.17 U	**0.87** UD	2.9 UD	**0.87** UD	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	**2.7**	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Benzo[g,h,i]perylene	NS	0.13 U	0.66 UD	2.9 UD	0.66 UD	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Benzo[k]fluoranthene	0.002	0.28 U	1.4 UD	1.8 UD	1.4 UD	0.28 U	0.29 U	0.28 U	0.29 U	0.28 U	0.29 U	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.29 U	0.28 U	0.29 U
Bis(2-chloroethoxy)methane	5	1.1 U	5.7 UD	5.6 UD	5.7 UD	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Bis(2-chloroethyl)ether	1	0.35 U	1.8 UD	5.6 UD	1.8 UD	0.35 U	0.36 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.35 U	0.36 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U
Bis(2-ethylhexyl) phthalate	5	0.29 U	1.5 UD	1.6 UD	1.5 UD	0.29 U	0.3 U	4.2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Butyl benzyl phthalate	50	0.22 U	1.5 UD	1.9 UD	1.5 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chrysene	0.002	0.24 U	1.2 UD	1.8 UD	1.2 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Dibenz(a,h)anthracene	NS	0.28 U	1.4 UD	4.2 UD	1.4 UD	0.28 U	0.29 U	0.28 U	0.29 U	0.28 U	0.29 U	0.29 U	0.28 U	0.29 U	0.28 U	0.28 U	0.29 U	0.28 U	0.29 U
Dibenzofuran	NS	5.9 J	80.3 D	69.6 JD	160 D	2.1 U	2.2 U	2.1 U	2.2 U	2.1 U	2.2 U	2.2 U	3 J	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.2 U
Diethyl phthalate	50	0.1 U	0.51 UD	3.8 UD	0.51 UD	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dimethyl phthalate	50	4	0.87 UD	2.2 UD	0.87 UD	6	0.17 U	5.5	0.17 U	2.3 J	0.17 U	0.17 U	3.3	4.6	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Di-n-butyl phthalate	50	0.59 U	3 UD	10.1 UD	3 UD	0.59 U	0.6 U	0.59 U	0.6 U	0.59 U	0.6 U	0.6 U	0.59 U	0.6 U	0.59 U	0.59 U	0.6 U	0.59 U	0.6 U
Di-n-octyl phthalate	50	0.31 U	1.6 UD	5.2 UD	1.6 UD	0.31 U	0.32 U	0.31 U	0.32 U	0.31 U	0.32 U	0.32 U	0.31 U	0.32 U	0.31 U	0.31 U	0.32 U	0.31 U	0.32 U
Fluoranthene	50	0.84 U	4.3 UD	4 UD	4.3 UD	0.84 U	0.86 U	0.84 U	0.86 U	0.84 U	0.86 U	0.86 U	5.7	0.86 U	0.84 U	0.84 U	0.86 U	0.84 U	0.86 U
Fluorene	50	2.1 J	18.3 D	30.3 JD	72.6 D	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	7	6.1	9.7	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Hexachlorobenzene	0.04	0.22 U	1.1 UD	1.8 UD	1.1 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobutadiene	0.5	0.17 U	0.87 UD	2.5 UD	0.87 UD	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Hexachlorocyclopentadiene	5	1.5 U	7.7 UD	2.4 UD	7.7 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Hexachloroethane	5	0.25 U	1.3 UD	2.5 UD	1.3 UD	0.25 U	0.26 U	0.25 U	0.26 U	0.25 U	0.26 U	0.26 U	0.25 U	0.26 U	0.25 U	0.25 U	0.26 U	0.25 U	0.26 U
Indeno[1,2,3-cd]pyrene	0.002	0.66 U	3.4 UD	1.5 UD	3.4 UD	0.66 U	0.67 U	0.66 U	0.67 U	0.66 U	0.67 U	0.67 U	0.66 U	0.67 U	0.66 U	0.66 U	0.67 U	0.66 U	0.67 U
Isophorone	50	0.41 U	2.1 UD	3 UD	2.1 UD	0.41 U	0.42 U	0.41 U	0.42 U	0.41 U	0.42 U	0.42 U	0.41 U	0.42 U	0.41 U	0.41 U	0.42 U	0.41 U	0.42 U
Naphthalene	10	0.19 U	0.96 UD	640 D	**280** D	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	2.4 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Nitrobenzene	0.4	0.65 U	3.3 UD	6.9 UD	3.3 UD	0.65 U	0.66 U	0.65 U	0.66 U	0.65 U	0.66 U	0.66 U	0.65 U	0.66 U	0.65 U	0.65 U	0.66 U	0.65 U	0.66 U
N-Nitrosodi-n-propylamine	NS	0.22 U	1.1 UD	2 UD	1.1 UD	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
N-Nitrosodiphenylamine	50	0.8 U	4 UD	6.1 UD	4.1 UD	0.8 U	0.81 U	0.8 U	0.82 U	0.8 U	0.8 U	0.8 U	0.8 U	0.81 U	0.8 U	0.8 U	0.82 U	0.8 U	0.82 U
Pentachlorophenol	NS	2.7 U	13.7 UD	10.1 UD	13.7 UD	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U
Phenanthrene	50	0.11 U	0.56 UD	2.6 UD	48.9 D	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	5.9	4.9	10.2	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Phenol	NS	0.46 U	2.3 UD	2.1 UD	2.3 UD	0.46 U	0.47 U	0.46 U	0.47 U	0.46 U	0.47 U	0.47 U	0.46 U	0.47 U	0.46 U	0.46 U	0.47 U	0.46 U	0.47 U
Pyrene	50	0.13 U	0.66 UD	2 UD	0.66 UD	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	8	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:
AWQVs - Ambient Water Quality Standards and Guidance Values listed in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1
NS - No Standard
U - Analyzed for but not detected.
J - Indicates an estimated value.
B - Analyte was detected in assocated blank, as well as in
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
ug/L - micrograms per liter.
Bold - exceeds TOGS
FB - Field Blank

APPENDICES

Appendix A - Site Cover Inspection Log and Photographs

SITE CAP INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector: DENISE COSENZA

Date: DECEMBER 11, 2014

1. Courtyard/landscaped areas:

Adequate top soil cover present?

YES

Signs of erosion?

NO

Recommended corrective action:

NONE

2. Outdoor paving/sidewalks:

Note any signs of cracking or other damage:

NONE

Note any areas where greater than 25% of surface is cracked/damaged:

NONE

Recommended corrective action:

NONE

3. Lower level garage slab:

Note any signs of cracking or other damage:

SURFICIAL CRACKING (HAIRLINE) WAS OBSERVED. NO SIGNIFICANT CRACKING WAS OBSERVED

Note any areas where greater than 25% of surface is cracked/damaged:

NONE

Recommended corrective action:

NONE

Comments (attach photos/sketches to illustrate any damage noted):

Photographs Attached



Photo 1: View of typical landscaping and paving in courtyard.



Photo 2: View of typical landscaping in courtyard



Photo 3: View of paving along Center Blvd. looking north @ Center Blvd & 48th Ave. intersection.

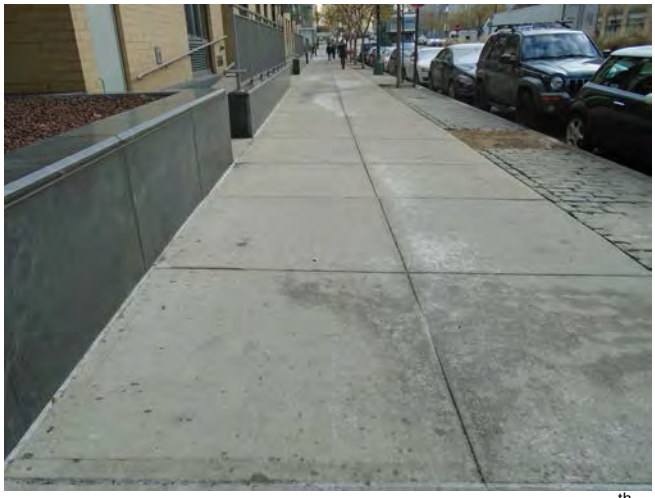


Photo 4: View of typical landscaping and paving along 5th Street looking north @ 48th Ave & 5th St. intersection.



Photo 5: View of typical landscaping and paving along 47th Rd. looking west @ 47t Rd. & 5th St. intersection.



Photo 6: View of typical landscaping and paving along 48th Ave. looking east @ 48th Ave. & Center Blvd. intersection.



Photo 7: View of Zone 3 Equipment.



Photo 8: View of typical condition of concrete slab in parking garage at parking space 141.



Photo 9: View of Zone 4 Equipment.



Photo 10: View of Zone 2 Equipment.



Photo 11: View of Zone 1 Equipment.

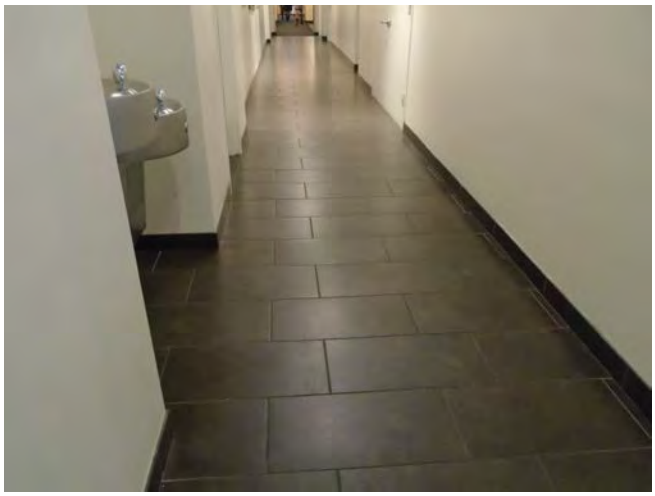


Photo 12: View of typical corridor with ceramic floor tiles.

Appendix B - Vapor Mitigation System Inspection Logs

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascilli	Date: 1/31/2014
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	52002 [redacted] 9	325	
Zone 2	54006.5	342	
Zone 3	44469	TOTAL 272	WELL 590
Zone 4	53150.1	TOTAL 252	WELL 431

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	NO			
Zone 2	10.0	10.0	0	NO			
Zone 3	13.0	13.5	0.5	NO			
Zone 4	4.0	4.5	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Mascioli	Date: 2/19/2014
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	52541.8	324	
Zone 2	54452.6	330	
Zone 3	44912	TOTAL 261	WELL 319
Zone 4	53598	TOTAL 252	WELL 450

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	(after filter change) Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0	NO			
Zone 2	10.0	10.0	0	NO			
Zone 3	12.5	13.0	0.5	NO			
Zone 4	4.5	5.0	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: John Masciali	Date: 3/26/2014
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	53296.4	324	
Zone 2	55297.1	332	
Zone 3	45756.1	TOTAL 266	WELL 539
Zone 4	54443.1	TOTAL 308	WELL [redacted]

Comments: 450

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	(after filter change) Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.0	7.0	0.0	NO			
Zone 2	9.5	10.0	0.5	NO			
Zone 3	12.5	13.0	0.5	NO			
Zone 4	5.0	5.5	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: D. Cosenza	Date: 4.30.14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	54132	322	
Zone 2	56133.1	343	
Zone 3	46760.5	TOTAL 243	WELL 419
Zone 4	55279.2	312	484

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.0	7.5	0.5	NO			
Zone 2	10.0	10.0	0	NO			
Zone 3	13.0	13.0	0	NO			
Zone 4	5.0	5.5	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: Denise Correa	Date: 5.29.2014
Time IN: 4:30	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	54843	320	
Zone 2	56835.3	341	
Zone 3	47294.7	TOTAL 227	WELL 399
Zone 4	55981.5	307	600

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.5	7.5	—	N			
Zone 2	10	10	—	N			
Zone 3	13.5	13.75	—	N			
Zone 4	5.5	6.0	—	N			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
46th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: Dave Cosenza	Date: 6-26-14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	55,503.7	320	
Zone 2	57,504.5	330	
Zone 3	47,963.0	TOTAL 214	WELL 359
Zone 4	56,650.4	307	603

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	(after filter change) Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.5	7.5	0	NO			
Zone 2	10	10	0	NO			
Zone 3	13.0	13.5	.5	NO			
Zone 4	5.0	5.5	.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: Denise Cosenza	Date: 7/31/14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	345.1	318	
Zone 2	58345.9	340	
Zone 3	48801.7	TOTAL 341	WELL 329
Zone 4	57467.9	308	608

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.5	8	0.5	NO			
Zone 2	10	10	0	↓			
Zone 3	13	14	1.0	↓			
Zone 4	5.5	6.0	0.5	↓			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: D. Cosenza	**Date:** 8.29.2014
Time IN:	**Time OUT:**

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	57041.6	320	
Zone 2	59042.4	340	
Zone 3	4950 1.8	TOTAL 246	well 339
Zone 4	58188.4	306	599

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	(after filter change) Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.5	7.5	0	NO			
Zone 2	10	10	0				
Zone 3	12.5	13.0	0.5				
Zone 4	5.5	6.0	0.5				

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: Denise Cosenza	Date: 9/30/2014
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	57810.3	321	
Zone 2	59811.3	335	
Zone 3	50270.0	TOTAL 253	WELL 369
Zone 4	58597.4	306	589

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.5	7.5	0	NO	—	—	—
Zone 2	10	10	0	NO	—	—	—
Zone 3	12.5	13.0	0.5	NO	—	—	—
Zone 4	5.5	6.0	0.5	NO	—	—	—

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: D. Cosenza	Date: 10.30.14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	58527.4	320	
Zone 2	60528.4	341	
Zone 3	50987.2	TOTAL 265	WELL 419
Zone 4	59674.5	307	592

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Outlet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Outlet "H_2O	Differential "H_2O
Zone 1	7.5	7.5	0	NO			
Zone 2	10	10	0	NO			
Zone 3	12.5	13.0	0.5	NO			
Zone 4	5.5	6.0	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: D. COSENZA	Date: 11/20/14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	59032.7	324	
Zone 2	61033.6	345	
Zone 3	51493.0	~~total~~ 285	well 489
Zone 4	60179.7	307	600

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter) (after filter change)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.5	0.5	NO			
Zone 2	9.5	9.5	0				
Zone 3	12.0	12.0	0				
Zone 4	5.0	5.5	0				

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

PERIODIC INSPECTION FORM
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector Name: Denise Cosenza	Date: 12.11.14
Time IN:	Time OUT:

GENERAL

Are there any leaks in system? yes or no (circle one)

If yes, plans for repair:

Are daily system checks being completed? yes or no (circle one)

If no, corrective actions taken:

FLOW RATES

Location	Run Time (hours)	Flow Rate (cfm)	
Zone 1	59532.3	322	
Zone 2	61533.4	336	
Zone 3	51992.5	Totally 305	Well 419
Zone 4	60679.7	306	600

Comments:

Notes:
1. Blower flow rates should be ~250 cfm

VACUUM READINGS (at particulate filter)

	Inlet "H_2O	Oulet "H_2O	Differential "H_2O	Filter Changed?	(after filter change) Inlet "H_2O	Oulet "H_2O	Differential "H_2O
Zone 1	7.0	7.5	0.5	NO			
Zone 2	10	10	0	NO			
Zone 3	12.0	12.5	0.5	NO			
Zone 4	5.0	5.5	0.5	NO			

Comments:

Notes:
1. If differential (inlet-outlet pressure) > 3 "H_2O above normal conditions, change out filter.

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
	2/3	☑ ON ☐ OFF	52072.1	326		7	7
	2/4	☑ ON ☐ OFF	52096.5	327		7	7
	2/5	☑ ON ☐ OFF	52120.1	333		7	7
	2/6	☑ ON ☐ OFF	52144.5	326		7	7
	2/7	☑ ON ☐ OFF	52168.0	327		7	7
	2/8	☑ ON ☐ OFF	52216.5	326		7	7
	2/10	☑ ON ☐ OFF	52240.0	327		7	7
	2/11	☑ ON ☐ OFF	52246.1	327		7	7
	2/12	☑ ON ☐ OFF	52313.6	325		7	7
	2/13	☑ ON ☐ OFF	52444.0	323		7	7
	2/18	☑ ON ☐ OFF	52457.2	324		7	7
	2/19	☑ ON ☐ OFF	52488	324		7	7
	2/20	☑ ON ☐ OFF	52272.0	324		7	7
	2/21	☑ ON ☐ OFF	52296.1	324		7	7
	2/22	☑ ON ☐ OFF	52320.5	324		7	7
	2/23	☑ ON ☐ OFF	52344.1	324		7	7
	2/24	☑ ON ☐ OFF	52368.1	324		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
FC	2/25	☑ ON ☐ OFF	52602.5	324		7	7
	2/26	☑ ON ☐ OFF	52625.8	324		7	7
	2/27	☑ ON ☐ OFF	56699.5	325		7	7
	2/28	☑ ON ☐ OFF	52680.5	324		7	7
	3/3	☑ ON ☐ OFF	52,7495	325		7	7
	3/4	☑ ON ☐ OFF	52939.4	324		7	7
	3/12	☑ ON ☐ OFF	52960.2	324		7	7
	3/13	☑ ON ☐ OFF	52984.4	324		7	7
	3/14	☑ ON ☐ OFF	53808.1	324		7	7
	3/17	☑ ON ☐ OFF	53836.4	324		7	7
	3/18	☑ ON ☐ OFF	53 1042	324		7	7
	3/19	☑ ON ☐ OFF	53 15.35	324		7	7
	3/20	☑ ON ☐ OFF	53 1760	325		7	7
	3/24	☑ ON ☐ OFF	532482	326		7	7
	3/25	☑ ON ☐ OFF	53273.7	324		7	7
KB	3/26	☑ ON ☐ OFF	5329 6.5	323	Inspector Came	7	7
	3/27	☑ ON ☐ OFF	533236	323		7	7

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ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
E DURANT	3/28/14	☑ ON ☐ OFF	5633446	324		7	7
E DURANT	3/31/14	☑ ON ☐ OFF	5634116.5	323		7	7
E DURANT	4/3/14	☑ ON ☐ OFF	5634901.	324		7	7
	4/8/14	☑ ON ☐ OFF	5636089	323		7	7
E DURANT	4/10/14	☑ ON ☐ OFF	5638258	324		7	7
E DURANT	4/21/14	☑ ON ☐ OFF	5639211	323		7	7
	4/30/14	☑ ON ☐ OFF	5641375	321		7	7
	5/9	☑ ON ☐ OFF	[illegible]				
ED	5/14	☑ ON ☐ OFF	5646945	322		7	7
Ed	6/13	☑ ON ☐ OFF	5519275	323		7	7
Ed	6/17	☑ ON ☐ OFF	5529065	320		7	7
Ed	6/30	☑ ON ☐ OFF	5560035	318		7	7
Ed	7/7	☑ ON ☐ OFF	5576785	317		7	7
Ed	7/17	☑ ON ☐ OFF	5601566	318		7	7
Ed	8/5	☑ ON ☐ OFF	5646415	318		7	7
Ed	8/11	☑ ON ☐ OFF	5646035	318		7	7
Ed	8/15	☑ ON ☐ OFF	5670055	319		7	7

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
Ed	8/18	☑ ON ☐ OFF	567716	320		7	7
Amika	8/26	☑ ON ☐ OFF	569695	318		7	7
Amika	9/2/14	☑ ON ☐ OFF	57139.7	319		7	7
Ed	9/3/14	☑ ON ☐ OFF	57168.4	320		7	7
Ed	9/08/14	☑ ON ☐ OFF	57275.2	320		7	7
Ed	9/9/14	☑ ON ☐ OFF	57312.3	319		7	7
Amika	9/10/14	☑ ON ☐ OFF	57328.4	319		7	7
Amika	9/16/14	☑ ON ☐ OFF	57474.0	321		7	7
Ed	9/17/14	☑ ON ☐ OFF	57496	319		7	7
Sal	9/21/14	☑ ON ☐ OFF	575872	321		7	7
Amika	9/22/14	☑ ON ☐ OFF	57619.1	320		7	7
Amika	10.6.14	☑ ON ☐ OFF	57959.8	321		7	8
Amika	10.7.14	☑ ON ☐ OFF	57983.7	322		7	8
Amika	10.14.14	☑ ON ☐ OFF	58150.0	324		7	7.5
Amika	10.28.14	☑ ON ☐ OFF	58480.2	323		7.5	8
Amika	10.30.14	☑ ON ☐ OFF	58530.7	322		7	7.5
Amika	10.31.14	☑ ON ☐ OFF	58548.5	323		7.5	7.5

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Filter. Pre	Post
Amiba	11.4.14	☑ ON ☐ OFF	58655.0	~~Copy~~ 321		7	7.5
Amiba	11.6.14	☑ ON ☐ OFF	58695.3	322		7	7.5
Amiba	11.7.14	☑ ON ☐ OFF	58716.9	323		7	7.5
Amiba	11.10.14	☑ ON ☐ OFF	58797.0	323		7	7.5
Amiba	11.11.14	☑ ON ☐ OFF	58824.0	323		7	7.5
Amiba	11.14.14	☑ ON ☐ OFF	58902.0	323		7	7.5
Amiba	11.17.14	☑ ON ☐ OFF	58972.0	323		7	7.5
Amiba	11.18.14	☑ ON ☐ OFF	58987.1	323		7	7.5
Amiba	11.19.14	☑ ON ☐ OFF	59025.0	323		7	7.5
Amiba	11.24.14	☑ ON ☐ OFF	59133.4	323		7	7.5
Amiba	11.25.14	☑ ON ☐ OFF	59158.8	323		7	7.5
Amiba	11.28.14	☑ ON ☐ OFF	59210.4	323		7	7.5
Amiba	12.1.14	☑ ON ☐ OFF	59304.3	323		7	7.5
Amiba	12.2.14	☑ ON ☐ OFF	59325.0	323		7	7.5
Amiba	12.5.14	☑ ON ☐ OFF	59381.7	324		7	7.5
Amiba	12.8.14	☑ ON ☐ OFF	59465.1	324		7	7.5
Amiba	12.10.14	☑ ON ☐ OFF	59508.4	324		7	7.5

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: (1) 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Observations	Pre	Post
[illegible]	12.12.14	☑ ON ☐ OFF	59563.7	324	7.0	7.5
[illegible]	12.15.14	☑ ON ☐ OFF	59640.2	324	7	7.5
[illegible]	12.16.14	☑ ON ☐ OFF	59661.1	324	7	7.5
[illegible]	12.19.14	☑ ON ☐ OFF	59697.8	324	7	7.5
[illegible]	12.22.14	☑ ON ☐ OFF	59807.2	324	7	7.5
[illegible]	12.23.14	☑ ON ☐ OFF	59831.9	324	7	7.5
[illegible]	12.24.14	☑ ON ☐ OFF	59861.0	323	7	7.5
[illegible]	12.29.14	☑ ON ☐ OFF	59972.4	324	7	7.5
[illegible]	12.30.14	☑ ON ☐ OFF	59993.4	324	7	7.5
[illegible]	12.31.14	☑ ON ☐ OFF	60018.4	325	7	7.5
[illegible]	1.5.15	☑ ON ☐ OFF	60141.0	324	7	7.5
[illegible]	1.7.15	☑ ON ☐ OFF	60182.0	324	7	7.5
		☐ ON ☐ OFF				
[illegible]	1.12.15	☑ ON ☐ OFF	60308.8	324	7	7.5
[illegible]	1.13.15	☑ ON ☐ OFF	60330.3	324	7	7.5
[illegible]	1.16.15	☑ ON ☐ OFF	60390.7	325	7	7.5
[illegible]	1.19.15	☑ ON ☐ OFF	60473.3	325	7	7.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	OFM	PRE	Observations	POST
ED Durant	12/30/13	☑ ON ☐ OFF	53240.4	335	10		10
ED Durant	12/31/13	☑ ON ☐ OFF	53259	336	10		10
W IA	1/4/14	☑ ON ☐ OFF	53406.6	340	10		10
	1/12/14	☑ ON ☐ OFF	53410.2	340	10		10
	1/8/14	☑ ON ☐ OFF	53434.3	330	10		10
	1/9/14	☑ ON ☐ OFF	53475.0	332	10		10
	1/13/14	☑ ON ☐ OFF	53570.5	342	10		10
	1/14/14	☑ ON ☐ OFF	53597.8	328	10		10
	1/15/14	☑ ON ☐ OFF	53621.4	338	10		10
	1/16	☑ ON ☐ OFF	53644.5	338	10		10
	1/17	☑ ON ☐ OFF	53672.1	335	10		10
	1/22	☑ ON ☐ OFF	53788.1	336	10		10
	1/23	☑ ON ☐ OFF	53817.3	341	10		10
	1/24	☑ ON ☐ OFF	53835.8	340	10		10
	1/27	☑ ON ☐ OFF	53907.6	333	10		10
	1/28	☑ ON ☐ OFF	53933.1	346	10		10
	1/29	☑ ON ☐ OFF	53954.3	340	10		10

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	POST
ED	1/30	☑ ON ☐ OFF	53122.5	333		10	10
	1/31	☑ ON ☐ OFF	54006.5	342		10	10
	2/3	☑ ON ☐ OFF	54078.2	342		10	10
	2/4	☑ ON ☐ OFF	54102.7	342		10	10
	2/5	☑ ON ☐ OFF	54126.5	342		10	10
	2/6	☑ ON ☐ OFF	54150.1	342		10	10
	2/7	☑ ON ☐ OFF	54174.9	342		10	10
	2/11	☑ ON ☐ OFF	54268.3	342		10	10
	2/12	☑ ON ☐ OFF	54295.9	341		10	10
	2/13	☑ ON ☐ OFF	54313.8	332		10	10
	2/14	☑ ON ☐ OFF	54341.4	330		10	10
	2/18	☑ ON ☐ OFF	54441.0	327		10	10
	2/19	☑ ON ☐ OFF	54458.9	333		10	10
	2/20	☑ ON ☐ OFF	54489.7	336		10	10
	2/21	☑ ON ☐ OFF	54512.6	336		10	10
	2/24	☑ ON ☐ OFF	54578.9	335		10	10
	2/25	☑ ON ☐ OFF	54603.2	333		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM(psi)	Observations	Pre	Pos
Ed	2/26/14	☑ ON ☐ OFF	546272	322		10	10
	2/27/14	☑ ON ☐ OFF	546507	339		10	10
	2/28/14	☑ ON ☐ OFF	546816	338		10	10
	3/3/14	☑ ON ☐ OFF	547523	324		10	10
	3/4/14	☑ ON ☐ OFF	547782	341		10	10
	3/5/14	☑ ON ☐ OFF	547949	325		10	10
	3/12/14	☑ ON ☐ OFF	549612	339		10	10
	3/13/14	☑ ON ☐ OFF	549856	327		10	10
	3/17/14	☑ ON ☐ OFF	550825	336		10	10
	3/18/14	☑ ON ☐ OFF	551062	336333		10	10
	3/19/14	☑ ON ☐ OFF	551320	336		10	10
	3/20/14	☑ ON ☐ OFF	551552	343		10	10
	3/21/14	☑ ON ☐ OFF	551787	324		10	10
	3/24/14	☑ ON ☐ OFF	552497	335		10	10
	3/25/14	☑ ON ☐ OFF	552745	330		10	10
	3/26/14	☑ ON ☐ OFF	553026	334		10	10
	3/27/14	☑ ON ☐ OFF	553250	342		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRE	Post
EC Dumont	3/28/14	☑ ON ☐ OFF	55346.0	339		10	10
	3/31/14	☑ ON ☐ OFF	55418.4	335		10	10
	4/1/14	☑ ON ☐ OFF	55444.2	335		10	10
	4/4/14	☑ ON ☐ OFF	55521.3	346		10	10
	4/8/14	☑ ON ☐ OFF	55609.3	340		10	10
	4/17/14	☑ ON ☐ OFF	55852.0	335		10	10
	4/18/14	☑ ON ☐ OFF	55879.3	333		10	10
	4/21/14	☑ ON ☐ OFF	55972.2	338		10	10
	4/29/14	☑ ON ☐ OFF	56113.4	340		10	10
	4/30/14	☑ ON ☐ OFF	56138.5	343		10	10
	5/09/14	☑ ON ☐ OFF	56331.0	338		10	10
	5/19/14	☑ ON ☐ OFF	56555	324		10	10
	5/24/14	☑ ON ☐ OFF	56835.5	336		10	10
	5/5/14	☑ ON ☐ OFF	57042	324		10	10
	5/6/14	☑ ON ☐ OFF	57026.4	324		10	10
	6/4/14	☑ ON ☐ OFF	57047.5	338		10	10
	6/13/	☑ ON ☐ OFF	57193.4	324		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	PRe	Post
Ed	[illegible]	☑ ON ☐ OFF					
Ed	6/17	☑ ON ☐ OFF	57241.5	329		10	10
Ed	6/30	☑ ON ☐ OFF	57601.3	332		10	10
	7/7	☑ ON ☐ OFF	57760	333		10	10
	7/14	☑ ON ☐ OFF	58018	349		10	10
	7/28	☑ ON ☐ OFF	58273.1	340		10	10
	8/5	☑ ON ☐ OFF	58473.1	333		10	10
	8/6	☑ ON ☐ OFF	58514.7	338		10	10
	8/11	☑ ON ☐ OFF	58611.5	340		10	10
	8/12	☑ ON ☐ OFF	58660	343		10	10
	8/15	☑ ON ☐ OFF	58775	345		10	10
	8/18	☑ ON ☐ OFF	58873.1	330		10	10
Amika	8/26	☑ ON ☐ OFF	58970.5	335		10	10
Amika	9/2/14	☑ ON ☐ OFF	59140.5	336		10	10
Ed	9/3/14	☑ ON ☐ OFF	59169.2	348		10	10
Ed	9/8/14	☑ ON ☐ OFF	59276.4	332		10	10
Ed	9/9/14	☑ ON ☐ OFF	54313.3	341		10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations FILTER PRE	Observations FILTER POST
Amika	9/10/14	☒ ON ☐ OFF	59329.2	345	10	10
Ed	9/12/14	☒ ON ☐ OFF	59385.6	336	10	10
	9/15/14	☒ ON ☐ OFF	59446.1	345	10	10
	9/16/14	☒ ON ☐ OFF	59497.1	342	10	10
	9/17/14	☒ ON ☐ OFF	59497.3	344	10	10
Saf	9.21.14	☒ ON ☐ OFF	59587.6	342	10	10
Amika	9.22.14	☒ ON ☐ OFF	59620.1	346	10	10
Saf	9.28.14	☒ ON ☐ OFF	597632	342	10	10
Amika	10.6.14	☒ ON ☐ OFF	59960.8	342	10	10
Amika	10.7.14	☒ ON ☐ OFF	59984.7	348	10	10
Saf	10.12.14	☒ ON ☐ OFF	60098.6	339	10	10
Amika	10.14.14	☒ ON ☐ OFF	60153.0	342	10	10
Saf	10.19.14	☒ ON ☐ OFF	60261.1	335	10	10
Amika	10.28.14	☒ ON ☐ OFF	60481.1	337	10	10
Amika	10.30.14	☒ ON ☐ OFF	60531.7	347	10	10
Amika	10.31.14	☒ ON ☐ OFF	60549.4	349	10	10
Amika	11.4.14	☒ ON ☐ OFF	60655.8	349	10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	CFM	Observations	Filter Pre	Filter Post
Amiba	11.6.14	☑ ON ☐ OFF	60696.1	353		10	10
Amiba	11.7.14	☑ ON ☐ OFF	60717.9	344		10	10
Amiba	11.10.14	☑ ON ☐ OFF	60798.1	352		10	10
Amiba	11.11.14	☑ ON ☐ OFF	60825.0	358		10	10
Amiba	11.14.14	☑ ON ☐ OFF	60901.0	358		10	10
Amiba	11.17.14	☑ ON ☐ OFF	60940.1	358		10	10
Amiba	11.18.14	☑ ON ☐ OFF	60988.3	353		10	10
Amiba	11.19.14	☑ ON ☐ OFF	61039.5	358		10	10
Amiba	11.24.14	☑ ON ☐ OFF	61138.2	358		10	10
Amiba	11.25.14	☑ ON ☐ OFF	61159.7	361		10	10
Amiba	11.28.14	☑ ON ☐ OFF	61224.8	361		10	10
Amiba	12.1.14	☑ ON ☐ OFF	61305.1	362		10	10
Amiba	12.2.14	☑ ON ☐ OFF	61325.9	360		10	10
Amiba	12.5.14	☑ ON ☐ OFF	61389.1	360		10	10
Amiba	12.8.14	☑ ON ☐ OFF	61465.9	356		10	10
Amiba	10.10.14	☑ ON ☐ OFF	61509.4	354		10	10
Amiba	17.12.14	☑ ON ☐ OFF	61589.7	351		10	10

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 (2) 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Observations (Cmp)	Observations (Tulfer) Pre	Post
[illegible]	12.15.14	☑ ON ☐ OFF	61640.0	356	10	10
[illegible]	12.16.14	☑ ON ☐ OFF	61661.8	359	10	10
[illegible]	12.19.14	☑ ON ☐ OFF	61712.9	359	10	10
[illegible]	12.22.14	☑ ON ☐ OFF	61808.0	361	10	10
[illegible]	12.23.14	☑ ON ☐ OFF	61832.9	362	10	10
[illegible]	12.24.14	☑ ON ☐ OFF	61870.4	360	10	10
[illegible]	12.29.14	☑ ON ☐ OFF	61973.3	360	10	10
[illegible]	12.30.14	☑ ON ☐ OFF	61994.2	363	10	10
[illegible]	12.31.14	☑ ON ☐ OFF	62014.9	358	10	10
[illegible]	1.5.15	☑ ON ☐ OFF	62041.9	356	10	10
[illegible]	1.6.15	☑ ON ☐ OFF	62104.8	356	10	10
[illegible]	1.8.15	☑ ON ☐ OFF	62201.9	356	10	10
[illegible]	1.12.15	☑ ON ☐ OFF	62309.8	356	10	10
[illegible]	1.13.15	☑ ON ☐ OFF	62331.5	357	10	10
[illegible]	1.16.15	☑ ON ☐ OFF	62409.6	354	10	10
[illegible]	1.19.15	☑ ON ☐ OFF	62474.0	[illegible] 354	10	10
[illegible]	1.21.15	☑ ON ☐ OFF	62522.3	352	10	10

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total	Well Observations	PRE	POST
ED	1/24	☑ ON ☐ OFF	4446.5	273	639	13.5	14
	1/30	☑ ON ☐ OFF	4449.0	271	600	13.5	14
	2/5	☑ ON ☐ OFF	4458.6	264	499	13.5	14
	2/7	☑ ON ☐ OFF	4463.6.8	266	601	13.5	14
	2/11	☑ ON ☐ OFF	4472.7.5	268	549	13.5	14
	2/12	☑ ON ☐ OFF	4476.6.1	270	549	13.5	14
	2/13	☑ ON ☐ OFF	4479.1	263	529	13.5	14
	2/14	☑ ON ☐ OFF	4480.2.6	256	534	13.5	14
	2/18	☑ ON ☐ OFF	4484.3.1	262	604	13.5	14
	2/19	☑ ON ☐ OFF	4491.8.0	261	592	13.5	14
	2/20	☑ ON ☐ OFF	4494.8.0	258	614	13.5	14
F	2/21	☑ ON ☐ OFF	4499 6.8	254	519	13.5	14
	2/24	☑ ON ☐ OFF	4503.1.0	257	566	13.5	14
	2/25	☑ ON ☐ OFF	4506.2.0	259	544	13.5	14
	2/26	☑ ON ☐ OFF	4509 6.0	261	519	13.5	14
	2/27	☑ ON ☐ OFF	4511 0.0	264	2519	13.5	14
	2/28	☑ ON ☐ OFF	4514 7.0	267	524	13.5	14

120 Hours

Logging Display Counterparity

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total CFM	Well	Observations	Pre	Post
Ed	3/3/14	☑ ON ☐ OFF	4521.8	266	519		13.5	14
	3/4/14	☑ ON ☐ OFF	45237.0	267	509		13.5	14
	3/10/14	☑ ON ☐ OFF	45380.1	267	529		13.5	14
	3/11/14	☑ ON ☐ OFF	45391.0	264	529		13.5	14
	3/12/14	☑ ON ☐ OFF	45420.7	264	519		13.5	14
	3/13/14	☑ ON ☐ OFF	45445.0	264	519		13.5	14
	3/17/14	☑ ON ☐ OFF	45547.5	267	514		13.5	14
	3/18/14	☑ ON ☐ OFF	45566.0	264	529		13.5	14
	3/19/14	☑ ON ☐ OFF	4559	268	539		13.5	14
	3/20/14	☑ ON ☐ OFF	45618.2	264	529		13.5	14
	3/24/14	☑ ON ☐ OFF	45705.5	267	549		13.5	14
	3/25/14	☑ ON ☐ OFF	45734.0	266	549		13.5	14
	3/26/14	☑ ON ☐ OFF	45757.	266	539		13.5	14
	3/27/14	☑ ON ☐ OFF	45784.2	271	549		12.5	13
	3/28/14	☑ ON ☐ OFF	45805.	267	539		12.5	13
	3/31/14	☑ ON ☐ OFF	45882.2	253	479		12.5	13
	4/1/14	☑ ON ☐ OFF	45902.5	255	479		12.5	13

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total CFM	Well	Observations	PRE	POST
Ed Dorant	4/4/14	☑ ON ☐ OFF	45480.?	255	509		12.5	13
	4/8/14	☑ ON ☐ OFF	46069.	249	509		12.5	13
	4/17/14	☑ ON ☐ OFF	46284.	254	468		12.5	13
	4/21/14	☑ ON ☐ OFF	4638.	251	489		12.5	13
	4/29/14	☑ ON ☐ OFF	4657	250	484		12.5	13
	4/30/14	☑ ON ☐ OFF	4659	241	409		12.5	13
	5/09/14	☑ ON ☐ OFF	4679	241	444		12.5	13
	5/22/14	☑ ON ☐ OFF	47125.	230	414		12.5	13
	5/27/14	☑ ON ☐ OFF	47245	224	404		12.5	13
	5/29/14	☑ ON ☐ OFF	47294.2	228	394		12.5	13
	6/5/14	☑ ON ☐ OFF	47442				12.5	13
	6/6/14	☑ ON ☐ OFF	47486.	228	394		12.5	13
	6/9/14	☑ ON ☐ OFF	47556.	214	354		12.5	13
	6/20/14	☑ ON ☐ OFF	48061.5	341	324		12.5	13
	7/7/14	☑ ON ☐ OFF	48228	237	314		12.5	13
	7/14/14	☑ ON ☐ OFF	48344	236	314		12.5	13
	7/17/14	☑ ON ☐ OFF	48476	234	314		12	13

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total CFM	Observations	Pre	Post
EC	7/28/14	☑ ON ☐ OFF	48732.5	235	319	12	13
	8/5	☑ ON ☐ OFF	48928.	240	314	12	13
	8/6	☑ ON ☐ OFF	48975.0	241	334	12.5	13
	8/11	☑ ON ☐ OFF	49063.0	244	339	12.5	13
	8/12	☑ ON ☐ OFF	49124.	241	324	12.5	13
	8/15	☑ ON ☐ OFF	49166	242	338	12.5	13
	8/18	☑ ON ☐ OFF	49232.	244	339	12.5	13
Amicha	8/26/14	☑ ON ☐ OFF	49329.5	246	359	12.5	13
Amicha	9/2/14	☑ ON ☐ OFF	49399.5	242	349	12.5	13
Ed	9/3/14	☑ ON ☐ OFF	49429.?	244	348	12.5	13
EC	9/8/14	☑ ON ☐ OFF	49536.?	244	349	12.5	13
Ed	9/9/14	☑ ON ☐ OFF	49772.5	245	349	12.5	13
Amicha	9/10/14	☑ ON ☐ OFF	49788.0	245	359	13	13
	9/12/14	☑ ON ☐ OFF	49849.0	249	354	13	13
	9/15/14	☑ ON ☐ OFF	49947	248	360	13	13
	9/16/14	☑ ON ☐ OFF	49934.5	248	359	13	13
Ed	9/17/14	☑ ON ☐ OFF	49956.	244	354	13	13

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Hour of Opm	Well	Observations PRE	POST
Sal	9.21.14	☒ ON ☐ OFF	50046	253	369	12.5	13
Amilca	9.22.14	☐ ON ☐ OFF	50079.0	253	369	12.5	13
Sal	9.28.14	☒ ON ☐ OFF	50222.0	256	379	12.5	13
Amilca	10.6.14	☐ ON ☐ OFF	50420.1	259	389	12.5	13
Amilca	10.7.14	☒ ON ☐ OFF	50444.2	259	389	12.5	13
Sal	10.12.14	☒ ON ☐ OFF	50558.0	263	399	12.5	13
Amilca	10.14.14	☒ ON ☐ OFF	50612.2	262	409	12	13
Sal	10.19.14	☒ ON ☐ OFF	50715.0	260	389	12.5	13
Amilca	10.28.14	☒ ON ☐ OFF	50940.5	264	409	12.5	13
Amilca	10.30.14	☒ ON ☐ OFF	50991.0	266	419	12.5	13
Amilca	10.31.14	☒ ON ☐ OFF	51008.0	264	419	12	12.5
Sal	11.2.14	☒ ON ☐ OFF	51055.1	270	429	12	12.5
Amilca	11.4.14	☒ ON ☐ OFF	51115.2	271	449	12	12.5
Amilca	11.6.14	☒ ON ☐ OFF	51155.5	273	449	12	12.5
Amilca	11.7.14	☐ ON ☒ OFF	51177.2	274	449	12	12
Amilca	11.10.14	☒ ON ☐ OFF	51254.4	278	449	12	12.5
Amilca	11.11.14	☒ ON ☐ OFF	51284.5	278	459	12	12.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	C7M Observations Well	Total	Filter Pre	Filter Post
Amiba	11.14.14	☑ ON ☐ OFF	51385.	469	284	12	12.5
Amiba	11.17.14	☑ ON ☐ OFF	51402.	472	286	12	12.5
Amiba	11.18.14	☑ ON ☐ OFF	51445	469	286	12	12.5
Amiba	11.19.14	☑ ON ☐ OFF	51466.4	489	286	12	12.5
Amiba	11.24.14	☑ ON ☐ OFF	51597.3	499	285	12	12.5
Amiba	11.25.14	☑ ON ☐ OFF	51619.1	489	285	12.	12.5
Amiba	11.28.14	☑ ON ☐ OFF	51689.	489	286	12	12.5
Amiba	12.1.14	☑ ON ☐ OFF	51764	489	285	12	12.5
Amiba	12.2.14	☑ ON ☐ OFF	51785.2	489	285	12	12.5
Amiba	12.5.14	☑ ON ☐ OFF	51802	489	286	12	12.5
Amiba	12.8.14	☑ ON ☐ OFF	51925.4	489	286	12.	12.5
Amiba	12.10.14	☑ ON ☐ OFF	51971.6	479	278	12	12
Amiba	12.12.14	☑ ON ☐ OFF	51999.4	449	309	11.5	12
Amiba	12.15.14	☑ ON ☐ OFF	52069.0	449	309	11	12
Amiba	12.16.14	☑ ON ☐ OFF	52121.4	449	310	11	12
Amiba	12.19.14	☑ ON ☐ OFF	52190.8	449	312	11	12
Amiba	12.22.14	☑ ON ☐ OFF	52264.3	449	312	11	12

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 (3) 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Observations (Cfm) Total	Well	Pole	Post (Teflon)
Amilcar	12.23.14	☑ ON ☐ OFF	52292.8	313	529	12	12.5
Amilcar	12.24.14	☑ ON ☐ OFF	52314.9	313	529	12	12.5
Amilcar	12.29.14	☑ ON ☐ OFF	52432.2	313	519	11	12
Amilcar	12.30.14	☑ ON ☐ OFF	52453.5	313	509	11	12
Amilcar	12.31.14	☑ ON ☐ OFF	52474.3	313	509	11	12
Amilcar	1.5.15	☑ ON ☐ OFF	52607.3	314	509	11	11.5
Amilcar	1.6.15	☑ ON ☐ OFF	52621.2	315	509	11	11.5
Amilcar	1.8.15	☑ ON ☐ OFF	52664.2	317	519	11	11.5
Amilcar	1.12.15	☑ ON ☐ OFF	52769.1	317	519	11	11.5
		☐ ON ☐ OFF					
Amilcar	1.12.15	☑ ON ☐ OFF					
Amilcar	1.13.15	☑ ON ☐ OFF	52790.5	319	509	11	11.5
Amilcar	1.16.15	☑ ON ☐ OFF	52875.4	313	509	11	11.5
Amilcar	1.19.15	☑ ON ☐ OFF	52933.5	313	509	11	11.5
Donte Cosenza	1.29.15	☑ ON ☐ OFF	53168.1	317	469	11	11.5
		☐ ON ☐ OFF					
		☐ ON ☐ OFF					

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

2304

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
Ed	12/30	☑ ON ☐ OFF	524075	446	253		4	5
	12/31	☑ ON ☐ OFF	52431.0	446	253		4	5
	1/6/14	☑ ON ☐ OFF	52551.0	436	254		4	5
	1/7/14	☑ ON ☐ OFF	52575.1	426	251		4	5
Durant	1/8/14	☑ ON ☐ OFF	52599.4	455	248		4	5
	1/9/14	☑ ON ☐ OFF	52623.7	446	248		4	3
	1/13/14	☑ ON ☐ OFF	52724.2	451	253		4	5
	1/14	☑ ON ☐ OFF	52748.1	451	253		4	5
	1/15	☑ ON ☐ OFF	52765.8	450	252		4	5
	1/16	☑ ON ☐ OFF	52789.8	451	253		4	5
[redacted]	1/17	☑ ON ☐ OFF	52821.3	450	252		4	5
	1/20	☑ ON ☐ OFF	52889.5	450	252		4	5
	1/21	☑ ON ☐ OFF	53415.0	451	252		4	5
	1/22	☑ ON ☐ OFF	52939.1	440	252		4	5
	1/23	☑ ON ☐ OFF	52963.3	453	255		4	5
	1/24	☑ ON ☐ OFF	52987.5	452	252		4	5
	1/27	☑ ON ☐ OFF	53011.2	440	252		4	5

534650

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
	1/28	☑ ON ☐ OFF	53078.1	451	252	Loud	4.	4.5
	1/29	☑ ON ☐ OFF	53102.0	451	252	FAN	4.	4.5
	1/30	☑ ON ☐ OFF	53126.7	451	252		4	4.5
	1/31	☑ ON ☐ OFF	53150.1	451	252		4	4.5
"	2/3	☑ ON ☐ OFF	53198.2	450	250		4	4.5
	2/4	☑ ON ☐ OFF	53222.7	451	251		4	4.5
	2/5	☑ ON ☐ OFF	53246.5	450	252		4	4.5
	2/6	☑ ON ☐ OFF	53270.1	451	251		4	4.5
	2/7	☑ ON ☐ OFF	53294.5	451	251		4	4.5
"	2/10	☑ ON ☐ OFF	53342.2	451	252		4	4.5
	2/11	☑ ON ☐ OFF	53366.8	450	252		4	4.5
	2/12	☑ ON ☐ OFF	53390.0	450	252		4	4.5
	2/13	☑ ON ☐ OFF	534650	451	251		4	4.5
	2/14	☑ ON ☐ OFF	53493.3	456	253		4	4.5
	2/18	☑ ON ☐ OFF	53552.4	459	252		4	4.5
	2/19	☑ ON ☐ OFF	53605.1	546	311		4	4.5
	2/20	☑ ON ☐ OFF	53629.0	546	311		4	4.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
Ed	2/21	☑ ON ☐ OFF	53653.1	548	308		4	4.5
	2/24	☑ ON ☐ OFF	53672.5	548	308		4	4.5
	2/25	☑ ON ☐ OFF	53749.6	548	309		4	4.5
	2/26	☑ ON ☐ OFF	53773.1	548	309		4.5	5
	2/27	☑ ON ☐ OFF	03797.0	617	307		5	5.5
	2/28	☑ ON ☐ OFF	53821.0	617	306		5	5.5
	3/3	☑ ON ☐ OFF	53869.5	618	307		5	5.5
	3/4	☑ ON ☐ OFF	53893.1	617	307		5	5.5
	3/5	☑ ON ☐ OFF	53917.2	548	307		5	5.5
	3/6	☑ ON ☐ OFF	53941.1	549	308		5	5.5
	3/7	☑ ON ☐ OFF	53965.3	617	307		5	5.5
	3/10	☑ ON ☐ OFF	54013.9	617	307		5	5.5
	3/11	☑ ON ☐ OFF	54037.1	618	306		5	5.5
	3/12	☑ ON ☐ OFF	54110.0	604	306		5	5.5
	3/13	☑ ON ☐ OFF	54135.4	602	308		5	5.5
	3/17	☑ ON ☐ OFF	54231.6	602	309		5	5.5
	3/21	☑ ON ☐ OFF	54324.9	603	308		5	5.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 (4) (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

CFM

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
Ed Duzant	3/4/14	☑ ON ☐ OFF	543994.1	604	307		5½	6
" "	3/14/14	☑ ON ☐ OFF	5442.6	607	310		5.5	6
	3/24/14	☑ ON ☐ OFF	544431	446	315		5.5	6
	3/27/14	☑ ON ☐ OFF	544713	487	315		5.5	6
	3/28/14	☑ ON ☐ OFF	54492.3	483	315		5.5	6
	4/2/14	☑ ON ☐ OFF	546145	478	314		5.5	6
	4/4/14	☑ ON ☐ OFF	546635	481	314		5.5	5.5
	4/8/14	☑ ON ☐ OFF	547756.1	491	312		5.5	5.5
	4/21/14	☑ ON ☐ OFF	550681	481	313		5.5	5.5
	5/2/14	☑ ON ☐ OFF	553306.3	475	314		5.5	5.5
	5/7/14	☑ ON ☐ OFF	554545	475	313		5.5	5.5
	5/29/14	☑ ON ☐ OFF	559816	601	307		5.5	5.5
	6/13/14	☑ ON ☐ OFF	564370	600	309		5.5	5.5
	7/10/14	☑ ON ☐ OFF	569887	607	307		5.5	6.0
	8/6/14	☑ ON ☐ OFF	57643.5	609	306		5.5	6.0
	8/11/14	☑ ON ☐ OFF	57-7564	610	306		5.1	5.5
	8/15/14	☑ ON ☐ OFF	578357	613	306		5.5	5.5

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Total	Well Observations	Pre	Post
ED	9/15	☒ ON ☐ OFF	57921.5	306	600	5	6
Amika	9/3/14	☒ ON ☐ OFF	58286.4	305	597-600	5	6
ED	9/4/14	☒ ON ☐ OFF	58331.6	305	594	5	6
Amika	9/10/14	☒ ON ☐ OFF	58475.1	306	600	5	6
ED	9/15/14	☒ ON ☐ OFF	58597.2	306	601	5.5	6
ED	9/16/14	☒ ON ☐ OFF	58621.3	306	606	5.5	6
ED	9/17/14	☒ ON ☐ OFF	58643.6	305	602	5.5	6
Amika	9.22.14	☒ ON ☐ OFF	58766.2	305	602	5	6
Amika	10.6.14	☒ ON ☐ OFF	59006.4	305	599	5	6
Amika	10.7.14	☒ ON ☐ OFF	59130.4	306	600	5	6
Amika	10.14.14	☒ ON ☐ OFF	59299.1	308	597	5	6
Amika	10.28.14	☒ ON ☐ OFF	59627.1	308	597	5	6
Amika	10.30.14	☒ ON ☐ OFF	59677.7	309	597	5	6
Amika	11.4.14	☒ ON ☐ OFF	59799.6	307	602	5	6
Amika	11.6.14	☒ ON ☐ OFF	59842.3	307	603	5	6
Amika	11.7.14	☒ ON ☐ OFF	59863.4	307	602	5	5.5
Amika	11.10.14	☒ ON ☐ OFF	59944.0	307	605	5	5.5

ROUTINE SYSTEM CHECK

PARCEL 9 VAPOR MITIGATION SYSTEM

48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Observations (Cell)	Observations (Total)	Observations (Pre)	Observations (Post)
Amiha	11.11.14	☑ ON ☐ OFF	59971.0	603	307	5	6
Amiha	11.14.14	☑ ON ☐ OFF	60037.0	603	307	5	6
Amiha	11.17.14	☑ ON ☐ OFF	60097.4	603	307	5	6
Amiha	11.18.14	☑ ON ☐ OFF	60135.0	597	306	5	6
Amiha	11.19.14	☑ ON ☐ OFF	60171.1	601	306	5	6
Amiha	11.24.14	☑ ON ☐ OFF	60284.0	597	306	5	6
Amiha	11.25.14	☑ ON ☐ OFF	60305.2	601	306	5	5
Amiha	11.28.14	☑ ON ☐ OFF	60388.1	602	307	5	6
Amiha	12.1.14	☑ ON ☐ OFF	60451.0	602	307	5	6
Amiha	12.2.14	☑ ON ☐ OFF	60470.0	603	307	5	6
Amiha	12.5.14	☑ ON ☐ OFF	60552.7	603	307	5	6
Amiha	12.8.14	☑ ON ☐ OFF	60612.6	605	307	5	6
Amiha	12.10.14	☑ ON ☐ OFF	60658.2	602	308	5	5.5
Amiha	12.12.14	☑ ON ☐ OFF	60697.5	602	308	5	5.5
Amiha	12.15.14	☑ ON ☐ OFF	60752.8	602	307	5	5.5
Amiha	12.16.14	☑ ON ☐ OFF	60807.5	606	308	5	5.5
Amiha	12.19.14	☑ ON ☐ OFF	60859.6	606	307	5	5.5

ROUTINE SYSTEM CHECK
PARCEL 9 VAPOR MITIGATION SYSTEM
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK
ZONE: 1 2 3 4 (Circle One)

Readings/Observations to be recorded by AvalonBay Site Representative.

1. Record Inspector Name and Date.
2. Observe and record if blower is on or off. **If blower is off, immediately notify an emergency contact listed on attached page.**
3. Observe and record the elapsed runtime.
4. Record any other comments e.g., unusual odors, spills, leaks, etc. **If such conditions exsist, immediately notify an emergency contact listed on attached page.**
5. Retain this page on-site for collection by ATC Associates.
6. Conduct inspections daily during first month of operation and weekly thereafter.

Inspector Name	Date	Blower On/Off	Runtime (hours)	Well	Total	Observations	Pre	Post
[illegible]	12.22.14	☑ ON ☐ OFF	60954.2	601	307		5	5.5
[illegible]	12.23.14	☑ ON ☐ OFF	60978.2	604	307		5	5.5
[illegible]	12.24.14	☑ ON ☐ OFF	60997.4	604	307		5	5.5
[illegible]	12.29.14	☑ ON ☐ OFF	61119.5	601	307		5	5.5
[illegible]	12.30.14	☑ ON ☐ OFF	61140.4	603	307		5	5.5
[illegible]	12.31.14	☑ ON ☐ OFF	61160.8	602	308		5	5.5
[illegible]	1.5.15	☑ ON ☐ OFF	61287.8	603	307		5	5.5
[illegible]	1.7.15	☑ ON ☐ OFF	61350.1	603	307		5	5.5
[illegible]	1.8.15	☑ ON ☐ OFF	61382.0	603	307		5	5.5
[illegible]	1.12.15	☑ ON ☐ OFF	61455.6	600	307		5	5.5
[illegible]	1.13.15	☑ ON ☐ OFF	61479.5	602	307		5	5.5
[illegible]	1.14.15	☑ ON ☐ OFF	61540.6	603	306		5	5.5
[illegible]	1.19.15	☑ ON ☐ OFF	61600.7	605	306		5	5.5
[illegible]	1.21.15	☑ ON ☐ OFF	61668.2	602	305		5	5.5
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						
		☐ ON ☐ OFF						

Appendix C - Monitoring Well Sampling Logs

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019		Client: Avalon Bay	Well No.: MW2
Project Location: Queens West Parcel 9, Long Island City, NY		Sampled By: Denise Cosenza	
Date: May 7, 2014		Sampling Time: 15:05	
PID at surface: 0.0			
Total Depth: 32.21	ft. below top of casing	Water Column (WC): 24.27 feet	* = 0.163 * WC for 2" wells
Depth to Water: 7.94	ft. below top of casing	Well Volume*: 396 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	Volume Purged: 1.05 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~18	ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~33	ft. below top of casing	Pump Type: SS monsoon pump	
Approx. Pump Intake: ~23	ft. below top of casing	Field Screening Instrument: Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
1430	7.94	~100	19.30	0.758	8.47	8.33	60	37.0	
1435	7.97		20.25	0.828	7.43	8.01	75	27.3	
1440	8.02		19.88	1.19	6.73	7.80	81	20.5	
1445	8.50		19.52	1.58	5.73	7.71	77	14.2	
1450	8.61		19.27	1.78	5.80	7.68	68	14.4	
1455	8.79		18.80	1.87	5.85	7.62	59	12.9	
1500	8.90		18.93	2.03	5.63	7.62	58	15.8	
1505	9.01		18.84	2.11	5.68	7.62	49	16.8	Pre sample
1510	9.05	↓	18.79	2.17	5.47	7.60	48	19.6	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay	Well No.: MW8	
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 14:05		
PID at surface:			
Total Depth: 29.4 ft. below top of casing	Water Column (WC): 19.69 feet	* = 0.163 * WC for 2" wells	
Depth to Water: 9.71 ft. below top of casing	Well Volume*: 3.20 gallons	* = 0.653 * WC for 4" wells	
Depth to Product: ft. below top of casing	Volume Purged: .660 gallons	* = 1.469 * WC for 6" wells	
Depth to top of screen: ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: ft. below top of casing	Pump Type: SS Monsoon Pump		
Approx. Pump Intake: ft. below top of casing	Field Screening Instrument: HORIBA U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
13:45	9.71	~100ml	14.19	5.02	5.17	7.93	-115	16.8	
13:50	9.80	↓	16.31	5.79	7.17	7.69	-121	13.7	
13:55	9.91		16.34	5.81	7.11	7.68	-119	12.8	
14:00	10.10		15.52	5.92	6.93	7.68	-122	11.2	
14:05	10.12		15.46	5.94	6.91	7.68	-122	8.2	Pre sample
14:10	10.12	↓	15.49	5.96	6.17	7.68	-122	8.0	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW-11R
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 10:05		
PID at surface:			
Total Depth: 20.14 ft. below top of casing	Water Column (WC): 9.45	feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.7 ft. below top of casing	Well Volume*: 1.54	gallons	* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: .92	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~20 ft. below top of casing	Pump Type: SS Monsoon Pump		
Approx. Pump Intake: ~13 ft. below top of casing	Field Screening Instrument: Horiba U52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
9:45		~100ml	13.39	1.45	6.99	7.58	166	9.3	
9:50	10.75		13.34	1.55	4.83	7.53	165	12.1	
9:55	10.75		13.42	1.59	4.33	7.52	168	5.9	
10:00	10.75		13.33	1.60	4.27	7.52	168	0.0	
10:05	10.75		13.22	1.57	3.72	7.52	170	0.0	
10:10	10.77		13.15	1.56	3.65	7.53	169	0.0	
10:15	10.79		13.13	1.54	3.68	7.54	164	0.0	PRE SAMPLE
10:20	10.78		13.12	1.56	3.68	7.54	164	0.0	POST SAMPLE
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

MS/MSD

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: 12R
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 9:30		
PID at surface: ----			
Total Depth: 17.95 ft. below top of casing	Water Column (WC): 8.75	feet	* = 0.163 * WC for 2" wells
Depth to Water: 9.2 ft. below top of casing	Well Volume*: 1.43	gallons	* = 0.653 * WC for 4" wells
Depth to Product: ---- ft. below top of casing	Volume Purged: .79	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~20 ft. below top of casing	Pump Type: SS Monsoon Pump		
Approx. Pump Intake: ~12 ft. below top of casing	Field Screening Instrument: Horiba U52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
9:05	9.20	~100	11.13	.695	7.66	7.88	189	576	
9:10	9.51		11.04	.512	6.46	7.45	176	304	
9:15	9.74		11.01	.501	6.21	7.43	154	101	
9:20	9.85		10.97	.498	6.10	7.40	136	48	
9:25	9.94		10.97	.496	6.05	7.41	140	41	
9:30	9.90		10.95	.490	5.99	7.39	132	27	Pre Sample
9:35	9.94	↓	10.91	.488	5.98	7.39	131	28	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay	Well No.: MW 14	
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 13:15		
PID at surface: 0.0			
Total Depth: 18.11 ft. below top of casing	Water Column (WC): 10.70 feet	* = 0.163 * WC for 2" wells	
Depth to Water: 7.41 ft. below top of casing	Well Volume*: 1.74 gallons	* = 0.653 * WC for 4" wells	
Depth to Product: — ft. below top of casing	Volume Purged: ~5.3 gallons	* = 1.469 * WC for 6" wells	
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS monsoon pump		
Approx. Pump Intake: ~17 ft. below top of casing	Field Screening Instrument: Horiba U52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
13:00	7.41	~100	11.26	3.77	2.62	7.02	-100	7.6	
13:05	8.40	↓	11.65	3.81	3.11	6.94	-97	15.6	
13:10	8.39	↓	11.66	3.81	2.92	6.93	-93	18.3	
13:15	8.38	↓	11.68	3.81	3.12	6.92	-91	17.3	Pre sample
13:20	8.44	↓	11.83	3.79	2.42	6.95	-87	20.8	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW 15
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 11:55		
PID at surface: 0.0			
Total Depth: 17.55 ft. below top of casing	Water Column (WC): 11.27	feet	* = 0.163 * WC for 2" wells
Depth to Water: 6.28 ft. below top of casing	Well Volume*: 1.84	gallons	* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: 1.80	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS monsoon Pump		
Approx. Pump Intake: ~13 ft. below top of casing	Field Screening Instrument: ~~Horiba U52~~		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
11:20	6.70	~100	14.50	8.91	1.12	6.93	123	142	
11:25	6.75		15.55	8.77	1.07	6.56	118	47.4	
11:30	6.79		17.34	8.68	0.64	6.51	126	40.9	
11:35	6.79		17.98	9.07	0.95	6.47	129	20.3	
11:40	7.28		13.96	9.38	0.97	6.42	144	2.2	
11:45	7.54		13.95	9.47	0.76	6.38	153	0.0	
11:50	7.67		14.24	9.97	0.67	6.39	163	0.0	
11:55	7.79		14.97	10.1	0.60	6.41	162	0.4	Pre sample
12:00	8.02		15.80	9.89	0.66	6.43	163	0.0	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW 16
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: May 7, 2014	Sampling Time: 11:00		
PID at surface: 0.0			
Total Depth: 13.61 ft. below top of casing	Water Column (WC): 6.44	feet	* = 0.163 * WC for 2" wells
Depth to Water: 7.17 ft. below top of casing	Well Volume*: 1.05	gallons	* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: .79	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS MONSOON PUMP		
Approx. Pump Intake: ~12 ft. below top of casing	Field Screening Instrument: HORIBA U62		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
10:35	7.17	~100	12.01	2.40	6.37	6.85	169	75.4	
10:40	7.61		12.95	2.51	4.99	6.79	152	24.9	
10:45	7.69		13.27	2.58	4.97	6.79	151	4.3	
10:50	7.70		13.56	2.64	4.43	6.79	161	0.0	
10:55	7.70		14.18	2.68	4.20	6.78	166	0.0	
11:00	7.75		14.21	2.79	64.50	6.83	164	0.0	Pre sample
11:05	8.01		13.78	2.93	4.51	6.76	167	0.0	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

DUP Sample

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW2
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: October 7, 2014	Sampling Time: 12:05		
PID at surface: 0.0			
Total Depth: 32.10 ft. below top of casing	Water Column (WC): 22.7 feet		* = 0.163 * WC for 2" wells
Depth to Water: 9.4 ft. below top of casing	Well Volume*: 3.7 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: .95 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~18 ft. below top of casing	Well Diameter: 2 inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~33 ft. below top of casing	Pump Type: SS Monsoon Pump		
Approx. Pump Intake: ~24 ft. below top of casing	Field Screening Instrument:		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
11:29	9.40	~100	17.6	.220	1.09	8.20	-69	12.0	
11:34	9.61		18.32	.213	0.69	7.76	-96	4.4	
11:39	9.61		18.53	.261	0.62	7.56	-106	3.7	
11:45	9.61		18.66	1.39	0.47	7.47	-176	7.4	
11:49	9.61		18.59	2.88	0.48	7.79	-239	10.9	
11:54	9.61		18.68	4.23	0.52	7.90	-278	17.0	
11:59	9.61		18.66	4.89	0.57	7.93	-288	15.3	
12:04	9.61		18.66	5.25	0.59	7.93	-285	10.9	Pre sample
12:05	10.12	▼	18.52	4.30	0.60	7.96	-286	11.3	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

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Well Sampling Log

Project Number: 015.75420.0019		Client: Avalon Bay	Well No.: MW8
Project Location: Queens West Parcel 9, Long Island City, NY		Sampled By: Denise Cosenza	
Date: October 7, 2014		Sampling Time: 11:10	
PID at surface: 0.0			
Total Depth: 29.35	ft. below top of casing	Water Column (WC): 18.71 feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.64	ft. below top of casing	Well Volume*: 3.05 gallons	* = 0.653 * WC for 4" wells
Depth to Product: ND —	ft. below top of casing	Volume Purged: 1.215 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5	ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~30	ft. below top of casing	Pump Type: SS Monsoon Pump	
Approx. Pump Intake: ~20	ft. below top of casing	Field Screening Instrument: HORIBA U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
10:25	10.64	~150	18.20	6.81	12.78	8.16	-172	15.8	
10:30	10.85		18.20	6.92	12.29	7.63	-194	13.3	
10:35	11.09		18.92	8.77	10.38	7.47	-253	2.2	
10:40	11.10		18.57	9.40	9.34	7.47	-305	0.0	
10:45	11.05		18.26	9.73	8.25	7.47	-314	0.0	
10:50	11.01		18.15	10.1	7.50	7.45	-302	0.0	
10:55	11.10		18.04	10.1	7.32	7.45	-297	0.0	
11:00	11.10		17.93	10.1	7.47	7.45	-288	0.0	Pre Sample
11:10	10.5	↓	17.91	10.1	6.17	7.44	-290	0.0	POST Sam
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW11R
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: October 7, 2014	Sampling Time: 2:25		
PID at surface: 0.0			
Total Depth: 20.15 ft. below top of casing	Water Column (WC): 9.75	feet	* = 0.163 * WC for 2" wells
Depth to Water: 10.40 ft. below top of casing	Well Volume*: 1.59	gallons	* = 0.653 * WC for 4" wells
Depth to Product: [redacted] ft. below top of casing	Volume Purged: .6	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~20 ft. below top of casing	Pump Type: SS monsoon pump		
Approx. Pump Intake: ~12 ft. below top of casing	Field Screening Instrument: Horiba U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
2:02	10.40	~100	17.42	1.38	4.84	8.16	122	49.7	
2:07	10.49		17.41	1.39	3.22	7.55	131	39.2	
2:12	10.50		17.67	1.39	2.92	7.51	138	44.6	
2:17	10.50		17.75	1.39	3.38	7.53	141	30.9	
2:22	10.53		17.77	1.35	3.21	7.57	150	45.7	Pre sample
2:25	10.41	↓	18.25	1.35	3.20	7.57	143	46.8	post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

MS / MSD

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019		Client: Avalon Bay	Well No.: MW 12R
Project Location: Queens West Parcel 9, Long Island City, NY		Sampled By: Denise Cosenza	
Date: October 7, 2014		Sampling Time: 13:45	
PID at surface: 0.0			
Total Depth: 19	ft. below top of casing	Water Column (WC): 8.65 feet	* = 0.163 * WC for 2" wells
Depth to Water: 9.15	ft. below top of casing	Well Volume*: 1.40 gallons	* = 0.653 * WC for 4" wells
Depth to Product: —	ft. below top of casing	Volume Purged: 1.08 gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5	ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~20	ft. below top of casing	Pump Type: SS Monsoon Pump	
Approx. Pump Intake: ~12	ft. below top of casing	Field Screening Instrument: Horiba U-52	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
1:04	9.15	~100	17.57	0.669	12.48	7.43	167	107	
1:09	9.52		17.41	0.680	11.35	7.63	159	80.9	
1:14	9.86		17.49	0.671	10.17	7.71	148	16.6	
1:19	10.07		17.55	0.675	9.25	7.73	143	25.1	
1:24	10.81		17.19	0.676	8.60	7.78	87	130	
1:29	10.83		17.29	0.677	8.56	7.81	78	42.2	
1:34	10.84		17.34	0.679	8.47	7.86	79	32.7	
1:39	10.85		16.99	0.688	7.31	7.84	-53	50.0	Pre Sample
1:45	10.85	▼	16.95	.689	7.30	7.84	-41	65	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay	Well No.:	
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza	MW14	
Date: October 7, 2014	Sampling Time: 10:05		
PID at surface: 0.0			
Total Depth: 18.05 ft. below top of casing	Water Column (WC): 9.91 feet	* = 0.163 * WC for 2" wells	
Depth to Water: 8.14 ft. below top of casing	Well Volume*: 1.62 gallons	* = 0.653 * WC for 4" wells	
Depth to Product: ~~0.0~~ — ft. below top of casing	Volume Purged: 0.53 gallons	* = 1.469 * WC for 6" wells	
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS monsoon Pump		
Approx. Pump Intake: ~13 ft. below top of casing	Field Screening Instrument:		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
9:45	8.14	~100	18.06	4.15	0.82	7.20	-153	1.7	
9:49	8.47	↓	18.13	4.11	0.58	7.05	-151	2.1	
9:55	8.50	↓	18.47	4.13	0.55	7.03	-146	1.1	
9:59	8.50	↓	18.60	4.12	0.51	7.04	-143	0.0	Pre sample
10:05	8.49	↓	18.41	4.08	0.47	7.02	-137	0.0	Post sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

DUP collected

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW15
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: October 7, 2014	Sampling Time: 9:29		
PID at surface: 0.0			
Total Depth: 17.5 ft. below top of casing	Water Column (WC): 10.95	feet	* = 0.163 * WC for 2" wells
Depth to Water: 7.51 ft. below top of casing	Well Volume*: 1.78	gallons	* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: 1.19	gallons	* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2	inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS Masoon Pump		
Approx. Pump Intake: ~12 ft. below top of casing	Field Screening Instrument: HORIBA U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
8:44	7.51	~100	18.66	2.84	2.72	7.37	122	284	
8:49	9.61		19.28	2.87	2.30	7.06	53	152	
8:54	10.25		19.45	3.04	2.23	6.99	27	106	
8:59	10.90		19.07	3.17	2.28	6.98	16	61.2	
9:04	9.70		19.36	3.14	6.53	6.91	21	19.47.4	
9:09	9.35		19.26	3.91	5.64	6.90	0	24.7	
9:14	9.10		19.16	4.27	5.47	6.92	2	18.0	
9:19	8.30		19.44	4.17	5.19	6.93	7	18.7	Pre sample
9:29	8.25	↓	19.92	4.22	5.35	6.91	12	27.2	Post Sample
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Cardno ATC
Shaping the Future

Well Sampling Log

Project Number: 015.75420.0019	Client: Avalon Bay		Well No.: MW16
Project Location: Queens West Parcel 9, Long Island City, NY	Sampled By: Denise Cosenza		
Date: October 7, 2014	Sampling Time: 12:35		
PID at surface: 0.0			
Total Depth: 13.5 ft. below top of casing	Water Column (WC): 6.45 feet		* = 0.163 * WC for 2" wells
Depth to Water: 8.31 ft. below top of casing	Well Volume*: 1.05 gallons		* = 0.653 * WC for 4" wells
Depth to Product: — ft. below top of casing	Volume Purged: 1.27 gallons		* = 1.469 * WC for 6" wells
Depth to top of screen: ~5 ft. below top of casing	Well Diameter: 2 inch inches		Target maximum flow rate is 100 ml/min
Depth to bottom of screen: ~19 ft. below top of casing	Pump Type: SS MASSON Pump		
Approx. Pump Intake: ~12 ft. below top of casing	Field Screening Instrument: HORIBA U-52		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity* (NTU)	Comments (odor, sheen, problems)
3:02	8.31	~100	20.34	3.95	4.44	6.91	37	184	
3:07	8.51		20.75	4.33	3.66	6.84	26	142	
3:12	8.61		20.59	4.92	2.82	6.84	21	86	
3:17	8.65		21.56	5.54	2.69	6.83	11	112	
3:22	8.65		21.16	6.17	2.41	6.85	-7	810	
3:27	8.65		21.46	6.81	2.11	6.89	-137	118	
3:32	8.65		21.41	6.81	2.12	6.89	-138	45	
3:37	8.66		21.41	6.81	2.12	6.89	-137	46	
3:42	8.66		21.37	6.87	2.13	6.89	-137	48	Pre Sample
3:47	8.67		21.20	6.86	2.13	6.89	-136	46	Post Sample
3:50	8.51		21.20	6.86	2.13	6.88	-135	45	
Stabilization Criteria:				+/- 3 mS/cm	+/- 0.3 mg/L	+/- 0.1 pH units	+/- 10mV	<50 NTU	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Appendix D - Groundwater Sampling Analytical Results

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ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS

PROJECT NAME : AVALON- WP9

CARDNO ATC

104 East 25th Street

New York, NY - 10010

Phone No: 212-353-8280

ORDER ID : F4207

ATTENTION : Denise Cosenza

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

Table Of Contents for F4207

1) Signature Page 3

2) Case Narrative 9

2.1) VOC- Chemtech Full- Case Narrative 9

2.2) SVOC- Chemtech Full- Case Narrative 11

3) Qualifier Page 13

4) QA Checklist 14

5) VOC- Chemtech Full Data 15

6) SVOC- Chemtech Full Data 119

7) Shipping Document 223

7.1) CHAIN OF CUSTODY 224

7.2) Lab Certificate 225

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sampl ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MW12R	F4207-01	8260-Low	625				
MW11R	F4207-02	8260-Low	625				
MW16	F4207-05	8260-Low	625				
MW15	F4207-06	8260-Low	625				
MW14	F4207-07	8260-Low	625				
MW8	F4207-08	8260-Low	625				
MW2	F4207-09	8260-Low	625				
DUP	F4207-10	8260-Low	625				
TRIPBLANK	F4207-11	8260-Low	625				
FIELDBLANK	F4207-12	8260-Low	625				

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
F4207-01	Water	10/07/14	10/08/14	10/10/14	10/11/14
F4207-02	Water	10/07/14	10/08/14	10/10/14	10/11/14
F4207-05	Water	10/07/14	10/08/14	10/10/14	10/11/14
F4207-06	Water	10/08/14	10/08/14	10/10/14	10/11/14
F4207-07	Water	10/08/14	10/08/14	10/10/14	10/11/14
F4207-08	Water	10/08/14	10/08/14	10/10/14	10/11/14
F4207-09	Water	10/08/14	10/08/14	10/10/14	10/11/14
F4207-10	Water	10/08/14	10/08/14	10/10/14	10/11/14
F4207-12	Water	10/08/14	10/08/14	10/10/14	10/10/14

*** Details For Test :** SVOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
F4207-01	Water	10/07/14	10/08/14		10/10/14
F4207-02	Water	10/07/14	10/08/14		10/13/14
F4207-05	Water	10/07/14	10/08/14		10/10/14
F4207-06	Water	10/08/14	10/08/14		10/10/14
F4207-07	Water	10/08/14	10/08/14		10/10/14
F4207-08	Water	10/08/14	10/08/14		10/10/14
F4207-09	Water	10/08/14	10/08/14		10/10/14
F4207-10	Water	10/08/14	10/08/14		10/10/14
F4207-11	Water	10/08/14	10/08/14		10/10/14
F4207-12	Water	10/08/14	10/08/14		10/10/14

*** Details For Test :** VOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
F4207-01	Water	8260-Low	NA		
F4207-02	Water	8260-Low	NA		
F4207-03	Water	8260-Low	NA		
F4207-04	Water	8260-Low	NA		
F4207-05	Water	8260-Low	NA		
F4207-06	Water	8260-Low	NA		
F4207-07	Water	8260-Low	NA		
F4207-08	Water	8260-Low	NA		
F4207-09	Water	8260-Low	NA		
F4207-10	Water	8260-Low	NA		
F4207-11	Water	8260-Low	NA		
F4207-12	Water	8260-Low	NA		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
F4207-01	Water	625	3510C		
F4207-02	Water	625	3510C		
F4207-03	Water	625	3510C		
F4207-04	Water	625	3510C		
F4207-05	Water	625	3510C		
F4207-06	Water	625	3510C		
F4207-07	Water	625	3510C		
F4207-08	Water	625	3510C		
F4207-09	Water	625	3510C		
F4207-10	Water	625	3510C		
F4207-12	Water	625	3510C		

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Cover Page

Order ID : F4207

Project ID : Avalon- WP9

Client : Cardno ATC

Lab Sample Number	Client Sample Number
F4207-01	MW12R
F4207-02	MW11R
F4207-03	F4207-02MS
F4207-04	F4207-02MSD
F4207-05	MW16
F4207-06	MW15
F4207-07	MW14
F4207-08	MW8
F4207-09	MW2
F4207-10	DUP
F4207-11	TRIPBLANK
F4207-12	FIELDBLANK

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : Mildred V Reyes

APPROVED

Date: 10/16/2014

By Mildred V Reyes QA/QC Supervisor at 3:59 pm, Jan 28, 2015

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # F4207
Test Name: VOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 10/08/2014.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for VOC- Chemtech Full.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOC- Chemtech Full was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {F4207-03MS} with File ID: VN019242.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether[0%], Acrolein[160%] .
The MSD {F4207-04MSD} with File ID: VN019243.D recoveries met the acceptable requirements except for 2-Chloroethyl vinyl ether[0%], Ethyl methacrylate[120%] .
The RPD for {F4207-04MSD} with File ID: VN019243.D recoveries met criteria except for Bromochloromethane[21%] .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The %RSD is greater than 15% in the Initial Calibration (Method 82N100114W.M) Methylene Chloride, Vinyl Acetate, Cyclohexane and 1,2-Dibromo-3-Chloropropane, these compounds are passing on Linear regression while Acrolein, this compound is passing on Quadratic regression.
The Continuous Calibration File ID VN019222.D met the requirements except for Acrolein .
The Continuous Calibration File ID VN019292.D met the requirements except for Carbon Disulfide and 2-Butanone .
The Tuning criteria met requirements.

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Sample MW8 was diluted due to high concentration for 1,2,4-Trimethylbenzene and Naphthalene.

E. Additional Comments: Sample MW8 PH is >2
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ Mildred V Reyes

APPROVED
By Mildred V Reyes QA/QC Supervisor at 3:59 pm, Jan 28, 2015

CHEMTECH
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CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # F4207
Test Name: SVOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 10/08/2014.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for SVOC- Chemtech Full.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column RTX-5 which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SVOC- Chemtech Full was based on method 625 and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for MW2 [Phenol-d6 - 9%], MW2DL [Phenol-d6 - 8%].
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {F4207-03MS} with File ID: BF074465.D recoveries met the requirements for all compounds except for 1,4-Dioxane[37%], Aniline[11%] and Benzidine[0%] .
The MSD {F4207-04MSD} with File ID: BF074466.D recoveries met the acceptable requirements except for Aniline[28%], Atrazine[50%] and Benzidine[0%] .
The RPD for {F4207-04MSD} with File ID: BF074466.D recoveries met criteria except for 1,4-Dioxane[72%], 3,3-Dichlorobenzidine[31%], 3-Nitroaniline[36%], 4-Chloroaniline[43%], Aniline[87%], Atrazine[45%], Benzaldehyde[42%], Benzo(b)fluoranthene[23%] and Benzo(k)fluoranthene[24%] .
The Blank Spike for {PB79509BS} with File ID: BF074461.D met requirements for all samples except for 1,4-Dioxane[69%], Aniline[41%] .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The %RSD is greater than 35% in the Initial Calibration (Method 8270-BF092914.M) for 2,4-Dinitrophenol, this compound is passing on Linear regression.
The Continuous Calibration File ID BF074437.D met the requirements except for Benzoic acid,Hexachlorocyclopentadiene,4,6-Dinitro-2-methylphenol,Butylbenzylphthalate,Bis(2-ethylhexyl)phthalate and Di-n-octyl phthalate .

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The Continuous Calibration File ID BF074459.D met the requirements except for Benzidine,Butylbenzylphthalate,Bis(2-ethylhexyl)phthalate and Di-n-octyl phthalate .The Continuous Calibration File ID BF074480.D met the requirements except for n-Nitroso-di-n-propylamine,2,4-Dinitrophenol,Benzidine,Butylbenzylphthalate,Bis(2-ethylhexyl)phthalate and Di-n-octyl phthalate .
The Continuous Calibration File ID BF074508.D met the requirements except for n-Nitroso-di-n-propylamine,4-Nitrophenol,4,6-Dinitro-2-methylphenol,Butylbenzylphthalate,Bis(2-ethylhexyl)phthalate,Di-n-octyl phthalate and 1,4-Dioxane .
The Tuning criteria met requirements.

Sample MW8 was diluted due to high concentration for Naphthalene,1,1-Biphenyl,Acenaphthene,Dibenzofuran,
Sample MW2 was diluted due to high concentration for Acenaphthene.

.

E. Additional Comments: Preliminary result was reported with E flag for fluorene and Carbazole for sample MW8 , Dibenzofuran and Carbazole for sample MW2 due to system error. Provided hard copy data are correct**.**

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <35% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 35% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ Mildred V Reyes

APPROVED
By Mildred V Reyes QA/QC Supervisor at 3:59 pm, Jan 28, 2015

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: F4207

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: NIMISHA PANDYA **Date:** 10/20/2014

2nd Level QA Review Signature: Mildred V Reyes **Date:**

APPROVED
By Mildred V Reyes QA/QC Supervisor at 3:59 pm, Jan 28, 2015

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

LAB CHRONICLE

OrderID:	F4207	**OrderDate:**	10/8/2014 3:57:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	Denise Cosenza	**Location:**	H61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
F4207-01	**MW12R**	**Water**			**10/07/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-02	**MW11R**	**Water**			**10/07/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/13/14	
F4207-05	**MW16**	**Water**			**10/07/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-06	**MW15**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-07	**MW14**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-08	**MW8**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-08DL	**MW8DL**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/13/14	
F4207-09	**MW2**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-10	**DUP**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-11	**TRIPBLANK**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	
F4207-12	**FIELDBLANK**	**Water**			**10/08/14**			**10/08/14**
			VOC- Chemtech Full	8260-Low			10/10/14	

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Hit Summary Sheet
SW-846

SDG No.: F4207

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**MW12R**								
F4207-01	MW12R	Water	Tetrachloroethene	0.28	J	0.2	0.2	1	ug/L
			Total Voc :	0.28					
			Total Concentration:	0.28					
Client ID:	**MW11R**								
F4207-02	MW11R	Water	Naphthalene	1.20		0.2	0.2	1	ug/L
			Total Voc :	1.2					
			Total Concentration:	1.2					
Client ID:	**MW16**								
F4207-05	MW16	Water	Carbon Disulfide	1.00		0.2	0.2	1	ug/L
F4207-05	MW16	Water	Ethyl Benzene	0.23	J	0.2	0.2	1	ug/L
F4207-05	MW16	Water	tert-Butylbenzene	0.22	J	0.2	0.2	1	ug/L
F4207-05	MW16	Water	Naphthalene	0.21	J	0.2	0.2	1	ug/L
			Total Voc :	1.66					
			Total Concentration:	1.66					
Client ID:	**MW15**								
F4207-06	MW15	Water	Benzene	11.50		0.2	0.2	1	ug/L
F4207-06	MW15	Water	Toluene	0.33	J	0.2	0.2	1	ug/L
F4207-06	MW15	Water	Ethyl Benzene	0.21	J	0.2	0.2	1	ug/L
F4207-06	MW15	Water	Isopropylbenzene	0.51	J	0.2	0.2	1	ug/L
			Total Voc :	12.55					
			Total Concentration:	12.55					
Client ID:	**MW14**								
F4207-07	MW14	Water	Cyclohexane	2.50		0.2	0.2	1	ug/L
F4207-07	MW14	Water	Methylcyclohexane	2.10		0.2	0.2	1	ug/L
F4207-07	MW14	Water	Benzene	1.20		0.2	0.2	1	ug/L
F4207-07	MW14	Water	Toluene	0.24	J	0.2	0.2	1	ug/L
F4207-07	MW14	Water	Ethyl Benzene	0.50	J	0.2	0.2	1	ug/L
F4207-07	MW14	Water	o-Xylene	0.69	J	0.2	0.2	1	ug/L
F4207-07	MW14	Water	Isopropylbenzene	38.50		0.2	0.2	1	ug/L
F4207-07	MW14	Water	n-propylbenzene	51.70		0.2	0.2	1	ug/L
F4207-07	MW14	Water	tert-Butylbenzene	1.80		0.2	0.2	1	ug/L
F4207-07	MW14	Water	1,2,4-Trimethylbenzene	0.22	J	0.2	0.2	1	ug/L
F4207-07	MW14	Water	sec-Butylbenzene	3.60		0.2	0.2	1	ug/L
F4207-07	MW14	Water	n-Butylbenzene	1.90		0.2	0.2	1	ug/L
F4207-07	MW14	Water	Naphthalene	1.10		0.2	0.2	1	ug/L
			Total Voc :	106.05					
			Total Concentration:	106.05					
Client ID:	**MW8**								
F4207-08	MW8	Water	Carbon Disulfide	0.77	J	0.2	0.2	1	ug/L

Hit Summary Sheet
SW-846

SDG No.: F4207

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
F4207-08	MW8	Water	Methyl tert-butyl Ether	5.30		0.35	0.5	1	ug/L
F4207-08	MW8	Water	Methylcyclohexane	5.00		0.2	0.2	1	ug/L
F4207-08	MW8	Water	Benzene	44.40		0.2	0.2	1	ug/L
F4207-08	MW8	Water	Toluene	4.90		0.2	0.2	1	ug/L
F4207-08	MW8	Water	Ethyl Benzene	110.00		0.2	0.2	1	ug/L
F4207-08	MW8	Water	m/p-Xylenes	20.40		0.4	0.4	2	ug/L
F4207-08	MW8	Water	o-Xylene	38.20		0.2	0.2	1	ug/L
F4207-08	MW8	Water	Isopropylbenzene	54.20		0.2	0.2	1	ug/L
F4207-08	MW8	Water	n-propylbenzene	21.60		0.2	0.2	1	ug/L
F4207-08	MW8	Water	1,3,5-Trimethylbenzene	19.50		0.2	0.2	1	ug/L
F4207-08	MW8	Water	1,2,4-Trimethylbenzene	260.00	E	0.2	0.2	1	ug/L
F4207-08	MW8	Water	sec-Butylbenzene	0.95	J	0.2	0.2	1	ug/L
F4207-08	MW8	Water	p-Isopropyltoluene	10.30		0.2	0.2	1	ug/L
F4207-08	MW8	Water	Naphthalene	420.00	E	0.2	0.2	1	ug/L
			Total Voc :	1015.52					
			Total Concentration:	1015.52					
Client ID:	**MW8DL**								
F4207-08DL	MW8DL	Water	Benzene	35.00	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	Ethyl Benzene	84.60	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	m/p-Xylenes	18.00	JD	4	4	20	ug/L
F4207-08DL	MW8DL	Water	o-Xylene	31.20	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	Isopropylbenzene	44.80	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	n-propylbenzene	19.10	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	1,3,5-Trimethylbenzene	18.80	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	1,2,4-Trimethylbenzene	240.00	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	p-Isopropyltoluene	13.40	D	2	2	10	ug/L
F4207-08DL	MW8DL	Water	Naphthalene	340.00	D	2	2	10	ug/L
			Total Voc :	844.9					
			Total Concentration:	844.9					
Client ID:	**MW2**								
F4207-09	MW2	Water	Carbon Disulfide	0.23	J	0.2	0.2	1	ug/L
F4207-09	MW2	Water	Methyl tert-butyl Ether	3.00		0.35	0.5	1	ug/L
F4207-09	MW2	Water	Methylcyclohexane	0.49	J	0.2	0.2	1	ug/L
F4207-09	MW2	Water	Benzene	74.60		0.2	0.2	1	ug/L
F4207-09	MW2	Water	Toluene	3.50		0.2	0.2	1	ug/L
F4207-09	MW2	Water	Ethyl Benzene	110.00		0.2	0.2	1	ug/L
F4207-09	MW2	Water	m/p-Xylenes	8.10		0.4	0.4	2	ug/L
F4207-09	MW2	Water	o-Xylene	6.40		0.2	0.2	1	ug/L

Hit Summary Sheet
SW-846

SDG No.: F4207

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
F4207-09	MW2	Water	Isopropylbenzene	22.10		0.2	0.2	1	ug/L
F4207-09	MW2	Water	n-propylbenzene	9.40		0.2	0.2	1	ug/L
F4207-09	MW2	Water	1,3,5-Trimethylbenzene	0.35	J	0.2	0.2	1	ug/L
F4207-09	MW2	Water	1,2,4-Trimethylbenzene	2.90		0.2	0.2	1	ug/L
F4207-09	MW2	Water	Naphthalene	8.90		0.2	0.2	1	ug/L
			Total Voc :	249.97					
			Total Concentration:	249.97					
Client ID:	**DUP**								
F4207-10	DUP	Water	Cyclohexane	2.30		0.2	0.2	1	ug/L
F4207-10	DUP	Water	Methylcyclohexane	2.00		0.2	0.2	1	ug/L
F4207-10	DUP	Water	Benzene	1.10		0.2	0.2	1	ug/L
F4207-10	DUP	Water	Toluene	0.22	J	0.2	0.2	1	ug/L
F4207-10	DUP	Water	Ethyl Benzene	0.48	J	0.2	0.2	1	ug/L
F4207-10	DUP	Water	o-Xylene	0.53	J	0.2	0.2	1	ug/L
F4207-10	DUP	Water	Isopropylbenzene	37.20		0.2	0.2	1	ug/L
F4207-10	DUP	Water	n-propylbenzene	52.00		0.2	0.2	1	ug/L
F4207-10	DUP	Water	tert-Butylbenzene	1.80		0.2	0.2	1	ug/L
F4207-10	DUP	Water	1,2,4-Trimethylbenzene	0.20	J	0.2	0.2	1	ug/L
F4207-10	DUP	Water	sec-Butylbenzene	3.60		0.2	0.2	1	ug/L
F4207-10	DUP	Water	n-Butylbenzene	1.80		0.2	0.2	1	ug/L
F4207-10	DUP	Water	Naphthalene	1.10		0.2	0.2	1	ug/L
			Total Voc :	104.33					
			Total Concentration:	104.33					

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW12R	SDG No.:	F4207
Lab Sample ID:	F4207-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019227.D	1		10/10/14 12:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW12R	SDG No.:	F4207
Lab Sample ID:	F4207-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019227.D	1		10/10/14 12:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.28	J	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW12R	SDG No.:	F4207
Lab Sample ID:	F4207-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019227.D	1		10/10/14 12:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	50.4		65 - 126		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		58 - 135		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	840390	7.87				
540-36-3	1,4-Difluorobenzene	1521120	8.79				
3114-55-4	Chlorobenzene-d5	1471230	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	614574	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW12R	SDG No.:	F4207
Lab Sample ID:	F4207-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019227.D	1		10/10/14 12:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019296.D	1		10/13/14 13:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019296.D	1		10/13/14 13:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019296.D	1		10/13/14 13:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	1.2		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.2		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	50.3		65 - 126		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.3		58 - 135		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	854620	7.87				
540-36-3	1,4-Difluorobenzene	1553080	8.79				
3114-55-4	Chlorobenzene-d5	1490500	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	633027	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019296.D	1		10/13/14 13:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019229.D	1		10/10/14 13:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019229.D	1		10/10/14 13:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.23	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019229.D	1		10/10/14 13:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.22	J	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.21	J	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.2		61 - 141		104%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.2		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		58 - 135		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	919785	7.87				
540-36-3	1,4-Difluorobenzene	1719110	8.79				
3114-55-4	Chlorobenzene-d5	1624500	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	714183	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019229.D	1		10/10/14 13:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019230.D	1		10/10/14 13:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019230.D	1		10/10/14 13:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	11.5		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.33	J	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.21	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.51	J	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019230.D	1		10/10/14 13:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.9		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	46.2		69 - 133		92%	SPK: 50
2037-26-5	Toluene-d8	49.6		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.5		58 - 135		109%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	869130	7.87				
540-36-3	1,4-Difluorobenzene	1602730	8.79				
3114-55-4	Chlorobenzene-d5	1529060	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	656445	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019230.D	1		10/10/14 13:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019231.D	1		10/10/14 14:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	2.5		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	2.1		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019231.D	1		10/10/14 14:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	1.2		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.24	J	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.5	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.69	J	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	38.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	51.7		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019231.D	1		10/10/14 14:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	1.8		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.22	J	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	3.6		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	1.9		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	1.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.8		61 - 141		104%	SPK: 50
1868-53-7	Dibromofluoromethane	46.2		69 - 133		92%	SPK: 50
2037-26-5	Toluene-d8	49.6		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		58 - 135		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	941685	7.87				
540-36-3	1,4-Difluorobenzene	1761950	8.79				
3114-55-4	Chlorobenzene-d5	1679420	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	763178	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019231.D	1		10/10/14 14:26	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019232.D	1		10/10/14 14:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.77	J	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	5.3		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	5		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019232.D	1		10/10/14 14:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	44.4		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	4.9		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	110		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	20.4		0.4	0.4	2	ug/L
95-47-6	o-Xylene	38.2		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	54.2		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	21.6		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019232.D	1		10/10/14 14:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	19.5		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	260	E	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.95	J	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	10.3		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	420	E	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.4		61 - 141		89%	SPK: 50
1868-53-7	Dibromofluoromethane	45.4		69 - 133		91%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		58 - 135		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	957585	7.87				
540-36-3	1,4-Difluorobenzene	1703000	8.79				
3114-55-4	Chlorobenzene-d5	1633180	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	767273	13.56				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019232.D	1		10/10/14 14:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019295.D	10		10/13/14 13:19	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2	UD	2	2	10	ug/L
74-87-3	Chloromethane	2	UD	2	2	10	ug/L
75-01-4	Vinyl Chloride	2	UD	2	2	10	ug/L
141-78-6	Ethyl Acetate	2	UD	2	5	10	ug/L
108-21-4	Isopropyl Acetate	2	UD	2	2	10	ug/L
74-83-9	Bromomethane	2	UD	2	2	10	ug/L
75-00-3	Chloroethane	2	UD	2	5	10	ug/L
75-69-4	Trichlorofluoromethane	2	UD	2	2	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2	UD	2	2	10	ug/L
75-65-0	Tert butyl alcohol	5	UD	5	37.5	50	ug/L
60-29-7	Diethyl Ether	2.7	UD	2.7	5	10	ug/L
75-35-4	1,1-Dichloroethene	2	UD	2	2	10	ug/L
107-02-8	Acrolein	5	UD	5	37.5	50	ug/L
107-13-1	Acrylonitrile	10	UD	10	10	50	ug/L
67-64-1	Acetone	5	UD	5	10	50	ug/L
75-15-0	Carbon Disulfide	2	UD	2	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	3.5	UD	3.5	5	10	ug/L
79-20-9	Methyl Acetate	2	UD	2	5	10	ug/L
75-09-2	Methylene Chloride	2	UD	2	2	10	ug/L
156-60-5	trans-1,2-Dichloroethene	2	UD	2	2	10	ug/L
108-05-4	Vinyl Acetate	10.5	UD	10.5	25	50	ug/L
75-34-3	1,1-Dichloroethane	2	UD	2	2	10	ug/L
110-82-7	Cyclohexane	2	UD	2	2	10	ug/L
78-93-3	2-Butanone	13.2	UD	13.2	25	50	ug/L
56-23-5	Carbon Tetrachloride	2	UD	2	2	10	ug/L
594-20-7	2,2-Dichloropropane	2	UD	2	5	10	ug/L
156-59-2	cis-1,2-Dichloroethene	2	UD	2	2	10	ug/L
74-97-5	Bromochloromethane	2	UD	2	5	10	ug/L
67-66-3	Chloroform	2	UD	2	2	10	ug/L
71-55-6	1,1,1-Trichloroethane	2	UD	2	2	10	ug/L
108-87-2	Methylcyclohexane	2	UD	2	2	10	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019295.D	10		10/13/14 13:19	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	3.9	UD	3.9	5	10	ug/L
71-43-2	Benzene	35	D	2	2	10	ug/L
107-06-2	1,2-Dichloroethane	2	UD	2	2	10	ug/L
79-01-6	Trichloroethene	2	UD	2	2	10	ug/L
78-87-5	1,2-Dichloropropane	2	UD	2	2	10	ug/L
74-95-3	Dibromomethane	2	UD	2	2	10	ug/L
75-27-4	Bromodichloromethane	2	UD	2	2	10	ug/L
108-10-1	4-Methyl-2-Pentanone	10	UD	10	10	50	ug/L
108-88-3	Toluene	2	UD	2	2	10	ug/L
10061-02-6	t-1,3-Dichloropropene	2	UD	2	2	10	ug/L
10061-01-5	cis-1,3-Dichloropropene	2	UD	2	2	10	ug/L
79-00-5	1,1,2-Trichloroethane	2	UD	2	2	10	ug/L
142-28-9	1,3-Dichloropropane	2	UD	2	2	10	ug/L
110-75-8	2-Chloroethyl Vinyl ether	10	UD	10	10	50	ug/L
591-78-6	2-Hexanone	19.4	UD	19.4	25	50	ug/L
124-48-1	Dibromochloromethane	2	UD	2	2	10	ug/L
106-93-4	1,2-Dibromoethane	2	UD	2	2	10	ug/L
127-18-4	Tetrachloroethene	2	UD	2	2	10	ug/L
108-90-7	Chlorobenzene	2	UD	2	2	10	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2	UD	2	2	10	ug/L
67-72-1	Hexachloroethane	2	UD	2	2	10	ug/L
100-41-4	Ethyl Benzene	84.6	D	2	2	10	ug/L
179601-23-1	m/p-Xylenes	18	JD	4	4	20	ug/L
95-47-6	o-Xylene	31.2	D	2	2	10	ug/L
100-42-5	Styrene	2	UD	2	2	10	ug/L
75-25-2	Bromoform	2	UD	2	2	10	ug/L
98-82-8	Isopropylbenzene	44.8	D	2	2	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2	UD	2	2	10	ug/L
96-18-4	1,2,3-Trichloropropane	2	UD	2	2	10	ug/L
108-86-1	Bromobenzene	2	UD	2	2	10	ug/L
103-65-1	n-propylbenzene	19.1	D	2	2	10	ug/L
95-49-8	2-Chlorotoluene	2	UD	2	2	10	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019295.D	10		10/13/14 13:19	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	18.8	D	2	2	10	ug/L
106-43-4	4-Chlorotoluene	2	UD	2	2	10	ug/L
98-06-6	tert-Butylbenzene	2	UD	2	2	10	ug/L
95-63-6	1,2,4-Trimethylbenzene	240	D	2	2	10	ug/L
135-98-8	sec-Butylbenzene	2	UD	2	2	10	ug/L
99-87-6	p-Isopropyltoluene	13.4	D	2	2	10	ug/L
541-73-1	1,3-Dichlorobenzene	2	UD	2	2	10	ug/L
106-46-7	1,4-Dichlorobenzene	2	UD	2	2	10	ug/L
104-51-8	n-Butylbenzene	2	UD	2	2	10	ug/L
95-50-1	1,2-Dichlorobenzene	2	UD	2	2	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2	UD	2	2	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	2	UD	2	2	10	ug/L
87-68-3	Hexachlorobutadiene	2	UD	2	2	10	ug/L
91-20-3	Naphthalene	340	D	2	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	2	UD	2	2	10	ug/L
628-63-7	N-amyl acetate	2	UD	2	7.5	10	ug/L
74-88-4	Methyl Iodide	2	UD	2	5	10	ug/L
107-05-1	Allyl chloride	2	UD	2	5	10	ug/L
126-98-7	Methacrylonitrile	2	UD	2	7.5	10	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	2	UD	2	7.5	10	ug/L
97-63-2	Ethyl methacrylate	2	UD	2	5	10	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.7		61 - 141		103%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	50		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.7		58 - 135		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	940868	7.87				
540-36-3	1,4-Difluorobenzene	1719460	8.79				
3114-55-4	Chlorobenzene-d5	1650610	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	740245	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019295.D	10		10/13/14 13:19	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019228.D	1		10/10/14 12:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.23	J	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	3		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.49	J	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019228.D	1		10/10/14 12:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	74.6		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	3.5		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	110		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	8.1		0.4	0.4	2	ug/L
95-47-6	o-Xylene	6.4		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	22.1		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	9.4		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019228.D	1		10/10/14 12:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.35	J	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	2.9		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	8.9		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.7		61 - 141		95%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	52		65 - 126		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.6		58 - 135		111%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	870479	7.87				
540-36-3	1,4-Difluorobenzene	1557640	8.79				
3114-55-4	Chlorobenzene-d5	1513330	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	699908	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019228.D	1		10/10/14 12:56	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019241.D	1		10/10/14 19:24	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	2.3		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	2		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019241.D	1		10/10/14 19:24	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	1.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.22	J	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.48	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.53	J	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	37.2		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	52		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019241.D	1		10/10/14 19:24	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	1.8		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	J	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	3.6		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	1.8		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	1.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47		61 - 141		94%	SPK: 50
1868-53-7	Dibromofluoromethane	46.2		69 - 133		92%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.7		58 - 135		111%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1034760	7.87				
540-36-3	1,4-Difluorobenzene	1893470	8.79				
3114-55-4	Chlorobenzene-d5	1819620	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	870349	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019241.D	1		10/10/14 19:24	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019226.D	1		10/10/14 11:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019226.D	1		10/10/14 11:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019226.D	1		10/10/14 11:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.3		61 - 141		103%	SPK: 50
1868-53-7	Dibromofluoromethane	48		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	49.5		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	993078	7.87				
540-36-3	1,4-Difluorobenzene	1802610	8.79				
3114-55-4	Chlorobenzene-d5	1686280	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	716570	13.56				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019226.D	1		10/10/14 11:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019225.D	1		10/10/14 11:27	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019225.D	1		10/10/14 11:27	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019225.D	1		10/10/14 11:27	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		61 - 141		97%	SPK: 50
1868-53-7	Dibromofluoromethane	49		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	50.8		65 - 126		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		58 - 135		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	891141	7.87				
540-36-3	1,4-Difluorobenzene	1578640	8.79				
3114-55-4	Chlorobenzene-d5	1527530	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	630989	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019225.D	1		10/10/14 11:27	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
F4207-01	MW12R	1,2-Dichloroethane-d4	50	50.041	100		61	141
		Dibromofluoromethane	50	48.41	97		69	133
		Toluene-d8	50	50.411	101		65	126
		4-Bromofluorobenzene	50	50.808	102		58	135
F4207-02	MW11R	1,2-Dichloroethane-d4	50	51.249	102		61	141
		Dibromofluoromethane	50	48.433	97		69	133
		Toluene-d8	50	50.279	101		65	126
		4-Bromofluorobenzene	50	52.302	105		58	135
F4207-03MS	MW11RMS	1,2-Dichloroethane-d4	50	48.846	98		61	141
		Dibromofluoromethane	50	51.654	103		69	133
		Toluene-d8	50	51.987	104		65	126
		4-Bromofluorobenzene	50	54.83	110		58	135
F4207-04MSD	MW11RMSD	1,2-Dichloroethane-d4	50	52.263	105		61	141
		Dibromofluoromethane	50	51.842	104		69	133
		Toluene-d8	50	57.114	114		65	126
		4-Bromofluorobenzene	50	59.214	118		58	135
F4207-05	MW16	1,2-Dichloroethane-d4	50	52.246	104		61	141
		Dibromofluoromethane	50	46.817	94		69	133
		Toluene-d8	50	49.196	98		65	126
		4-Bromofluorobenzene	50	51.276	103		58	135
F4207-06	MW15	1,2-Dichloroethane-d4	50	46.934	94		61	141
		Dibromofluoromethane	50	46.211	92		69	133
		Toluene-d8	50	49.599	99		65	126
		4-Bromofluorobenzene	50	54.503	109		58	135
F4207-07	MW14	1,2-Dichloroethane-d4	50	51.755	104		61	141
		Dibromofluoromethane	50	46.241	92		69	133
		Toluene-d8	50	49.567	99		65	126
		4-Bromofluorobenzene	50	52.371	105		58	135
F4207-08	MW8	1,2-Dichloroethane-d4	50	44.358	89		61	141
		Dibromofluoromethane	50	45.387	91		69	133
		Toluene-d8	50	49.813	100		65	126
		4-Bromofluorobenzene	50	53.191	106		58	135
F4207-08DL	MW8DL	1,2-Dichloroethane-d4	50	51.69	103		61	141
		Dibromofluoromethane	50	48.77	98		69	133
		Toluene-d8	50	50.04	100		65	126
		4-Bromofluorobenzene	50	53.71	107		58	135
F4207-09	MW2	1,2-Dichloroethane-d4	50	47.67	95		61	141
		Dibromofluoromethane	50	48.79	98		69	133
		Toluene-d8	50	51.97	104		65	126
		4-Bromofluorobenzene	50	55.57	111		58	135
F4207-10	DUP	1,2-Dichloroethane-d4	50	47.045	94		61	141
		Dibromofluoromethane	50	46.241	92		69	133
		Toluene-d8	50	48.679	97		65	126
		4-Bromofluorobenzene	50	55.721	111		58	135
F4207-11	TRIPBLANK	1,2-Dichloroethane-d4	50	51.296	103		61	141
		Dibromofluoromethane	50	48.025	96		69	133
		Toluene-d8	50	49.477	99		65	126
		4-Bromofluorobenzene	50	49.631	99		58	135
F4207-12	FIELDBLANK	1,2-Dichloroethane-d4	50	48.729	97		61	141
		Dibromofluoromethane	50	48.983	98		69	133
		Toluene-d8	50	50.837	102		65	126
		4-Bromofluorobenzene	50	50.789	102		58	135

Surrogate Summary

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VN1010WBL01	VN1010WBL01	1,2-Dichloroethane-d4	50	48.848	98		61	141
		Dibromofluoromethane	50	47.148	94		69	133
		Toluene-d8	50	50.965	102		65	126
		4-Bromofluorobenzene	50	50.519	101		58	135
VN1010WBS01	VN1010WBS01	1,2-Dichloroethane-d4	50	48.998	98		61	141
		Dibromofluoromethane	50	51.756	104		69	133
		Toluene-d8	50	52.793	106		65	126
		4-Bromofluorobenzene	50	54.593	109		58	135
VN1013WBL01	VN1013WBL01	1,2-Dichloroethane-d4	50	49.609	99		70	120
		Dibromofluoromethane	50	48.387	97		85	115
		Toluene-d8	50	50.087	100		85	120
		4-Bromofluorobenzene	50	49.542	99		75	120
VN1013WBS01	VN1013WBS01	1,2-Dichloroethane-d4	50	48.66	97		70	120
		Dibromofluoromethane	50	49.64	99		85	115
		Toluene-d8	50	49.63	99		85	120
		4-Bromofluorobenzene	50	51.85	104		75	120

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID : F4207-03MS **Client Sample ID :** MW11RMS **Datafile :** VN019242.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Dichlorodifluoromethane	50	0	46.7	ug/L	93				47	161	
Chloromethane	50	0	44.7	ug/L	89				53	157	
Vinyl chloride	50	0	53.1	ug/L	106				57	149	
Ethyl Acetate	50	0	47.8	ug/L	96				60	147	
Isopropylacetate	50	0	46.3	ug/L	93				33	141	
Bromomethane	50	0	44.9	ug/L	90				45	165	
Chloroethane	50	0	43.9	ug/L	88				47	166	
Trichlorofluoromethane	50	0	45.9	ug/L	92				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	45.3	ug/L	91				61	145	
Tert butyl alcohol	250	0	230	ug/L	92				29	188	
Diethyl Ether	50	0	46.8	ug/L	94				63	131	
1,1-Dichloroethene	50	0	46.9	ug/L	94				55	148	
Acrolein	250	0	400	ug/L	160	*			32	157	
Acrylonitrile	250	0	240	ug/L	96				60	146	
Acetone	250	0	180	ug/L	72				11	159	
Carbon disulfide	50	0	40.8	ug/L	82				13	149	
Methyl tert-butyl Ether	50	0	46.8	ug/L	94				60	145	
Methyl Acetate	50	0	45.2	ug/L	90				27	167	
Methylene Chloride	50	0	45.7	ug/L	91				56	146	
trans-1,2-Dichloroethene	50	0	46.4	ug/L	93				60	141	
Vinyl Acetate	250	0	210	ug/L	84				50	176	
1,1-Dichloroethane	50	0	45.4	ug/L	91				61	144	
Cyclohexane	50	0	45	ug/L	90				57	142	
2-Butanone	250	0	230	ug/L	92				42	145	
Carbon Tetrachloride	50	0	46.2	ug/L	92				60	140	
2,2-Dichloropropane	50	0	41.7	ug/L	83				39	146	
cis-1,2-Dichloroethene	50	0	47	ug/L	94				48	156	
Bromochloromethane	50	0	42.9	ug/L	86				59	146	
Chloroform	50	0	48	ug/L	96				63	140	
1,1,1-Trichloroethane	50	0	47.7	ug/L	95				65	140	
Methylcyclohexane	50	0	48.6	ug/L	97				62	128	
1,1-Dichloropropene	50	0	48.3	ug/L	97				64	132	
Benzene	50	0	47	ug/L	94				62	134	
1,2-Dichloroethane	50	0	46.5	ug/L	93				67	136	
Trichloroethene	50	0	47.6	ug/L	95				64	131	
1,2-Dichloropropane	50	0	49.3	ug/L	99				69	130	
Dibromomethane	50	0	48.1	ug/L	96				71	132	
Bromodichloromethane	50	0	47.7	ug/L	95				66	132	
4-Methyl-2-Pentanone	250	0	270	ug/L	108				57	148	
Toluene	50	0	50.4	ug/L	101				68	129	
t-1,3-Dichloropropene	50	0	50.7	ug/L	101				54	136	
cis-1,3-Dichloropropene	50	0	49.2	ug/L	98				56	133	
1,1,2-Trichloroethane	50	0	49.4	ug/L	99				68	134	
1,3-Dichloropropane	50	0	49.5	ug/L	99				71	132	
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*			70	128	
2-Hexanone	250	0	260	ug/L	104				46	158	
Dibromochloromethane	50	0	50.4	ug/L	101				59	136	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	50.3	ug/L	101				65	138	
Tetrachloroethene	50	0	47.8	ug/L	96				29	137	
Chlorobenzene	50	0	47.8	ug/L	96				68	126	
1,1,1,2-Tetrachloroethane	50	0	47.7	ug/L	95				69	129	
Hexachloroethane	50	0	42.6	ug/L	85				50	117	
Ethyl Benzene	50	0	49.4	ug/L	99				61	131	
m/p-Xylenes	100	0	99.1	ug/L	99				64	125	
o-Xylene	50	0	48.8	ug/L	98				65	126	
Styrene	50	0	51.1	ug/L	102				40	140	
Bromoform	50	0	49.1	ug/L	98				42	134	
Isopropylbenzene	50	0	45.4	ug/L	91				58	132	
1,1,2,2-Tetrachloroethane	50	0	44.1	ug/L	88				61	136	
1,2,3-Trichloropropane	50	0	40.8	ug/L	82				68	128	
Bromobenzene	50	0	45.2	ug/L	90				65	126	
N-propylbenzene	50	0	47.8	ug/L	96				64	126	
2-Chlorotoluene	50	0	45.1	ug/L	90				63	125	
1,3,5-Trimethylbenzene	50	0	46.3	ug/L	93				59	127	
4-Chlorotoluene	50	0	47	ug/L	94				63	126	
tert-Butylbenzene	50	0	46	ug/L	92				65	138	
1,2,4-Trimethylbenzene	50	0	46	ug/L	92				54	133	
Sec-butylbenzene	50	0	47.8	ug/L	96				65	125	
p-Isopropyltoluene	50	0	48.6	ug/L	97				64	124	
1,3-Dichlorobenzene	50	0	46.9	ug/L	94				63	125	
1,4-Dichlorobenzene	50	0	46.9	ug/L	94				64	124	
n-Butylbenzene	50	0	51.2	ug/L	102				62	127	
1,2-Dichlorobenzene	50	0	44.9	ug/L	90				64	126	
1,2-Dibromo-3-Chloropropane	50	0	44.3	ug/L	89				57	139	
1,2,4-Trichlorobenzene	50	0	47.5	ug/L	95				57	130	
Hexachlorobutadiene	50	0	44.2	ug/L	88				53	127	
Naphthalene	50	0	47.1	ug/L	94				56	136	
1,2,3-Trichlorobenzene	50	0	47.3	ug/L	95				57	131	
N-amyl acetate	50	0	49.3	ug/L	99				80	118	
Methyl iodide	50	0	45.1	ug/L	90				77	120	
Allyl chloride	50	0	44.7	ug/L	89				71	120	
Methacrylonitrile	50	0	48.4	ug/L	97				47	150	
trans-1,4-Dichloro-2-butene	50	0	42.7	ug/L	85				24	124	
Ethyl methacrylate	50	0	52.7	ug/L	105				79	119	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : F4207-04MSD	**Client Sample ID :**		**MW11RMSD**				**Datafile :**	VN019243.D			
Dichlorodifluoromethane	50	0	51.6	ug/L	103		10		47	161	20
Chloromethane	50	0	49.8	ug/L	100		11		53	157	20
Vinyl chloride	50	0	56.2	ug/L	112		6		57	149	20
Ethyl Acetate	50	0	51.1	ug/L	102		7		60	147	20
Isopropylacetate	50	0	53.3	ug/L	107		14		33	141	20
Bromomethane	50	0	52.6	ug/L	105		16		45	165	20
Chloroethane	50	0	48.2	ug/L	96		9		47	166	20
Trichlorofluoromethane	50	0	51.6	ug/L	103		12		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	49.7	ug/L	99		9		61	145	20
Tert butyl alcohol	250	0	270	ug/L	108		16		29	188	20
Diethyl Ether	50	0	50.8	ug/L	102		8		63	131	20
1,1-Dichloroethene	50	0	51.7	ug/L	103		10		55	148	20
Acrolein	250	0	390	ug/L	156		3		32	157	20
Acrylonitrile	250	0	290	ug/L	116		19		60	146	20
Acetone	250	0	210	ug/L	84		15		11	159	20
Carbon disulfide	50	0	47.4	ug/L	95		15		13	149	20
Methyl tert-butyl Ether	50	0	54.6	ug/L	109		15		60	145	20
Methyl Acetate	50	0	54.1	ug/L	108		18		27	167	20
Methylene Chloride	50	0	51	ug/L	102		11		56	146	20
trans-1,2-Dichloroethene	50	0	53.1	ug/L	106		13		60	141	20
Vinyl Acetate	250	0	230	ug/L	92		9		50	176	20
1,1-Dichloroethane	50	0	50.5	ug/L	101		11		61	144	20
Cyclohexane	50	0	47.7	ug/L	95		6		57	142	20
2-Butanone	250	0	260	ug/L	104		12		42	145	20
Carbon Tetrachloride	50	0	50.5	ug/L	101		9		60	140	20
2,2-Dichloropropane	50	0	46	ug/L	92		10		39	146	20
cis-1,2-Dichloroethene	50	0	52.8	ug/L	106		12		48	156	20
Bromochloromethane	50	0	52.7	ug/L	105		21	*	59	146	20
Chloroform	50	0	51.9	ug/L	104		8		63	140	20
1,1,1-Trichloroethane	50	0	51.5	ug/L	103		8		65	140	20
Methylcyclohexane	50	0	50.6	ug/L	101		4		62	128	20
1,1-Dichloropropene	50	0	51.5	ug/L	103		6		64	132	20
Benzene	50	0	51.6	ug/L	103		9		62	134	20
1,2-Dichloroethane	50	0	52	ug/L	104		11		67	136	20
Trichloroethene	50	0	52.7	ug/L	105		10		64	131	20
1,2-Dichloropropane	50	0	52.4	ug/L	105		6		69	130	20
Dibromomethane	50	0	52.8	ug/L	106		9		71	132	20
Bromodichloromethane	50	0	52.8	ug/L	106		10		66	132	20
4-Methyl-2-Pentanone	250	0	290	ug/L	116		7		57	148	20
Toluene	50	0	55.6	ug/L	111		10		68	129	20
t-1,3-Dichloropropene	50	0	56.2	ug/L	112		10		54	136	20
cis-1,3-Dichloropropene	50	0	53.7	ug/L	107		9		56	133	20
1,1,2-Trichloroethane	50	0	56.5	ug/L	113		13		68	134	20
1,3-Dichloropropane	50	0	55.1	ug/L	110		11		71	132	20
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*	0		70	128	20
2-Hexanone	250	0	300	ug/L	120		14		46	158	20
Dibromochloromethane	50	0	55.6	ug/L	111		10		59	136	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	57.4	ug/L	115		13		65	138	20
Tetrachloroethene	50	0	51.6	ug/L	103		8		29	137	20
Chlorobenzene	50	0	51.3	ug/L	103		7		68	126	20
1,1,1,2-Tetrachloroethane	50	0	52.9	ug/L	106		10		69	129	20
Hexachloroethane	50	0	49.3	ug/L	99		15		50	117	20
Ethyl Benzene	50	0	54.8	ug/L	110		10		61	131	20
m/p-Xylenes	100	0	110	ug/L	110		10		64	125	20
o-Xylene	50	0	53.1	ug/L	106		8		65	126	20
Styrene	50	0	56.1	ug/L	112		9		40	140	20
Bromoform	50	0	53.2	ug/L	106		8		42	134	20
Isopropylbenzene	50	0	49.9	ug/L	100		9		58	132	20
1,1,2,2-Tetrachloroethane	50	0	49.4	ug/L	99		11		61	136	20
1,2,3-Trichloropropane	50	0	45.3	ug/L	91		10		68	128	20
Bromobenzene	50	0	48.7	ug/L	97		7		65	126	20
N-propylbenzene	50	0	52.7	ug/L	105		10		64	126	20
2-Chlorotoluene	50	0	49.9	ug/L	100		10		63	125	20
1,3,5-Trimethylbenzene	50	0	51.1	ug/L	102		10		59	127	20
4-Chlorotoluene	50	0	52.3	ug/L	105		11		63	126	20
tert-Butylbenzene	50	0	50.1	ug/L	100		9		65	138	20
1,2,4-Trimethylbenzene	50	0	51.2	ug/L	102		11		54	133	20
Sec-butylbenzene	50	0	52.5	ug/L	105		9		65	125	20
p-Isopropyltoluene	50	0	53.3	ug/L	107		9		64	124	20
1,3-Dichlorobenzene	50	0	51.7	ug/L	103		10		63	125	20
1,4-Dichlorobenzene	50	0	51.2	ug/L	102		9		64	124	20
n-Butylbenzene	50	0	58.6	ug/L	117		13		62	127	20
1,2-Dichlorobenzene	50	0	49.7	ug/L	99		10		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	53.9	ug/L	108		20		57	139	20
1,2,4-Trichlorobenzene	50	0	51.8	ug/L	104		9		57	130	20
Hexachlorobutadiene	50	0	46.7	ug/L	93		6		53	127	20
Naphthalene	50	0	53.1	ug/L	106		12		56	136	20
1,2,3-Trichlorobenzene	50	0	51.1	ug/L	102		8		57	131	20
N-amyl acetate	50	0	56.5	ug/L	113		14		80	118	20
Methyl iodide	50	0	51.6	ug/L	103		13		77	120	20
Allyl chloride	50	0	52.8	ug/L	106		17		71	120	20
Methacrylonitrile	50	0	52.1	ug/L	104		7		47	150	20
trans-1,4-Dichloro-2-butene	50	0	49.1	ug/L	98		14		24	124	20
Ethyl methacrylate	50	0	59.9	ug/L	120	*	13		79	119	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low **Datafile :** VN019224.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1010WBS01	Dichlorodifluoromethane	20	19.1	ug/L	96			46	139	
	Chloromethane	20	19.6	ug/L	98			58	139	
	Vinyl chloride	20	21.6	ug/L	108			65	137	
	Ethyl Acetate	20	19.7	ug/L	99			67	131	
	Isopropylacetate	20	19	ug/L	95			72	128	
	Bromomethane	20	20.4	ug/L	102			50	162	
	Chloroethane	20	18.3	ug/L	92			54	160	
	Trichlorofluoromethane	20	18.8	ug/L	94			67	143	
	1,1,2-Trichlorotrifluoroethane	20	19.2	ug/L	96			71	136	
	Tert butyl alcohol	100	89.1	ug/L	89			36	175	
	Diethyl Ether	20	18.2	ug/L	91			70	133	
	1,1-Dichloroethene	20	19.2	ug/L	96			69	134	
	Acrolein	100	97.6	ug/L	98			20	159	
	Acrylonitrile	100	93.6	ug/L	94			63	146	
	Acetone	100	92.8	ug/L	93			41	181	
	Carbon disulfide	20	17.3	ug/L	86			63	138	
	Methyl tert-butyl Ether	20	19.1	ug/L	96			72	136	
	Methyl Acetate	20	18.4	ug/L	92			51	158	
	Methylene Chloride	20	19.7	ug/L	99			67	138	
	trans-1,2-Dichloroethene	20	19.3	ug/L	97			72	132	
	Vinyl Acetate	100	89.7	ug/L	90			32	168	
	1,1-Dichloroethane	20	18.8	ug/L	94			74	135	
	Cyclohexane	20	18.9	ug/L	95			67	132	
	2-Butanone	100	98	ug/L	98			64	146	
	Carbon Tetrachloride	20	19.5	ug/L	98			71	134	
	2,2-Dichloropropane	20	19.6	ug/L	98			64	137	
	cis-1,2-Dichloroethene	20	19.6	ug/L	98			74	130	
	Bromochloromethane	20	19.4	ug/L	97			71	136	
	Chloroform	20	20	ug/L	100			74	134	
	1,1,1-Trichloroethane	20	19.9	ug/L	100			74	133	
	Methylcyclohexane	20	19.8	ug/L	99			71	125	
	1,1-Dichloropropene	20	20.4	ug/L	102			74	127	
	Benzene	20	20.1	ug/L	101			75	125	
	1,2-Dichloroethane	20	19.6	ug/L	98			76	130	
	Trichloroethene	20	20.7	ug/L	104			73	127	
	1,2-Dichloropropane	20	20.1	ug/L	101			76	125	
	Dibromomethane	20	20.6	ug/L	103			79	124	
	Bromodichloromethane	20	20.3	ug/L	102			78	127	
	4-Methyl-2-Pentanone	100	100	ug/L	100			71	140	
	Toluene	20	20.8	ug/L	104			74	125	
	t-1,3-Dichloropropene	20	20.5	ug/L	103			74	131	
	cis-1,3-Dichloropropene	20	20.9	ug/L	104			74	128	
	1,1,2-Trichloroethane	20	20.7	ug/L	104			75	129	
	1,3-Dichloropropane	20	20.7	ug/L	104			74	129	
	2-Chloroethyl vinyl ether	100	92.4	ug/L	92			31	161	
	2-Hexanone	100	100	ug/L	100			62	153	
	Dibromochloromethane	20	20.9	ug/L	104			74	131	
	1,2-Dibromoethane	20	20.5	ug/L	103			74	129	
	Tetrachloroethene	20	21.5	ug/L	108			46	157	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low **Datafile :** VN019224.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1010WBS01	Chlorobenzene	20	19.9	ug/L	100			76	123	
	1,1,1,2-Tetrachloroethane	20	20.1	ug/L	101			75	126	
	Hexachloroethane	20	18.2	ug/L	91			67	127	
	Ethyl Benzene	20	19.9	ug/L	100			75	126	
	m/p-Xylenes	40	40.6	ug/L	102			74	126	
	o-Xylene	20	19.8	ug/L	99			73	127	
	Styrene	20	20.5	ug/L	103			75	126	
	Bromoform	20	20.3	ug/L	102			66	130	
	Isopropylbenzene	20	18.9	ug/L	95			70	127	
	1,1,2,2-Tetrachloroethane	20	18.6	ug/L	93			66	131	
	1,2,3-Trichloropropane	20	18.4	ug/L	92			71	127	
	Bromobenzene	20	18.7	ug/L	94			71	123	
	N-propylbenzene	20	20	ug/L	100			71	126	
	2-Chlorotoluene	20	18.9	ug/L	95			73	124	
	1,3,5-Trimethylbenzene	20	19.5	ug/L	98			71	127	
	4-Chlorotoluene	20	19.7	ug/L	99			73	124	
	tert-Butylbenzene	20	19.1	ug/L	96			66	129	
	1,2,4-Trimethylbenzene	20	19.5	ug/L	98			69	130	
	Sec-butylbenzene	20	19.9	ug/L	100			72	126	
	p-Isopropyltoluene	20	20.2	ug/L	101			71	125	
	1,3-Dichlorobenzene	20	20.1	ug/L	101			70	125	
	1,4-Dichlorobenzene	20	19.7	ug/L	99			71	124	
	n-Butylbenzene	20	20.3	ug/L	102			68	128	
	1,2-Dichlorobenzene	20	19.1	ug/L	96			71	126	
	1,2-Dibromo-3-Chloropropane	20	18.8	ug/L	94			62	134	
	1,2,4-Trichlorobenzene	20	19.9	ug/L	100			62	129	
	Hexachlorobutadiene	20	20	ug/L	100			56	132	
	Naphthalene	20	17.8	ug/L	89			62	130	
	1,2,3-Trichlorobenzene	20	19.3	ug/L	97			58	130	
	N-amyl acetate	20	16.7	ug/L	84			80	121	
	Methyl iodide	20	17.3	ug/L	86			70	130	
	Allyl chloride	20	18.3	ug/L	92			75	121	
	Methacrylonitrile	20	19.3	ug/L	97			67	132	
	trans-1,4-Dichloro-2-butene	20	18.1	ug/L	91			52	149	
	Ethyl methacrylate	20	20.7	ug/L	104			84	121	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low **Datafile :** VN019294.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1013WBS01	Dichlorodifluoromethane	20	16.2	ug/L	81			30	155	
	Chloromethane	20	15.3	ug/L	77			40	125	
	Vinyl chloride	20	20.8	ug/L	104			50	145	
	Ethyl Acetate	20	20.7	ug/L	104			70	130	
	Isopropylacetate	20	20	ug/L	100			70	130	
	Bromomethane	20	19.2	ug/L	96			30	145	
	Chloroethane	20	17.1	ug/L	86			60	135	
	Trichlorofluoromethane	20	18.6	ug/L	93			60	145	
	1,1,2-Trichlorotrifluoroethane	20	19.3	ug/L	97			52	142	
	Tert butyl alcohol	100	89.6	ug/L	90			46	147	
	Diethyl Ether	20	18.5	ug/L	93			70	130	
	1,1-Dichloroethene	20	19.1	ug/L	96			70	130	
	Acrolein	100	69.2	ug/L	69			38	155	
	Acrylonitrile	100	95.1	ug/L	95			53	150	
	Acetone	100	95.7	ug/L	96			40	140	
	Carbon disulfide	20	14.7	ug/L	74			35	160	
	Methyl tert-butyl Ether	20	19.3	ug/L	97			65	125	
	Methyl Acetate	20	18	ug/L	90			51	158	
	Methylene Chloride	20	19.3	ug/L	97			55	140	
	trans-1,2-Dichloroethene	20	18.8	ug/L	94			60	140	
	Vinyl Acetate	100	95.3	ug/L	95			47	166	
	1,1-Dichloroethane	20	19.5	ug/L	98			70	135	
	Cyclohexane	20	18.4	ug/L	92			56	141	
	2-Butanone	100	100	ug/L	100			30	150	
	Carbon Tetrachloride	20	19.7	ug/L	99			65	140	
	2,2-Dichloropropane	20	20.4	ug/L	102			70	135	
	cis-1,2-Dichloroethene	20	20.4	ug/L	102			70	125	
	Bromochloromethane	20	18.4	ug/L	92			65	130	
	Chloroform	20	20.6	ug/L	103			65	135	
	1,1,1-Trichloroethane	20	20.6	ug/L	103			65	130	
	Methylcyclohexane	20	18.9	ug/L	95			56	137	
	1,1-Dichloropropene	20	20.3	ug/L	102			75	130	
	Benzene	20	19.7	ug/L	99			80	120	
	1,2-Dichloroethane	20	20.5	ug/L	103			70	130	
	Trichloroethene	20	20.8	ug/L	104			70	125	
	1,2-Dichloropropane	20	20.2	ug/L	101			75	125	
	Dibromomethane	20	20.3	ug/L	102			75	125	
	Bromodichloromethane	20	20.8	ug/L	104			75	120	
	4-Methyl-2-Pentanone	100	100	ug/L	100			60	135	
	Toluene	20	20.7	ug/L	104			75	120	
	t-1,3-Dichloropropene	20	21.3	ug/L	106			55	140	
	cis-1,3-Dichloropropene	20	20.7	ug/L	104			70	130	
	1,1,2-Trichloroethane	20	20.6	ug/L	103			75	125	
	1,3-Dichloropropane	20	20.8	ug/L	104			75	125	
	2-Chloroethyl vinyl ether	100	85.3	ug/L	85			54	151	
	2-Hexanone	100	98.6	ug/L	99			55	130	
	Dibromochloromethane	20	21.1	ug/L	106			60	135	
	1,2-Dibromoethane	20	20.7	ug/L	104			80	120	
	Tetrachloroethene	20	21	ug/L	105			45	150	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW8260-Low **Datafile :** VN019294.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1013WBS01	Chlorobenzene	20	20.6	ug/L	103			80	120	
	1,1,1,2-Tetrachloroethane	20	21.1	ug/L	106			80	130	
	Hexachloroethane	20	18.9	ug/L	95			70	130	
	Ethyl Benzene	20	20.7	ug/L	104			75	125	
	m/p-Xylenes	40	41.7	ug/L	104			75	130	
	o-Xylene	20	20.3	ug/L	102			80	120	
	Styrene	20	21.2	ug/L	106			65	135	
	Bromoform	20	21.1	ug/L	106			70	130	
	Isopropylbenzene	20	19.5	ug/L	98			75	125	
	1,1,2,2-Tetrachloroethane	20	20	ug/L	100			65	130	
	1,2,3-Trichloropropane	20	17.9	ug/L	90			75	125	
	Bromobenzene	20	19.8	ug/L	99			75	125	
	N-propylbenzene	20	20.6	ug/L	103			70	130	
	2-Chlorotoluene	20	19.4	ug/L	97			75	125	
	1,3,5-Trimethylbenzene	20	19.9	ug/L	100			75	130	
	4-Chlorotoluene	20	20.3	ug/L	102			75	130	
	tert-Butylbenzene	20	19.2	ug/L	96			70	130	
	1,2,4-Trimethylbenzene	20	19.6	ug/L	98			75	130	
	Sec-butylbenzene	20	20.8	ug/L	104			70	125	
	p-Isopropyltoluene	20	20.6	ug/L	103			75	130	
	1,3-Dichlorobenzene	20	20.8	ug/L	104			75	125	
	1,4-Dichlorobenzene	20	20.5	ug/L	103			75	125	
	n-Butylbenzene	20	21	ug/L	105			70	135	
	1,2-Dichlorobenzene	20	19.5	ug/L	98			70	120	
	1,2-Dibromo-3-Chloropropane	20	19.1	ug/L	96			50	130	
	1,2,4-Trichlorobenzene	20	20.5	ug/L	103			65	135	
	Hexachlorobutadiene	20	21.2	ug/L	106			50	140	
	Naphthalene	20	17.1	ug/L	86			55	140	
	1,2,3-Trichlorobenzene	20	20	ug/L	100			55	140	
	N-amyl acetate	20	18.2	ug/L	91			70	130	
	Methyl iodide	20	15.3	ug/L	77			70	130	
	Allyl chloride	20	17.8	ug/L	89			70	130	
	trans-1,4-Dichloro-2-butene	20	18.8	ug/L	94			70	130	
	Methacrylonitrile	20	19.9	ug/L	100			70	130	
	Ethyl methacrylate	20	20.8	ug/L	104			70	130	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1010WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019223.D Lab Sample ID: VN1010WBL01

Date Analyzed: 10/10/2014 Time Analyzed: 10:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1010WBS01	VN1010WBS01	VN019224.D	10/10/2014
FIELDBLANK	F4207-12	VN019225.D	10/10/2014
TRIPBLANK	F4207-11	VN019226.D	10/10/2014
MW12R	F4207-01	VN019227.D	10/10/2014
MW2	F4207-09	VN019228.D	10/10/2014
MW16	F4207-05	VN019229.D	10/10/2014
MW15	F4207-06	VN019230.D	10/10/2014
MW14	F4207-07	VN019231.D	10/10/2014
MW8	F4207-08	VN019232.D	10/10/2014
DUP	F4207-10	VN019241.D	10/10/2014
MW11RMS	F4207-03MS	VN019242.D	10/10/2014
MW11RMSD	F4207-04MSD	VN019243.D	10/10/2014

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1013WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019293.D Lab Sample ID: VN1013WBL01

Date Analyzed: 10/13/2014 Time Analyzed: 12:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1013WBS01	VN1013WBS01	VN019294.D	10/13/2014
MW8DL	F4207-08DL	VN019295.D	10/13/2014
MW11R	F4207-02	VN019296.D	10/13/2014

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN018974.D BFB Injection Date: 10/01/2014

Instrument ID: MSVOA_N BFB Injection Time: 15:41

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	48.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	74.1
175	5.0 - 9.0% of mass 174	5.5 (7.4) 1
176	95.0 - 101.0% of mass 174	72.3 (97.6) 1
177	5.0 - 9.0% of mass 176	4.6 (6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN018975.D	10/01/2014	16:16
VSTDICC005	VSTDICC005	VN018976.D	10/01/2014	16:52
VSTDICC020	VSTDICC020	VN018977.D	10/01/2014	17:24
VSTDICCC050	VSTDICCC050	VN018978.D	10/01/2014	17:53
VSTDICC100	VSTDICC100	VN018979.D	10/01/2014	18:23
VSTDICC200	VSTDICC200	VN018980.D	10/01/2014	18:53

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019221.D BFB Injection Date: 10/10/2014

Instrument ID: MSVOA_N BFB Injection Time: 09:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.8
75	30.0 - 60.0% of mass 95	49.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	75.1
175	5.0 - 9.0% of mass 174	5.6 (7.5) 1
176	95.0 - 101.0% of mass 174	72 (95.9) 1
177	5.0 - 9.0% of mass 176	4.7 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN019222.D	10/10/2014	09:45
VN1010WBL01	VN1010WBL01	VN019223.D	10/10/2014	10:22
VN1010WBS01	VN1010WBS01	VN019224.D	10/10/2014	10:57
FIELDBLANK	F4207-12	VN019225.D	10/10/2014	11:27
TRIPBLANK	F4207-11	VN019226.D	10/10/2014	11:57
MW12R	F4207-01	VN019227.D	10/10/2014	12:26
MW2	F4207-09	VN019228.D	10/10/2014	12:56
MW16	F4207-05	VN019229.D	10/10/2014	13:26
MW15	F4207-06	VN019230.D	10/10/2014	13:56
MW14	F4207-07	VN019231.D	10/10/2014	14:26
MW8	F4207-08	VN019232.D	10/10/2014	14:56
DUP	F4207-10	VN019241.D	10/10/2014	19:24
MW11RMS	F4207-03MS	VN019242.D	10/10/2014	19:54
MW11RMSD	F4207-04MSD	VN019243.D	10/10/2014	20:23

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019291.D BFB Injection Date: 10/13/2014

Instrument ID: MSVOA_N BFB Injection Time: 10:26

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	49.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	74.9
175	5.0 - 9.0% of mass 174	5.6 (7.4) 1
176	95.0 - 101.0% of mass 174	72.4 (96.7) 1
177	5.0 - 9.0% of mass 176	4.7 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN019292.D	10/13/2014	11:37
VN1013WBL01	VN1013WBL01	VN019293.D	10/13/2014	12:15
VN1013WBS01	VN1013WBS01	VN019294.D	10/13/2014	12:49
MW8DL	F4207-08DL	VN019295.D	10/13/2014	13:19
MW11R	F4207-02	VN019296.D	10/13/2014	13:49

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019222.D Date Analyzed: 10/10/2014

Instrument ID: MSVOA_N Time Analyzed: 09:45

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	804922	7.87	1300260	8.79	1204990	11.61
UPPER LIMIT	1609840	8.37	2600530	9.29	2409970	12.11
LOWER LIMIT	402461	7.37	650132	8.29	602493	11.11
EPA SAMPLE NO.						
MW12R	840390	7.87	1521120	8.79	1471230	11.61
MW11RMS	826525	7.87	1403600	8.79	1300930	11.61
MW11RMSD	743805	7.87	1281180	8.79	1208430	11.61
MW16	919785	7.87	1719110	8.79	1624500	11.61
MW15	869130	7.87	1602730	8.79	1529060	11.61
MW14	941685	7.87	1761950	8.79	1679420	11.61
MW8	957585	7.87	1703000	8.79	1633180	11.61
MW2	870479	7.87	1557640	8.79	1513330	11.61
DUP	1034760	7.87	1893470	8.79	1819620	11.61
TRIPBLANK	993078	7.87	1802610	8.79	1686280	11.61
FIELDBLANK	891141	7.87	1578640	8.79	1527530	11.61
VN1010WBL01	861476	7.87	1549300	8.79	1487080	11.61
VN1010WBS01	822914	7.87	1360270	8.79	1251590	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019222.D Date Analyzed: 10/10/2014

Instrument ID: MSVOA_N Time Analyzed: 09:45

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	559322	13.56				
UPPER LIMIT	1118640	14.06				
LOWER LIMIT	279661	13.06				
EPA SAMPLE NO.						
MW12R	614574	13.56				
MW11RMS	601244	13.56				
MW11RMSD	552084	13.56				
MW16	714183	13.56				
MW15	656445	13.56				
MW14	763178	13.56				
MW8	767273	13.56				
MW2	699908	13.56				
DUP	870349	13.56				
TRIPBLANK	716570	13.56				
FIELDBLANK	630989	13.56				
VN1010WBL01	611465	13.56				
VN1010WBS01	571684	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019292.D Date Analyzed: 10/13/2014

Instrument ID: MSVOA_N Time Analyzed: 11:37

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	769433	7.87	1281150	8.78	1180940	11.61
UPPER LIMIT	1538870	8.37	2562300	9.28	2361870	12.11
LOWER LIMIT	384717	7.37	640576	8.28	590469	11.11
EPA SAMPLE NO.						
MW11R	854620	7.87	1553080	8.79	1490500	11.61
MW8DL	940868	7.87	1719460	8.79	1650610	11.61
VN1013WBL01	902084	7.87	1620980	8.79	1538760	11.61
VN1013WBS01	762686	7.87	1282540	8.79	1159710	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: VN019292.D Date Analyzed: 10/13/2014

Instrument ID: MSVOA_N Time Analyzed: 11:37

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	552557	13.56				
UPPER LIMIT	1105110	14.06				
LOWER LIMIT	276279	13.06				
EPA SAMPLE NO.						
MW11R	633027	13.56				
MW8DL	740245	13.56				
VN1013WBL01	625007	13.56				
VN1013WBS01	527018	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBL01	SDG No.:	F4207
Lab Sample ID:	VN1010WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019223.D	1		10/10/14 10:22	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBL01	SDG No.:	F4207
Lab Sample ID:	VN1010WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019223.D	1		10/10/14 10:22	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBL01	SDG No.:	F4207
Lab Sample ID:	VN1010WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019223.D	1		10/10/14 10:22	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.8		61 - 141		98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	51		65 - 126		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.5		58 - 135		101%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	861476	7.87				
540-36-3	1,4-Difluorobenzene	1549300	8.79				
3114-55-4	Chlorobenzene-d5	1487080	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	611465	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBL01	SDG No.:	F4207
Lab Sample ID:	VN1010WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019223.D	1		10/10/14 10:22	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBL01	SDG No.:	F4207
Lab Sample ID:	VN1013WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019293.D	1		10/13/14 12:15	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBL01	SDG No.:	F4207
Lab Sample ID:	VN1013WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019293.D	1		10/13/14 12:15	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBL01	SDG No.:	F4207
Lab Sample ID:	VN1013WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019293.D	1		10/13/14 12:15	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.6		70 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		85 - 115		97%	SPK: 50
2037-26-5	Toluene-d8	50.1		85 - 120		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		75 - 120		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	902084	7.87				
540-36-3	1,4-Difluorobenzene	1620980	8.79				
3114-55-4	Chlorobenzene-d5	1538760	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	625007	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBL01	SDG No.:	F4207
Lab Sample ID:	VN1013WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019293.D	1		10/13/14 12:15	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBS01	SDG No.:	F4207
Lab Sample ID:	VN1010WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019224.D	1		10/10/14 10:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	19.1		0.2	0.2	1	ug/L
74-87-3	Chloromethane	19.6		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	21.6		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	19.7		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	19		0.2	0.2	1	ug/L
74-83-9	Bromomethane	20.4		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18.3		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	18.8		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.2		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	89.1		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	18.2		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	19.2		0.2	0.2	1	ug/L
107-02-8	Acrolein	97.6		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	93.6		1	1	5	ug/L
67-64-1	Acetone	92.8		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	17.3		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	19.1		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	18.4		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	19.7		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	19.3		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	89.7		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	18.8		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	18.9		0.2	0.2	1	ug/L
78-93-3	2-Butanone	98		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	19.5		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	19.6		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	19.4		0.2	0.5	1	ug/L
67-66-3	Chloroform	20		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	19.9		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	19.8		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBS01	SDG No.:	F4207
Lab Sample ID:	VN1010WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019224.D	1		10/10/14 10:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	20.4		0.39	0.5	1	ug/L
71-43-2	Benzene	20.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.6		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	20.7		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.1		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	20.6		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	20.3		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	100		1	1	5	ug/L
108-88-3	Toluene	20.8		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	20.5		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.9		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	20.7		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	20.7		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	92.4		1	1	5	ug/L
591-78-6	2-Hexanone	100		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	20.9		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.5		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	21.5		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	19.9		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	20.1		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	18.2		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	19.9		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	40.6		0.4	0.4	2	ug/L
95-47-6	o-Xylene	19.8		0.2	0.2	1	ug/L
100-42-5	Styrene	20.5		0.2	0.2	1	ug/L
75-25-2	Bromoform	20.3		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	18.9		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.6		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	18.4		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	18.7		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	20		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	18.9		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBS01	SDG No.:	F4207
Lab Sample ID:	VN1010WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019224.D	1		10/10/14 10:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	19.5		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	19.7		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	19.1		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	19.5		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	19.9		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	20.2		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20.1		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	19.7		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	20.3		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	19.1		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.8		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.9		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	20		0.2	0.2	1	ug/L
91-20-3	Naphthalene	17.8		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.3		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	16.7		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	17.3		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	18.3		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	19.3		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	18.1		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	20.7		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49		61 - 141		98%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		69 - 133		104%	SPK: 50
2037-26-5	Toluene-d8	52.8		65 - 126		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.6		58 - 135		109%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	822914	7.87				
540-36-3	1,4-Difluorobenzene	1360270	8.79				
3114-55-4	Chlorobenzene-d5	1251590	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	571684	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1010WBS01	SDG No.:	F4207
Lab Sample ID:	VN1010WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019224.D	1		10/10/14 10:57	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBS01	SDG No.:	F4207
Lab Sample ID:	VN1013WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019294.D	1		10/13/14 12:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	16.2		0.2	0.2	1	ug/L
74-87-3	Chloromethane	15.3		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	20.8		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	20.7		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	20		0.2	0.2	1	ug/L
74-83-9	Bromomethane	19.2		0.2	0.2	1	ug/L
75-00-3	Chloroethane	17.1		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	18.6		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.3		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	89.6		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	18.5		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	19.1		0.2	0.2	1	ug/L
107-02-8	Acrolein	69.2		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	95.1		1	1	5	ug/L
67-64-1	Acetone	95.7		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	14.7		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	19.3		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	18		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	19.3		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	18.8		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	95.3		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	19.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	18.4		0.2	0.2	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	19.7		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	20.4		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	20.4		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	18.4		0.2	0.5	1	ug/L
67-66-3	Chloroform	20.6		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	20.6		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	18.9		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBS01	SDG No.:	F4207
Lab Sample ID:	VN1013WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019294.D	1		10/13/14 12:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	20.3		0.39	0.5	1	ug/L
71-43-2	Benzene	19.7		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	20.5		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	20.8		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.2		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	20.3		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	20.8		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	100		1	1	5	ug/L
108-88-3	Toluene	20.7		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	21.3		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.7		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	20.6		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	20.8		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	85.3		1	1	5	ug/L
591-78-6	2-Hexanone	98.6		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	21.1		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.7		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	21		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	20.6		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	21.1		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	18.9		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	20.7		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	41.7		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.3		0.2	0.2	1	ug/L
100-42-5	Styrene	21.2		0.2	0.2	1	ug/L
75-25-2	Bromoform	21.1		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	19.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	17.9		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	19.8		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	20.6		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	19.4		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBS01	SDG No.:	F4207
Lab Sample ID:	VN1013WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019294.D	1		10/13/14 12:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	19.9		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	20.3		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	19.2		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	19.6		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	20.8		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	20.6		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20.8		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	20.5		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	21		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	19.5		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.1		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.5		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	21.2		0.2	0.2	1	ug/L
91-20-3	Naphthalene	17.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	20		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	18.2		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	15.3		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	17.8		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	19.9		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	18.8		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	20.8		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		70 - 120		97%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	49.6		85 - 120		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		75 - 120		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	762686	7.87				
540-36-3	1,4-Difluorobenzene	1282540	8.79				
3114-55-4	Chlorobenzene-d5	1159710	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	527018	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN1013WBS01	SDG No.:	F4207
Lab Sample ID:	VN1013WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019294.D	1		10/13/14 12:49	VN101314

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019242.D	1		10/10/14 19:54	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	46.7		0.2	0.2	1	ug/L
74-87-3	Chloromethane	44.7		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	53.1		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	47.8		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	46.3		0.2	0.2	1	ug/L
74-83-9	Bromomethane	44.9		0.2	0.2	1	ug/L
75-00-3	Chloroethane	43.9		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	45.9		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	45.3		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	230		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	46.8		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	46.9		0.2	0.2	1	ug/L
107-02-8	Acrolein	400		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	240		1	1	5	ug/L
67-64-1	Acetone	180		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	40.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	46.8		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	45.2		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	45.7		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	46.4		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	210		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	45.4		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	45		0.2	0.2	1	ug/L
78-93-3	2-Butanone	230		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	46.2		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	41.7		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	47		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	42.9		0.2	0.5	1	ug/L
67-66-3	Chloroform	48		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	47.7		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	48.6		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019242.D	1		10/10/14 19:54	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	48.3		0.39	0.5	1	ug/L
71-43-2	Benzene	47		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	46.5		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	47.6		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	49.3		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	48.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	47.7		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	270		1	1	5	ug/L
108-88-3	Toluene	50.4		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	50.7		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	49.2		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	49.4		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	49.5		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	260		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	50.4		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	50.3		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	47.8		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	47.8		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	47.7		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	42.6		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	49.4		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	99.1		0.4	0.4	2	ug/L
95-47-6	o-Xylene	48.8		0.2	0.2	1	ug/L
100-42-5	Styrene	51.1		0.2	0.2	1	ug/L
75-25-2	Bromoform	49.1		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	45.4		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	44.1		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	40.8		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	45.2		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	47.8		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	45.1		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019242.D	1		10/10/14 19:54	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	46.3		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	47		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	46		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	46		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	47.8		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	48.6		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	46.9		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	46.9		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	51.2		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	44.9		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	44.3		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	47.5		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	44.2		0.2	0.2	1	ug/L
91-20-3	Naphthalene	47.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	47.3		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	49.3		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	45.1		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	44.7		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	48.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	42.7		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	52.7		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.8		61 - 141		98%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		69 - 133		103%	SPK: 50
2037-26-5	Toluene-d8	52		65 - 126		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.8		58 - 135		110%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	826525	7.87				
540-36-3	1,4-Difluorobenzene	1403600	8.79				
3114-55-4	Chlorobenzene-d5	1300930	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	601244	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019242.D	1		10/10/14 19:54	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019243.D	1		10/10/14 20:23	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	51.6		0.2	0.2	1	ug/L
74-87-3	Chloromethane	49.8		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	56.2		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	51.1		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	53.3		0.2	0.2	1	ug/L
74-83-9	Bromomethane	52.6		0.2	0.2	1	ug/L
75-00-3	Chloroethane	48.2		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	51.6		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	49.7		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	270		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	50.8		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	51.7		0.2	0.2	1	ug/L
107-02-8	Acrolein	390		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	290		1	1	5	ug/L
67-64-1	Acetone	210		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	47.4		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	54.6		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	54.1		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	51		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	53.1		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	230		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	50.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	47.7		0.2	0.2	1	ug/L
78-93-3	2-Butanone	260		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	50.5		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	46		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	52.8		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	52.7		0.2	0.5	1	ug/L
67-66-3	Chloroform	51.9		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	51.5		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	50.6		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019243.D	1		10/10/14 20:23	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	51.5		0.39	0.5	1	ug/L
71-43-2	Benzene	51.6		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	52		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	52.7		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	52.4		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	52.8		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	52.8		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	290		1	1	5	ug/L
108-88-3	Toluene	55.6		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	56.2		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	53.7		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	56.5		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	55.1		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	300		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	55.6		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	57.4		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	51.6		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	51.3		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	52.9		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	49.3		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	54.8		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	110		0.4	0.4	2	ug/L
95-47-6	o-Xylene	53.1		0.2	0.2	1	ug/L
100-42-5	Styrene	56.1		0.2	0.2	1	ug/L
75-25-2	Bromoform	53.2		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	49.9		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	49.4		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	45.3		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	48.7		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	52.7		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	49.9		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019243.D	1		10/10/14 20:23	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	51.1		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	52.3		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	50.1		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	51.2		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	52.5		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	53.3		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	51.7		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	51.2		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	58.6		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	49.7		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	53.9		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	51.8		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	46.7		0.2	0.2	1	ug/L
91-20-3	Naphthalene	53.1		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	51.1		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	56.5		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	51.6		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	52.8		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	52.1		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	49.1		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	59.9		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.3		61 - 141		105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		69 - 133		104%	SPK: 50
2037-26-5	Toluene-d8	57.1		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.2		58 - 135		118%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	743805	7.87				
540-36-3	1,4-Difluorobenzene	1281180	8.79				
3114-55-4	Chlorobenzene-d5	1208430	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	552084	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN019243.D	1		10/10/14 20:23	VN101014

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Calibration Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN018975.D RRF005 = VN018976.D RRF020 = VN018977.D
RRF050 = VN018978.D RRF100 = VN018979.D RRF200 = VN018980.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.479	0.478	0.544	0.564	0.584	0.590	0.540	9.3
Chloromethane	0.851	0.739	0.706	0.749	0.785	0.866	0.783	8.2
Vinyl Chloride	0.772	0.714	0.700	0.722	0.751	0.762	0.737	3.9
Ethyl Acetate	0.354	0.375	0.396	0.424	0.455	0.465	0.412	10.8
Isopropyl Acetate	0.665	0.676	0.670	0.715	0.793	0.808	0.721	8.9
Bromomethane	0.355	0.332	0.319	0.355	0.383	0.378	0.354	7.1
Chloroethane	0.526	0.474	0.452	0.466	0.479	0.474	0.478	5.2
Trichlorofluoromethane	0.853	0.826	0.790	0.823	0.844	0.840	0.829	2.7
1,1,2-Trichlorotrifluoroethane	0.590	0.553	0.521	0.534	0.544	0.541	0.547	4.3
Tert butyl alcohol	0.055	0.060	0.051	0.058	0.065	0.066	0.059	9.7
Diethyl Ether	0.405	0.378	0.362	0.380	0.403	0.412	0.390	5
1,1-Dichloroethene	0.493	0.514	0.491	0.515	0.539	0.540	0.515	4.1
Acrolein	0.021	0.018	0.019	0.026	0.033	0.043	0.027	35.6
Acrylonitrile	0.250	0.237	0.240	0.275	0.305	0.309	0.269	12
Acetone	0.317	0.233	0.211	0.232	0.248	0.244	0.248	14.7
Carbon Disulfide	2.053	1.626	1.573	1.653	1.735	1.790	1.738	9.9
Methyl tert-butyl Ether	1.691	1.662	1.592	1.710	1.822	1.832	1.718	5.4
Methyl Acetate	1.784	1.801	1.752	1.963	2.130	2.144	1.929	9.2
Methylene Chloride	1.729	0.687	0.602	0.629	0.639	0.648	0.822	54.2
trans-1,2-Dichloroethene	0.586	0.541	0.519	0.547	0.575	0.578	0.557	4.7
Vinyl Acetate	0.280	0.453	0.491	0.562	0.628	0.659	0.512	27
1,1-Dichloroethane	1.199	1.188	1.099	1.140	1.186	1.190	1.167	3.4
Cyclohexane	2.154	1.324	1.133	1.164	1.187	1.184	1.358	29.1
2-Butanone	0.279	0.311	0.301	0.341	0.377	0.382	0.332	12.7
Carbon Tetrachloride	0.401	0.403	0.391	0.392	0.414	0.415	0.403	2.6
2,2-Dichloropropane	0.897	0.827	0.795	0.837	0.860	0.871	0.848	4.3
cis-1,2-Dichloroethene	0.643	0.632	0.598	0.628	0.661	0.669	0.638	4
Bromochloromethane	0.442	0.390	0.353	0.363	0.334	0.349	0.372	10.5
Chloroform	1.025	1.061	0.975	1.021	1.063	1.061	1.034	3.3
1,1,1-Trichloroethane	0.844	0.868	0.791	0.832	0.866	0.873	0.846	3.7
Methylcyclohexane	0.575	0.602	0.594	0.608	0.649	0.653	0.614	5.1
1,1-Dichloropropene	0.474	0.464	0.471	0.479	0.505	0.510	0.484	4
Benzene	1.540	1.573	1.500	1.505	1.566	1.563	1.541	2.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Calibration Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN018975.D RRF005 = VN018976.D RRF020 = VN018977.D
RRF050 = VN018978.D RRF100 = VN018979.D RRF200 = VN018980.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichloroethane	0.481	0.493	0.460	0.465	0.485	0.489	0.479	2.8
Trichloroethene	0.347	0.336	0.317	0.322	0.339	0.342	0.334	3.5
1,2-Dichloropropane	0.418	0.417	0.409	0.408	0.427	0.429	0.418	2
Dibromomethane	0.225	0.225	0.212	0.216	0.229	0.229	0.223	3.2
Bromodichloromethane	0.488	0.460	0.438	0.450	0.476	0.487	0.467	4.4
4-Methyl-2-Pentanone	0.359	0.399	0.391	0.421	0.464	0.450	0.414	9.4
Toluene	0.820	0.901	0.870	0.894	0.938	0.937	0.894	5
t-1,3-Dichloropropene	0.453	0.468	0.464	0.491	0.542	0.568	0.498	9.4
cis-1,3-Dichloropropene	0.530	0.541	0.547	0.568	0.612	0.631	0.571	7.2
1,1,2-Trichloroethane	0.357	0.337	0.320	0.324	0.345	0.342	0.337	4.1
1,3-Dichloropropane	0.588	0.617	0.581	0.585	0.624	0.622	0.603	3.3
2-Chloroethyl Vinyl ether	0.191	0.234	0.240	0.251	0.276	0.279	0.245	13.1
2-Hexanone	0.256	0.272	0.269	0.297	0.327	0.314	0.289	9.6
Dibromochloromethane	0.318	0.316	0.313	0.325	0.351	0.358	0.330	5.8
1,2-Dibromoethane	0.298	0.314	0.307	0.321	0.342	0.346	0.321	5.9
Tetrachloroethene	0.294	0.313	0.294	0.290	0.303	0.302	0.300	2.8
Chlorobenzene	1.118	1.068	0.992	1.002	1.053	1.059	1.049	4.4
1,1,1,2-Tetrachloroethane	0.337	0.355	0.320	0.326	0.341	0.344	0.337	3.8
Hexachloroethane	0.667	0.646	0.547	0.555	0.579	0.583	0.596	8.2
Ethyl Benzene	1.674	1.810	1.759	1.829	1.925	1.940	1.823	5.5
m/p-Xylenes	0.586	0.636	0.647	0.671	0.709	0.713	0.661	7.3
o-Xylene	0.609	0.663	0.638	0.665	0.702	0.696	0.662	5.3
Styrene	0.860	0.983	1.020	1.100	1.183	1.186	1.055	12
Bromoform	0.230	0.232	0.220	0.239	0.258	0.260	0.240	6.7
Isopropylbenzene	4.072	4.356	4.041	3.994	4.097	4.037	4.099	3.2
1,1,2,2-Tetrachloroethane	1.449	1.402	1.161	1.168	1.189	1.121	1.248	11.2
1,2,3-Trichloropropane	1.289	1.161	1.057	1.036	1.065	1.021	1.105	9.3
Bromobenzene	1.076	1.022	0.906	0.899	0.924	0.905	0.955	7.9
n-propylbenzene	4.400	4.639	4.648	4.702	4.881	4.869	4.690	3.8
2-Chlorotoluene	3.019	3.077	2.818	2.766	2.847	2.816	2.891	4.4
1,3,5-Trimethylbenzene	2.977	3.287	3.185	3.149	3.260	3.258	3.186	3.6
4-Chlorotoluene	2.849	2.831	2.776	2.782	2.901	2.884	2.837	1.8
tert-Butylbenzene	2.710	2.946	2.709	2.746	2.839	2.806	2.793	3.3

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Calibration Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN018975.D RRF005 = VN018976.D RRF020 = VN018977.D
RRF050 = VN018978.D RRF100 = VN018979.D RRF200 = VN018980.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2,4-Trimethylbenzene	2.975	3.298	3.201	3.203	3.322	3.312	3.218	4.1
sec-Butylbenzene	3.338	3.892	3.872	3.922	4.125	4.134	3.881	7.5
p-Isopropyltoluene	2.630	3.041	3.098	3.204	3.382	3.405	3.127	9.1
1,3-Dichlorobenzene	1.719	1.723	1.619	1.623	1.698	1.687	1.678	2.7
1,4-Dichlorobenzene	1.791	1.743	1.602	1.596	1.688	1.676	1.683	4.6
n-Butylbenzene	2.414	2.552	2.734	2.915	3.191	3.299	2.851	12.3
1,2-Dichlorobenzene	1.835	1.815	1.643	1.606	1.649	1.606	1.692	6.2
1,2-Dibromo-3-Chloropropane	0.281	0.220	0.175	0.192	0.204	0.203	0.212	17.4
1,2,4-Trichlorobenzene	0.971	0.842	0.880	0.926	0.989	1.051	0.943	8.1
Hexachlorobutadiene	0.489	0.485	0.456	0.459	0.472	0.488	0.475	3.1
Naphthalene	2.327	2.126	2.285	2.499	2.784	2.911	2.489	12.2
1,2,3-Trichlorobenzene	0.824	0.791	0.851	0.889	0.960	1.004	0.887	9.2
1,2-Dichloroethane-d4	0.725	0.674	0.728	0.688	0.666	0.701	0.697	3.7
Dibromofluoromethane	0.331	0.302	0.331	0.300	0.294	0.310	0.311	5.1
Toluene-d8	1.277	1.220	1.383	1.269	1.245	1.309	1.284	4.5
4-Bromofluorobenzene	0.459	0.384	0.461	0.436	0.445	0.469	0.442	7
N-amyl acetate	1.431	1.530	1.479	1.581	1.714	1.694	1.572	7.3
Methyl Iodide	0.464	0.498	0.500	0.565	0.595	0.534	0.526	9.2
Allyl chloride	1.005	1.059	0.953	1.034	1.058	0.964	1.012	4.5
trans-1,4-Dichloro-2-butene	0.378	0.388	0.348	0.376	0.409	0.408	0.385	6
Methacrylonitrile	0.230	0.232	0.230	0.254	0.281	0.283	0.252	10
Ethyl methacrylate	0.403	0.445	0.465	0.518	0.576	0.581	0.498	14.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/10/2014 09:45

Lab File ID: VN019222.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.540	0.547		1.3	20
Chloromethane	0.783	0.840	0.1	7.28	20
Vinyl Chloride	0.737	0.852		15.6	20
Ethyl Acetate	0.412	0.417		1.21	20
Isopropyl Acetate	0.721	0.709		-1.66	20
Bromomethane	0.354	0.392		10.73	20
Chloroethane	0.478	0.439		-8.16	20
Trichlorofluoromethane	0.829	0.808		-2.53	20
1,1,2-Trichlorotrifluoroethane	0.547	0.547		0	20
Tert butyl alcohol	0.059	0.054		-8.48	20
Diethyl Ether	0.390	0.374		-4.1	20
1,1-Dichloroethene	0.515	0.514		-0.19	20
Acrolein	0.027	0.037		37.04	20
Acrylonitrile	0.269	0.267		-0.74	20
Acetone	0.248	0.258		4.03	20
Carbon Disulfide	1.738	1.559		-10.3	20
Methyl tert-butyl Ether	1.718	1.677		-2.39	20
Methyl Acetate	1.929	1.814		-5.96	20
Methylene Chloride	0.822	0.627		-23.72	20
trans-1,2-Dichloroethene	0.557	0.558		0.18	20
Vinyl Acetate	0.512	0.516		0.78	20
1,1-Dichloroethane	1.167	1.112	0.1	-4.71	20
Cyclohexane	1.358	1.135		-16.42	20
2-Butanone	0.332	0.337		1.51	20
Carbon Tetrachloride	0.403	0.427		5.95	20
2,2-Dichloropropane	0.848	0.830		-2.12	20
cis-1,2-Dichloroethene	0.638	0.651		2.04	20
Bromochloromethane	0.372	0.355		-4.57	20
Chloroform	1.034	1.027		-0.68	20
1,1,1-Trichloroethane	0.846	0.862		1.89	20
Methylcyclohexane	0.614	0.655		6.68	20
1,1-Dichloropropene	0.484	0.532		9.92	20
Benzene	1.541	1.590		3.18	20
1,2-Dichloroethane	0.479	0.482		0.63	20
Trichloroethene	0.334	0.361		8.08	20
1,2-Dichloropropane	0.418	0.430		2.87	20
Dibromomethane	0.223	0.237		6.28	20
Bromodichloromethane	0.467	0.508		8.78	20
4-Methyl-2-Pentanone	0.414	0.418		0.97	20
Toluene	0.894	0.971		8.61	20
t-1,3-Dichloropropene	0.498	0.546		9.64	20
cis-1,3-Dichloropropene	0.571	0.638		11.73	20

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/10/2014 09:45

Lab File ID: VN019222.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.337	0.356		5.64	20
1,3-Dichloropropane	0.603	0.630		4.48	20
2-Chloroethyl Vinyl ether	0.245	0.240		-2.04	20
2-Hexanone	0.289	0.297		2.77	20
Dibromochloromethane	0.330	0.362		9.7	20
1,2-Dibromoethane	0.321	0.346		7.79	20
Tetrachloroethene	0.300	0.328		9.33	20
Chlorobenzene	1.049	1.088	0.3	3.72	20
1,1,1,2-Tetrachloroethane	0.337	0.352		4.45	20
Hexachloroethane	0.596	0.566		-5.03	20
Ethyl Benzene	1.823	1.953		7.13	20
m/p-Xylenes	0.661	0.728		10.14	20
o-Xylene	0.662	0.717		8.31	20
Styrene	1.055	1.231		16.68	20
Bromoform	0.240	0.266	0.1	10.83	20
Isopropylbenzene	4.099	4.201		2.49	20
1,1,2,2-Tetrachloroethane	1.248	1.178	0.3	-5.61	20
1,2,3-Trichloropropane	1.105	0.979		-11.4	20
Bromobenzene	0.955	0.957		0.21	20
n-propylbenzene	4.690	5.040		7.46	20
2-Chlorotoluene	2.891	2.908		0.59	20
1,3,5-Trimethylbenzene	3.186	3.341		4.86	20
4-Chlorotoluene	2.837	2.970		4.69	20
tert-Butylbenzene	2.793	2.863		2.51	20
1,2,4-Trimethylbenzene	3.218	3.335		3.64	20
sec-Butylbenzene	3.881	4.158		7.14	20
p-Isopropyltoluene	3.127	3.421		9.4	20
1,3-Dichlorobenzene	1.678	1.792		6.79	20
1,4-Dichlorobenzene	1.683	1.754		4.22	20
n-Butylbenzene	2.851	3.192		11.96	20
1,2-Dichlorobenzene	1.692	1.681		-0.65	20
1,2-Dibromo-3-Chloropropane	0.212	0.175		-17.45	20
1,2,4-Trichlorobenzene	0.943	1.000		6.05	20
Hexachlorobutadiene	0.475	0.502		5.68	20
Naphthalene	2.489	2.418		-2.85	20
1,2,3-Trichlorobenzene	0.887	0.935		5.41	20
1,2-Dichloroethane-d4	0.697	0.654		-6.17	20
Dibromofluoromethane	0.311	0.336		8.04	20
Toluene-d8	1.284	1.366		6.39	20
4-Bromofluorobenzene	0.442	0.520		17.65	20
N-amyl acetate	1.572	1.496		-4.77	20
Methyl Iodide	0.526	0.543		3.23	20

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/10/2014 09:45

Lab File ID: VN019222.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	1.012	0.956		-5.53	20
trans-1,4-Dichloro-2-butene	0.385	0.380		-1.3	20
Methacrylonitrile	0.252	0.253		0.4	20
Ethyl methacrylate	0.498	0.542		8.84	20

All other compounds must meet a minimum RRF of 0.010.

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/13/2014 11:37

Lab File ID: VN019292.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.540	0.555		2.78	20
Chloromethane	0.783	0.715	0.1	-8.69	20
Vinyl Chloride	0.737	0.866		17.5	20
Ethyl Acetate	0.412	0.485		17.72	20
Isopropyl Acetate	0.721	0.790		9.57	20
Bromomethane	0.354	0.390		10.17	20
Chloroethane	0.478	0.478		0	20
Trichlorofluoromethane	0.829	0.904		9.05	20
1,1,2-Trichlorotrifluoroethane	0.547	0.551		0.73	20
Tert butyl alcohol	0.059	0.066		11.86	20
Diethyl Ether	0.390	0.383		-1.79	20
1,1-Dichloroethene	0.515	0.518		0.58	20
Acrolein	0.027	0.023		-14.81	20
Acrylonitrile	0.269	0.292		8.55	20
Acetone	0.248	0.269		8.47	20
Carbon Disulfide	1.738	1.381		-20.54	20
Methyl tert-butyl Ether	1.718	1.828		6.4	20
Methyl Acetate	1.929	2.097		8.71	20
Methylene Chloride	0.822	0.656		-20.19	20
trans-1,2-Dichloroethene	0.557	0.557		0	20
Vinyl Acetate	0.512	0.592		15.63	20
1,1-Dichloroethane	1.167	1.199	0.1	2.74	20
Cyclohexane	1.358	1.119		-17.6	20
2-Butanone	0.332	0.405		21.99	20
Carbon Tetrachloride	0.403	0.421		4.47	20
2,2-Dichloropropane	0.848	0.977		15.21	20
cis-1,2-Dichloroethene	0.638	0.700		9.72	20
Bromochloromethane	0.372	0.405		8.87	20
Chloroform	1.034	1.142		10.44	20
1,1,1-Trichloroethane	0.846	0.904		6.86	20
Methylcyclohexane	0.614	0.638		3.91	20
1,1-Dichloropropene	0.484	0.522		7.85	20
Benzene	1.541	1.593		3.37	20
1,2-Dichloroethane	0.479	0.506		5.64	20
Trichloroethene	0.334	0.360		7.78	20
1,2-Dichloropropane	0.418	0.461		10.29	20
Dibromomethane	0.223	0.242		8.52	20
Bromodichloromethane	0.467	0.506		8.35	20
4-Methyl-2-Pentanone	0.414	0.465		12.32	20
Toluene	0.894	0.982		9.84	20
t-1,3-Dichloropropene	0.498	0.589		18.27	20
cis-1,3-Dichloropropene	0.571	0.659		15.41	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/13/2014 11:37

Lab File ID: VN019292.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.337	0.374		10.98	20
1,3-Dichloropropane	0.603	0.668		10.78	20
2-Chloroethyl Vinyl ether	0.245	0.259		5.71	20
2-Hexanone	0.289	0.343		18.68	20
Dibromochloromethane	0.330	0.373		13.03	20
1,2-Dibromoethane	0.321	0.358		11.53	20
Tetrachloroethene	0.300	0.322		7.33	20
Chlorobenzene	1.049	1.115	0.3	6.29	20
1,1,1,2-Tetrachloroethane	0.337	0.367		8.9	20
Hexachloroethane	0.596	0.599		0.5	20
Ethyl Benzene	1.823	2.008		10.15	20
m/p-Xylenes	0.661	0.737		11.5	20
o-Xylene	0.662	0.711		7.4	20
Styrene	1.055	1.224		16.02	20
Bromoform	0.240	0.268	0.1	11.67	20
Isopropylbenzene	4.099	4.151		1.27	20
1,1,2,2-Tetrachloroethane	1.248	1.205	0.3	-3.45	20
1,2,3-Trichloropropane	1.105	0.986		-10.77	20
Bromobenzene	0.955	0.957		0.21	20
n-propylbenzene	4.690	5.109		8.93	20
2-Chlorotoluene	2.891	2.940		1.7	20
1,3,5-Trimethylbenzene	3.186	3.368		5.71	20
4-Chlorotoluene	2.837	3.072		8.28	20
tert-Butylbenzene	2.793	2.886		3.33	20
1,2,4-Trimethylbenzene	3.218	3.410		5.97	20
sec-Butylbenzene	3.881	4.297		10.72	20
p-Isopropyltoluene	3.127	3.532		12.95	20
1,3-Dichlorobenzene	1.678	1.813		8.05	20
1,4-Dichlorobenzene	1.683	1.793		6.54	20
n-Butylbenzene	2.851	3.372		18.27	20
1,2-Dichlorobenzene	1.692	1.722		1.77	20
1,2-Dibromo-3-Chloropropane	0.212	0.197		-7.07	20
1,2,4-Trichlorobenzene	0.943	1.041		10.39	20
Hexachlorobutadiene	0.475	0.543		14.32	20
Naphthalene	2.489	2.512		0.92	20
1,2,3-Trichlorobenzene	0.887	0.967		9.02	20
1,2-Dichloroethane-d4	0.697	0.679		-2.58	20
Dibromofluoromethane	0.311	0.318		2.25	20
Toluene-d8	1.284	1.298		1.09	20
4-Bromofluorobenzene	0.442	0.484		9.5	20
N-amyl acetate	1.572	1.595		1.53	20
Methyl Iodide	0.526	0.535		1.71	20

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: MSVOA_N Calibration Date/Time: 10/13/2014 11:37

Lab File ID: VN019292.D Init. Calib. Date(s): 10/01/2014 10/01/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 16:16 18:53

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	1.012	1.051		3.85	20
trans-1,4-Dichloro-2-butene	0.385	0.403		4.68	20
Methacrylonitrile	0.252	0.301		19.44	20
Ethyl methacrylate	0.498	0.581		16.67	20

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	F4207	**OrderDate:**	10/8/2014 3:57:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	Denise Cosenza	**Location:**	H61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
F4207-01	**MW12R**	**Water**			**10/07/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-02	**MW11R**	**Water**			**10/07/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-05	**MW16**	**Water**			**10/07/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-06	**MW15**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-07	**MW14**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-08	**MW8**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-08DL	**MW8DL**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/13/14	
F4207-09	**MW2**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-09DL	**MW2DL**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/13/14	
F4207-10	**DUP**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/11/14	
F4207-12	**FIELDBLANK**	**Water**			**10/08/14**			**10/08/14**
			SVOC- Chemtech Full	625		10/10/14	10/10/14	

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Hit Summary Sheet
SW-846

SDG No.: F4207

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : MW15									
F4207-06	MW15	WATER	Dimethylphthalate	4.600		0.17	1.3	2.5	ug/L
F4207-06	MW15	WATER	Acenaphthene	2.300	J	0.17	1.3	2.5	ug/L
			Total Svoc :		**6.90**				
			Total Concentration:		**6.90**				
Client ID : MW14									
F4207-07	MW14	WATER	Naphthalene	2.400	J	0.19	1.3	2.5	ug/L
F4207-07	MW14	WATER	Acenaphthene	21.300		0.17	1.3	2.5	ug/L
F4207-07	MW14	WATER	Fluorene	7.000		0.15	1.3	2.5	ug/L
F4207-07	MW14	WATER	Phenanthrene	5.900		0.11	1.3	2.5	ug/L
			Total Svoc :		**36.60**				
			Total Concentration:		**36.60**				
Client ID : MW8									
F4207-08	MW8	WATER	2-Methylphenol	6.400	J	1.8	5.1	10.2	ug/L
F4207-08	MW8	WATER	2,4-Dimethylphenol	5.800		0.71	1.3	2.6	ug/L
F4207-08	MW8	WATER	Naphthalene	200.000	E	0.19	1.3	2.6	ug/L
F4207-08	MW8	WATER	1,1-Biphenyl	87.700	E	0.27	1.3	2.6	ug/L
F4207-08	MW8	WATER	Acenaphthylene	2.100	J	0.16	1.3	2.6	ug/L
F4207-08	MW8	WATER	Acenaphthene	180.000	E	0.17	1.3	2.6	ug/L
F4207-08	MW8	WATER	Dibenzofuran	120.000	E	2.2	5.1	10.2	ug/L
F4207-08	MW8	WATER	Fluorene	62.500	E	0.15	1.3	2.6	ug/L
F4207-08	MW8	WATER	Phenanthrene	39.700		0.11	1.3	2.6	ug/L
F4207-08	MW8	WATER	Carbazole	79.400	E	0.48	1.3	2.6	ug/L
			Total Svoc :		**783.60**				
			Total Concentration:		**783.60**				
Client ID : MW8DL									
F4207-08DL	MW8DL	WATER	Naphthalene	280.000	D	0.97	6.4	12.8	ug/L
F4207-08DL	MW8DL	WATER	1,1-Biphenyl	100.000	D	1.3	6.4	12.8	ug/L
F4207-08DL	MW8DL	WATER	Acenaphthene	230.000	D	0.87	6.4	12.8	ug/L
F4207-08DL	MW8DL	WATER	Dibenzofuran	160.000	D	10.8	25.5	51	ug/L
F4207-08DL	MW8DL	WATER	Fluorene	72.600	D	0.77	6.4	12.8	ug/L
F4207-08DL	MW8DL	WATER	Phenanthrene	48.900	D	0.56	6.4	12.8	ug/L
F4207-08DL	MW8DL	WATER	Carbazole	93.400	D	2.4	6.4	12.8	ug/L
			Total Svoc :		**984.90**				
			Total Concentration:		**984.90**				
Client ID : MW2									
F4207-09	MW2	WATER	Naphthalene	6.500		0.19	1.3	2.5	ug/L
F4207-09	MW2	WATER	Acenaphthene	130.000	E	0.17	1.3	2.5	ug/L

Hit Summary Sheet
SW-846

SDG No.: F4207

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
F4207-09	MW2	WATER	Dibenzofuran	73.500	E	2.1	5.1	10.1	ug/L
F4207-09	MW2	WATER	Fluorene	19.400		0.15	1.3	2.5	ug/L
F4207-09	MW2	WATER	Phenanthrene	4.000		0.11	1.3	2.5	ug/L
F4207-09	MW2	WATER	Carbazole	69.000	E	0.47	1.3	2.5	ug/L
			Total Svoc :	**302.40**					
			Total Concentration:	**302.40**					
Client ID :	**MW2DL**								
F4207-09DL	MW2DL	WATER	Acenaphthene	160.000	D	0.86	6.3	12.6	ug/L
F4207-09DL	MW2DL	WATER	Dibenzofuran	80.300	D	10.7	25.3	50.5	ug/L
F4207-09DL	MW2DL	WATER	Fluorene	18.300	D	0.76	6.3	12.6	ug/L
F4207-09DL	MW2DL	WATER	Carbazole	75.100	D	2.4	6.3	12.6	ug/L
			Total Svoc :	**333.70**					
			Total Concentration:	**333.70**					
Client ID :	**DUP**								
F4207-10	DUP	WATER	Dimethylphthalate	2.300	J	0.17	1.3	2.5	ug/L
F4207-10	DUP	WATER	Acenaphthene	19.900		0.17	1.3	2.5	ug/L
F4207-10	DUP	WATER	Fluorene	6.100		0.15	1.3	2.5	ug/L
F4207-10	DUP	WATER	Phenanthrene	4.900		0.11	1.3	2.5	ug/L
			Total Svoc :	**33.20**					
			Total Concentration:	**33.20**					

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW12R	SDG No.:	F4207
Lab Sample ID:	F4207-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074485.D	1	10/10/14 08:00	10/11/14 17:14	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW12R			SDG No.:	F4207
Lab Sample ID:	F4207-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074485.D	1	10/10/14 08:00	10/11/14 17:14	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW12R			SDG No.:	F4207
Lab Sample ID:	F4207-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074485.D	1	10/10/14 08:00	10/11/14 17:14	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.6		10 - 160		43%	SPK: 100
13127-88-3	Phenol-d6	26.6		10 - 161		27%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		25 - 124		104%	SPK: 100
321-60-8	2-Fluorobiphenyl	110		20 - 129		110%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.2		10 - 140		98%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		109%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	90602	6.73				
1146-65-2	Naphthalene-d8	369286	8.31				
15067-26-2	Acenaphthene-d10	189116	10.46				
1517-22-2	Phenanthrene-d10	335365	12.28				
1719-03-5	Chrysene-d12	326443	15.51				
1520-96-3	Perylene-d12	322872	17.16				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW12R			SDG No.:	F4207
Lab Sample ID:	F4207-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074485.D	1	10/10/14 08:00	10/11/14 17:14	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074464.D	1	10/10/14 08:00	10/11/14 05:15	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11R	SDG No.:	F4207
Lab Sample ID:	F4207-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074464.D	1	10/10/14 08:00	10/11/14 05:15	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW11R			SDG No.:	F4207
Lab Sample ID:	F4207-02			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074464.D	1	10/10/14 08:00	10/11/14 05:15	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	53.7		10 - 160		54%	SPK: 100
13127-88-3	Phenol-d6	35		10 - 161		35%	SPK: 100
4165-60-0	Nitrobenzene-d5	120		25 - 124		116%	SPK: 100
321-60-8	2-Fluorobiphenyl	130		20 - 129		126%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		10 - 140		108%	SPK: 100
1718-51-0	Terphenyl-d14	130		14 - 155		132%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	101540	6.73				
1146-65-2	Naphthalene-d8	400543	8.31				
15067-26-2	Acenaphthene-d10	206140	10.46				
1517-22-2	Phenanthrene-d10	345979	12.28				
1719-03-5	Chrysene-d12	328739	15.51				
1520-96-3	Perylene-d12	318844	17.15				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW11R			SDG No.:	F4207
Lab Sample ID:	F4207-02			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074464.D	1	10/10/14 08:00	10/11/14 05:15	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074463.D	1	10/10/14 08:00	10/11/14 04:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074463.D	1	10/10/14 08:00	10/11/14 04:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW16	SDG No.:	F4207
Lab Sample ID:	F4207-05	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074463.D	1	10/10/14 08:00	10/11/14 04:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	48.8		10 - 160		49%	SPK: 100
13127-88-3	Phenol-d6	31.8		10 - 161		32%	SPK: 100
4165-60-0	Nitrobenzene-d5	110		25 - 124		106%	SPK: 100
321-60-8	2-Fluorobiphenyl	120		20 - 129		117%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		102%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		103%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	98665	6.73				
1146-65-2	Naphthalene-d8	406467	8.31				
15067-26-2	Acenaphthene-d10	209616	10.46				
1517-22-2	Phenanthrene-d10	358977	12.28				
1719-03-5	Chrysene-d12	332256	15.51				
1520-96-3	Perylene-d12	330263	17.13				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/07/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW16			SDG No.:	F4207
Lab Sample ID:	F4207-05			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074463.D	1	10/10/14 08:00	10/11/14 04:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074462.D	1	10/10/14 08:00	10/11/14 04:18	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW15	SDG No.:	F4207
Lab Sample ID:	F4207-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074462.D	1	10/10/14 08:00	10/11/14 04:18	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	4.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	2.3	J	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW15			SDG No.:	F4207
Lab Sample ID:	F4207-06			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074462.D	1	10/10/14 08:00	10/11/14 04:18	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	35.6		10 - 160		36%	SPK: 100
13127-88-3	Phenol-d6	23.1		10 - 161		23%	SPK: 100
4165-60-0	Nitrobenzene-d5	95.5		25 - 124		95%	SPK: 100
321-60-8	2-Fluorobiphenyl	110		20 - 129		106%	SPK: 100
118-79-6	2,4,6-Tribromophenol	79.6		10 - 140		80%	SPK: 100
1718-51-0	Terphenyl-d14	96.5		14 - 155		96%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	98892	6.73				
1146-65-2	Naphthalene-d8	405985	8.31				
15067-26-2	Acenaphthene-d10	210965	10.46				
1517-22-2	Phenanthrene-d10	366450	12.28				
1719-03-5	Chrysene-d12	327230	15.51				
1520-96-3	Perylene-d12	325629	17.13				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW15			SDG No.:	F4207
Lab Sample ID:	F4207-06			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074462.D	1	10/10/14 08:00	10/11/14 04:18	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074484.D	1	10/10/14 08:00	10/11/14 16:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	2.4	J	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW14	SDG No.:	F4207
Lab Sample ID:	F4207-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074484.D	1	10/10/14 08:00	10/11/14 16:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	21.3		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	5.9		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW14			SDG No.:	F4207
Lab Sample ID:	F4207-07			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074484.D	1	10/10/14 08:00	10/11/14 16:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	41.2		10 - 160		41%	SPK: 100
13127-88-3	Phenol-d6	25.7		10 - 161		26%	SPK: 100
4165-60-0	Nitrobenzene-d5	99.8		25 - 124		100%	SPK: 100
321-60-8	2-Fluorobiphenyl	100		20 - 129		104%	SPK: 100
118-79-6	2,4,6-Tribromophenol	88.4		10 - 140		88%	SPK: 100
1718-51-0	Terphenyl-d14	93.7		14 - 155		94%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	97279	6.73				
1146-65-2	Naphthalene-d8	389608	8.31				
15067-26-2	Acenaphthene-d10	209711	10.46				
1517-22-2	Phenanthrene-d10	354263	12.28				
1719-03-5	Chrysene-d12	329511	15.51				
1520-96-3	Perylene-d12	319355	17.17				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW14			SDG No.:	F4207
Lab Sample ID:	F4207-07			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074484.D	1	10/10/14 08:00	10/11/14 16:46	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074483.D	1	10/10/14 08:00	10/11/14 16:17	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	6.4	J	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	5.8		0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	200	E	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074483.D	1	10/10/14 08:00	10/11/14 16:17	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	87.7	E	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	2.1	J	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	180	E	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	120	E	2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	62.5	E	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	39.7		0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	79.4	E	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8	SDG No.:	F4207
Lab Sample ID:	F4207-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074483.D	1	10/10/14 08:00	10/11/14 16:17	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	29.8		10 - 160		30%	SPK: 100
13127-88-3	Phenol-d6	19.8		10 - 161		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	63.2		25 - 124		63%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.4		20 - 129		68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	58.9		10 - 140		59%	SPK: 100
1718-51-0	Terphenyl-d14	67.7		14 - 155		68%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	98751	6.73				
1146-65-2	Naphthalene-d8	396550	8.31				
15067-26-2	Acenaphthene-d10	215103	10.46				
1517-22-2	Phenanthrene-d10	350880	12.28				
1719-03-5	Chrysene-d12	326794	15.51				
1520-96-3	Perylene-d12	323358	17.18				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW8			SDG No.:	F4207
Lab Sample ID:	F4207-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074483.D	1	10/10/14 08:00	10/11/14 16:17	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074509.D	5	10/10/14 08:00	10/13/14 13:38	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	13.7	UD	13.7	25.5	51	ug/L
110-86-1	Pyridine	29.9	UD	29.9	63.8	130	ug/L
100-52-7	Benzaldehyde	1.4	UD	1.4	6.4	12.8	ug/L
62-53-3	Aniline	19.7	UDQ	19.7	25.5	51	ug/L
108-95-2	Phenol	2.3	UD	2.3	6.4	12.8	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.8	UD	1.8	6.4	12.8	ug/L
95-57-8	2-Chlorophenol	0.97	UD	0.97	6.4	12.8	ug/L
95-50-1	1,2-Dichlorobenzene	1.3	UD	1.3	6.4	12.8	ug/L
541-73-1	1,3-Dichlorobenzene	0.61	UD	0.61	6.4	12.8	ug/L
106-46-7	1,4-Dichlorobenzene	0.92	UD	0.92	6.4	12.8	ug/L
100-51-6	Benzyl Alcohol	1.6	UD	1.6	6.4	12.8	ug/L
95-48-7	2-Methylphenol	9.2	UD	9.2	25.5	51	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.8	UD	1.8	6.4	12.8	ug/L
98-86-2	Acetophenone	1	UD	1	6.4	12.8	ug/L
65794-96-9	3+4-Methylphenols	3	UD	3	6.4	12.8	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.1	UD	1.1	6.4	12.8	ug/L
67-72-1	Hexachloroethane	1.3	UD	1.3	6.4	12.8	ug/L
98-95-3	Nitrobenzene	3.3	UD	3.3	6.4	12.8	ug/L
78-59-1	Isophorone	2.1	UD	2.1	6.4	12.8	ug/L
88-75-5	2-Nitrophenol	22.4	UD	22.4	25.5	51	ug/L
105-67-9	2,4-Dimethylphenol	3.6	UD	3.6	6.4	12.8	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.7	UD	5.7	6.4	12.8	ug/L
120-83-2	2,4-Dichlorophenol	16.4	UD	16.4	25.5	51	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.71	UD	0.71	6.4	12.8	ug/L
65-85-0	Benzoic acid	16.5	UD	16.5	63.8	130	ug/L
91-20-3	Naphthalene	280	D	0.97	6.4	12.8	ug/L
106-47-8	4-Chloroaniline	13.5	UD	13.5	25.5	51	ug/L
87-68-3	Hexachlorobutadiene	0.87	UD	0.87	6.4	12.8	ug/L
105-60-2	Caprolactam	10.2	UD	10.2	25.5	51	ug/L
59-50-7	4-Chloro-3-methylphenol	8.8	UD	8.8	25.5	51	ug/L
91-57-6	2-Methylnaphthalene	0.97	UD	0.97	6.4	12.8	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074509.D	5	10/10/14 08:00	10/13/14 13:38	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	7.7	UD	7.7	25.5	51	ug/L
88-06-2	2,4,6-Trichlorophenol	10.8	UD	10.8	25.5	51	ug/L
95-95-4	2,4,5-Trichlorophenol	11.6	UD	11.6	25.5	51	ug/L
92-52-4	1,1-Biphenyl	100	D	1.3	6.4	12.8	ug/L
91-58-7	2-Chloronaphthalene	0.77	UD	0.77	6.4	12.8	ug/L
88-74-4	2-Nitroaniline	21.6	UD	21.6	25.5	51	ug/L
131-11-3	Dimethylphthalate	0.87	UD	0.87	6.4	12.8	ug/L
208-96-8	Acenaphthylene	0.82	UD	0.82	6.4	12.8	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	UD	1.4	6.4	12.8	ug/L
99-09-2	3-Nitroaniline	10.3	UD	10.3	25.5	51	ug/L
83-32-9	Acenaphthene	230	D	0.87	6.4	12.8	ug/L
51-28-5	2,4-Dinitrophenol	9.6	UD	9.6	63.8	130	ug/L
100-02-7	4-Nitrophenol	19.7	UD	19.7	25.5	51	ug/L
132-64-9	Dibenzofuran	160	D	10.8	25.5	51	ug/L
121-14-2	2,4-Dinitrotoluene	10.8	UD	10.8	25.5	51	ug/L
84-66-2	Diethylphthalate	0.51	UD	0.51	6.4	12.8	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	UD	1.4	6.4	12.8	ug/L
86-73-7	Fluorene	72.6	D	0.77	6.4	12.8	ug/L
100-01-6	4-Nitroaniline	12.7	UD	12.7	6.4	12.8	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	9.5	UD	9.5	25.5	51	ug/L
86-30-6	n-Nitrosodiphenylamine	4.1	UD	4.1	6.4	12.8	ug/L
103-33-3	Azobenzene	1.1	UD	1.1	6.4	12.8	ug/L
101-55-3	4-Bromophenyl-phenylether	2.1	UD	2.1	6.4	12.8	ug/L
118-74-1	Hexachlorobenzene	1.1	UD	1.1	6.4	12.8	ug/L
1912-24-9	Atrazine	2.9	UD	2.9	6.4	12.8	ug/L
87-86-5	Pentachlorophenol	13.7	UD	13.7	25.5	51	ug/L
85-01-8	Phenanthrene	48.9	D	0.56	6.4	12.8	ug/L
120-12-7	Anthracene	1.5	UD	1.5	6.4	12.8	ug/L
86-74-8	Carbazole	93.4	D	2.4	6.4	12.8	ug/L
84-74-2	Di-n-butylphthalate	3	UD	3	6.4	12.8	ug/L
206-44-0	Fluoranthene	4.3	UD	4.3	6.4	12.8	ug/L
92-87-5	Benzidine	44.3	UD	44.3	63.8	130	ug/L
129-00-0	Pyrene	0.66	UD	0.66	6.4	12.8	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW8DL	SDG No.:	F4207
Lab Sample ID:	F4207-08DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074509.D	5	10/10/14 08:00	10/13/14 13:38	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.1	UD	1.1	6.4	12.8	ug/L
91-94-1	3,3-Dichlorobenzidine	18.3	UD	18.3	25.5	51	ug/L
56-55-3	Benzo(a)anthracene	0.61	UD	0.61	6.4	12.8	ug/L
218-01-9	Chrysene	1.2	UD	1.2	6.4	12.8	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.5	UD	1.5	6.4	12.8	ug/L
117-84-0	Di-n-octyl phthalate	1.6	UD	1.6	6.4	12.8	ug/L
205-99-2	Benzo(b)fluoranthene	0.87	UD	0.87	6.4	12.8	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	UD	1.4	6.4	12.8	ug/L
50-32-8	Benzo(a)pyrene	0.87	UD	0.87	6.4	12.8	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	3.4	UD	3.4	6.4	12.8	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	UD	1.4	6.4	12.8	ug/L
191-24-2	Benzo(g,h,i)perylene	0.66	UD	0.66	6.4	12.8	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.9	UD	1.9	6.4	12.8	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	25.5	UD	25.5	25.5	51	ug/L
123-91-1	1,4-Dioxane	25.5	UDQ	25.5	25.5	51	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	31.4		10 - 160		31%	SPK: 100
13127-88-3	Phenol-d6	20.4		10 - 161		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	68.8		25 - 124		69%	SPK: 100
321-60-8	2-Fluorobiphenyl	78.7		20 - 129		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	62.9		10 - 140		63%	SPK: 100
1718-51-0	Terphenyl-d14	78.5		14 - 155		78%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	74787	6.63				
1146-65-2	Naphthalene-d8	301294	8.22				
15067-26-2	Acenaphthene-d10	158249	10.37				
1517-22-2	Phenanthrene-d10	251383	12.17				
1719-03-5	Chrysene-d12	237706	15.41				
1520-96-3	Perylene-d12	226318	17.1				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW8DL			SDG No.:	F4207
Lab Sample ID:	F4207-08DL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074509.D	5	10/10/14 08:00	10/13/14 13:38	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074481.D	1	10/10/14 08:00	10/11/14 15:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	6.5		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2	SDG No.:	F4207
Lab Sample ID:	F4207-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074481.D	1	10/10/14 08:00	10/11/14 15:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	130	E	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	73.5	E	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	19.4		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	4		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	69	E	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW2			SDG No.:	F4207
Lab Sample ID:	F4207-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074481.D	1	10/10/14 08:00	10/11/14 15:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	14.8		10 - 160		15%	SPK: 100
13127-88-3	Phenol-d6	9	*	10 - 161		9%	SPK: 100
4165-60-0	Nitrobenzene-d5	54.2		25 - 124		54%	SPK: 100
321-60-8	2-Fluorobiphenyl	63.4		20 - 129		63%	SPK: 100
118-79-6	2,4,6-Tribromophenol	37.2		10 - 140		37%	SPK: 100
1718-51-0	Terphenyl-d14	69.5		14 - 155		69%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	91900	6.73				
1146-65-2	Naphthalene-d8	379373	8.31				
15067-26-2	Acenaphthene-d10	189659	10.46				
1517-22-2	Phenanthrene-d10	320949	12.28				
1719-03-5	Chrysene-d12	309763	15.51				
1520-96-3	Perylene-d12	307058	17.16				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW2			SDG No.:	F4207
Lab Sample ID:	F4207-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074481.D	1	10/10/14 08:00	10/11/14 15:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2DL	SDG No.:	F4207
Lab Sample ID:	F4207-09DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074510.D	5	10/10/14 08:00	10/13/14 14:06	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	13.5	UD	13.5	25.3	50.5	ug/L
110-86-1	Pyridine	29.6	UD	29.6	63.1	130	ug/L
100-52-7	Benzaldehyde	1.4	UD	1.4	6.3	12.6	ug/L
62-53-3	Aniline	19.5	UDQ	19.5	25.3	50.5	ug/L
108-95-2	Phenol	2.3	UD	2.3	6.3	12.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.8	UD	1.8	6.3	12.6	ug/L
95-57-8	2-Chlorophenol	0.96	UD	0.96	6.3	12.6	ug/L
95-50-1	1,2-Dichlorobenzene	1.3	UD	1.3	6.3	12.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.61	UD	0.61	6.3	12.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.91	UD	0.91	6.3	12.6	ug/L
100-51-6	Benzyl Alcohol	1.6	UD	1.6	6.3	12.6	ug/L
95-48-7	2-Methylphenol	9.1	UD	9.1	25.3	50.5	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.8	UD	1.8	6.3	12.6	ug/L
98-86-2	Acetophenone	1	UD	1	6.3	12.6	ug/L
65794-96-9	3+4-Methylphenols	2.9	UD	2.9	6.3	12.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.1	UD	1.1	6.3	12.6	ug/L
67-72-1	Hexachloroethane	1.3	UD	1.3	6.3	12.6	ug/L
98-95-3	Nitrobenzene	3.3	UD	3.3	6.3	12.6	ug/L
78-59-1	Isophorone	2.1	UD	2.1	6.3	12.6	ug/L
88-75-5	2-Nitrophenol	22.2	UD	22.2	25.3	50.5	ug/L
105-67-9	2,4-Dimethylphenol	3.5	UD	3.5	6.3	12.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.6	UD	5.6	6.3	12.6	ug/L
120-83-2	2,4-Dichlorophenol	16.2	UD	16.2	25.3	50.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.71	UD	0.71	6.3	12.6	ug/L
65-85-0	Benzoic acid	16.3	UD	16.3	63.1	130	ug/L
91-20-3	Naphthalene	0.96	UD	0.96	6.3	12.6	ug/L
106-47-8	4-Chloroaniline	13.3	UD	13.3	25.3	50.5	ug/L
87-68-3	Hexachlorobutadiene	0.86	UD	0.86	6.3	12.6	ug/L
105-60-2	Caprolactam	10.1	UD	10.1	25.3	50.5	ug/L
59-50-7	4-Chloro-3-methylphenol	8.7	UD	8.7	25.3	50.5	ug/L
91-57-6	2-Methylnaphthalene	0.96	UD	0.96	6.3	12.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2DL	SDG No.:	F4207
Lab Sample ID:	F4207-09DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074510.D	5	10/10/14 08:00	10/13/14 14:06	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	7.6	UD	7.6	25.3	50.5	ug/L
88-06-2	2,4,6-Trichlorophenol	10.7	UD	10.7	25.3	50.5	ug/L
95-95-4	2,4,5-Trichlorophenol	11.5	UD	11.5	25.3	50.5	ug/L
92-52-4	1,1-Biphenyl	1.3	UD	1.3	6.3	12.6	ug/L
91-58-7	2-Chloronaphthalene	0.76	UD	0.76	6.3	12.6	ug/L
88-74-4	2-Nitroaniline	21.4	UD	21.4	25.3	50.5	ug/L
131-11-3	Dimethylphthalate	0.86	UD	0.86	6.3	12.6	ug/L
208-96-8	Acenaphthylene	0.81	UD	0.81	6.3	12.6	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	UD	1.4	6.3	12.6	ug/L
99-09-2	3-Nitroaniline	10.2	UD	10.2	25.3	50.5	ug/L
83-32-9	Acenaphthene	160	D	0.86	6.3	12.6	ug/L
51-28-5	2,4-Dinitrophenol	9.5	UD	9.5	63.1	130	ug/L
100-02-7	4-Nitrophenol	19.5	UD	19.5	25.3	50.5	ug/L
132-64-9	Dibenzofuran	80.3	D	10.7	25.3	50.5	ug/L
121-14-2	2,4-Dinitrotoluene	10.7	UD	10.7	25.3	50.5	ug/L
84-66-2	Diethylphthalate	0.51	UD	0.51	6.3	12.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	UD	1.4	6.3	12.6	ug/L
86-73-7	Fluorene	18.3	D	0.76	6.3	12.6	ug/L
100-01-6	4-Nitroaniline	12.6	UD	12.6	6.3	12.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	9.4	UD	9.4	25.3	50.5	ug/L
86-30-6	n-Nitrosodiphenylamine	4	UD	4	6.3	12.6	ug/L
103-33-3	Azobenzene	1.1	UD	1.1	6.3	12.6	ug/L
101-55-3	4-Bromophenyl-phenylether	2.1	UD	2.1	6.3	12.6	ug/L
118-74-1	Hexachlorobenzene	1.1	UD	1.1	6.3	12.6	ug/L
1912-24-9	Atrazine	2.8	UD	2.8	6.3	12.6	ug/L
87-86-5	Pentachlorophenol	13.6	UD	13.6	25.3	50.5	ug/L
85-01-8	Phenanthrene	0.56	UD	0.56	6.3	12.6	ug/L
120-12-7	Anthracene	1.5	UD	1.5	6.3	12.6	ug/L
86-74-8	Carbazole	75.1	D	2.4	6.3	12.6	ug/L
84-74-2	Di-n-butylphthalate	3	UD	3	6.3	12.6	ug/L
206-44-0	Fluoranthene	4.2	UD	4.2	6.3	12.6	ug/L
92-87-5	Benzidine	43.8	UD	43.8	63.1	130	ug/L
129-00-0	Pyrene	0.66	UD	0.66	6.3	12.6	ug/L

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW2DL	SDG No.:	F4207
Lab Sample ID:	F4207-09DL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074510.D	5	10/10/14 08:00	10/13/14 14:06	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.1	UD	1.1	6.3	12.6	ug/L
91-94-1	3,3-Dichlorobenzidine	18.1	UD	18.1	25.3	50.5	ug/L
56-55-3	Benzo(a)anthracene	0.61	UD	0.61	6.3	12.6	ug/L
218-01-9	Chrysene	1.2	UD	1.2	6.3	12.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.5	UD	1.5	6.3	12.6	ug/L
117-84-0	Di-n-octyl phthalate	1.6	UD	1.6	6.3	12.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.86	UD	0.86	6.3	12.6	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	UD	1.4	6.3	12.6	ug/L
50-32-8	Benzo(a)pyrene	0.86	UD	0.86	6.3	12.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	3.3	UD	3.3	6.3	12.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	UD	1.4	6.3	12.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.66	UD	0.66	6.3	12.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.9	UD	1.9	6.3	12.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	25.3	UD	25.3	25.3	50.5	ug/L
123-91-1	1,4-Dioxane	25.3	UDQ	25.3	25.3	50.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	14.5		10 - 160		14%	SPK: 100
13127-88-3	Phenol-d6	8.4	*	10 - 161		8%	SPK: 100
4165-60-0	Nitrobenzene-d5	57.4		25 - 124		57%	SPK: 100
321-60-8	2-Fluorobiphenyl	69.5		20 - 129		69%	SPK: 100
118-79-6	2,4,6-Tribromophenol	33.7		10 - 140		34%	SPK: 100
1718-51-0	Terphenyl-d14	77		14 - 155		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	68711	6.63				
1146-65-2	Naphthalene-d8	268614	8.22				
15067-26-2	Acenaphthene-d10	135255	10.37				
1517-22-2	Phenanthrene-d10	233683	12.17				
1719-03-5	Chrysene-d12	218412	15.4				
1520-96-3	Perylene-d12	220349	17.04				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	MW2DL			SDG No.:	F4207
Lab Sample ID:	F4207-09DL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074510.D	5	10/10/14 08:00	10/13/14 14:06	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074477.D	1	10/10/14 08:00	10/11/14 11:23	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	UQ	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074477.D	1	10/10/14 08:00	10/11/14 11:23	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	2.3	J	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	19.9		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	6.1		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	4.9		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	DUP	SDG No.:	F4207
Lab Sample ID:	F4207-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074477.D	1	10/10/14 08:00	10/11/14 11:23	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	27.9		10 - 160		28%	SPK: 100
13127-88-3	Phenol-d6	16.5		10 - 161		17%	SPK: 100
4165-60-0	Nitrobenzene-d5	65.7		25 - 124		66%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.9		20 - 129		74%	SPK: 100
118-79-6	2,4,6-Tribromophenol	65.1		10 - 140		65%	SPK: 100
1718-51-0	Terphenyl-d14	62.2		14 - 155		62%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	106465	6.73				
1146-65-2	Naphthalene-d8	421239	8.31				
15067-26-2	Acenaphthene-d10	219697	10.46				
1517-22-2	Phenanthrene-d10	395780	12.28				
1719-03-5	Chrysene-d12	358238	15.51				
1520-96-3	Perylene-d12	346584	17.15				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	DUP			SDG No.:	F4207
Lab Sample ID:	F4207-10			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074477.D	1	10/10/14 08:00	10/11/14 11:23	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074456.D	1	10/10/14 08:00	10/10/14 23:49	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.8	U	2.8	5.2	10.3	ug/L
110-86-1	Pyridine	6.1	U	6.1	12.9	25.8	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	4	UQ	4	5.2	10.3	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.2	U	0.2	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.9	U	1.9	5.2	10.3	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.21	U	0.21	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.6	U	0.6	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.23	U	0.23	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.67	U	0.67	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.2	10.3	ug/L
105-67-9	2,4-Dimethylphenol	0.72	U	0.72	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.2	10.3	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.9	25.8	ug/L
91-20-3	Naphthalene	0.2	U	0.2	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.2	10.3	ug/L
87-68-3	Hexachlorobutadiene	0.18	U	0.18	1.3	2.6	ug/L
105-60-2	Caprolactam	2.1	U	2.1	5.2	10.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.2	10.3	ug/L
91-57-6	2-Methylnaphthalene	0.2	U	0.2	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074456.D	1	10/10/14 08:00	10/10/14 23:49	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.2	10.3	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.2	10.3	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.2	10.3	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.4	U	4.4	5.2	10.3	ug/L
131-11-3	Dimethylphthalate	0.18	U	0.18	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.2	10.3	ug/L
83-32-9	Acenaphthene	0.18	U	0.18	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.9	25.8	ug/L
100-02-7	4-Nitrophenol	4	U	4	5.2	10.3	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.2	10.3	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.2	10.3	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.6	U	2.6	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.2	10.3	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.23	U	0.23	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.23	U	0.23	1.3	2.6	ug/L
1912-24-9	Atrazine	0.58	U	0.58	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.8	U	2.8	5.2	10.3	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.61	U	0.61	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.87	U	0.87	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.9	25.8	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/08/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	FIELDBLANK	SDG No.:	F4207
Lab Sample ID:	F4207-12	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074456.D	1	10/10/14 08:00	10/10/14 23:49	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.23	U	0.23	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.2	10.3	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.25	U	0.25	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.18	U	0.18	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.18	U	0.18	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.68	U	0.68	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.2	U	5.2	5.2	10.3	ug/L
123-91-1	1,4-Dioxane	5.2	UQ	5.2	5.2	10.3	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	24.8		10 - 160		25%	SPK: 100
13127-88-3	Phenol-d6	15.4		10 - 161		15%	SPK: 100
4165-60-0	Nitrobenzene-d5	69.8		25 - 124		70%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.3		20 - 129		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	62.6		10 - 140		63%	SPK: 100
1718-51-0	Terphenyl-d14	83.8		14 - 155		84%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	103241	6.73				
1146-65-2	Naphthalene-d8	420811	8.31				
15067-26-2	Acenaphthene-d10	225283	10.46				
1517-22-2	Phenanthrene-d10	382050	12.28				
1719-03-5	Chrysene-d12	354830	15.51				
1520-96-3	Perylene-d12	345465	17.13				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	10/08/14
Project:	Avalon- WP9			Date Received:	10/08/14
Client Sample ID:	FIELDBLANK			SDG No.:	F4207
Lab Sample ID:	F4207-12			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	970	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074456.D	1	10/10/14 08:00	10/10/14 23:49	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
F4207-01	MW12R	2-Fluorophenol	100	42.55	43		10	160
		Phenol-d6	100	26.58	27		10	161
		Nitrobenzene-d5	100	104.28	104		25	124
		2-Fluorobiphenyl	100	110.32	110		20	129
		2,4,6-Tribromophenol	100	98.15	98		10	140
		Terphenyl-d14	100	108.81	109		14	155
F4207-02	MW11R	2-Fluorophenol	100	53.70	54		10	160
		Phenol-d6	100	34.96	35		10	161
		Nitrobenzene-d5	100	115.86	116		25	124
		2-Fluorobiphenyl	100	126.42	126		20	129
		2,4,6-Tribromophenol	100	108.08	108		10	140
		Terphenyl-d14	100	131.87	132		14	155
F4207-03MS	MW11RMS	2-Fluorophenol	100	54.95	55		10	160
		Phenol-d6	100	36.12	36		10	161
		Nitrobenzene-d5	100	117.16	117		25	124
		2-Fluorobiphenyl	100	121.29	121		20	129
		2,4,6-Tribromophenol	100	104.59	105		10	140
		Terphenyl-d14	100	127.17	127		14	155
F4207-04MSD	MW11RMSD	2-Fluorophenol	100	53.94	54		10	160
		Phenol-d6	100	35.51	36		10	161
		Nitrobenzene-d5	100	119.05	119		25	124
		2-Fluorobiphenyl	100	121.95	122		20	129
		2,4,6-Tribromophenol	100	104.14	104		10	140
		Terphenyl-d14	100	112.84	113		14	155
F4207-05	MW16	2-Fluorophenol	100	48.83	49		10	160
		Phenol-d6	100	31.75	32		10	161
		Nitrobenzene-d5	100	105.81	106		25	124
		2-Fluorobiphenyl	100	116.93	117		20	129
		2,4,6-Tribromophenol	100	101.95	102		10	140
		Terphenyl-d14	100	103.29	103		14	155
F4207-06	MW15	2-Fluorophenol	100	35.55	36		10	160
		Phenol-d6	100	23.13	23		10	161
		Nitrobenzene-d5	100	95.50	95		25	124
		2-Fluorobiphenyl	100	105.90	106		20	129
		2,4,6-Tribromophenol	100	79.58	80		10	140
		Terphenyl-d14	100	96.50	96		14	155
F4207-07	MW14	2-Fluorophenol	100	41.22	41		10	160
		Phenol-d6	100	25.70	26		10	161
		Nitrobenzene-d5	100	99.77	100		25	124
		2-Fluorobiphenyl	100	103.76	104		20	129
		2,4,6-Tribromophenol	100	88.44	88		10	140
		Terphenyl-d14	100	93.67	94		14	155
F4207-08	MW8	2-Fluorophenol	100	29.79	30		10	160
		Phenol-d6	100	19.80	20		10	161
		Nitrobenzene-d5	100	63.16	63		25	124
		2-Fluorobiphenyl	100	68.37	68		20	129
		2,4,6-Tribromophenol	100	58.93	59		10	140
		Terphenyl-d14	100	67.67	68		14	155
F4207-08DL	MW8DL	2-Fluorophenol	100	31.35	31		10	160
		Phenol-d6	100	20.35	20		10	161
		Nitrobenzene-d5	100	68.80	69		25	124
		2-Fluorobiphenyl	100	78.65	79		20	129

Surrogate Summary

SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
F4207-08DL	MW8DL	2,4,6-Tribromophenol	100	62.85	63		10	140
		Terphenyl-d14	100	78.45	78		14	155
F4207-09	MW2	2-Fluorophenol	100	14.84	15		10	160
		Phenol-d6	100	8.98	9	*	10	161
		Nitrobenzene-d5	100	54.17	54		25	124
		2-Fluorobiphenyl	100	63.37	63		20	129
		2,4,6-Tribromophenol	100	37.17	37		10	140
		Terphenyl-d14	100	69.49	69		14	155
F4207-09DL	MW2DL	2-Fluorophenol	100	14.45	14		10	160
		Phenol-d6	100	8.40	8	*	10	161
		Nitrobenzene-d5	100	57.35	57		25	124
		2-Fluorobiphenyl	100	69.45	69		20	129
		2,4,6-Tribromophenol	100	33.70	34		10	140
		Terphenyl-d14	100	77.00	77		14	155
F4207-10	DUP	2-Fluorophenol	100	27.90	28		10	160
		Phenol-d6	100	16.54	17		10	161
		Nitrobenzene-d5	100	65.67	66		25	124
		2-Fluorobiphenyl	100	73.91	74		20	129
		2,4,6-Tribromophenol	100	65.06	65		10	140
		Terphenyl-d14	100	62.18	62		14	155
F4207-12	FIELDBLANK	2-Fluorophenol	100	24.78	25		10	160
		Phenol-d6	100	15.43	15		10	161
		Nitrobenzene-d5	100	69.82	70		25	124
		2-Fluorobiphenyl	100	73.30	73		20	129
		2,4,6-Tribromophenol	100	62.60	63		10	140
		Terphenyl-d14	100	83.75	84		14	155
PB79509BL	PB79509BL	2-Fluorophenol	100	56.46	56		10	160
		Phenol-d6	100	56.90	57		10	161
		Nitrobenzene-d5	100	63.01	63		25	124
		2-Fluorobiphenyl	100	67.93	68		20	129
		2,4,6-Tribromophenol	100	55.63	56		10	140
		Terphenyl-d14	100	79.53	80		14	155
PB79509BS	PB79509BS	2-Fluorophenol	100	56.43	56		10	160
		Phenol-d6	100	56.97	57		10	161
		Nitrobenzene-d5	100	59.58	60		25	124
		2-Fluorobiphenyl	100	68.39	68		20	129
		2,4,6-Tribromophenol	100	58.86	59		10	140
		Terphenyl-d14	100	81.77	82		14	155

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: F4207-03MS	**Client Sample ID: MW11RMS**						**DataFile: BF074465.D**				
n-Nitrosodimethylamine	50	0	16	ug/L	32				10	160	
Pyridine	50	0	16.9	ug/L	34				10	145	
Benzaldehyde	50	0	16.9	ug/L	34				10	160	
Aniline	50	0	5.6	ug/L	11	*			50	150	
Phenol	50	0	12.9	ug/L	26				5	112	
bis(2-Chloroethyl)ether	50	0	40.9	ug/L	82				12	158	
2-Chlorophenol	50	0	33	ug/L	66				23	134	
1,2-Dichlorobenzene	50	0	37.1	ug/L	74				32	129	
1,3-Dichlorobenzene	50	0	36.5	ug/L	73				1	172	
1,4-Dichlorobenzene	50	0	35.8	ug/L	72				20	124	
Benzyl Alcohol	50	0	28.2	ug/L	56				10	145	
2-Methylphenol	50	0	28.2	ug/L	56				10	152	
2,2-oxybis(1-Chloropropane)	50	0	38.4	ug/L	77				36	166	
Acetophenone	50	0	39.1	ug/L	78				50	135	
3+4-Methylphenols	50	0	25.6	ug/L	51				10	152	
N-Nitroso-di-n-propylamine	50	0	41.6	ug/L	83				1	230	
Hexachloroethane	50	0	37.2	ug/L	74				40	113	
Nitrobenzene	50	0	38.7	ug/L	77				35	180	
Isophorone	50	0	41.6	ug/L	83				21	196	
2-Nitrophenol	50	0	46	ug/L	92				29	182	
2,4-Dimethylphenol	50	0	34.4	ug/L	69				32	119	
bis(2-Chloroethoxy)methane	50	0	46.7	ug/L	93				33	184	
2,4-Dichlorophenol	50	0	40.7	ug/L	81				39	135	
1,2,4-Trichlorobenzene	50	0	39.2	ug/L	78				44	142	
Benzoic acid	50	0	17	ug/L	34				10	145	
Naphthalene	50	0	40.7	ug/L	81				21	133	
4-Chloroaniline	50	0	9.1	ug/L	18				10	157	
Hexachlorobutadiene	50	0	39	ug/L	78				24	116	
Caprolactam	50	0	7.9	ug/L	16				10	161	
4-Chloro-3-methylphenol	50	0	36	ug/L	72				22	147	
2-Methylnaphthalene	50	0	43.6	ug/L	87				41	130	
Hexachlorocyclopentadiene	100	0	89.3	ug/L	89				10	218	
2,4,6-Trichlorophenol	50	0	39.6	ug/L	79				37	144	
2,4,5-Trichlorophenol	50	0	40.9	ug/L	82				10	136	
1,1-Biphenyl	50	0	40.1	ug/L	80				51	126	
2-Chloronaphthalene	50	0	41.6	ug/L	83				60	118	
2-Nitroaniline	50	0	38.5	ug/L	77				46	154	
Dimethylphthalate	50	0	44.9	ug/L	90				1	112	
Acenaphthylene	50	0	43.2	ug/L	86				33	145	
2,6-Dinitrotoluene	50	0	44.9	ug/L	90				50	158	
3-Nitroaniline	50	0	15	ug/L	30				10	152	
Acenaphthene	50	0	45.1	ug/L	90				47	145	
2,4-Dinitrophenol	100	0	81.8	ug/L	82				1	191	
4-Nitrophenol	100	0	28.4	ug/L	28				1	132	
Dibenzofuran	50	0	43.4	ug/L	87				44	140	
2,4-Dinitrotoluene	50	0	46.8	ug/L	94				39	139	
Diethylphthalate	50	0	45.2	ug/L	90				1	114	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
4-Chlorophenyl-phenylether	50	0	46.4	ug/L	93				25	158	
Fluorene	50	0	44.3	ug/L	89				59	121	
4-Nitroaniline	50	0	35.8	ug/L	72				45	160	
4,6-Dinitro-2-methylphenol	50	0	45.6	ug/L	91				1	181	
N-Nitrosodiphenylamine	50	0	39.7	ug/L	79				59	137	
Azobenzene	50	0	42.1	ug/L	84				70	124	
4-Bromophenyl-phenylether	50	0	47	ug/L	94				53	127	
Hexachlorobenzene	50	0	44	ug/L	88				1	152	
Atrazine	50	0	39.6	ug/L	79				59	152	
Pentachlorophenol	100	0	71.5	ug/L	72				14	176	
Phenanthrene	50	0	44.8	ug/L	90				54	120	
Anthracene	50	0	46.3	ug/L	93				27	133	
Carbazole	50	0	43	ug/L	86				51	160	
Di-n-butylphthalate	50	0	50	ug/L	100				1	118	
Fluoranthene	50	0	44.5	ug/L	89				26	137	
Benzidine	100	0	0	ug/L	0	*			10	159	
Pyrene	50	0	46.9	ug/L	94				52	115	
Butylbenzylphthalate	50	0	55.5	ug/L	111				1	152	
3,3-Dichlorobenzidine	50	0	12.5	ug/L	25				1	262	
Benzo(a)anthracene	50	0	47.6	ug/L	95				33	143	
Chrysene	50	0	49.5	ug/L	99				17	168	
bis(2-Ethylhexyl)phthalate	50	0	57.8	ug/L	116				8	158	
Di-n-octyl phthalate	50	0	57.9	ug/L	116				4	146	
Benzo(b)fluoranthene	50	0	53.4	ug/L	107				24	159	
Benzo(k)fluoranthene	50	0	39.5	ug/L	79				11	162	
Benzo(a)pyrene	50	0	46.2	ug/L	92				17	163	
Indeno(1,2,3-cd)pyrene	50	0	43	ug/L	86				1	171	
Dibenz(a,h)anthracene	50	0	45.2	ug/L	90				1	227	
Benzo(g,h,i)perylene	50	0	42.1	ug/L	84				1	219	
1,2,4,5-Tetrachlorobenzene	50	0	43.2	ug/L	86				70	130	
2,3,4,6-Tetrachlorophenol	50	0	43.2	ug/L	86				70	130	
1,4-Dioxane	50	0	18.5	ug/L	37	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: F4207-04MSD	**Client Sample ID: MW11RMSD**						**DataFile: BF074466.D**				
n-Nitrosodimethylamine	50	0	17.2	ug/L	34		6		10	160	20
Pyridine	50	0	16.5	ug/L	33		3		10	145	20
Benzaldehyde	50	0	25.8	ug/L	52		42	*	10	160	20
Aniline	50	0	14.1	ug/L	28	*	87	*	50	150	20
Phenol	50	0	12.9	ug/L	26		0		5	112	20
bis(2-Chloroethyl)ether	50	0	41.8	ug/L	84		2		12	158	20
2-Chlorophenol	50	0	32.7	ug/L	65		2		23	134	20
1,2-Dichlorobenzene	50	0	37.1	ug/L	74		0		32	129	20
1,3-Dichlorobenzene	50	0	37.3	ug/L	75		3		1	172	20
1,4-Dichlorobenzene	50	0	37.7	ug/L	75		4		20	124	20
Benzyl Alcohol	50	0	28.9	ug/L	58		4		10	145	20
2-Methylphenol	50	0	27.6	ug/L	55		2		10	152	20
2,2-oxybis(1-Chloropropane)	50	0	40.8	ug/L	82		6		36	166	20
Acetophenone	50	0	38.9	ug/L	78		0		50	135	20
3+4-Methylphenols	50	0	26.4	ug/L	53		4		10	152	20
N-Nitroso-di-n-propylamine	50	0	41.5	ug/L	83		0		1	230	20
Hexachloroethane	50	0	38.3	ug/L	77		4		40	113	20
Nitrobenzene	50	0	39.3	ug/L	79		3		35	180	20
Isophorone	50	0	41.7	ug/L	83		0		21	196	20
2-Nitrophenol	50	0	45.9	ug/L	92		0		29	182	20
2,4-Dimethylphenol	50	0	36.8	ug/L	74		7		32	119	20
bis(2-Chloroethoxy)methane	50	0	47.1	ug/L	94		1		33	184	20
2,4-Dichlorophenol	50	0	40.7	ug/L	81		0		39	135	20
1,2,4-Trichlorobenzene	50	0	40.2	ug/L	80		3		44	142	20
Benzoic acid	50	0	16.6	ug/L	33		3		10	145	20
Naphthalene	50	0	41	ug/L	82		1		21	133	20
4-Chloroaniline	50	0	13.9	ug/L	28		43	*	10	157	20
Hexachlorobutadiene	50	0	39.7	ug/L	79		1		24	116	20
Caprolactam	50	0	7.5	ug/L	15		6		10	161	20
4-Chloro-3-methylphenol	50	0	34.9	ug/L	70		3		22	147	20
2-Methylnaphthalene	50	0	42.4	ug/L	85		2		41	130	20
Hexachlorocyclopentadiene	100	0	90	ug/L	90		1		10	218	20
2,4,6-Trichlorophenol	50	0	40.5	ug/L	81		3		37	144	20
2,4,5-Trichlorophenol	50	0	38.9	ug/L	78		5		10	136	20
1,1-Biphenyl	50	0	38.3	ug/L	77		4		51	126	20
2-Chloronaphthalene	50	0	41.2	ug/L	82		1		60	118	20
2-Nitroaniline	50	0	37.5	ug/L	75		3		46	154	20
Dimethylphthalate	50	0	42.6	ug/L	85		6		1	112	20
Acenaphthylene	50	0	42.2	ug/L	84		2		33	145	20
2,6-Dinitrotoluene	50	0	44	ug/L	88		2		50	158	20
3-Nitroaniline	50	0	21.6	ug/L	43		36	*	10	152	20
Acenaphthene	50	0	43.6	ug/L	87		3		47	145	20
2,4-Dinitrophenol	100	0	86.7	ug/L	87		6		1	191	20
4-Nitrophenol	100	0	28.7	ug/L	29		4		1	132	20
Dibenzofuran	50	0	42.5	ug/L	85		2		44	140	20
2,4-Dinitrotoluene	50	0	45.9	ug/L	92		2		39	139	20
Diethylphthalate	50	0	43.4	ug/L	87		3		1	114	20

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
4-Chlorophenyl-phenylether	50	0	46.3	ug/L	93		0		25	158	20
Fluorene	50	0	42.8	ug/L	86		3		59	121	20
4-Nitroaniline	50	0	34.1	ug/L	68		6		45	160	20
4,6-Dinitro-2-methylphenol	50	0	47.6	ug/L	95		4		1	181	20
N-Nitrosodiphenylamine	50	0	41	ug/L	82		4		59	137	20
Azobenzene	50	0	41.5	ug/L	83		1		70	124	20
4-Bromophenyl-phenylether	50	0	46	ug/L	92		2		53	127	20
Hexachlorobenzene	50	0	43.8	ug/L	88		0		1	152	20
Atrazine	50	0	25.1	ug/L	50	*	45	*	59	152	20
Pentachlorophenol	100	0	70.8	ug/L	71		1		14	176	20
Phenanthrene	50	0	43.2	ug/L	86		5		54	120	20
Anthracene	50	0	44.5	ug/L	89		4		27	133	20
Carbazole	50	0	40.8	ug/L	82		5		51	160	20
Di-n-butylphthalate	50	0	47.2	ug/L	94		6		1	118	20
Fluoranthene	50	0	43	ug/L	86		3		26	137	20
Benzidine	100	0	0	ug/L	0	*	0		10	159	20
Pyrene	50	0	47.8	ug/L	96		2		52	115	20
Butylbenzylphthalate	50	0	55	ug/L	110		1		1	152	20
3,3-Dichlorobenzidine	50	0	16.8	ug/L	34		31	*	1	262	20
Benzo(a)anthracene	50	0	47.3	ug/L	95		0		33	143	20
Chrysene	50	0	48.4	ug/L	97		2		17	168	20
bis(2-Ethylhexyl)phthalate	50	0	56.3	ug/L	113		3		8	158	20
Di-n-octyl phthalate	50	0	57.7	ug/L	115		1		4	146	20
Benzo(b)fluoranthene	50	0	42.4	ug/L	85		23	*	24	159	20
Benzo(k)fluoranthene	50	0	50.5	ug/L	101		24	*	11	162	20
Benzo(a)pyrene	50	0	44.5	ug/L	89		3		17	163	20
Indeno(1,2,3-cd)pyrene	50	0	42.2	ug/L	84		2		1	171	20
Dibenz(a,h)anthracene	50	0	44.4	ug/L	89		1		1	227	20
Benzo(g,h,i)perylene	50	0	41.9	ug/L	84		0		1	219	20
1,2,4,5-Tetrachlorobenzene	50	0	42.1	ug/L	84		2		70	130	20
2,3,4,6-Tetrachlorophenol	50	0	42	ug/L	84		2		70	130	20
1,4-Dioxane	50	0	39.4	ug/L	79		72	*	70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF074461.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Qual	Limits Low	Limits High	RPD
PB79509BS	n-Nitrosodimethylamine	50	27.3	ug/L	55				10	156	
	Pyridine	50	34	ug/L	68				55	145	
	Benzaldehyde	50	26.5	ug/L	53				10	161	
	Aniline	50	20.7	ug/L	41			*	50	150	
	Phenol	50	33	ug/L	66				5	112	
	bis(2-Chloroethyl)ether	50	38.4	ug/L	77				12	158	
	2-Chlorophenol	50	34.6	ug/L	69				23	134	
	1,2-Dichlorobenzene	50	36.4	ug/L	73				32	129	
	1,3-Dichlorobenzene	50	36.3	ug/L	73				1	172	
	1,4-Dichlorobenzene	50	36	ug/L	72				20	124	
	Benzyl Alcohol	50	35.7	ug/L	71				10	156	
	2-Methylphenol	50	34.7	ug/L	69				15	153	
	2,2-oxybis(1-Chloropropane)	50	35.1	ug/L	70				36	166	
	Acetophenone	50	34.3	ug/L	69				21	128	
	3+4-Methylphenols	50	36.2	ug/L	72				10	156	
	N-Nitroso-di-n-propylamine	50	36.8	ug/L	74				1	230	
	Hexachloroethane	50	36.3	ug/L	73				40	113	
	Nitrobenzene	50	33.3	ug/L	67				35	180	
	Isophorone	50	35.2	ug/L	70				21	196	
	2-Nitrophenol	50	41	ug/L	82				29	182	
	2,4-Dimethylphenol	50	37.1	ug/L	74				32	119	
	bis(2-Chloroethoxy)methane	50	40.7	ug/L	81				33	184	
	2,4-Dichlorophenol	50	38.7	ug/L	77				39	135	
	1,2,4-Trichlorobenzene	50	37.1	ug/L	74				44	142	
	Benzoic acid	50	34.8	ug/L	70				10	159	
	Naphthalene	50	37.3	ug/L	75				21	133	
	4-Chloroaniline	50	20.8	ug/L	42				10	156	
	Hexachlorobutadiene	50	36.6	ug/L	73				24	116	
	Caprolactam	50	38.4	ug/L	77				10	160	
	4-Chloro-3-methylphenol	50	37.6	ug/L	75				22	147	
	2-Methylnaphthalene	50	38.5	ug/L	77				25	124	
	Hexachlorocyclopentadiene	100	85.8	ug/L	86				10	143	
	2,4,6-Trichlorophenol	50	36	ug/L	72				37	144	
	2,4,5-Trichlorophenol	50	37.7	ug/L	75				41	120	
	1,1-Biphenyl	50	35.9	ug/L	72				20	125	
	2-Chloronaphthalene	50	38	ug/L	76				60	118	
	2-Nitroaniline	50	34	ug/L	68				38	131	
	Dimethylphthalate	50	38.8	ug/L	78				1	112	
	Acenaphthylene	50	39.2	ug/L	78				33	145	
	2,6-Dinitrotoluene	50	39.2	ug/L	78				50	158	
	3-Nitroaniline	50	30.4	ug/L	61				24	126	
	Acenaphthene	50	40.1	ug/L	80				47	145	
	2,4-Dinitrophenol	100	73.2	ug/L	73				1	191	
	4-Nitrophenol	100	71.2	ug/L	71				1	132	
	Dibenzofuran	50	39.6	ug/L	79				29	125	
	2,4-Dinitrotoluene	50	41.1	ug/L	82				39	139	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F4207

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF074461.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB79509BS	Diethylphthalate	50	40.9	ug/L	82				1	114	
	4-Chlorophenyl-phenylether	50	42.7	ug/L	85				25	158	
	Fluorene	50	39.5	ug/L	79				59	121	
	4-Nitroaniline	50	38	ug/L	76				50	137	
	4,6-Dinitro-2-methylphenol	50	41.1	ug/L	82				1	181	
	N-Nitrosodiphenylamine	50	38.1	ug/L	76				37	139	
	Azobenzene	50	38.7	ug/L	77				45	134	
	4-Bromophenyl-phenylether	50	40.5	ug/L	81				53	127	
	Hexachlorobenzene	50	39.8	ug/L	80				1	152	
	Atrazine	50	39.9	ug/L	80				51	130	
	Pentachlorophenol	100	62.2	ug/L	62				14	176	
	Phenanthrene	50	38.7	ug/L	77				54	120	
	Anthracene	50	40.7	ug/L	81				27	133	
	Carbazole	50	36.9	ug/L	74				60	125	
	Di-n-butylphthalate	50	41.3	ug/L	83				1	118	
	Fluoranthene	50	37.4	ug/L	75				26	137	
	Benzidine	100	29.1	ug/L	29				10	158	
	Pyrene	50	46.8	ug/L	94				52	115	
	Butylbenzylphthalate	50	50.5	ug/L	101				1	152	
	3,3-Dichlorobenzidine	50	30.6	ug/L	61				1	262	
	Benzo(a)anthracene	50	43.1	ug/L	86				33	143	
	Chrysene	50	46.5	ug/L	93				17	168	
	bis(2-Ethylhexyl)phthalate	50	53.3	ug/L	107				8	158	
	Di-n-octyl phthalate	50	52.7	ug/L	105				4	146	
	Benzo(b)fluoranthene	50	39	ug/L	78				24	159	
	Benzo(k)fluoranthene	50	47.2	ug/L	94				11	162	
	Benzo(a)pyrene	50	42.5	ug/L	85				17	163	
	Indeno(1,2,3-cd)pyrene	50	39.4	ug/L	79				1	171	
	Dibenz(a,h)anthracene	50	40.6	ug/L	81				1	227	
	Benzo(g,h,i)perylene	50	37.6	ug/L	75				1	219	
	1,2,4,5-Tetrachlorobenzene	50	39.2	ug/L	78				70	130	
	2,3,4,6-Tetrachlorophenol	50	39.7	ug/L	79				70	130	
	1,4-Dioxane	50	34.6	ug/L	69		*		70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB79509BL

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074460.D Lab Sample ID: PB79509BL

Instrument ID: BNA_F Date Extracted: 10/10/2014

Matrix: (soil/water) Water Date Analyzed: 10/11/2014

Level: (low/med) LOW Time Analyzed: 03:21

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB79509BS	PB79509BS	BF074461.D	10/11/2014
DUP	F4207-10	BF074477.D	10/11/2014
MW2	F4207-09	BF074481.D	10/11/2014
MW8	F4207-08	BF074483.D	10/11/2014
MW14	F4207-07	BF074484.D	10/11/2014
MW12R	F4207-01	BF074485.D	10/11/2014
MW11R	F4207-02	BF074464.D	10/11/2014
MW15	F4207-06	BF074462.D	10/11/2014
MW16	F4207-05	BF074463.D	10/11/2014
MW11RMS	F4207-03MS	BF074465.D	10/11/2014
MW11RMSD	F4207-04MSD	BF074466.D	10/11/2014
FIELDBLANK	F4207-12	BF074456.D	10/10/2014

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074056.D DFTPP Injection Date: 09/29/2014

Instrument ID: BNA_F DFTPP Injection Time: 13:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.2
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	38.4
70	Less than 2.0% of mass 69	0.5 (1.2) 1
127	10.0 - 80.0% of mass 198	50.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	22.9
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	11.3
442	Greater than 50% of mass 198	67.3
443	15.0 - 24.0% of mass 442	12.1 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF074060.D	09/29/2014	16:55
SSTDICC010	SSTDICC010	BF074061.D	09/29/2014	17:52
SSTDICC025	SSTDICC025	BF074062.D	09/29/2014	18:21
SSTDICCC040	SSTDICCC040	BF074063.D	09/29/2014	18:50
SSTDICC050	SSTDICC050	BF074064.D	09/29/2014	19:19
SSTDICC060	SSTDICC060	BF074065.D	09/29/2014	19:48
SSTDICC080	SSTDICC080	BF074066.D	09/29/2014	20:17

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074436.D DFTPP Injection Date: 10/10/2014

Instrument ID: BNA_F DFTPP Injection Time: 13:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	29.4
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	33.4
70	Less than 2.0% of mass 69	0.4 (1.2) 1
127	10.0 - 80.0% of mass 198	49.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	21
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	10.3
442	Greater than 50% of mass 198	65.7
443	15.0 - 24.0% of mass 442	11.7 (17.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF074437.D	10/10/2014	14:46
FIELDBLANK	F4207-12	BF074456.D	10/10/2014	23:49

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074458.D DFTPP Injection Date: 10/11/2014

Instrument ID: BNA_F DFTPP Injection Time: 01:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.4
68	Less than 2.0% of mass 69	0.5 (1.4) 1
69	Mass 69 relative abundance	33.7
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	49.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 60.0% of mass 198	21.3
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	10.6
442	Greater than 50% of mass 198	69.4
443	15.0 - 24.0% of mass 442	13.4 (19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF074459.D	10/11/2014	02:25
PB79509BL	PB79509BL	BF074460.D	10/11/2014	03:21
PB79509BS	PB79509BS	BF074461.D	10/11/2014	03:50
MW15	F4207-06	BF074462.D	10/11/2014	04:18
MW16	F4207-05	BF074463.D	10/11/2014	04:46
MW11R	F4207-02	BF074464.D	10/11/2014	05:15
MW11RMS	F4207-03MS	BF074465.D	10/11/2014	05:43
MW11RMSD	F4207-04MSD	BF074466.D	10/11/2014	06:11
DUP	F4207-10	BF074477.D	10/11/2014	11:23

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074479.D DFTPP Injection Date: 10/11/2014

Instrument ID: BNA_F DFTPP Injection Time: 13:28

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	29.8
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	33.6
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	49.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 60.0% of mass 198	21.5
365	Greater than 1% of mass 198	1.6
441	Present, but less than mass 443	10.5
442	Greater than 50% of mass 198	67.9
443	15.0 - 24.0% of mass 442	13.5 (19.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF074480.D	10/11/2014	14:52
MW2	F4207-09	BF074481.D	10/11/2014	15:21
MW8	F4207-08	BF074483.D	10/11/2014	16:17
MW14	F4207-07	BF074484.D	10/11/2014	16:46
MW12R	F4207-01	BF074485.D	10/11/2014	17:14

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F4207 SDG NO.: F4207

Lab File ID: BF074507.D DFTPP Injection Date: 10/13/2014

Instrument ID: BNA_F DFTPP Injection Time: 11:05

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	27.9
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.3
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	45.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	20
365	Greater than 1% of mass 198	1.8
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	65.7
443	15.0 - 24.0% of mass 442	11.4 (17.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF074508.D	10/13/2014	11:38
MW8DL	F4207-08DL	BF074509.D	10/13/2014	13:38
MW2DL	F4207-09DL	BF074510.D	10/13/2014	14:06

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/10/2014

Lab File ID: BF074437.D Time Analyzed: 14:46

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	95428	6.73	374281	8.31	199083	10.47
	UPPER LIMIT	190856	7.23	748562	8.81	398166	10.97
	LOWER LIMIT	47714	6.23	187141	7.81	99541.5	9.97
	EPA SAMPLE NO.						
01	FIELDBLANK	103241	6.73	420811	8.31	225283	10.46

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/10/2014

Lab File ID: BF074437.D Time Analyzed: 14:46

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	350453	12.28	328298	15.52	317206	17.17
	UPPER LIMIT	700906	12.78	656596	16.02	634412	17.67
	LOWER LIMIT	175227	11.78	164149	15.02	158603	16.67
	EPA SAMPLE NO.						
01	FIELDBLANK	382050	12.28	354830	15.51	345465	17.13

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/11/2014

Lab File ID: BF074459.D Time Analyzed: 02:25

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	101227	6.73	408795	8.31	220321	10.46
	UPPER LIMIT	202454	7.23	817590	8.81	440642	10.96
	LOWER LIMIT	50613.5	6.23	204398	7.81	110161	9.96
	EPA SAMPLE NO.						
01	MW11R	101540	6.73	400543	8.31	206140	10.46
02	MW11RMS	98703	6.73	400919	8.31	207730	10.46
03	DUP	106465	6.73	421239	8.31	219697	10.46
04	PB79509BL	102106	6.73	401821	8.31	207052	10.46
05	MW11RMSD	106164	6.73	436915	8.31	227828	10.46
06	MW16	98665	6.73	406467	8.31	209616	10.46
07	MW15	98892	6.73	405985	8.31	210965	10.46
08	PB79509BS	108463	6.73	453211	8.31	228265	10.46

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/11/2014

Lab File ID: BF074459.D Time Analyzed: 02:25

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	370973	12.28	341635	15.51	316541	17.15
	UPPER LIMIT	741946	12.78	683270	16.01	633082	17.65
	LOWER LIMIT	185487	11.78	170818	15.01	158271	16.65
	EPA SAMPLE NO.						
01	MW11R	345979	12.28	328739	15.51	318844	17.15
02	MW11RMS	348299	12.28	331743	15.51	318536	17.15
03	DUP	395780	12.28	358238	15.51	346584	17.15
04	PB79509BL	357734	12.28	321633	15.51	306244	17.13
05	MW11RMSD	379046	12.28	343677	15.51	330397	17.13
06	MW16	358977	12.28	332256	15.51	330263	17.13
07	MW15	366450	12.28	327230	15.51	325629	17.13
08	PB79509BS	394905	12.28	329484	15.51	324067	17.13

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/11/2014

Lab File ID: BF074480.D Time Analyzed: 14:52

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	91536	6.73	373267	8.31	199250	10.46
	UPPER LIMIT	183072	7.23	746534	8.81	398500	10.96
	LOWER LIMIT	45768	6.23	186634	7.81	99625	9.96
	EPA SAMPLE NO.						
01	MW14	97279	6.73	389608	8.31	209711	10.46
02	MW8	98751	6.73	396550	8.31	215103	10.46
03	MW2	91900	6.73	379373	8.31	189659	10.46
04	MW12R	90602	6.73	369286	8.31	189116	10.46

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/11/2014

Lab File ID: BF074480.D Time Analyzed: 14:52

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	336194	12.28	313765	15.51	303961	17.13
	UPPER LIMIT	672388	12.78	627530	16.01	607922	17.63
	LOWER LIMIT	168097	11.78	156883	15.01	151981	16.63
	EPA SAMPLE NO.						
01	MW14	354263	12.28	329511	15.51	319355	17.17
02	MW8	350880	12.28	326794	15.51	323358	17.18
03	MW2	320949	12.28	309763	15.51	307058	17.16
04	MW12R	335365	12.28	326443	15.51	322872	17.16

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/13/2014

Lab File ID: BF074508.D Time Analyzed: 11:38

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	107940	6.65	437677	8.24	229290	10.39
	UPPER LIMIT	215880	7.15	875354	8.74	458580	10.89
	LOWER LIMIT	53970	6.15	218839	7.74	114645	9.89
	EPA SAMPLE NO.						
01	MW8DL	74787	6.63	301294	8.22	158249	10.37
02	MW2DL	68711	6.63	268614	8.22	135255	10.37

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG NO.: F4207

EPA Sample No.: SSTDCCC040 Date Analyzed: 10/13/2014

Lab File ID: BF074508.D Time Analyzed: 11:38

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	392435	12.2	375706	15.43	359892	17.1
	UPPER LIMIT	784870	12.7	751412	15.93	719784	17.6
	LOWER LIMIT	196218	11.7	187853	14.93	179946	16.6
	EPA SAMPLE NO.						
01	MW8DL	251383	12.17	237706	15.41	226318	17.10
02	MW2DL	233683	12.17	218412	15.40	220349	17.04

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB79509BL	SDG No.:	F4207
Lab Sample ID:	PB79509BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074460.D	1	10/10/14 08:00	10/11/14 03:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB79509BL	SDG No.:	F4207
Lab Sample ID:	PB79509BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074460.D	1	10/10/14 08:00	10/11/14 03:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB79509BL	SDG No.:	F4207
Lab Sample ID:	PB79509BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074460.D	1	10/10/14 08:00	10/11/14 03:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	U	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	56.5		10 - 160		56%	SPK: 100
13127-88-3	Phenol-d6	56.9		10 - 161		57%	SPK: 100
4165-60-0	Nitrobenzene-d5	63		25 - 124		63%	SPK: 100
321-60-8	2-Fluorobiphenyl	67.9		20 - 129		68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	55.6		10 - 140		56%	SPK: 100
1718-51-0	Terphenyl-d14	79.5		14 - 155		80%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	102106	6.73				
1146-65-2	Naphthalene-d8	401821	8.31				
15067-26-2	Acenaphthene-d10	207052	10.46				
1517-22-2	Phenanthrene-d10	357734	12.28				
1719-03-5	Chrysene-d12	321633	15.51				
1520-96-3	Perylene-d12	306244	17.13				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB79509BL			SDG No.:	F4207
Lab Sample ID:	PB79509BL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074460.D	1	10/10/14 08:00	10/11/14 03:21	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB79509BS	SDG No.:	F4207
Lab Sample ID:	PB79509BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074461.D	1	10/10/14 08:00	10/11/14 03:50	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	27.3		2.7	5	10	ug/L
110-86-1	Pyridine	34		5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	26.5		0.28	1.3	2.5	ug/L
62-53-3	Aniline	20.7		3.9	5	10	ug/L
108-95-2	Phenol	33		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	38.4		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	34.6		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	36.4		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	36.3		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	36		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	35.7		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	34.7		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	35.1		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	34.3		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	36.2		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	36.8		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	36.3		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	33.3		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	35.2		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	41		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	37.1		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	40.7		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	38.7		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	37.1		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	34.8		3.2	12.5	25	ug/L
91-20-3	Naphthalene	37.3		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	20.8		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	36.6		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	38.4		2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	37.6		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	38.5		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB79509BS	SDG No.:	F4207
Lab Sample ID:	PB79509BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074461.D	1	10/10/14 08:00	10/11/14 03:50	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	85.8	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	36		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	37.7		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	35.9		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	38		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	34		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	38.8		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	39.2		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	39.2		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	30.4		2	5	10	ug/L
83-32-9	Acenaphthene	40.1		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	73.2	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	71.2	E	3.9	5	10	ug/L
132-64-9	Dibenzofuran	39.6		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	41.1		2.1	5	10	ug/L
84-66-2	Diethylphthalate	40.9		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	42.7		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	39.5		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	38		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	41.1		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	38.1		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	38.7		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	40.5		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	39.8		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	39.9		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	62.2	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	38.7		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	40.7		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	36.9		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	41.3		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	37.4		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	29.1		8.7	12.5	25	ug/L
129-00-0	Pyrene	46.8		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB79509BS			SDG No.:	F4207
Lab Sample ID:	PB79509BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074461.D	1	10/10/14 08:00	10/11/14 03:50	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	50.5		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	30.6		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	43.1		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	46.5		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	53.3		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	52.7		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	39		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	47.2		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	42.5		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	39.4		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	40.6		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	37.6		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	39.2		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	39.7		5	5	10	ug/L
123-91-1	1,4-Dioxane	34.6		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	56.4		10 - 160		56%	SPK: 100
13127-88-3	Phenol-d6	57		10 - 161		57%	SPK: 100
4165-60-0	Nitrobenzene-d5	59.6		25 - 124		60%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.4		20 - 129		68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	58.9		10 - 140		59%	SPK: 100
1718-51-0	Terphenyl-d14	81.8		14 - 155		82%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	108463	6.73				
1146-65-2	Naphthalene-d8	453211	8.31				
15067-26-2	Acenaphthene-d10	228265	10.46				
1517-22-2	Phenanthrene-d10	394905	12.28				
1719-03-5	Chrysene-d12	329484	15.51				
1520-96-3	Perylene-d12	324067	17.13				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB79509BS			SDG No.:	F4207
Lab Sample ID:	PB79509BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074461.D	1	10/10/14 08:00	10/11/14 03:50	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074465.D	1	10/10/14 08:00	10/11/14 05:43	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	16		2.7	5	10	ug/L
110-86-1	Pyridine	16.9	J	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	16.9		0.28	1.3	2.5	ug/L
62-53-3	Aniline	5.6	J	3.9	5	10	ug/L
108-95-2	Phenol	12.9		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	40.9		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	33		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	37.1		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	36.5		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	35.8		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	28.2		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	28.2		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	38.4		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	39.1		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	25.6		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	41.6		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	37.2		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	38.7		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	41.6		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	46		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	34.4		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	46.7		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	40.7		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	39.2		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	17	J	3.2	12.5	25	ug/L
91-20-3	Naphthalene	40.7		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	9.1	J	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	39		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	7.9	J	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	36		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	43.6		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074465.D	1	10/10/14 08:00	10/11/14 05:43	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	89.3	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	39.6		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	40.9		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	40.1		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	41.6		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	38.5		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	44.9		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	43.2		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	44.9		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	15		2	5	10	ug/L
83-32-9	Acenaphthene	45.1		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	81.8	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	28.4		3.9	5	10	ug/L
132-64-9	Dibenzofuran	43.4		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	46.8		2.1	5	10	ug/L
84-66-2	Diethylphthalate	45.2		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	46.4		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	44.3		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	35.8		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	45.6		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	39.7		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	42.1		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	47		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	44		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	39.6		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	71.5	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	44.8		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	46.3		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	43		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	50		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	44.5		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	46.9		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074465.D	1	10/10/14 08:00	10/11/14 05:43	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	55.5		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	12.5		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	47.6		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	49.5		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	57.8		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	57.9		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	53.4		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	39.5		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	46.2		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	43		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	45.2		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	42.1		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	43.2		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	43.2		5	5	10	ug/L
123-91-1	1,4-Dioxane	18.5		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	55		10 - 160		55%	SPK: 100
13127-88-3	Phenol-d6	36.1		10 - 161		36%	SPK: 100
4165-60-0	Nitrobenzene-d5	120		25 - 124		117%	SPK: 100
321-60-8	2-Fluorobiphenyl	120		20 - 129		121%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		105%	SPK: 100
1718-51-0	Terphenyl-d14	130		14 - 155		127%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	98703	6.73				
1146-65-2	Naphthalene-d8	400919	8.31				
15067-26-2	Acenaphthene-d10	207730	10.46				
1517-22-2	Phenanthrene-d10	348299	12.28				
1719-03-5	Chrysene-d12	331743	15.51				
1520-96-3	Perylene-d12	318536	17.15				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMS	SDG No.:	F4207
Lab Sample ID:	F4207-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074465.D	1	10/10/14 08:00	10/11/14 05:43	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074466.D	1	10/10/14 08:00	10/11/14 06:11	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	17.2		2.7	5	10	ug/L
110-86-1	Pyridine	16.5	J	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	25.8		0.28	1.3	2.5	ug/L
62-53-3	Aniline	14.1		3.9	5	10	ug/L
108-95-2	Phenol	12.9		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	41.8		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	32.7		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	37.1		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	37.3		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	37.7		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	28.9		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	27.6		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	40.8		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	38.9		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	26.4		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	41.5		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	38.3		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	39.3		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	41.7		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	45.9		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	36.8		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	47.1		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	40.7		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	40.2		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	16.6	J	3.2	12.5	25	ug/L
91-20-3	Naphthalene	41		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	13.9		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	39.7		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	7.5	J	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	34.9		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	42.4		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074466.D	1	10/10/14 08:00	10/11/14 06:11	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	90	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	40.5		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	38.9		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	38.3		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	41.2		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	37.5		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	42.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	42.2		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	44		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	21.6		2	5	10	ug/L
83-32-9	Acenaphthene	43.6		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	86.7	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	28.7		3.9	5	10	ug/L
132-64-9	Dibenzofuran	42.5		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	45.9		2.1	5	10	ug/L
84-66-2	Diethylphthalate	43.4		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	46.3		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	42.8		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	34.1		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	47.6		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	41		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	41.5		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	46		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	43.8		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	25.1		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	70.8	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	43.2		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	44.5		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	40.8		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	47.2		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	43		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	47.8		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074466.D	1	10/10/14 08:00	10/11/14 06:11	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	55		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	16.8		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	47.3		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	48.4		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	56.3		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	57.7		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	42.4		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	50.5		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	44.5		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	42.2		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	44.4		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	41.9		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	42.1		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	42		5	5	10	ug/L
123-91-1	1,4-Dioxane	39.4		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	53.9		10 - 160		54%	SPK: 100
13127-88-3	Phenol-d6	35.5		10 - 161		36%	SPK: 100
4165-60-0	Nitrobenzene-d5	120		25 - 124		119%	SPK: 100
321-60-8	2-Fluorobiphenyl	120		20 - 129		122%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		10 - 140		104%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		113%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	106164	6.73				
1146-65-2	Naphthalene-d8	436915	8.31				
15067-26-2	Acenaphthene-d10	227828	10.46				
1517-22-2	Phenanthrene-d10	379046	12.28				
1719-03-5	Chrysene-d12	343677	15.51				
1520-96-3	Perylene-d12	330397	17.13				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	10/07/14
Project:	Avalon- WP9	Date Received:	10/08/14
Client Sample ID:	MW11RMSD	SDG No.:	F4207
Lab Sample ID:	F4207-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF074466.D	1	10/10/14 08:00	10/11/14 06:11	PB79509

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date(s): 09/29/2014 09/29/2014

Calibration Time(s): 16:55 20:17

LAB FILE ID: RRF2.5 = BF074060.D RRF010 = BF074061.D RRF025 = BF074062.D
RRF040 = BF074063.D RRF050 = BF074064.D RRF060 = BF074065.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
n-Nitrosodimethylamine		0.495	0.517	0.470	0.503	0.507	0.503	3.9
Pyridine		1.246	1.365	1.259	1.408	1.322	1.372	10.3
2-Fluorophenol	1.511	1.313	1.452	1.433	1.405	1.429	1.429	4.3
Benzaldehyde	1.140	1.018	1.125	1.052	1.001	0.947	1.027	8.5
Aniline	2.531	2.219	2.410	2.321	2.216	2.258	2.317	5.0
Phenol-d6	1.753	1.597	1.842	1.799	1.718	1.697	1.732	4.5
Phenol	2.041	1.857	2.017	1.931	1.839	1.868	1.947	5.0
bis(2-Chloroethyl)ether	1.443	1.195	1.350	1.370	1.379	1.405	1.374	6.6
2-Chlorophenol	1.520	1.342	1.473	1.418	1.418	1.445	1.442	4.0
1,2-Dichlorobenzene	1.525	1.380	1.504	1.438	1.377	1.431	1.446	3.9
1,3-Dichlorobenzene	1.605	1.415	1.567	1.563	1.509	1.549	1.538	4.0
1,4-Dichlorobenzene	1.592	1.506	1.580	1.582	1.552	1.530	1.562	2.1
Benzyl Alcohol	1.261	1.007	1.165	1.168	1.137	1.156	1.146	6.6
2-Methylphenol	1.342	1.120	1.186	1.197	1.104	1.133	1.179	6.8
2,2-oxybis(1-Chloropropane)	2.016	1.682	1.897	1.886	1.808	1.834	1.860	5.5
Acetophenone	0.509	0.473	0.533	0.510	0.510	0.508	0.503	4.3
3+4-Methylphenols	1.505	1.367	1.561	1.529	1.457	1.481	1.492	4.4
n-Nitroso-di-n-propylamine	1.010	0.904	0.985	1.016	0.971	0.993	0.987	4.2
Nitrobenzene-d5	0.345	0.302	0.372	0.357	0.354	0.353	0.343	6.9
Hexachloroethane	0.505	0.502	0.546	0.540	0.521	0.531	0.529	4.0
Nitrobenzene	0.369	0.330	0.390	0.404	0.401	0.397	0.378	7.4
Isophorone	0.699	0.609	0.683	0.666	0.696	0.697	0.674	4.7
2-Nitrophenol	0.131	0.121	0.152	0.157	0.163	0.164	0.151	11.7
2,4-Dimethylphenol	0.332	0.274	0.317	0.313	0.322	0.312	0.309	6.3
bis(2-Chloroethoxy)methane	0.397	0.355	0.389	0.390	0.401	0.405	0.389	4.3
2,4-Dichlorophenol	0.245	0.226	0.259	0.261	0.267	0.274	0.256	6.3
1,2,4-Trichlorobenzene	0.288	0.255	0.302	0.292	0.295	0.296	0.287	5.4
Benzoic acid		0.076	0.126	0.140	0.153	0.161	0.137	24.4
Naphthalene	1.091	0.956	1.032	1.018	1.020	1.030	1.016	4.4
4-Chloroaniline	0.462	0.397	0.443	0.446	0.434	0.434	0.430	5.7
Hexachlorobutadiene	0.162	0.134	0.156	0.146	0.151	0.147	0.149	6.1
Caprolactam	0.073	0.070	0.086	0.084	0.085	0.086	0.081	8.1
4-Chloro-3-methylphenol	0.291	0.242	0.279	0.279	0.273	0.280	0.274	5.5
2-Methylnaphthalene	0.692	0.575	0.638	0.618	0.627	0.622	0.624	5.9
Hexachlorocyclopentadiene		0.068	0.132	0.165	0.176	0.186	0.153	30.8
2,4,6-Trichlorophenol	0.368	0.315	0.356	0.351	0.355	0.355	0.349	4.8

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date(s): 09/29/2014 09/29/2014

Calibration Time(s): 16:55 20:17

LAB FILE ID: RRF2.5 = BF074060.D RRF010 = BF074061.D RRF025 = BF074062.D
RRF040 = BF074063.D RRF050 = BF074064.D RRF060 = BF074065.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
2-Fluorobiphenyl	1.314	1.203	1.301	1.251	1.245	1.209	1.232	5.9
2,4,5-Trichlorophenol	0.377	0.327	0.367	0.373	0.391	0.389	0.372	5.7
1,1-Biphenyl	1.549	1.407	1.508	1.459	1.445	1.442	1.448	5.0
2-Chloronaphthalene	1.199	1.045	1.166	1.148	1.175	1.158	1.142	4.5
2-Nitroaniline	0.286	0.278	0.338	0.361	0.371	0.374	0.340	12.1
Dimethylphthalate	1.501	1.231	1.347	1.324	1.333	1.323	1.343	5.9
Acenaphthylene	2.111	1.769	2.009	1.908	1.921	1.897	1.922	5.8
2,6-Dinitrotoluene	0.255	0.229	0.294	0.287	0.281	0.290	0.273	8.5
3-Nitroaniline	0.295	0.311	0.366	0.373	0.359	0.367	0.348	9.0
Acenaphthene	1.171	0.974	1.100	1.105	1.069	1.101	1.079	5.8
2,4-Dinitrophenol		0.025	0.069	0.088	0.098	0.110	0.085	40.3
4-Nitrophenol	0.192	0.202	0.267	0.263	0.269	0.268	0.247	13.8
Dibenzofuran	1.786	1.482	1.602	1.556	1.569	1.546	1.579	6.3
2,4-Dinitrotoluene	0.249	0.284	0.358	0.387	0.387	0.388	0.344	16.1
Diethylphthalate	1.298	1.183	1.347	1.353	1.303	1.303	1.288	4.8
4-Chlorophenyl-phenylether	0.559	0.505	0.555	0.551	0.535	0.538	0.538	3.6
Fluorene	1.432	1.175	1.282	1.258	1.284	1.239	1.264	6.8
4-Nitroaniline	0.320	0.306	0.364	0.355	0.377	0.412	0.357	9.9
4,6-Dinitro-2-methylphenol		0.040	0.071	0.084	0.091	0.097	0.081	28.3
n-Nitrosodiphenylamine	0.667	0.558	0.647	0.608	0.619	0.600	0.613	5.8
Azobenzene	1.335	1.189	1.266	1.309	1.286	1.301	1.279	3.6
2,4,6-Tribromophenol	0.170	0.158	0.183	0.186	0.185	0.185	0.178	5.8
4-Bromophenyl-phenylether	0.178	0.157	0.182	0.182	0.190	0.178	0.177	5.7
Hexachlorobenzene	0.248	0.199	0.222	0.212	0.220	0.208	0.216	7.4
Atrazine	0.173	0.146	0.180	0.172	0.173	0.165	0.167	6.7
Pentachlorophenol	0.074	0.076	0.108	0.118	0.124	0.125	0.107	21.2
Phenanthrene	1.188	0.989	1.099	1.064	1.092	1.056	1.072	6.0
Anthracene	1.155	0.986	1.118	1.089	1.087	1.060	1.073	5.4
Carbazole	1.160	0.974	1.140	1.118	1.108	1.069	1.084	6.2
Di-n-butylphthalate	1.134	1.033	1.275	1.286	1.232	1.181	1.184	7.5
Fluoranthene	1.182	0.998	1.160	1.137	1.154	1.142	1.120	5.8
Benzidine	0.514	0.503	0.556	0.561	0.563	0.560	0.540	4.9
Pyrene	1.223	1.096	1.152	1.192	1.198	1.172	1.164	3.9
Terphenyl-d14	0.755	0.682	0.733	0.740	0.721	0.689	0.708	5.9
Butylbenzylphthalate	0.472	0.414	0.514	0.560	0.528	0.526	0.503	9.4
3,3-Dichlorobenzidine	0.404	0.412	0.472	0.486	0.476	0.480	0.455	7.4

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date(s): 09/29/2014 09/29/2014

Calibration Time(s): 16:55 20:17

LAB FILE ID: RRF2.5 = BF074060.D RRF010 = BF074061.D RRF025 = BF074062.D
RRF040 = BF074063.D RRF050 = BF074064.D RRF060 = BF074065.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
Benzo(a)anthracene	1.123	0.951	1.054	1.061	1.062	1.045	1.041	5.3
Chrysene	1.036	0.922	0.995	0.971	0.985	0.966	0.968	4.8
Bis(2-ethylhexyl)phthalate	0.622	0.605	0.747	0.805	0.723	0.706	0.698	10.0
Di-n-octyl phthalate	1.086	1.042	1.262	1.354	1.260	1.179	1.191	9.1
Benzo(b)fluoranthene	1.127	1.117	1.300	1.244	1.028	1.055	1.138	8.7
Benzo(k)fluoranthene	1.109	0.881	0.969	0.942	1.094	1.102	1.009	9.1
Benzo(a)pyrene	1.076	0.957	1.091	1.048	1.034	1.036	1.035	4.3
Indeno(1,2,3-cd)pyrene	1.263	1.168	1.261	1.258	1.292	1.261	1.243	3.5
Dibenzo(a,h)anthracene	1.054	0.960	1.137	1.081	1.086	1.051	1.053	5.5
Benzo(g,h,i)perylene	1.207	1.038	1.203	1.156	1.143	1.113	1.132	5.7
1,2,4,5-Tetrachlorobenzene	0.466	0.432	0.469	0.462	0.462	0.462	0.457	2.9
2,3,4,6-Tetrachlorophenol	0.252	0.229	0.278	0.282	0.279	0.288	0.269	7.8
1,4-Dioxane		0.451	0.652	0.579	0.594	0.578	0.579	11.8

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/10/2014 14:46

Lab File ID: BF074437.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.503	0.480	0.010	-4.6	20.0
Pyridine	1.372	1.336	0.010	-2.6	20.0
2-Fluorophenol	1.429	1.389	0.010	-2.8	20.0
Benzaldehyde	1.027	0.907	0.010	-11.7	20.0
Aniline	2.317	2.193	0.010	-5.4	20.0
Phenol-d6	1.732	1.654	0.010	-4.5	20.0
Phenol	1.947	1.781	0.010	-8.5	20.0
bis(2-Chloroethyl)ether	1.374	1.288	0.010	-6.3	20.0
2-Chlorophenol	1.442	1.377	0.010	-4.5	20.0
1,2-Dichlorobenzene	1.446	1.401	0.010	-3.1	20.0
1,3-Dichlorobenzene	1.538	1.501	0.010	-2.4	20.0
1,4-Dichlorobenzene	1.562	1.526	0.010	-2.3	20.0
Benzyl Alcohol	1.146	1.085	0.010	-5.3	20.0
2-Methylphenol	1.179	1.111	0.010	-5.8	20.0
2,2-oxybis(1-Chloropropane)	1.860	1.672	0.010	-10.1	20.0
Acetophenone	0.503	0.516	0.010	2.6	20.0
3+4-Methylphenols	1.492	1.508	0.010	1.1	20.0
n-Nitroso-di-n-propylamine	0.987	0.940	0.010	-4.8	20.0
Nitrobenzene-d5	0.343	0.338	0.010	-1.5	20.0
Hexachloroethane	0.529	0.509	0.010	-3.8	20.0
Nitrobenzene	0.378	0.361	0.010	-4.5	20.0
Isophorone	0.674	0.707	0.010	4.9	20.0
2-Nitrophenol	0.151	0.175	0.010	15.9	20.0
2,4-Dimethylphenol	0.309	0.319	0.010	3.2	20.0
bis(2-Chloroethoxy)methane	0.389	0.411	0.010	5.7	20.0
2,4-Dichlorophenol	0.256	0.272	0.010	6.3	20.0
1,2,4-Trichlorobenzene	0.287	0.293	0.010	2.1	20.0
Benzoic acid	0.137	0.182	0.010	32.8	20.0
Naphthalene	1.016	1.015	0.010	-0.1	20.0
4-Chloroaniline	0.430	0.435	0.010	1.2	20.0
Hexachlorobutadiene	0.149	0.153	0.010	2.7	20.0
Caprolactam	0.081	0.087	0.010	7.4	20.0
4-Chloro-3-methylphenol	0.274	0.294	0.010	7.3	20.0
2-Methylnaphthalene	0.624	0.656	0.010	5.1	20.0
Hexachlorocyclopentadiene	0.153	0.184	0.010	20.3	20.0
2,4,6-Trichlorophenol	0.349	0.362	0.010	3.7	20.0
2-Fluorobiphenyl	1.232	1.256	0.010	1.9	20.0
2,4,5-Trichlorophenol	0.372	0.373	0.010	0.3	20.0
1,1-Biphenyl	1.448	1.444	0.010	-0.3	20.0
2-Chloronaphthalene	1.142	1.072	0.010	-6.1	20.0
2-Nitroaniline	0.340	0.318	0.010	-6.5	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/10/2014 14:46

Lab File ID: BF074437.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.343	1.359	0.010	1.2	20.0
Acenaphthylene	1.922	1.912	0.010	-0.5	20.0
2,6-Dinitrotoluene	0.273	0.287	0.010	5.1	20.0
3-Nitroaniline	0.348	0.375	0.010	7.8	20.0
Acenaphthene	1.079	1.046	0.010	-3.1	20.0
2,4-Dinitrophenol	0.085	0.119	0.010	40.0	20.0
4-Nitrophenol	0.247	0.268	0.010	8.5	20.0
Dibenzofuran	1.579	1.557	0.010	-1.4	20.0
2,4-Dinitrotoluene	0.344	0.389	0.010	13.1	20.0
Diethylphthalate	1.288	1.355	0.010	5.2	20.0
4-Chlorophenyl-phenylether	0.538	0.568	0.010	5.6	20.0
Fluorene	1.264	1.290	0.010	2.1	20.0
4-Nitroaniline	0.357	0.363	0.010	1.7	20.0
4,6-Dinitro-2-methylphenol	0.081	0.100	0.010	23.5	20.0
n-Nitrosodiphenylamine	0.613	0.608	0.010	-0.8	20.0
Azobenzene	1.279	1.272	0.010	-0.5	20.0
2,4,6-Tribromophenol	0.178	0.187	0.010	5.1	20.0
4-Bromophenyl-phenylether	0.177	0.180	0.010	1.7	20.0
Hexachlorobenzene	0.216	0.204	0.010	-5.6	20.0
Atrazine	0.167	0.167	0.010	0.0	20.0
Pentachlorophenol	0.107	0.117	0.010	9.3	20.0
Phenanthrene	1.072	1.023	0.010	-4.6	20.0
Anthracene	1.073	1.043	0.010	-2.8	20.0
Carbazole	1.084	1.051	0.010	-3.0	20.0
Di-n-butylphthalate	1.184	1.363	0.010	15.1	20.0
Fluoranthene	1.120	1.105	0.010	-1.3	20.0
Benzidine	0.540	0.601	0.010	11.3	20.0
Pyrene	1.164	1.268	0.010	8.9	20.0
Terphenyl-d14	0.708	0.759	0.010	7.2	20.0
Butylbenzylphthalate	0.503	0.621	0.010	23.5	20.0
3,3-Dichlorobenzidine	0.455	0.469	0.010	3.1	20.0
Benzo(a)anthracene	1.041	1.058	0.010	1.6	20.0
Chrysene	0.968	1.009	0.010	4.2	20.0
Bis(2-ethylhexyl)phthalate	0.698	0.889	0.010	27.4	20.0
Di-n-octyl phthalate	1.191	1.595	0.010	33.9	20.0
Benzo(b)fluoranthene	1.138	1.154	0.010	1.4	20.0
Benzo(k)fluoranthene	1.009	1.060	0.010	5.1	20.0
Benzo(a)pyrene	1.035	1.058	0.010	2.2	20.0
Indeno(1,2,3-cd)pyrene	1.243	1.186	0.010	-4.6	20.0
Dibenzo(a,h)anthracene	1.053	1.032	0.010	-2.0	20.0
Benzo(g,h,i)perylene	1.132	1.070	0.010	-5.5	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/10/2014 14:46

Lab File ID: BF074437.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.457	0.466	0.010	2.0	20.0
2,3,4,6-Tetrachlorophenol	0.269	0.274	0.010	1.9	20.0
1,4-Dioxane	0.579	0.633	0.010	9.3	20.0

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 02:25

Lab File ID: BF074459.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.503	0.407	0.010	-19.1	20.0
Pyridine	1.372	1.290	0.010	-6.0	20.0
2-Fluorophenol	1.429	1.357	0.010	-5.0	20.0
Benzaldehyde	1.027	0.891	0.010	-13.2	20.0
Aniline	2.317	2.175	0.010	-6.1	20.0
Phenol-d6	1.732	1.655	0.010	-4.4	20.0
Phenol	1.947	1.735	0.010	-10.9	20.0
bis(2-Chloroethyl)ether	1.374	1.277	0.010	-7.1	20.0
2-Chlorophenol	1.442	1.369	0.010	-5.1	20.0
1,2-Dichlorobenzene	1.446	1.413	0.010	-2.3	20.0
1,3-Dichlorobenzene	1.538	1.482	0.010	-3.6	20.0
1,4-Dichlorobenzene	1.562	1.543	0.010	-1.2	20.0
Benzyl Alcohol	1.146	1.061	0.010	-7.4	20.0
2-Methylphenol	1.179	1.150	0.010	-2.5	20.0
2,2-oxybis(1-Chloropropane)	1.860	1.693	0.010	-9.0	20.0
Acetophenone	0.503	0.511	0.010	1.6	20.0
3+4-Methylphenols	1.492	1.521	0.010	1.9	20.0
n-Nitroso-di-n-propylamine	0.987	0.990	0.010	0.3	20.0
Nitrobenzene-d5	0.343	0.327	0.010	-4.7	20.0
Hexachloroethane	0.529	0.522	0.010	-1.3	20.0
Nitrobenzene	0.378	0.341	0.010	-9.8	20.0
Isophorone	0.674	0.684	0.010	1.5	20.0
2-Nitrophenol	0.151	0.167	0.010	10.6	20.0
2,4-Dimethylphenol	0.309	0.316	0.010	2.3	20.0
bis(2-Chloroethoxy)methane	0.389	0.415	0.010	6.7	20.0
2,4-Dichlorophenol	0.256	0.271	0.010	5.9	20.0
1,2,4-Trichlorobenzene	0.287	0.294	0.010	2.4	20.0
Benzoic acid	0.137	0.136	0.010	-0.7	20.0
Naphthalene	1.016	1.006	0.010	-1.0	20.0
4-Chloroaniline	0.430	0.424	0.010	-1.4	20.0
Hexachlorobutadiene	0.149	0.149	0.010	0.0	20.0
Caprolactam	0.081	0.079	0.010	-2.5	20.0
4-Chloro-3-methylphenol	0.274	0.277	0.010	1.1	20.0
2-Methylnaphthalene	0.624	0.669	0.010	7.2	20.0
Hexachlorocyclopentadiene	0.153	0.182	0.010	19.0	20.0
2,4,6-Trichlorophenol	0.349	0.344	0.010	-1.4	20.0
2-Fluorobiphenyl	1.232	1.212	0.010	-1.6	20.0
2,4,5-Trichlorophenol	0.372	0.366	0.010	-1.6	20.0
1,1-Biphenyl	1.448	1.418	0.010	-2.1	20.0
2-Chloronaphthalene	1.142	1.059	0.010	-7.3	20.0
2-Nitroaniline	0.340	0.306	0.010	-10.0	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 02:25

Lab File ID: BF074459.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.343	1.328	0.010	-1.1	20.0
Acenaphthylene	1.922	1.843	0.010	-4.1	20.0
2,6-Dinitrotoluene	0.273	0.269	0.010	-1.5	20.0
3-Nitroaniline	0.348	0.368	0.010	5.7	20.0
Acenaphthene	1.079	1.055	0.010	-2.2	20.0
2,4-Dinitrophenol	0.085	0.086	0.010	1.2	20.0
4-Nitrophenol	0.247	0.218	0.010	-11.7	20.0
Dibenzofuran	1.579	1.538	0.010	-2.6	20.0
2,4-Dinitrotoluene	0.344	0.384	0.010	11.6	20.0
Diethylphthalate	1.288	1.330	0.010	3.3	20.0
4-Chlorophenyl-phenylether	0.538	0.542	0.010	0.7	20.0
Fluorene	1.264	1.237	0.010	-2.1	20.0
4-Nitroaniline	0.357	0.343	0.010	-3.9	20.0
4,6-Dinitro-2-methylphenol	0.081	0.094	0.010	16.0	20.0
n-Nitrosodiphenylamine	0.613	0.615	0.010	0.3	20.0
Azobenzene	1.279	1.249	0.010	-2.3	20.0
2,4,6-Tribromophenol	0.178	0.174	0.010	-2.2	20.0
4-Bromophenyl-phenylether	0.177	0.178	0.010	0.6	20.0
Hexachlorobenzene	0.216	0.213	0.010	-1.4	20.0
Atrazine	0.167	0.167	0.010	0.0	20.0
Pentachlorophenol	0.107	0.103	0.010	-3.7	20.0
Phenanthrene	1.072	1.026	0.010	-4.3	20.0
Anthracene	1.073	1.037	0.010	-3.4	20.0
Carbazole	1.084	1.066	0.010	-1.7	20.0
Di-n-butylphthalate	1.184	1.352	0.010	14.2	20.0
Fluoranthene	1.120	1.076	0.010	-3.9	20.0
Benzidine	0.540	0.769	0.010	42.4	20.0
Pyrene	1.164	1.207	0.010	3.7	20.0
Terphenyl-d14	0.708	0.771	0.010	8.9	20.0
Butylbenzylphthalate	0.503	0.614	0.010	22.1	20.0
3,3-Dichlorobenzidine	0.455	0.456	0.010	0.2	20.0
Benzo(a)anthracene	1.041	1.050	0.010	0.9	20.0
Chrysene	0.968	0.976	0.010	0.8	20.0
Bis(2-ethylhexyl)phthalate	0.698	0.930	0.010	33.2	20.0
Di-n-octyl phthalate	1.191	1.563	0.010	31.2	20.0
Benzo(b)fluoranthene	1.138	1.289	0.010	13.3	20.0
Benzo(k)fluoranthene	1.009	0.898	0.010	-11.0	20.0
Benzo(a)pyrene	1.035	1.037	0.010	0.2	20.0
Indeno(1,2,3-cd)pyrene	1.243	1.158	0.010	-6.8	20.0
Dibenzo(a,h)anthracene	1.053	1.035	0.010	-1.7	20.0
Benzo(g,h,i)perylene	1.132	1.074	0.010	-5.1	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 02:25

Lab File ID: BF074459.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.457	0.447	0.010	-2.2	20.0
2,3,4,6-Tetrachlorophenol	0.269	0.254	0.010	-5.6	20.0
1,4-Dioxane	0.579	0.511	0.010	-11.7	20.0

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 14:52

Lab File ID: BF074480.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.503	0.398	0.010	-20.9	20.0
Pyridine	1.372	1.394	0.010	1.6	20.0
2-Fluorophenol	1.429	1.353	0.010	-5.3	20.0
Benzaldehyde	1.027	0.894	0.010	-12.9	20.0
Aniline	2.317	2.193	0.010	-5.4	20.0
Phenol-d6	1.732	1.702	0.010	-1.7	20.0
Phenol	1.947	1.758	0.010	-9.7	20.0
bis(2-Chloroethyl)ether	1.374	1.282	0.010	-6.7	20.0
2-Chlorophenol	1.442	1.382	0.010	-4.2	20.0
1,2-Dichlorobenzene	1.446	1.439	0.010	-0.5	20.0
1,3-Dichlorobenzene	1.538	1.499	0.010	-2.5	20.0
1,4-Dichlorobenzene	1.562	1.560	0.010	-0.1	20.0
Benzyl Alcohol	1.146	1.048	0.010	-8.6	20.0
2-Methylphenol	1.179	1.136	0.010	-3.6	20.0
2,2-oxybis(1-Chloropropane)	1.860	1.639	0.010	-11.9	20.0
Acetophenone	0.503	0.512	0.010	1.8	20.0
3+4-Methylphenols	1.492	1.514	0.010	1.5	20.0
n-Nitroso-di-n-propylamine	0.987	0.959	0.010	-2.8	20.0
Nitrobenzene-d5	0.343	0.325	0.010	-5.2	20.0
Hexachloroethane	0.529	0.514	0.010	-2.8	20.0
Nitrobenzene	0.378	0.355	0.010	-6.1	20.0
Isophorone	0.674	0.678	0.010	0.6	20.0
2-Nitrophenol	0.151	0.167	0.010	10.6	20.0
2,4-Dimethylphenol	0.309	0.316	0.010	2.3	20.0
bis(2-Chloroethoxy)methane	0.389	0.412	0.010	5.9	20.0
2,4-Dichlorophenol	0.256	0.269	0.010	5.1	20.0
1,2,4-Trichlorobenzene	0.287	0.295	0.010	2.8	20.0
Benzoic acid	0.137	0.129	0.010	-5.8	20.0
Naphthalene	1.016	1.003	0.010	-1.3	20.0
4-Chloroaniline	0.430	0.439	0.010	2.1	20.0
Hexachlorobutadiene	0.149	0.151	0.010	1.3	20.0
Caprolactam	0.081	0.081	0.010	0.0	20.0
4-Chloro-3-methylphenol	0.274	0.282	0.010	2.9	20.0
2-Methylnaphthalene	0.624	0.655	0.010	5.0	20.0
Hexachlorocyclopentadiene	0.153	0.159	0.010	3.9	20.0
2,4,6-Trichlorophenol	0.349	0.340	0.010	-2.6	20.0
2-Fluorobiphenyl	1.232	1.219	0.010	-1.1	20.0
2,4,5-Trichlorophenol	0.372	0.357	0.010	-4.0	20.0
1,1-Biphenyl	1.448	1.423	0.010	-1.7	20.0
2-Chloronaphthalene	1.142	1.093	0.010	-4.3	20.0
2-Nitroaniline	0.340	0.310	0.010	-8.8	20.0

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 14:52

Lab File ID: BF074480.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.343	1.327	0.010	-1.2	20.0
Acenaphthylene	1.922	1.862	0.010	-3.1	20.0
2,6-Dinitrotoluene	0.273	0.285	0.010	4.4	20.0
3-Nitroaniline	0.348	0.362	0.010	4.0	20.0
Acenaphthene	1.079	1.079	0.010	0.0	20.0
2,4-Dinitrophenol	0.085	0.068	0.010	-20.0	20.0
4-Nitrophenol	0.247	0.201	0.010	-18.6	20.0
Dibenzofuran	1.579	1.567	0.010	-0.8	20.0
2,4-Dinitrotoluene	0.344	0.388	0.010	12.8	20.0
Diethylphthalate	1.288	1.355	0.010	5.2	20.0
4-Chlorophenyl-phenylether	0.538	0.542	0.010	0.7	20.0
Fluorene	1.264	1.229	0.010	-2.8	20.0
4-Nitroaniline	0.357	0.347	0.010	-2.8	20.0
4,6-Dinitro-2-methylphenol	0.081	0.083	0.010	2.5	20.0
n-Nitrosodiphenylamine	0.613	0.605	0.010	-1.3	20.0
Azobenzene	1.279	1.265	0.010	-1.0	20.0
2,4,6-Tribromophenol	0.178	0.163	0.010	-8.4	20.0
4-Bromophenyl-phenylether	0.177	0.178	0.010	0.6	20.0
Hexachlorobenzene	0.216	0.208	0.010	-3.7	20.0
Atrazine	0.167	0.164	0.010	-1.8	20.0
Pentachlorophenol	0.107	0.094	0.010	-12.1	20.0
Phenanthrene	1.072	1.046	0.010	-2.4	20.0
Anthracene	1.073	1.080	0.010	0.7	20.0
Carbazole	1.084	1.062	0.010	-2.0	20.0
Di-n-butylphthalate	1.184	1.349	0.010	13.9	20.0
Fluoranthene	1.120	1.089	0.010	-2.8	20.0
Benzidine	0.540	0.707	0.010	30.9	20.0
Pyrene	1.164	1.213	0.010	4.2	20.0
Terphenyl-d14	0.708	0.770	0.010	8.8	20.0
Butylbenzylphthalate	0.503	0.607	0.010	20.7	20.0
3,3-Dichlorobenzidine	0.455	0.448	0.010	-1.5	20.0
Benzo(a)anthracene	1.041	1.043	0.010	0.2	20.0
Chrysene	0.968	1.010	0.010	4.3	20.0
Bis(2-ethylhexyl)phthalate	0.698	0.900	0.010	28.9	20.0
Di-n-octyl phthalate	1.191	1.519	0.010	27.5	20.0
Benzo(b)fluoranthene	1.138	1.031	0.010	-9.4	20.0
Benzo(k)fluoranthene	1.009	1.134	0.010	12.4	20.0
Benzo(a)pyrene	1.035	1.025	0.010	-1.0	20.0
Indeno(1,2,3-cd)pyrene	1.243	1.174	0.010	-5.6	20.0
Dibenzo(a,h)anthracene	1.053	1.019	0.010	-3.2	20.0
Benzo(g,h,i)perylene	1.132	1.069	0.010	-5.6	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/11/2014 14:52

Lab File ID: BF074480.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.457	0.465	0.010	1.8	20.0
2,3,4,6-Tetrachlorophenol	0.269	0.270	0.010	0.4	20.0
1,4-Dioxane	0.579	0.526	0.010	-9.2	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/13/2014 11:38

Lab File ID: BF074508.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.503	0.391	0.010	-22.3	20.0
Pyridine	1.372	1.177	0.010	-14.2	20.0
2-Fluorophenol	1.429	1.370	0.010	-4.1	20.0
Benzaldehyde	1.027	0.864	0.010	-15.9	20.0
Aniline	2.317	2.163	0.010	-6.6	20.0
Phenol-d6	1.732	1.624	0.010	-6.2	20.0
Phenol	1.947	1.683	0.010	-13.6	20.0
bis(2-Chloroethyl)ether	1.374	1.235	0.010	-10.1	20.0
2-Chlorophenol	1.442	1.362	0.010	-5.5	20.0
1,2-Dichlorobenzene	1.446	1.421	0.010	-1.7	20.0
1,3-Dichlorobenzene	1.538	1.510	0.010	-1.8	20.0
1,4-Dichlorobenzene	1.562	1.571	0.010	0.6	20.0
Benzyl Alcohol	1.146	1.079	0.010	-5.8	20.0
2-Methylphenol	1.179	1.103	0.010	-6.4	20.0
2,2-oxybis(1-Chloropropane)	1.860	1.579	0.010	-15.1	20.0
Acetophenone	0.503	0.494	0.010	-1.8	20.0
3+4-Methylphenols	1.492	1.455	0.010	-2.5	20.0
n-Nitroso-di-n-propylamine	0.987	0.953	0.010	-3.4	20.0
Nitrobenzene-d5	0.343	0.316	0.010	-7.9	20.0
Hexachloroethane	0.529	0.507	0.010	-4.2	20.0
Nitrobenzene	0.378	0.364	0.010	-3.7	20.0
Isophorone	0.674	0.650	0.010	-3.6	20.0
2-Nitrophenol	0.151	0.172	0.010	13.9	20.0
2,4-Dimethylphenol	0.309	0.301	0.010	-2.6	20.0
bis(2-Chloroethoxy)methane	0.389	0.388	0.010	-0.3	20.0
2,4-Dichlorophenol	0.256	0.270	0.010	5.5	20.0
1,2,4-Trichlorobenzene	0.287	0.290	0.010	1.0	20.0
Benzoic acid	0.137	0.158	0.010	15.3	20.0
Naphthalene	1.016	1.007	0.010	-0.9	20.0
4-Chloroaniline	0.430	0.418	0.010	-2.8	20.0
Hexachlorobutadiene	0.149	0.146	0.010	-2.0	20.0
Caprolactam	0.081	0.079	0.010	-2.5	20.0
4-Chloro-3-methylphenol	0.274	0.275	0.010	0.4	20.0
2-Methylnaphthalene	0.624	0.638	0.010	2.2	20.0
Hexachlorocyclopentadiene	0.153	0.176	0.010	15.0	20.0
2,4,6-Trichlorophenol	0.349	0.351	0.010	0.6	20.0
2-Fluorobiphenyl	1.232	1.180	0.010	-4.2	20.0
2,4,5-Trichlorophenol	0.372	0.381	0.010	2.4	20.0
1,1-Biphenyl	1.448	1.441	0.010	-0.5	20.0
2-Chloronaphthalene	1.142	1.089	0.010	-4.6	20.0
2-Nitroaniline	0.340	0.300	0.010	-11.8	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/13/2014 11:38

Lab File ID: BF074508.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.343	1.405	0.010	4.6	20.0
Acenaphthylene	1.922	1.832	0.010	-4.7	20.0
2,6-Dinitrotoluene	0.273	0.284	0.010	4.0	20.0
3-Nitroaniline	0.348	0.361	0.010	3.7	20.0
Acenaphthene	1.079	1.022	0.010	-5.3	20.0
2,4-Dinitrophenol	0.085	0.113	0.010	32.9	20.0
4-Nitrophenol	0.247	0.367	0.010	48.6	20.0
Dibenzofuran	1.579	1.552	0.010	-1.7	20.0
2,4-Dinitrotoluene	0.344	0.378	0.010	9.9	20.0
Diethylphthalate	1.288	1.400	0.010	8.7	20.0
4-Chlorophenyl-phenylether	0.538	0.557	0.010	3.5	20.0
Fluorene	1.264	1.265	0.010	0.1	20.0
4-Nitroaniline	0.357	0.365	0.010	2.2	20.0
4,6-Dinitro-2-methylphenol	0.081	0.102	0.010	25.9	20.0
n-Nitrosodiphenylamine	0.613	0.611	0.010	-0.3	20.0
Azobenzene	1.279	1.217	0.010	-4.8	20.0
2,4,6-Tribromophenol	0.178	0.181	0.010	1.7	20.0
4-Bromophenyl-phenylether	0.177	0.186	0.010	5.1	20.0
Hexachlorobenzene	0.216	0.216	0.010	0.0	20.0
Atrazine	0.167	0.173	0.010	3.6	20.0
Pentachlorophenol	0.107	0.114	0.010	6.5	20.0
Phenanthrene	1.072	1.054	0.010	-1.7	20.0
Anthracene	1.073	1.083	0.010	0.9	20.0
Carbazole	1.084	1.088	0.010	0.4	20.0
Di-n-butylphthalate	1.184	1.403	0.010	18.5	20.0
Fluoranthene	1.120	1.084	0.010	-3.2	20.0
Benzidine	0.540	0.569	0.010	5.4	20.0
Pyrene	1.164	1.213	0.010	4.2	20.0
Terphenyl-d14	0.708	0.761	0.010	7.5	20.0
Butylbenzylphthalate	0.503	0.643	0.010	27.8	20.0
3,3-Dichlorobenzidine	0.455	0.450	0.010	-1.1	20.0
Benzo(a)anthracene	1.041	1.006	0.010	-3.4	20.0
Chrysene	0.968	0.996	0.010	2.9	20.0
Bis(2-ethylhexyl)phthalate	0.698	0.952	0.010	36.4	20.0
Di-n-octyl phthalate	1.191	1.713	0.010	43.8	20.0
Benzo(b)fluoranthene	1.138	1.065	0.010	-6.4	20.0
Benzo(k)fluoranthene	1.009	1.080	0.010	7.0	20.0
Benzo(a)pyrene	1.035	1.047	0.010	1.2	20.0
Indeno(1,2,3-cd)pyrene	1.243	1.177	0.010	-5.3	20.0
Dibenzo(a,h)anthracene	1.053	1.047	0.010	-0.6	20.0
Benzo(g,h,i)perylene	1.132	1.077	0.010	-4.9	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F4207 SAS No.: F4207 SDG No.: F4207

Instrument ID: BNA_F Calibration Date/Time: 10/13/2014 11:38

Lab File ID: BF074508.D Init. Calib. Date(s): 09/29/2014 09/29/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 16:55 20:17

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.457	0.453	0.010	-0.9	20.0
2,3,4,6-Tetrachlorophenol	0.269	0.265	0.010	-1.5	20.0
1,4-Dioxane	0.579	0.893	0.010	54.2	20.0

All other compounds must meet a minimum RRF of 0.010.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. F4207
QUOTE NO.
COC Number 032873

7.1

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: CARDNO ATC
ADDRESS: 104 East 25th St
CITY: NY STATE: NY ZIP: 10010
ATTENTION: Denise. cosenza e-mail: Cardno.com
PHONE: 2124328541 FAX: 2129798447

CLIENT PROJECT INFORMATION

PROJECT NAME: Avalon Bay W/P4
PROJECT NO.: LOCATION: NY
PROJECT MANAGER: d. cosenza
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: Standard DAYS *
EDD: DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☐ EDD Format:

ANALYSIS

1 VOCs low level
2 SVOCs low level
3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	MW12R	A			10/7/14	13:09	3	X	X								
2.	MW11R	A			10/7/14	14:22	9	X	X								MS/MSD
3.	MW16	A			10/1/14	3:47	3	X	X								
4.	MW15	A			10-8-14	9:19	3	X	X								
5.	MW14	A			10-8-14	9:59	3	X	X								
6.	MW8	A			10-8-14	11:00	3	X	X								
7.	MW2	A			10-8-14	12:09	3	X	X								
8.	DUP	A			10-8-14	—	3	X	X								
9.	TRIP Blank	A					2	X									
10.	Field Blank	A			10-8-14		3	X	X								

Specify Preservatives: A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	10/8/14 1530	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3.	10/8/14 1715	3.

Conditions of bottles or coolers at receipt: ☑ Compliant ☐ Non Compliant Cooler Temp. 3°C
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments: Ice in Cooler?: ✓

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☑ YES ☐ NO

Revision 8/2007

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CHEMTECH 284 Sheffield Street Mountainside NJ 07092 Tel. 908-7898900

Laboratory Certification

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Louisiana	5035
Maryland	296
Massachusetts	M-NJ503
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other :

DOD ELAP Certified (L-A-B Accredited), ISO/IEC 17025	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS

PROJECT NAME : AVALON- WP9

CARDNO ATC

104 East 25th Street

New York, NY - 10010

Phone No: 212-353-8280

ORDER ID : F2255

ATTENTION : Denise Cosenza

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

Table Of Contents for F2255

1) Signature Page 3

2) Case Narrative 9

2.1) VOC- Chemtech Full- Case Narrative 9

2.2) SVOC- Chemtech Full- Case Narrative 11

3) Qualifier Page 13

4) QA Checklist 14

5) VOC- Chemtech Full Data 15

6) SVOC- Chemtech Full Data 101

7) Shipping Document 189

7.1) CHAIN OF CUSTODY 190

7.2) Lab Certificate 191

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Cover Page

Order ID : F2255

Project ID : Avalon- WP9

Client : Cardno ATC

Lab Sample Number	Client Sample Number
F2255-01	MW-12R
F2255-02	MW-11R
F2255-03	F2255-02MS
F2255-04	F2255-02MSD
F2255-05	MW-16
F2255-06	MW-15
F2255-07	MW-14
F2255-08	MW-8
F2255-09	MW-2
F2255-10	DUP
F2255-11	FB
F2255-12	TRIPBLANK

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : Mildred V Reyes

APPROVED Date: 5/19/2014

By Mildred V Reyes QA/QC Supervisor at 5:06 pm, Jan 28, 2015

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MW-12R	F2255-01	8260-Low	625				
MW-11R	F2255-02	8260-Low	625				
MW-16	F2255-05	8260-Low	625				
MW-15	F2255-06	8260-Low	625				
MW-14	F2255-07	8260-Low	625				
MW-8	F2255-08	8260-Low	625				
MW-2	F2255-09	8260-Low	625				
DUP	F2255-10	8260-Low	625				
FB	F2255-11	8260-Low	625				
TRIPBLANK	F2255-12	8260-Low					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
F2255-01	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-02	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-05	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-06	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-07	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-08	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-09	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-10	Water	05/07/14	05/08/14	05/09/14	05/14/14
F2255-11	Water	05/07/14	05/08/14	05/09/14	05/14/14

* Details For Test :SVOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
F2255-01	Water	05/07/14	05/08/14		05/09/14
F2255-02	Water	05/07/14	05/08/14		05/09/14
F2255-05	Water	05/07/14	05/08/14		05/09/14
F2255-06	Water	05/07/14	05/08/14		05/09/14
F2255-07	Water	05/07/14	05/08/14		05/09/14
F2255-08	Water	05/07/14	05/08/14		05/09/14
F2255-09	Water	05/07/14	05/08/14		05/09/14
F2255-10	Water	05/07/14	05/08/14		05/09/14
F2255-11	Water	05/07/14	05/08/14		05/09/14
F2255-12	Water	05/07/14	05/08/14		05/09/14

* Details For Test :VOC- Chemtech Full

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
F2255-01	Water	8260-Low	5030B		
F2255-02	Water	8260-Low	5030B		
F2255-03	Water	8260-Low	5030B		
F2255-04	Water	8260-Low	5030B		
F2255-05	Water	8260-Low	5030B		
F2255-06	Water	8260-Low	5030B		
F2255-07	Water	8260-Low	5030B		
F2255-08	Water	8260-Low	5030B		
F2255-09	Water	8260-Low	5030B		
F2255-10	Water	8260-Low	5030B		
F2255-11	Water	8260-Low	5030B		
F2255-12	Water	8260-Low	5030B		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
F2255-01	Water	625	3510C		
F2255-02	Water	625	3510C		
F2255-03	Water	625	3510C		
F2255-04	Water	625	3510C		
F2255-05	Water	625	3510C		
F2255-06	Water	625	3510C		
F2255-07	Water	625	3510C		
F2255-08	Water	625	3510C		
F2255-09	Water	625	3510C		
F2255-10	Water	625	3510C		
F2255-11	Water	625	3510C		

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # F2255
Test Name: VOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 05/08/2014.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for VOC- Chemtech Full.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOC- Chemtech Full was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {F2255-03MS} with File ID: VN015256.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether[0%] .
The MSD {F2255-04MSD} with File ID: VN015257.D recoveries met the acceptable requirements except for 2-Chloroethyl vinyl ether[0%] .
The RPD [F2255-04MSD] with FILE ID: VN015257.D recoveries met criteria except for Bromomethane[31%] .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements. The %RSD is greater than 15% in the Initial Calibration (Method 82N042314W.M) for Tert butyl alcohol, Carbon Disulfide, Methyl Acetate, Vinyl Acetate, Cyclohexane, Hexachloroethane, 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, N-amyl acetate, Methyl Iodide, Methyl methacrylate these compounds are passing on Linear regression while 2-Chloroethyl Vinyl ether, 1,2,4-Trichlorobenzene, Naphthalene these compounds are passing on quadratic regression.
The Continuous Calibration File ID VN015238.D met the requirements except for Vinyl Acetate,Trichlorofluoromethane,Carbon Tetrachloride and 4-Bromofluorobenzene .
The Tuning criteria met requirements.
Sample MW-8 was diluted due to high concentration.

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V Reyes

APPROVED
By Mildred V Reyes QA/QC Supervisor at 5:06 pm, Jan 28, 2015

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Cardno ATC
Project Name: Avalon- WP9
Project # N/A
Chemtech Project # F2255
Test Name: SVOC- Chemtech Full

A. Number of Samples and Date of Receipt:
12 Water samples were received on 05/08/2014.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC- Chemtech Full and VOC- Chemtech Full. This data package contains results for SVOC- Chemtech Full.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column RTX-5 which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SVOC- Chemtech Full was based on method 625 and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {F2255-03MS} with File ID: BF070860.D recoveries met the requirements for all compounds except for 1,4-Dioxane[28%], Aniline[42%], Benzaldehyde[4%] and Benzidine[0%] .
The MSD {F2255-04MSD} with File ID: BF070861.D recoveries met the acceptable requirements except for 1,4-Dioxane[28%], Aniline[39%], Benzaldehyde[8%] and Benzidine[0%] .
The RPD for {F2255-04MSD} with File ID: BF070861.D recoveries met criteria except for Benzaldehyde[67%] .
The Blank Spike for {PB76486BS} with File ID: BF070852.D met requirements for all samples except for 1,4-Dioxane[64%] .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements. The %RSD is greater than 15% in the Initial Calibration (Method 8270-BF051314.M) for Pyridine, Nitrobenzene, 2,6-Dinitrotoluene, 3-Nitroaniline, 2,4-Dinitrotoluene, Pentachlorophenol, Butylbenzylphthalate these compounds are passing on Linear regression while 2-Nitrophenol, Benzoic acid, 2-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroaniline, 4,6-Dinitro-2-methylphenol these compunds are passing on Quadratic regression.

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The Continuous Calibration File ID BF070868.D met the requirements except for 2,6-Dinitrotoluene,3-Nitroaniline,2,4-Dinitrotoluene,2-Nitrophenol,Benzoic acid,2-Nitroaniline,2,4-Dinitrophenol,4-Nitrophenol,4-Nitroaniline,4,6-Dinitro-2-methylphenol,Nitrobenzene-d5,Hexachlorocyclopentadiene,2,4,6-Tribromophenol and 2,3,4,6-Tetrachlorophenol .
The Tuning criteria met requirements.
Sample MW-8 was diluted due to high concentration.

E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signatur Mildred V Reyes

APPROVED
By Mildred V Reyes QA/QC Supervisor at 5:06 pm, Jan 28, 2015

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: F2255

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: PARVATHY NAIR **Date:** 05/19/2014

2nd Level QA Review Signature: Mildred V Reyes

APPROVED

By Mildred V Reyes QA/QC Supervisor at 5:06 pm, Jan 28, 2015

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

LAB CHRONICLE

OrderID:	F2255	**OrderDate:**	5/8/2014 1:15:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	Denise Cosenza	**Location:**	D11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
F2255-01	**MW-12R**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-02	**MW-11R**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-05	**MW-16**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-06	**MW-15**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-07	**MW-14**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-08	**MW-8**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-08DL	**MW-8DL**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-09	**MW-2**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-10	**DUP**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-11	**FB**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	
F2255-12	**TRIPBLANK**	**Water**			**05/07/14**			**05/08/14**
			VOC- Chemtech Full	8260-Low			05/09/14	

Hit Summary Sheet
SW-846

SDG No.: F2255

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**MW-15**								
F2255-06	MW-15	Water	Cyclohexane	4.90		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	Methylcyclohexane	2.30		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	Benzene	1.70		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	Toluene	0.30	J	0.2	0.2	1	ug/L
F2255-06	MW-15	Water	Ethyl Benzene	0.57	J	0.2	0.2	1	ug/L
F2255-06	MW-15	Water	o-Xylene	0.88	J	0.2	0.2	1	ug/L
F2255-06	MW-15	Water	Isopropylbenzene	41.70		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	n-propylbenzene	45.70		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	tert-Butylbenzene	2.80		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	1,2,4-Trimethylbenzene	0.45	J	0.2	0.2	1	ug/L
F2255-06	MW-15	Water	sec-Butylbenzene	4.10		0.2	0.2	1	ug/L
F2255-06	MW-15	Water	n-Butylbenzene	2.60		0.2	0.2	1	ug/L
			Total Voc :	108					
			Total Concentration:	108					
Client ID:	**MW-8**								
F2255-08	MW-8	Water	Cyclohexane	3.70		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Methylcyclohexane	2.50		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Benzene	1.80		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Toluene	1.00		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Ethyl Benzene	61.80		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	m/p-Xylenes	23.20		0.4	0.4	2	ug/L
F2255-08	MW-8	Water	o-Xylene	51.60		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Isopropylbenzene	47.30		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	n-propylbenzene	17.20		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	1,2,4-Trimethylbenzene	240.00	E	0.2	0.2	1	ug/L
F2255-08	MW-8	Water	sec-Butylbenzene	0.58	J	0.2	0.2	1	ug/L
F2255-08	MW-8	Water	p-Isopropyltoluene	7.10		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	n-Butylbenzene	1.10		0.2	0.2	1	ug/L
F2255-08	MW-8	Water	Naphthalene	690.00	E	0.2	0.2	1	ug/L
			Total Voc :	1148.88					
			Total Concentration:	1148.88					
Client ID:	**MW-8DL**								
F2255-08DL	MW-8DL	Water	Ethyl Benzene	55.40	D	2	2	10	ug/L
F2255-08DL	MW-8DL	Water	m/p-Xylenes	19.20	JD	4	4	20	ug/L
F2255-08DL	MW-8DL	Water	o-Xylene	45.00	D	2	2	10	ug/L
F2255-08DL	MW-8DL	Water	Isopropylbenzene	40.50	D	2	2	10	ug/L
F2255-08DL	MW-8DL	Water	n-propylbenzene	15.20	D	2	2	10	ug/L

Hit Summary Sheet
SW-846

SDG No.: F2255

Client: Cardno ATC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
F2255-08DL	MW-8DL	Water	1,2,4-Trimethylbenzene	230.00	D	2	2	10	ug/L
F2255-08DL	MW-8DL	Water	p-Isopropyltoluene	7.70	JD	2	2	10	ug/L
F2255-08DL	MW-8DL	Water	Naphthalene	1,600.00	D	2	2	10	ug/L
			Total Voc :	2013					
			Total Concentration:	2013					
Client ID:	**MW-2**								
F2255-09	MW-2	Water	Methyl tert-butyl Ether	4.00		0.35	0.5	1	ug/L
F2255-09	MW-2	Water	Benzene	9.60		0.2	0.2	1	ug/L
F2255-09	MW-2	Water	Ethyl Benzene	4.20		0.2	0.2	1	ug/L
F2255-09	MW-2	Water	o-Xylene	0.38	J	0.2	0.2	1	ug/L
F2255-09	MW-2	Water	Isopropylbenzene	5.70		0.2	0.2	1	ug/L
F2255-09	MW-2	Water	n-propylbenzene	2.40		0.2	0.2	1	ug/L
			Total Voc :	26.28					
			Total Concentration:	26.28					

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015246.D	1		05/09/14 18:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015246.D	1		05/09/14 18:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015246.D	1		05/09/14 18:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	60.1		61 - 141		120%	SPK: 50
1868-53-7	Dibromofluoromethane	55		69 - 133		110%	SPK: 50
2037-26-5	Toluene-d8	57.1		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		58 - 135		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	238045	7.87				
540-36-3	1,4-Difluorobenzene	379122	8.79				
3114-55-4	Chlorobenzene-d5	347219	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	107209	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015246.D	1		05/09/14 18:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015247.D	1		05/09/14 18:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015247.D	1		05/09/14 18:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015247.D	1		05/09/14 18:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	60.8		61 - 141		122%	SPK: 50
1868-53-7	Dibromofluoromethane	55.1		69 - 133		110%	SPK: 50
2037-26-5	Toluene-d8	56.4		65 - 126		113%	SPK: 50
460-00-4	4-Bromofluorobenzene	50		58 - 135		100%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	233887	7.87				
540-36-3	1,4-Difluorobenzene	375946	8.79				
3114-55-4	Chlorobenzene-d5	339408	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	104935	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015247.D	1		05/09/14 18:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-16	SDG No.:	F2255
Lab Sample ID:	F2255-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015248.D	1		05/09/14 19:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-16	SDG No.:	F2255
Lab Sample ID:	F2255-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015248.D	1		05/09/14 19:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-16	SDG No.:	F2255
Lab Sample ID:	F2255-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015248.D	1		05/09/14 19:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	59.6		61 - 141		119%	SPK: 50
1868-53-7	Dibromofluoromethane	54.1		69 - 133		108%	SPK: 50
2037-26-5	Toluene-d8	57		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		58 - 135		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	233831	7.87				
540-36-3	1,4-Difluorobenzene	370007	8.79				
3114-55-4	Chlorobenzene-d5	341802	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	105597	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-16	SDG No.:	F2255
Lab Sample ID:	F2255-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015248.D	1		05/09/14 19:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015249.D	1		05/09/14 19:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	4.9		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	2.3		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015249.D	1		05/09/14 19:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	1.7		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.3	J	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.57	J	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.88	J	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	41.7		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	45.7		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015249.D	1		05/09/14 19:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	2.8		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.45	J	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	4.1		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	2.6		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58.1		61 - 141		116%	SPK: 50
1868-53-7	Dibromofluoromethane	53		69 - 133		106%	SPK: 50
2037-26-5	Toluene-d8	57.2		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	62.7		58 - 135		125%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	247968	7.87				
540-36-3	1,4-Difluorobenzene	393628	8.78				
3114-55-4	Chlorobenzene-d5	365569	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	157912	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015249.D	1		05/09/14 19:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015250.D	1		05/09/14 20:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015250.D	1		05/09/14 20:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015250.D	1		05/09/14 20:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58.3		61 - 141		117%	SPK: 50
1868-53-7	Dibromofluoromethane	53.5		69 - 133		107%	SPK: 50
2037-26-5	Toluene-d8	58.7		65 - 126		117%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.9		58 - 135		122%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	242504	7.87				
540-36-3	1,4-Difluorobenzene	383000	8.79				
3114-55-4	Chlorobenzene-d5	368752	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	145305	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015250.D	1		05/09/14 20:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015254.D	1		05/09/14 22:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	3.7		0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	2.5		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015254.D	1		05/09/14 22:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	1.8		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	1		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	61.8		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	23.2		0.4	0.4	2	ug/L
95-47-6	o-Xylene	51.6		0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	47.3		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	17.2		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015254.D	1		05/09/14 22:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	240	E	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.58	J	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	7.1		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	1.1		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	690	E	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	55.9		61 - 141		112%	SPK: 50
1868-53-7	Dibromofluoromethane	53		69 - 133		106%	SPK: 50
2037-26-5	Toluene-d8	56.9		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	61.4		58 - 135		123%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	291649	7.86				
540-36-3	1,4-Difluorobenzene	464106	8.78				
3114-55-4	Chlorobenzene-d5	423212	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	188581	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015254.D	1		05/09/14 22:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015255.D	10		05/09/14 22:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2	UD	2	2	10	ug/L
74-87-3	Chloromethane	2	UD	2	2	10	ug/L
75-01-4	Vinyl Chloride	2	UD	2	2	10	ug/L
141-78-6	Ethyl Acetate	2	UD	2	5	10	ug/L
108-21-4	Isopropyl Acetate	2	UD	2	2	10	ug/L
74-83-9	Bromomethane	2	UD	2	2	10	ug/L
75-00-3	Chloroethane	2	UD	2	5	10	ug/L
75-69-4	Trichlorofluoromethane	2	UD	2	2	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2	UD	2	2	10	ug/L
75-65-0	Tert butyl alcohol	5	UD	5	37.5	50	ug/L
60-29-7	Diethyl Ether	2.7	UD	2.7	5	10	ug/L
75-35-4	1,1-Dichloroethene	2	UD	2	2	10	ug/L
107-02-8	Acrolein	5	UD	5	37.5	50	ug/L
107-13-1	Acrylonitrile	10	UD	10	10	50	ug/L
67-64-1	Acetone	5	UD	5	10	50	ug/L
75-15-0	Carbon Disulfide	2	UD	2	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	3.5	UD	3.5	5	10	ug/L
79-20-9	Methyl Acetate	2	UD	2	5	10	ug/L
75-09-2	Methylene Chloride	2	UD	2	2	10	ug/L
156-60-5	trans-1,2-Dichloroethene	2	UD	2	2	10	ug/L
108-05-4	Vinyl Acetate	10.5	UD	10.5	25	50	ug/L
75-34-3	1,1-Dichloroethane	2	UD	2	2	10	ug/L
110-82-7	Cyclohexane	2	UD	2	2	10	ug/L
78-93-3	2-Butanone	13.2	UD	13.2	25	50	ug/L
56-23-5	Carbon Tetrachloride	2	UD	2	2	10	ug/L
594-20-7	2,2-Dichloropropane	2	UD	2	5	10	ug/L
156-59-2	cis-1,2-Dichloroethene	2	UD	2	2	10	ug/L
74-97-5	Bromochloromethane	2	UD	2	5	10	ug/L
67-66-3	Chloroform	2	UD	2	2	10	ug/L
71-55-6	1,1,1-Trichloroethane	2	UD	2	2	10	ug/L
108-87-2	Methylcyclohexane	2	UD	2	2	10	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015255.D	10		05/09/14 22:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	3.9	UD	3.9	5	10	ug/L
71-43-2	Benzene	2	UD	2	2	10	ug/L
107-06-2	1,2-Dichloroethane	2	UD	2	2	10	ug/L
79-01-6	Trichloroethene	2	UD	2	2	10	ug/L
78-87-5	1,2-Dichloropropane	2	UD	2	2	10	ug/L
74-95-3	Dibromomethane	2	UD	2	2	10	ug/L
75-27-4	Bromodichloromethane	2	UD	2	2	10	ug/L
108-10-1	4-Methyl-2-Pentanone	10	UD	10	10	50	ug/L
108-88-3	Toluene	2	UD	2	2	10	ug/L
10061-02-6	t-1,3-Dichloropropene	2	UD	2	2	10	ug/L
10061-01-5	cis-1,3-Dichloropropene	2	UD	2	2	10	ug/L
79-00-5	1,1,2-Trichloroethane	2	UD	2	2	10	ug/L
142-28-9	1,3-Dichloropropane	2	UD	2	2	10	ug/L
110-75-8	2-Chloroethyl Vinyl ether	10	UD	10	10	50	ug/L
591-78-6	2-Hexanone	19.4	UD	19.4	25	50	ug/L
124-48-1	Dibromochloromethane	2	UD	2	2	10	ug/L
106-93-4	1,2-Dibromoethane	2	UD	2	2	10	ug/L
127-18-4	Tetrachloroethene	2	UD	2	2	10	ug/L
108-90-7	Chlorobenzene	2	UD	2	2	10	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	2	UD	2	2	10	ug/L
67-72-1	Hexachloroethane	2	UD	2	2	10	ug/L
100-41-4	Ethyl Benzene	55.4	D	2	2	10	ug/L
179601-23-1	m/p-Xylenes	19.2	JD	4	4	20	ug/L
95-47-6	o-Xylene	45	D	2	2	10	ug/L
100-42-5	Styrene	2	UD	2	2	10	ug/L
75-25-2	Bromoform	2	UD	2	2	10	ug/L
98-82-8	Isopropylbenzene	40.5	D	2	2	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2	UD	2	2	10	ug/L
96-18-4	1,2,3-Trichloropropane	2	UD	2	2	10	ug/L
108-86-1	Bromobenzene	2	UD	2	2	10	ug/L
103-65-1	n-propylbenzene	15.2	D	2	2	10	ug/L
95-49-8	2-Chlorotoluene	2	UD	2	2	10	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015255.D	10		05/09/14 22:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	2	UD	2	2	10	ug/L
106-43-4	4-Chlorotoluene	2	UD	2	2	10	ug/L
98-06-6	tert-Butylbenzene	2	UD	2	2	10	ug/L
95-63-6	1,2,4-Trimethylbenzene	230	D	2	2	10	ug/L
135-98-8	sec-Butylbenzene	2	UD	2	2	10	ug/L
99-87-6	p-Isopropyltoluene	7.7	JD	2	2	10	ug/L
541-73-1	1,3-Dichlorobenzene	2	UD	2	2	10	ug/L
106-46-7	1,4-Dichlorobenzene	2	UD	2	2	10	ug/L
104-51-8	n-Butylbenzene	2	UD	2	2	10	ug/L
95-50-1	1,2-Dichlorobenzene	2	UD	2	2	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2	UD	2	2	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	2	UD	2	2	10	ug/L
87-68-3	Hexachlorobutadiene	2	UD	2	2	10	ug/L
91-20-3	Naphthalene	1600	D	2	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	2	UD	2	2	10	ug/L
628-63-7	N-amyl acetate	2	UD	2	7.5	10	ug/L
74-88-4	Methyl Iodide	2	UD	2	5	10	ug/L
107-05-1	Allyl chloride	2	UD	2	5	10	ug/L
126-98-7	Methacrylonitrile	2	UD	2	7.5	10	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	2	UD	2	7.5	10	ug/L
97-63-2	Ethyl methacrylate	2	UD	2	5	10	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	57.9		61 - 141		116%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		69 - 133		107%	SPK: 50
2037-26-5	Toluene-d8	57.9		65 - 126		116%	SPK: 50
460-00-4	4-Bromofluorobenzene	64		58 - 135		128%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	256106	7.87				
540-36-3	1,4-Difluorobenzene	402873	8.78				
3114-55-4	Chlorobenzene-d5	397290	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	172856	13.56				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015255.D	10		05/09/14 22:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015251.D	1		05/09/14 20:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	4		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015251.D	1		05/09/14 20:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	9.6		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	4.2		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.38	J	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	5.7		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	2.4		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015251.D	1		05/09/14 20:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	57.5		61 - 141		115%	SPK: 50
1868-53-7	Dibromofluoromethane	52.9		69 - 133		106%	SPK: 50
2037-26-5	Toluene-d8	57.5		65 - 126		115%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.7		58 - 135		119%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	253469	7.87				
540-36-3	1,4-Difluorobenzene	400896	8.78				
3114-55-4	Chlorobenzene-d5	377913	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	153063	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015251.D	1		05/09/14 20:47	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015252.D	1		05/09/14 21:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015252.D	1		05/09/14 21:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015252.D	1		05/09/14 21:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58.3		61 - 141		116%	SPK: 50
1868-53-7	Dibromofluoromethane	54.6		69 - 133		109%	SPK: 50
2037-26-5	Toluene-d8	57.1		65 - 126		114%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.2		58 - 135		108%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	255363	7.87				
540-36-3	1,4-Difluorobenzene	397461	8.79				
3114-55-4	Chlorobenzene-d5	370732	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	125276	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015252.D	1		05/09/14 21:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015242.D	1		05/09/14 16:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015242.D	1		05/09/14 16:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015242.D	1		05/09/14 16:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	59.6		61 - 141		119%	SPK: 50
1868-53-7	Dibromofluoromethane	54.6		69 - 133		109%	SPK: 50
2037-26-5	Toluene-d8	57.6		65 - 126		115%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.7		58 - 135		101%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	223709	7.87				
540-36-3	1,4-Difluorobenzene	346655	8.79				
3114-55-4	Chlorobenzene-d5	318287	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	98671	13.56				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015242.D	1		05/09/14 16:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F2255
Lab Sample ID:	F2255-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015241.D	1		05/09/14 15:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F2255
Lab Sample ID:	F2255-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015241.D	1		05/09/14 15:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F2255
Lab Sample ID:	F2255-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015241.D	1		05/09/14 15:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58.3		61 - 141		117%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		69 - 133		107%	SPK: 50
2037-26-5	Toluene-d8	55.9		65 - 126		112%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	238415	7.87				
540-36-3	1,4-Difluorobenzene	374715	8.79				
3114-55-4	Chlorobenzene-d5	331986	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	105964	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	TRIPBLANK	SDG No.:	F2255
Lab Sample ID:	F2255-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015241.D	1		05/09/14 15:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
F2255-01	MW-12R	1,2-Dichloroethane-d4	50	60.05	120		61	141
		Dibromofluoromethane	50	54.98	110		69	133
		Toluene-d8	50	57.12	114		65	126
		4-Bromofluorobenzene	50	51.89	104		58	135
F2255-02	MW-11R	1,2-Dichloroethane-d4	50	60.79	122		61	141
		Dibromofluoromethane	50	55.121	110		69	133
		Toluene-d8	50	56.384	113		65	126
		4-Bromofluorobenzene	50	50.046	100		58	135
F2255-03MS	MW-11RMS	1,2-Dichloroethane-d4	50	46.63	93		70	120
		Dibromofluoromethane	50	46.42	93		85	115
		Toluene-d8	50	43.36	87		85	120
		4-Bromofluorobenzene	50	48.85	98		75	120
F2255-04MSD	MW-11RMSD	1,2-Dichloroethane-d4	50	52.03	104		70	120
		Dibromofluoromethane	50	51.15	102		85	115
		Toluene-d8	50	47.67	95		85	120
		4-Bromofluorobenzene	50	53.94	108		75	120
F2255-05	MW-16	1,2-Dichloroethane-d4	50	59.613	119		61	141
		Dibromofluoromethane	50	54.091	108		69	133
		Toluene-d8	50	56.98	114		65	126
		4-Bromofluorobenzene	50	51.299	103		58	135
F2255-06	MW-15	1,2-Dichloroethane-d4	50	58.064	116		61	141
		Dibromofluoromethane	50	53.009	106		69	133
		Toluene-d8	50	57.163	114		65	126
		4-Bromofluorobenzene	50	62.709	125		58	135
F2255-07	MW-14	1,2-Dichloroethane-d4	50	58.317	117		61	141
		Dibromofluoromethane	50	53.527	107		69	133
		Toluene-d8	50	58.727	117		65	126
		4-Bromofluorobenzene	50	60.935	122		58	135
F2255-08	MW-8	1,2-Dichloroethane-d4	50	55.89	112		61	141
		Dibromofluoromethane	50	52.95	106		69	133
		Toluene-d8	50	56.85	114		65	126
		4-Bromofluorobenzene	50	61.4	123		58	135
F2255-08DL	MW-8DL	1,2-Dichloroethane-d4	50	57.902	116		61	141
		Dibromofluoromethane	50	53.284	107		69	133
		Toluene-d8	50	57.912	116		65	126
		4-Bromofluorobenzene	50	63.989	128		58	135
F2255-09	MW-2	1,2-Dichloroethane-d4	50	57.453	115		61	141
		Dibromofluoromethane	50	52.862	106		69	133
		Toluene-d8	50	57.46	115		65	126
		4-Bromofluorobenzene	50	59.66	119		58	135
F2255-10	DUP	1,2-Dichloroethane-d4	50	58.25	116		61	141
		Dibromofluoromethane	50	54.62	109		69	133
		Toluene-d8	50	57.1	114		65	126
		4-Bromofluorobenzene	50	54.23	108		58	135
F2255-11	FB	1,2-Dichloroethane-d4	50	59.637	119		61	141
		Dibromofluoromethane	50	54.617	109		69	133
		Toluene-d8	50	57.586	115		65	126
		4-Bromofluorobenzene	50	50.65	101		58	135
F2255-12	TRIPBLANK	1,2-Dichloroethane-d4	50	58.343	117		61	141
		Dibromofluoromethane	50	53.364	107		69	133
		Toluene-d8	50	55.893	112		65	126
		4-Bromofluorobenzene	50	48.786	98		58	135

Surrogate Summary

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
VN0509WBL01	VN0509WBL01	1,2-Dichloroethane-d4	50	58.017	116		70	120
		Dibromofluoromethane	50	53.43	107		85	115
		Toluene-d8	50	57.712	115		85	120
		4-Bromofluorobenzene	50	50.856	102		75	120
VN0509WBS01	VN0509WBS01	1,2-Dichloroethane-d4	50	50.675	101		70	120
		Dibromofluoromethane	50	50.382	101		85	115
		Toluene-d8	50	46.842	94		85	120
		4-Bromofluorobenzene	50	50.927	102		75	120

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : F2255-03MS	**Client Sample ID :**		**MW-11RMS**					**Datafile :**	VN015256.D		
Dichlorodifluoromethane	50	0	51.5	ug/L	103				30	155	
Chloromethane	50	0	45.4	ug/L	91				40	125	
Vinyl chloride	50	0	53.6	ug/L	107				50	145	
Ethyl Acetate	50	0	42.7	ug/L	85				70	130	
Isopropylacetate	50	0	46.5	ug/L	93				70	130	
Bromomethane	50	0	36.2	ug/L	72				30	145	
Chloroethane	50	0	49.7	ug/L	99				60	135	
Trichlorofluoromethane	50	0	56.2	ug/L	112				60	145	
1,1,2-Trichlorotrifluoroethane	50	0	50.7	ug/L	101				52	142	
Tert butyl alcohol	250	0	240	ug/L	96				46	147	
Diethyl Ether	50	0	48	ug/L	96				70	130	
1,1-Dichloroethene	50	0	49.3	ug/L	99				70	130	
Acrolein	250	0	200	ug/L	80				38	155	
Acrylonitrile	250	0	230	ug/L	92				53	150	
Acetone	250	0	190	ug/L	76				40	140	
Carbon disulfide	50	0	48.2	ug/L	96				35	160	
Methyl tert-butyl Ether	50	0	49.2	ug/L	98				65	125	
Methyl Acetate	50	0	51.7	ug/L	103				51	158	
Methylene Chloride	50	0	47.3	ug/L	95				55	140	
trans-1,2-Dichloroethene	50	0	50.1	ug/L	100				60	140	
Vinyl Acetate	250	0	170	ug/L	68				47	166	
1,1-Dichloroethane	50	0	46.6	ug/L	93				70	135	
Cyclohexane	50	0	44.6	ug/L	89				56	141	
2-Butanone	250	0	210	ug/L	84				30	150	
Carbon Tetrachloride	50	0	53.8	ug/L	108				65	140	
2,2-Dichloropropane	50	0	44.8	ug/L	90				70	135	
cis-1,2-Dichloroethene	50	0	48.6	ug/L	97				70	125	
Bromochloromethane	50	0	39.3	ug/L	79				65	130	
Chloroform	50	0	49.1	ug/L	98				65	135	
1,1,1-Trichloroethane	50	0	52.4	ug/L	105				65	130	
Methylcyclohexane	50	0	50	ug/L	100				56	137	
1,1-Dichloropropene	50	0	50.4	ug/L	101				75	130	
Benzene	50	0	49.3	ug/L	99				80	120	
1,2-Dichloroethane	50	0	53.1	ug/L	106				70	130	
Trichloroethene	50	0	50.6	ug/L	101				70	125	
1,2-Dichloropropane	50	0	45.8	ug/L	92				75	125	
Dibromomethane	50	0	50	ug/L	100				75	125	
Bromodichloromethane	50	0	49.9	ug/L	100				75	120	
4-Methyl-2-Pentanone	250	0	240	ug/L	96				60	135	
Toluene	50	0	49.9	ug/L	100				75	120	
t-1,3-Dichloropropene	50	0	49.8	ug/L	100				55	140	
cis-1,3-Dichloropropene	50	0	49	ug/L	98				70	130	
1,1,2-Trichloroethane	50	0	48.4	ug/L	97				75	125	
1,3-Dichloropropane	50	0	47.4	ug/L	95				75	125	
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*			54	151	
2-Hexanone	250	0	240	ug/L	96				55	130	
Dibromochloromethane	50	0	50.3	ug/L	101				60	135	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	51.7	ug/L	103				80	120	
Tetrachloroethene	50	0	50.5	ug/L	101				45	150	
Chlorobenzene	50	0	49.4	ug/L	99				80	120	
1,1,1,2-Tetrachloroethane	50	0	49.6	ug/L	99				80	130	
Hexachloroethane	50	0	45.6	ug/L	91				70	130	
Ethyl Benzene	50	0	51.4	ug/L	103				75	125	
m/p-Xylenes	100	0	100	ug/L	100				75	130	
o-Xylene	50	0	50.4	ug/L	101				80	120	
Styrene	50	0	54.6	ug/L	109				65	135	
Bromoform	50	0	52.9	ug/L	106				70	130	
Isopropylbenzene	50	0	45.8	ug/L	92				75	125	
1,1,2,2-Tetrachloroethane	50	0	47.5	ug/L	95				65	130	
1,2,3-Trichloropropane	50	0	41.5	ug/L	83				75	125	
Bromobenzene	50	0	47.3	ug/L	95				75	125	
N-propylbenzene	50	0	46.3	ug/L	93				70	130	
2-Chlorotoluene	50	0	44.8	ug/L	90				75	125	
1,3,5-Trimethylbenzene	50	0	48.9	ug/L	98				75	130	
4-Chlorotoluene	50	0	48	ug/L	96				75	130	
tert-Butylbenzene	50	0	46	ug/L	92				70	130	
1,2,4-Trimethylbenzene	50	0	50.5	ug/L	101				75	130	
Sec-butylbenzene	50	0	46.2	ug/L	92				70	125	
p-Isopropyltoluene	50	0	48.9	ug/L	98				75	130	
1,3-Dichlorobenzene	50	0	49.1	ug/L	98				75	125	
1,4-Dichlorobenzene	50	0	47.6	ug/L	95				75	125	
n-Butylbenzene	50	0	51.2	ug/L	102				70	135	
1,2-Dichlorobenzene	50	0	47.4	ug/L	95				70	120	
1,2-Dibromo-3-Chloropropane	50	0	47.2	ug/L	94				50	130	
1,2,4-Trichlorobenzene	50	0	54.6	ug/L	109				65	135	
Hexachlorobutadiene	50	0	51	ug/L	102				50	140	
Naphthalene	50	0	61.6	ug/L	123				55	140	
1,2,3-Trichlorobenzene	50	0	47.7	ug/L	95				55	140	
N-amyl acetate	50	0	43.4	ug/L	87				70	130	
Methyl iodide	50	0	44.4	ug/L	89				70	130	
Allyl chloride	50	0	45.6	ug/L	91				70	130	
Methacrylonitrile	50	0	50.4	ug/L	101				70	130	
trans-1,4-Dichloro-2-butene	50	0	40.2	ug/L	80				70	130	
Ethyl methacrylate	50	0	46	ug/L	92				70	130	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : F2255-04MSD	**Client Sample ID :**		**MW-11RMSD**				**Datafile :**	VN015257.D			
Dichlorodifluoromethane	50	0	54.2	ug/L	108		5		30	155	20
Chloromethane	50	0	48.6	ug/L	97		7		40	125	20
Vinyl chloride	50	0	58.4	ug/L	117		9		50	145	20
Ethyl Acetate	50	0	44.6	ug/L	89		4		70	130	20
Isopropylacetate	50	0	50.2	ug/L	100		8		70	130	20
Bromomethane	50	0	49.5	ug/L	99		31	*	30	145	20
Chloroethane	50	0	53.2	ug/L	106		7		60	135	20
Trichlorofluoromethane	50	0	59.6	ug/L	119		6		60	145	20
1,1,2-Trichlorotrifluoroethane	50	0	53.3	ug/L	107		5		52	142	20
Tert butyl alcohol	250	0	270	ug/L	108		12		46	147	20
Diethyl Ether	50	0	50.6	ug/L	101		5		70	130	20
1,1-Dichloroethene	50	0	52.6	ug/L	105		6		70	130	20
Acrolein	250	0	210	ug/L	84		5		38	155	20
Acrylonitrile	250	0	230	ug/L	92		0		53	150	20
Acetone	250	0	200	ug/L	80		5		40	140	20
Carbon disulfide	50	0	50.8	ug/L	102		5		35	160	20
Methyl tert-butyl Ether	50	0	52	ug/L	104		6		65	125	20
Methyl Acetate	50	0	53.2	ug/L	106		3		51	158	20
Methylene Chloride	50	0	50.1	ug/L	100		6		55	140	20
trans-1,2-Dichloroethene	50	0	53.1	ug/L	106		6		60	140	20
Vinyl Acetate	250	0	170	ug/L	68		0		47	166	20
1,1-Dichloroethane	50	0	49.5	ug/L	99		6		70	135	20
Cyclohexane	50	0	47.7	ug/L	95		7		56	141	20
2-Butanone	250	0	220	ug/L	88		5		30	150	20
Carbon Tetrachloride	50	0	56.9	ug/L	114		6		65	140	20
2,2-Dichloropropane	50	0	46.5	ug/L	93		4		70	135	20
cis-1,2-Dichloroethene	50	0	50.9	ug/L	102		5		70	125	20
Bromochloromethane	50	0	40.5	ug/L	81		3		65	130	20
Chloroform	50	0	52	ug/L	104		6		65	135	20
1,1,1-Trichloroethane	50	0	55.6	ug/L	111		6		65	130	20
Methylcyclohexane	50	0	53	ug/L	106		6		56	137	20
1,1-Dichloropropene	50	0	53	ug/L	106		5		75	130	20
Benzene	50	0	52.1	ug/L	104		6		80	120	20
1,2-Dichloroethane	50	0	55	ug/L	110		4		70	130	20
Trichloroethene	50	0	52.4	ug/L	105		3		70	125	20
1,2-Dichloropropane	50	0	47.4	ug/L	95		3		75	125	20
Dibromomethane	50	0	52.6	ug/L	105		5		75	125	20
Bromodichloromethane	50	0	52.4	ug/L	105		5		75	120	20
4-Methyl-2-Pentanone	250	0	250	ug/L	100		4		60	135	20
Toluene	50	0	52.9	ug/L	106		6		75	120	20
t-1,3-Dichloropropene	50	0	52.8	ug/L	106		6		55	140	20
cis-1,3-Dichloropropene	50	0	51.2	ug/L	102		4		70	130	20
1,1,2-Trichloroethane	50	0	49.8	ug/L	100		3		75	125	20
1,3-Dichloropropane	50	0	50	ug/L	100		5		75	125	20
2-Chloroethyl vinyl ether	250	0	0	ug/L	0	*	0		54	151	20
2-Hexanone	250	0	250	ug/L	100		4		55	130	20
Dibromochloromethane	50	0	53.8	ug/L	108		7		60	135	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dibromoethane	50	0	53.6	ug/L	107		4		80	120	20
Tetrachloroethene	50	0	51.9	ug/L	104		3		45	150	20
Chlorobenzene	50	0	51.1	ug/L	102		3		80	120	20
1,1,1,2-Tetrachloroethane	50	0	53.1	ug/L	106		7		80	130	20
Hexachloroethane	50	0	48.7	ug/L	97		7		70	130	20
Ethyl Benzene	50	0	53.1	ug/L	106		3		75	125	20
m/p-Xylenes	100	0	110	ug/L	110		10		75	130	20
o-Xylene	50	0	52.4	ug/L	105		4		80	120	20
Styrene	50	0	56.6	ug/L	113		4		65	135	20
Bromoform	50	0	54.6	ug/L	109		3		70	130	20
Isopropylbenzene	50	0	47.9	ug/L	96		4		75	125	20
1,1,2,2-Tetrachloroethane	50	0	48.7	ug/L	97		2		65	130	20
1,2,3-Trichloropropane	50	0	46.2	ug/L	92		11		75	125	20
Bromobenzene	50	0	48.3	ug/L	97		2		75	125	20
N-propylbenzene	50	0	48.1	ug/L	96		4		70	130	20
2-Chlorotoluene	50	0	47	ug/L	94		5		75	125	20
1,3,5-Trimethylbenzene	50	0	50.8	ug/L	102		4		75	130	20
4-Chlorotoluene	50	0	50.3	ug/L	101		5		75	130	20
tert-Butylbenzene	50	0	48.3	ug/L	97		5		70	130	20
1,2,4-Trimethylbenzene	50	0	52.4	ug/L	105		4		75	130	20
Sec-butylbenzene	50	0	48.5	ug/L	97		5		70	125	20
p-Isopropyltoluene	50	0	51.3	ug/L	103		5		75	130	20
1,3-Dichlorobenzene	50	0	51.3	ug/L	103		4		75	125	20
1,4-Dichlorobenzene	50	0	49.9	ug/L	100		5		75	125	20
n-Butylbenzene	50	0	53.4	ug/L	107		4		70	135	20
1,2-Dichlorobenzene	50	0	50	ug/L	100		5		70	120	20
1,2-Dibromo-3-Chloropropane	50	0	51.5	ug/L	103		9		50	130	20
1,2,4-Trichlorobenzene	50	0	56.2	ug/L	112		3		65	135	20
Hexachlorobutadiene	50	0	53	ug/L	106		4		50	140	20
Naphthalene	50	0	56.6	ug/L	113		8		55	140	20
1,2,3-Trichlorobenzene	50	0	48.2	ug/L	96		1		55	140	20
N-amyl acetate	50	0	44	ug/L	88		1		70	130	20
Methyl iodide	50	0	49	ug/L	98		10		70	130	20
Allyl chloride	50	0	48.1	ug/L	96		5		70	130	20
Methacrylonitrile	50	0	51.1	ug/L	102		1		70	130	20
trans-1,4-Dichloro-2-butene	50	0	43.1	ug/L	86		7		70	130	20
Ethyl methacrylate	50	0	48.8	ug/L	98		6		70	130	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW8260-Low **Datafile :** VN015240.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0509WBS01	Dichlorodifluoromethane	20	20.3	ug/L	102			30	155	
	Chloromethane	20	15.5	ug/L	78			40	125	
	Vinyl chloride	20	18	ug/L	90			50	145	
	Ethyl Acetate	20	18.6	ug/L	93			70	130	
	Isopropylacetate	20	20.7	ug/L	104			70	130	
	Bromomethane	20	18.2	ug/L	91			30	145	
	Chloroethane	20	18	ug/L	90			60	135	
	Trichlorofluoromethane	20	22.3	ug/L	112			60	145	
	1,1,2-Trichlorotrifluoroethane	20	21.1	ug/L	106			52	142	
	Tert butyl alcohol	100	110	ug/L	110			46	147	
	Diethyl Ether	20	18.2	ug/L	91			70	130	
	1,1-Dichloroethene	20	18.5	ug/L	93			70	130	
	Acrolein	100	48.9	ug/L	49			38	155	
	Acrylonitrile	100	95	ug/L	95			53	150	
	Acetone	100	110	ug/L	110			40	140	
	Carbon disulfide	20	14.8	ug/L	74			35	160	
	Methyl tert-butyl Ether	20	21.6	ug/L	108			65	125	
	Methyl Acetate	20	22.3	ug/L	112			51	158	
	Methylene Chloride	20	19.5	ug/L	98			55	140	
	trans-1,2-Dichloroethene	20	19.1	ug/L	96			60	140	
	Vinyl Acetate	100	97.6	ug/L	98			47	166	
	1,1-Dichloroethane	20	19.7	ug/L	99			70	135	
	Cyclohexane	20	17.6	ug/L	88			56	141	
	2-Butanone	100	97.3	ug/L	97			30	150	
	Carbon Tetrachloride	20	24.3	ug/L	121			65	140	
	2,2-Dichloropropane	20	23.1	ug/L	116			70	135	
	cis-1,2-Dichloroethene	20	20.1	ug/L	101			70	125	
	Bromochloromethane	20	13.9	ug/L	70			65	130	
	Chloroform	20	21.8	ug/L	109			65	135	
	1,1,1-Trichloroethane	20	23.1	ug/L	116			65	130	
	Methylcyclohexane	20	18.6	ug/L	93			56	137	
	1,1-Dichloropropene	20	20.7	ug/L	104			75	130	
	Benzene	20	20.4	ug/L	102			80	120	
	1,2-Dichloroethane	20	24.1	ug/L	121			70	130	
	Trichloroethene	20	21.2	ug/L	106			70	125	
	1,2-Dichloropropane	20	20.4	ug/L	102			75	125	
	Dibromomethane	20	22.8	ug/L	114			75	125	
	Bromodichloromethane	20	23	ug/L	115			75	120	
	4-Methyl-2-Pentanone	100	110	ug/L	110			60	135	
	Toluene	20	20.7	ug/L	104			75	120	
	t-1,3-Dichloropropene	20	22.6	ug/L	113			55	140	
	cis-1,3-Dichloropropene	20	21.9	ug/L	110			70	130	
	1,1,2-Trichloroethane	20	22.7	ug/L	114			75	125	
	1,3-Dichloropropane	20	22	ug/L	110			75	125	
	2-Chloroethyl vinyl ether	100	94	ug/L	94			54	151	
	2-Hexanone	100	110	ug/L	110			55	130	
	Dibromochloromethane	20	23.6	ug/L	118			60	135	
	1,2-Dibromoethane	20	22.8	ug/L	114			80	120	
	Tetrachloroethene	20	21.6	ug/L	108			45	150	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F2255
Client: Cardno ATC
Analytical Method: SW8260-Low **Datafile :** VN015240.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0509WBS01	Chlorobenzene	20	21	ug/L	105			80	120	
	1,1,1,2-Tetrachloroethane	20	23	ug/L	115			80	130	
	Hexachloroethane	20	23.7	ug/L	119			70	130	
	Ethyl Benzene	20	21.5	ug/L	108			75	125	
	m/p-Xylenes	40	42.4	ug/L	106			75	130	
	o-Xylene	20	21.4	ug/L	107			80	120	
	Styrene	20	22.5	ug/L	113			65	135	
	Bromoform	20	24.1	ug/L	121			70	130	
	Isopropylbenzene	20	20.8	ug/L	104			75	125	
	1,1,2,2-Tetrachloroethane	20	23.5	ug/L	117			65	130	
	1,2,3-Trichloropropane	20	24.5	ug/L	123			75	125	
	Bromobenzene	20	21.8	ug/L	109			75	125	
	N-propylbenzene	20	20.6	ug/L	103			70	130	
	2-Chlorotoluene	20	20.8	ug/L	104			75	125	
	1,3,5-Trimethylbenzene	20	22.4	ug/L	112			75	130	
	4-Chlorotoluene	20	21.3	ug/L	106			75	130	
	tert-Butylbenzene	20	21.4	ug/L	107			70	130	
	1,2,4-Trimethylbenzene	20	22.6	ug/L	113			75	130	
	Sec-butylbenzene	20	21.2	ug/L	106			70	125	
	p-Isopropyltoluene	20	22.4	ug/L	112			75	130	
	1,3-Dichlorobenzene	20	22.3	ug/L	112			75	125	
	1,4-Dichlorobenzene	20	21.3	ug/L	106			75	125	
	n-Butylbenzene	20	21.7	ug/L	109			70	135	
	1,2-Dichlorobenzene	20	22.1	ug/L	111			70	120	
	1,2-Dibromo-3-Chloropropane	20	22.5	ug/L	113			50	130	
	1,2,4-Trichlorobenzene	20	23.4	ug/L	117			65	135	
	Hexachlorobutadiene	20	24.8	ug/L	124			50	140	
	Naphthalene	20	20.3	ug/L	102			55	140	
	1,2,3-Trichlorobenzene	20	22.5	ug/L	113			55	140	
	N-amyl acetate	20	20.5	ug/L	103			70	130	
	Methyl iodide	20	20.6	ug/L	103			70	130	
	Allyl chloride	20	17.4	ug/L	87			70	130	
	Methacrylonitrile	20	20.8	ug/L	104			70	130	
	trans-1,4-Dichloro-2-butene	20	20.3	ug/L	102			70	130	
	Ethyl methacrylate	20	22.4	ug/L	112			70	130	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0509WBL01

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: VN015239.D Lab Sample ID: VN0509WBL01

Date Analyzed: 05/09/2014 Time Analyzed: 14:29

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0509WBS01	VN0509WBS01	VN015240.D	05/09/2014
TRIPBLANK	F2255-12	VN015241.D	05/09/2014
FB	F2255-11	VN015242.D	05/09/2014
MW-12R	F2255-01	VN015246.D	05/09/2014
MW-11R	F2255-02	VN015247.D	05/09/2014
MW-16	F2255-05	VN015248.D	05/09/2014
MW-15	F2255-06	VN015249.D	05/09/2014
MW-14	F2255-07	VN015250.D	05/09/2014
MW-2	F2255-09	VN015251.D	05/09/2014
DUP	F2255-10	VN015252.D	05/09/2014
MW-8	F2255-08	VN015254.D	05/09/2014
MW-8DL	F2255-08DL	VN015255.D	05/09/2014
MW-11RMS	F2255-03MS	VN015256.D	05/09/2014
MW-11RMSD	F2255-04MSD	VN015257.D	05/09/2014

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: VN014802.D BFB Injection Date: 04/23/2014

Instrument ID: MSVOA_N BFB Injection Time: 10:35

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.5
75	30.0 - 60.0% of mass 95	55.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.4 (0.4) 1
174	50.0 - 100.0% of mass 95	85.8
175	5.0 - 9.0% of mass 174	6.6 (7.7) 1
176	95.0 - 101.0% of mass 174	83.2 (96.9) 1
177	5.0 - 9.0% of mass 176	5.5 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VN014803.D	04/23/2014	11:22
VSTDICC005	VSTDICC005	VN014804.D	04/23/2014	12:38
VSTDICC020	VSTDICC020	VN014805.D	04/23/2014	13:46
VSTDICCC050	VSTDICCC050	VN014806.D	04/23/2014	14:21
VSTDICC100	VSTDICC100	VN014807.D	04/23/2014	14:51
VSTDICC200	VSTDICC200	VN014808.D	04/23/2014	15:21

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: VN015237.D BFB Injection Date: 05/09/2014

Instrument ID: MSVOA_N BFB Injection Time: 12:40

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.5
75	30.0 - 60.0% of mass 95	58.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	86.5
175	5.0 - 9.0% of mass 174	7 (8.1) 1
176	95.0 - 101.0% of mass 174	84.7 (97.9) 1
177	5.0 - 9.0% of mass 176	5.1 (6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN015238.D	05/09/2014	13:15
VN0509WBL01	VN0509WBL01	VN015239.D	05/09/2014	14:29
VN0509WBS01	VN0509WBS01	VN015240.D	05/09/2014	15:16
TRIPBLANK	F2255-12	VN015241.D	05/09/2014	15:46
FB	F2255-11	VN015242.D	05/09/2014	16:16
MW-12R	F2255-01	VN015246.D	05/09/2014	18:16
MW-11R	F2255-02	VN015247.D	05/09/2014	18:46
MW-16	F2255-05	VN015248.D	05/09/2014	19:16
MW-15	F2255-06	VN015249.D	05/09/2014	19:47
MW-14	F2255-07	VN015250.D	05/09/2014	20:17
MW-2	F2255-09	VN015251.D	05/09/2014	20:47
DUP	F2255-10	VN015252.D	05/09/2014	21:17
MW-8	F2255-08	VN015254.D	05/09/2014	22:17
MW-8DL	F2255-08DL	VN015255.D	05/09/2014	22:47
MW-11RMS	F2255-03MS	VN015256.D	05/09/2014	23:17
MW-11RMSD	F2255-04MSD	VN015257.D	05/09/2014	23:46

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: VN015238.D Date Analyzed: 05/09/2014

Instrument ID: MSVOA_N Time Analyzed: 13:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	229066	7.87	336375	8.78	295806	11.61
UPPER LIMIT	458132	8.37	672750	9.28	591612	12.11
LOWER LIMIT	114533	7.37	168188	8.28	147903	11.11
EPA SAMPLE NO.						
MW-12R	238045	7.87	379122	8.79	347219	11.61
MW-11R	233887	7.87	375946	8.79	339408	11.61
MW-11RMS	247956	7.87	377244	8.78	326736	11.61
MW-11RMSD	235786	7.87	361383	8.78	316236	11.61
MW-16	233831	7.87	370007	8.79	341802	11.61
MW-15	247968	7.87	393628	8.78	365569	11.61
MW-14	242504	7.87	383000	8.79	368752	11.61
MW-8	291649	7.86	464106	8.78	423212	11.61
MW-8DL	256106	7.87	402873	8.78	397290	11.61
MW-2	253469	7.87	400896	8.78	377913	11.61
DUP	255363	7.87	397461	8.79	370732	11.61
FB	223709	7.87	346655	8.79	318287	11.61
TRIPBLANK	238415	7.87	374715	8.79	331986	11.61
VN0509WBL01	238397	7.87	370689	8.79	333872	11.61
VN0509WBS01	247940	7.87	361160	8.78	317565	11.61

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: VN015238.D Date Analyzed: 05/09/2014

Instrument ID: MSVOA_N Time Analyzed: 13:15

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	133450	13.56				
UPPER LIMIT	266900	14.06				
LOWER LIMIT	66725	13.06				
EPA SAMPLE NO.						
MW-12R	107209	13.56				
MW-11R	104935	13.56				
MW-11RMS	148726	13.56				
MW-11RMSD	143793	13.56				
MW-16	105597	13.56				
MW-15	157912	13.56				
MW-14	145305	13.56				
MW-8	188581	13.56				
MW-8DL	172856	13.56				
MW-2	153063	13.56				
DUP	125276	13.56				
FB	98671	13.56				
TRIPBLANK	105964	13.56				
VN0509WBL01	103688	13.56				
VN0509WBS01	136251	13.56				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBL01	SDG No.:	F2255
Lab Sample ID:	VN0509WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015239.D	1		05/09/14 14:29	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.2	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	0.2	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.2	U	0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	0.2	U	0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	0.2	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	0.2	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	0.2	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.2	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.2	U	0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	0.5	U	0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	0.27	U	0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
107-02-8	Acrolein	0.5	U	0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	1	U	1	1	5	ug/L
67-64-1	Acetone	0.5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	0.2	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.35	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.2	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.2	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	1.1	U	1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	0.2	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	1.3	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.2	U	0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	0.2	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.2	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	0.2	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.2	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBL01	SDG No.:	F2255
Lab Sample ID:	VN0509WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015239.D	1		05/09/14 14:29	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	0.39	U	0.39	0.5	1	ug/L
71-43-2	Benzene	0.2	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	0.2	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.2	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
74-95-3	Dibromomethane	0.2	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	0.2	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	1	U	1	1	5	ug/L
108-88-3	Toluene	0.2	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.2	U	0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.2	U	0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	0.2	U	0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	1.9	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.2	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	0.2	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.2	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	0.2	U	0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	0.2	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	0.2	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	0.4	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	0.2	U	0.2	0.2	1	ug/L
100-42-5	Styrene	0.2	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	0.2	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	0.2	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.2	U	0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	0.2	U	0.2	0.2	1	ug/L
108-86-1	Bromobenzene	0.2	U	0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	0.2	U	0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBL01	SDG No.:	F2255
Lab Sample ID:	VN0509WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015239.D	1		05/09/14 14:29	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	0.2	U	0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.2	U	0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	0.2	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	0.2	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.2	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.2	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	0.2	U	0.2	0.2	1	ug/L
91-20-3	Naphthalene	0.2	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.2	U	0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	0.2	U	0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	0.2	U	0.2	0.5	1	ug/L
107-05-1	Allyl chloride	0.2	U	0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	0.2	U	0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	0.2	U	0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	0.2	U	0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58		70 - 120		116%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		85 - 115		107%	SPK: 50
2037-26-5	Toluene-d8	57.7		85 - 120		115%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		75 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	238397	7.87				
540-36-3	1,4-Difluorobenzene	370689	8.79				
3114-55-4	Chlorobenzene-d5	333872	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	103688	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBL01	SDG No.:	F2255
Lab Sample ID:	VN0509WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015239.D	1		05/09/14 14:29	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBS01	SDG No.:	F2255
Lab Sample ID:	VN0509WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015240.D	1		05/09/14 15:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	20.3		0.2	0.2	1	ug/L
74-87-3	Chloromethane	15.5		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	18		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	18.6		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	20.7		0.2	0.2	1	ug/L
74-83-9	Bromomethane	18.2		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	22.3		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.1		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	110		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	18.2		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	18.5		0.2	0.2	1	ug/L
107-02-8	Acrolein	48.9		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	95		1	1	5	ug/L
67-64-1	Acetone	110		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	14.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	21.6		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	22.3		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	19.5		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	19.1		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	97.6		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	19.7		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	17.6		0.2	0.2	1	ug/L
78-93-3	2-Butanone	97.3		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	24.3		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	23.1		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	20.1		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	13.9		0.2	0.5	1	ug/L
67-66-3	Chloroform	21.8		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	23.1		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	18.6		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBS01	SDG No.:	F2255
Lab Sample ID:	VN0509WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015240.D	1		05/09/14 15:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	20.7		0.39	0.5	1	ug/L
71-43-2	Benzene	20.4		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	24.1		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	21.2		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.4		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	22.8		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	23		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20.7		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	22.6		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	21.9		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	22.7		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	22		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	94		1	1	5	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	23.6		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	22.8		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	21.6		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	21		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	23		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	23.7		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	21.5		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	42.4		0.4	0.4	2	ug/L
95-47-6	o-Xylene	21.4		0.2	0.2	1	ug/L
100-42-5	Styrene	22.5		0.2	0.2	1	ug/L
75-25-2	Bromoform	24.1		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	20.8		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	23.5		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	24.5		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	21.8		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	20.6		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	20.8		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBS01	SDG No.:	F2255
Lab Sample ID:	VN0509WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015240.D	1		05/09/14 15:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	22.4		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	21.3		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	21.4		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	22.6		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	21.2		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	22.4		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	22.3		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	21.3		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	21.7		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	22.1		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	22.5		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	23.4		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	24.8		0.2	0.2	1	ug/L
91-20-3	Naphthalene	20.3		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	22.5		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	20.5		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	20.6		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	17.4		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	20.8		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	20.3		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	22.4		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.7		70 - 120		101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	46.8		85 - 120		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		75 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	247940	7.87				
540-36-3	1,4-Difluorobenzene	361160	8.78				
3114-55-4	Chlorobenzene-d5	317565	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	136251	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	VN0509WBS01	SDG No.:	F2255
Lab Sample ID:	VN0509WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015240.D	1		05/09/14 15:16	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015256.D	1		05/09/14 23:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	51.5		0.2	0.2	1	ug/L
74-87-3	Chloromethane	45.4		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	53.6		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	42.7		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	46.5		0.2	0.2	1	ug/L
74-83-9	Bromomethane	36.2		0.2	0.2	1	ug/L
75-00-3	Chloroethane	49.7		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	56.2		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	50.7		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	240		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	48		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	49.3		0.2	0.2	1	ug/L
107-02-8	Acrolein	200		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	230		1	1	5	ug/L
67-64-1	Acetone	190		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	48.2		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	49.2		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	51.7		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	47.3		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	50.1		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	170		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	46.6		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	44.6		0.2	0.2	1	ug/L
78-93-3	2-Butanone	210		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	53.8		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	44.8		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	48.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	39.3		0.2	0.5	1	ug/L
67-66-3	Chloroform	49.1		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	52.4		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	50		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015256.D	1		05/09/14 23:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	50.4		0.39	0.5	1	ug/L
71-43-2	Benzene	49.3		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	53.1		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	50.6		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	45.8		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	50		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	49.9		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	240		1	1	5	ug/L
108-88-3	Toluene	49.9		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	49.8		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	49		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	48.4		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	47.4		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	240		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	50.3		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	51.7		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	50.5		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	49.4		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	49.6		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	45.6		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	51.4		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	100		0.4	0.4	2	ug/L
95-47-6	o-Xylene	50.4		0.2	0.2	1	ug/L
100-42-5	Styrene	54.6		0.2	0.2	1	ug/L
75-25-2	Bromoform	52.9		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	45.8		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	47.5		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	41.5		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	47.3		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	46.3		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	44.8		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015256.D	1		05/09/14 23:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	48.9		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	48		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	46		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	50.5		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	46.2		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	48.9		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	49.1		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	47.6		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	51.2		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	47.4		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	47.2		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	54.6		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	51		0.2	0.2	1	ug/L
91-20-3	Naphthalene	61.6		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	47.7		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	43.4		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	44.4		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	45.6		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	50.4		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	40.2		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	46		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.6		70 - 120		93%	SPK: 50
1868-53-7	Dibromofluoromethane	46.4		85 - 115		93%	SPK: 50
2037-26-5	Toluene-d8	43.4		85 - 120		87%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		75 - 120		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	247956	7.87				
540-36-3	1,4-Difluorobenzene	377244	8.78				
3114-55-4	Chlorobenzene-d5	326736	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	148726	13.56				

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015256.D	1		05/09/14 23:17	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015257.D	1		05/09/14 23:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	54.2		0.2	0.2	1	ug/L
74-87-3	Chloromethane	48.6		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	58.4		0.2	0.2	1	ug/L
141-78-6	Ethyl Acetate	44.6		0.2	0.5	1	ug/L
108-21-4	Isopropyl Acetate	50.2		0.2	0.2	1	ug/L
74-83-9	Bromomethane	49.5		0.2	0.2	1	ug/L
75-00-3	Chloroethane	53.2		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	59.6		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	53.3		0.2	0.2	1	ug/L
75-65-0	Tert butyl alcohol	270		0.5	3.8	5	ug/L
60-29-7	Diethyl Ether	50.6		0.27	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	52.6		0.2	0.2	1	ug/L
107-02-8	Acrolein	210		0.5	3.8	5	ug/L
107-13-1	Acrylonitrile	230		1	1	5	ug/L
67-64-1	Acetone	200		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	50.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	52		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	53.2		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	50.1		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	53.1		0.2	0.2	1	ug/L
108-05-4	Vinyl Acetate	170		1.1	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	49.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	47.7		0.2	0.2	1	ug/L
78-93-3	2-Butanone	220		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	56.9		0.2	0.2	1	ug/L
594-20-7	2,2-Dichloropropane	46.5		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	50.9		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	40.5		0.2	0.5	1	ug/L
67-66-3	Chloroform	52		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	55.6		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	53		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015257.D	1		05/09/14 23:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
563-58-6	1,1-Dichloropropene	53		0.39	0.5	1	ug/L
71-43-2	Benzene	52.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	55		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	52.4		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	47.4		0.2	0.2	1	ug/L
74-95-3	Dibromomethane	52.6		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	52.4		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	250		1	1	5	ug/L
108-88-3	Toluene	52.9		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	52.8		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	51.2		0.2	0.2	1	ug/L
79-00-5	1,1,2-Trichloroethane	49.8		0.2	0.2	1	ug/L
142-28-9	1,3-Dichloropropane	50		0.2	0.2	1	ug/L
110-75-8	2-Chloroethyl Vinyl ether	1	U	1	1	5	ug/L
591-78-6	2-Hexanone	250		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	53.8		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	53.6		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	51.9		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	51.1		0.2	0.2	1	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	53.1		0.2	0.2	1	ug/L
67-72-1	Hexachloroethane	48.7		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	53.1		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	110		0.4	0.4	2	ug/L
95-47-6	o-Xylene	52.4		0.2	0.2	1	ug/L
100-42-5	Styrene	56.6		0.2	0.2	1	ug/L
75-25-2	Bromoform	54.6		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	47.9		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	48.7		0.2	0.2	1	ug/L
96-18-4	1,2,3-Trichloropropane	46.2		0.2	0.2	1	ug/L
108-86-1	Bromobenzene	48.3		0.2	0.2	1	ug/L
103-65-1	n-propylbenzene	48.1		0.2	0.2	1	ug/L
95-49-8	2-Chlorotoluene	47		0.2	0.2	1	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015257.D	1		05/09/14 23:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-67-8	1,3,5-Trimethylbenzene	50.8		0.2	0.2	1	ug/L
106-43-4	4-Chlorotoluene	50.3		0.2	0.2	1	ug/L
98-06-6	tert-Butylbenzene	48.3		0.2	0.2	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	52.4		0.2	0.2	1	ug/L
135-98-8	sec-Butylbenzene	48.5		0.2	0.2	1	ug/L
99-87-6	p-Isopropyltoluene	51.3		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	51.3		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	49.9		0.2	0.2	1	ug/L
104-51-8	n-Butylbenzene	53.4		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	50		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	51.5		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	56.2		0.2	0.2	1	ug/L
87-68-3	Hexachlorobutadiene	53		0.2	0.2	1	ug/L
91-20-3	Naphthalene	56.6		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	48.2		0.2	0.2	1	ug/L
628-63-7	N-amyl acetate	44		0.2	0.75	1	ug/L
74-88-4	Methyl Iodide	49		0.2	0.5	1	ug/L
107-05-1	Allyl chloride	48.1		0.2	0.5	1	ug/L
126-98-7	Methacrylonitrile	51.1		0.2	0.75	1	ug/L
110-57-6	trans-1,4-Dichloro-2-butene	43.1		0.2	0.75	1	ug/L
97-63-2	Ethyl methacrylate	48.8		0.2	0.5	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52		70 - 120		104%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	47.7		85 - 120		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.9		75 - 120		108%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	235786	7.87				
540-36-3	1,4-Difluorobenzene	361383	8.78				
3114-55-4	Chlorobenzene-d5	316236	11.61				
3855-82-1	1,4-Dichlorobenzene-d4	143793	13.56				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC- Chemtech Full
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN015257.D	1		05/09/14 23:46	VN050914

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Calibration Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN014803.D RRF005 = VN014804.D RRF020 = VN014805.D
RRF050 = VN014806.D RRF100 = VN014807.D RRF200 = VN014808.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.554	0.573	0.675	0.602	0.649	0.695	0.624	9.2
Chloromethane	0.808	0.622	0.747	0.648	0.710	0.790	0.721	10.4
Vinyl Chloride	0.495	0.451	0.559	0.514	0.572	0.615	0.534	11.1
Ethyl Acetate	0.398	0.435	0.430	0.375	0.433	0.464	0.422	7.4
Isopropyl Acetate	0.616	0.672	0.672	0.609	0.757	0.821	0.691	12
Bromomethane	0.382	0.323	0.357	0.319	0.350	0.389	0.353	8.2
Chloroethane	0.388	0.356	0.392	0.356	0.388	0.418	0.383	6.2
Trichlorofluoromethane	0.823	0.808	0.863	0.775	0.837	0.890	0.833	4.9
1,1,2-Trichlorotrifluoroethane	0.465	0.507	0.502	0.445	0.466	0.501	0.481	5.3
Tert butyl alcohol	0.076	0.048	0.043	0.040	0.048	0.051	0.051	25.8
Diethyl Ether	0.337	0.307	0.308	0.288	0.330	0.358	0.322	7.8
1,1-Dichloroethene	0.453	0.399	0.456	0.406	0.455	0.494	0.444	8
Acrolein	0.062	0.058	0.054	0.046	0.059	0.063	0.057	11.2
Acrylonitrile	0.219	0.211	0.205	0.198	0.250	0.270	0.225	12.6
Acetone	0.231	0.227	0.224	0.195	0.245	0.252	0.229	8.7
Carbon Disulfide	0.919	0.827	1.389	1.268	1.412	1.539	1.226	23.5
Methyl tert-butyl Ether	1.533	1.485	1.448	1.335	1.573	1.702	1.513	8.2
Methyl Acetate	0.633	0.811	0.771	0.731	0.890	0.984	0.803	15.3
Methylene Chloride	0.582	0.535	0.550	0.492	0.541	0.578	0.546	6
trans-1,2-Dichloroethene	0.459	0.425	0.475	0.430	0.481	0.523	0.466	7.8
Vinyl Acetate	0.911	0.957	1.141	1.123	1.386	1.541	1.177	20.8
1,1-Dichloroethane	1.105	1.022	1.009	0.922	1.027	1.107	1.032	6.7
Cyclohexane	1.968	1.045	1.050	0.934	1.010	1.086	1.182	32.9
2-Butanone	0.270	0.284	0.281	0.262	0.333	0.352	0.297	12.4
Carbon Tetrachloride	0.497	0.465	0.468	0.422	0.456	0.493	0.467	5.8
2,2-Dichloropropane	0.743	0.771	0.746	0.682	0.782	0.850	0.762	7.2
cis-1,2-Dichloroethene	0.544	0.556	0.551	0.500	0.560	0.606	0.553	6.2
Bromochloromethane	0.512	0.483	0.358	0.436	0.436	0.461	0.448	11.7
Chloroform	1.028	1.030	0.964	0.882	0.971	1.052	0.988	6.3
1,1,1-Trichloroethane	0.844	0.818	0.800	0.748	0.831	0.910	0.825	6.5
Methylcyclohexane	0.458	0.512	0.616	0.551	0.596	0.641	0.562	12.2
1,1-Dichloropropene	0.457	0.435	0.482	0.440	0.472	0.511	0.466	6.1
Benzene	1.323	1.343	1.433	1.285	1.387	1.484	1.376	5.4

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Calibration Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN014803.D RRF005 = VN014804.D RRF020 = VN014805.D
RRF050 = VN014806.D RRF100 = VN014807.D RRF200 = VN014808.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2-Dichloroethane	0.543	0.520	0.547	0.478	0.512	0.548	0.525	5.2
Trichloroethene	0.339	0.323	0.352	0.315	0.339	0.369	0.339	5.7
1,2-Dichloropropane	0.407	0.401	0.404	0.359	0.387	0.417	0.396	5.2
Dibromomethane	0.222	0.231	0.230	0.202	0.224	0.241	0.225	5.7
Bromodichloromethane	0.512	0.495	0.479	0.433	0.481	0.524	0.488	6.5
4-Methyl-2-Pentanone	0.373	0.363	0.378	0.348	0.422	0.437	0.387	9
Toluene	0.782	0.788	0.838	0.768	0.831	0.898	0.818	5.9
t-1,3-Dichloropropene	0.374	0.439	0.454	0.423	0.511	0.565	0.461	14.7
cis-1,3-Dichloropropene	0.472	0.489	0.532	0.488	0.572	0.635	0.531	11.8
1,1,2-Trichloroethane	0.339	0.343	0.317	0.290	0.321	0.336	0.324	6
1,3-Dichloropropane	0.601	0.575	0.571	0.516	0.573	0.601	0.573	5.4
2-Chloroethyl Vinyl ether	0.022	0.034	0.042	0.038	0.081	0.087	0.051	53
2-Hexanone	0.203	0.229	0.241	0.224	0.280	0.288	0.244	13.6
Dibromochloromethane	0.361	0.367	0.359	0.322	0.368	0.392	0.362	6.2
1,2-Dibromoethane	0.269	0.296	0.306	0.283	0.325	0.343	0.304	8.9
Tetrachloroethene	0.346	0.350	0.348	0.315	0.337	0.355	0.342	4.2
Chlorobenzene	1.044	1.057	1.047	0.925	1.020	1.084	1.029	5.3
1,1,1,2-Tetrachloroethane	0.406	0.420	0.378	0.327	0.372	0.388	0.382	8.4
Hexachloroethane	0.935	0.771	0.689	0.593	0.652	0.683	0.721	16.7
Ethyl Benzene	1.579	1.791	1.781	1.598	1.797	1.914	1.743	7.4
m/p-Xylenes	0.593	0.617	0.661	0.590	0.664	0.706	0.639	7.2
o-Xylene	0.608	0.645	0.665	0.597	0.664	0.706	0.647	6.3
Styrene	0.759	0.882	0.953	0.898	1.056	1.123	0.945	13.8
Bromoform	0.280	0.285	0.264	0.235	0.291	0.298	0.275	8.4
Isopropylbenzene	4.807	4.586	4.300	3.719	3.955	4.262	4.271	9.3
1,1,2,2-Tetrachloroethane	1.661	1.351	1.160	1.002	1.051	1.063	1.215	20.7
1,2,3-Trichloropropane	0.975	1.194	1.037	0.916	0.957	0.918	1.000	10.5
Bromobenzene	1.165	1.072	1.005	0.873	0.915	0.970	1.000	10.7
n-propylbenzene	5.018	4.969	4.740	4.257	4.546	4.945	4.746	6.3
2-Chlorotoluene	3.441	3.169	2.949	2.568	2.715	2.872	2.953	10.7
1,3,5-Trimethylbenzene	3.528	3.599	3.526	3.102	3.209	3.394	3.393	5.9
4-Chlorotoluene	2.839	2.868	2.710	2.437	2.592	2.829	2.713	6.3
tert-Butylbenzene	3.274	3.260	2.953	2.657	2.784	2.963	2.982	8.3

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Calibration Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN014803.D RRF005 = VN014804.D RRF020 = VN014805.D
RRF050 = VN014806.D RRF100 = VN014807.D RRF200 = VN014808.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2,4-Trimethylbenzene	3.114	3.629	3.577	3.158	3.233	3.380	3.348	6.5
sec-Butylbenzene	4.395	4.347	4.091	3.651	3.917	4.209	4.102	6.9
p-Isopropyltoluene	3.236	3.611	3.320	3.032	3.221	3.434	3.309	6
1,3-Dichlorobenzene	1.654	1.730	1.674	1.498	1.624	1.732	1.652	5.2
1,4-Dichlorobenzene	1.779	1.784	1.632	1.458	1.597	1.732	1.664	7.6
n-Butylbenzene	2.185	2.764	2.780	2.608	2.863	3.159	2.726	11.8
1,2-Dichlorobenzene	1.947	1.707	1.689	1.499	1.579	1.666	1.681	9
1,2-Dibromo-3-Chloropropane	0.166	0.171	0.155	0.144	0.174	0.199	0.168	11.1
1,2,4-Trichlorobenzene	0.433	0.410	0.610	0.633	0.856	1.019	0.660	36.1
Hexachlorobutadiene	0.652	0.629	0.550	0.515	0.491	0.538	0.563	11.4
Naphthalene	0.994	0.772	1.133	1.146	2.073	2.558	1.446	48.7
1,2,3-Trichlorobenzene	0.441	0.380	0.621	0.608	0.841	0.981	0.646	35.7
1,2-Dichloroethane-d4	0.666	0.601	0.580	0.611	0.580	0.664	0.617	6.3
Dibromofluoromethane	0.351	0.299	0.291	0.296	0.276	0.312	0.304	8.5
Toluene-d8	1.000	0.953	1.050	1.089	1.021	1.162	1.046	7
4-Bromofluorobenzene	0.344	0.336	0.352	0.366	0.362	0.406	0.361	6.9
N-amyl acetate	1.048	1.258	1.202	1.121	1.485	1.658	1.295	17.9
Methyl Iodide	0.217	0.335	0.465	0.464	0.614	0.642	0.456	35.5
Allyl chloride	0.953	0.843	0.923	0.840	0.980	1.035	0.929	8.3
trans-1,4-Dichloro-2-butene	0.357	0.326	0.276	0.261	0.332	0.358	0.318	12.8
Methacrylonitrile	0.200	0.228	0.245	0.221	0.268	0.292	0.242	13.8
Ethyl methacrylate	0.344	0.385	0.402	0.380	0.478	0.513	0.417	15.5

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date/Time: 05/09/2014 13:15

Lab File ID: VN015238.D Init. Calib. Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.624	0.693		11.06	20
Chloromethane	0.721	0.709	0.1	-1.66	20
Vinyl Chloride	0.534	0.613		14.79	20
Ethyl Acetate	0.422	0.409		-3.08	20
Isopropyl Acetate	0.691	0.733		6.08	20
Bromomethane	0.353	0.372		5.38	20
Chloroethane	0.383	0.393		2.61	20
Trichlorofluoromethane	0.833	1.019		22.33	20
1,1,2-Trichlorotrifluoroethane	0.481	0.531		10.4	20
Tert butyl alcohol	0.051	0.049		-3.92	20
Diethyl Ether	0.322	0.320		-0.62	20
1,1-Dichloroethene	0.444	0.473		6.53	20
Acrolein	0.057	0.064		12.28	20
Acrylonitrile	0.225	0.221		-1.78	20
Acetone	0.229	0.232		1.31	20
Carbon Disulfide	1.226	1.432		16.8	20
Methyl tert-butyl Ether	1.513	1.586		4.82	20
Methyl Acetate	0.803	1.025		27.65	20
Methylene Chloride	0.546	0.532		-2.56	20
trans-1,2-Dichloroethene	0.466	0.484		3.86	20
Vinyl Acetate	1.177	0.957		-18.69	20
1,1-Dichloroethane	1.032	1.005	0.1	-2.62	20
Cyclohexane	1.182	0.967		-18.19	20
2-Butanone	0.297	0.286		-3.7	20
Carbon Tetrachloride	0.467	0.581		24.41	20
2,2-Dichloropropane	0.762	0.857		12.47	20
cis-1,2-Dichloroethene	0.553	0.560		1.27	20
Bromochloromethane	0.448	0.359		-19.87	20
Chloroform	0.988	1.041		5.36	20
1,1,1-Trichloroethane	0.825	0.944		14.42	20
Methylcyclohexane	0.562	0.626		11.39	20
1,1-Dichloropropene	0.466	0.525		12.66	20
Benzene	1.376	1.479		7.49	20
1,2-Dichloroethane	0.525	0.622		18.48	20
Trichloroethene	0.339	0.377		11.21	20
1,2-Dichloropropane	0.396	0.391		-1.26	20
Dibromomethane	0.225	0.253		12.44	20
Bromodichloromethane	0.488	0.555		13.73	20
4-Methyl-2-Pentanone	0.387	0.401		3.62	20
Toluene	0.818	0.903		10.39	20
t-1,3-Dichloropropene	0.461	0.536		16.27	20
cis-1,3-Dichloropropene	0.531	0.585		10.17	20

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date/Time: 05/09/2014 13:15

Lab File ID: VN015238.D Init. Calib. Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.324	0.342		5.56	20
1,3-Dichloropropane	0.573	0.598		4.36	20
2-Chloroethyl Vinyl ether	0.051	0.074		45.1	20
2-Hexanone	0.244	0.265		8.61	20
Dibromochloromethane	0.362	0.410		13.26	20
1,2-Dibromoethane	0.304	0.341		12.17	20
Tetrachloroethene	0.342	0.389		13.74	20
Chlorobenzene	1.029	1.080	0.3	4.96	20
1,1,1,2-Tetrachloroethane	0.382	0.424		10.99	20
Hexachloroethane	0.721	0.697		-3.33	20
Ethyl Benzene	1.743	1.947		11.7	20
m/p-Xylenes	0.639	0.706		10.48	20
o-Xylene	0.647	0.702		8.5	20
Styrene	0.945	1.129		19.47	20
Bromoform	0.275	0.330	0.1	20	20
Isopropylbenzene	4.271	4.301		0.7	20
1,1,2,2-Tetrachloroethane	1.215	1.088	0.3	-10.45	20
1,2,3-Trichloropropane	1.000	1.140		14	20
Bromobenzene	1.000	1.033		3.3	20
n-propylbenzene	4.746	4.894		3.12	20
2-Chlorotoluene	2.953	2.918		-1.18	20
1,3,5-Trimethylbenzene	3.393	3.687		8.66	20
4-Chlorotoluene	2.713	2.871		5.82	20
tert-Butylbenzene	2.982	3.023		1.38	20
1,2,4-Trimethylbenzene	3.348	3.688		10.15	20
sec-Butylbenzene	4.102	4.202		2.44	20
p-Isopropyltoluene	3.309	3.592		8.55	20
1,3-Dichlorobenzene	1.652	1.808		9.44	20
1,4-Dichlorobenzene	1.664	1.756		5.53	20
n-Butylbenzene	2.726	3.085		13.17	20
1,2-Dichlorobenzene	1.681	1.797		6.9	20
1,2-Dibromo-3-Chloropropane	0.168	0.188		11.9	20
1,2,4-Trichlorobenzene	0.660	0.874		32.42	20
Hexachlorobutadiene	0.563	0.669		18.83	20
Naphthalene	1.446	1.639		13.35	20
1,2,3-Trichlorobenzene	0.646	0.826		27.86	20
1,2-Dichloroethane-d4	0.617	0.696		12.8	20
Dibromofluoromethane	0.304	0.337		10.85	20
Toluene-d8	1.046	1.091		4.3	20
4-Bromofluorobenzene	0.361	0.440		21.88	20
N-amyl acetate	1.295	1.327		2.47	20
Methyl Iodide	0.456	0.663		45.4	20

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: MSVOA_N Calibration Date/Time: 05/09/2014 13:15

Lab File ID: VN015238.D Init. Calib. Date(s): 04/23/2014 04/23/2014

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:22 15:21

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Allyl chloride	0.929	0.885		-4.74	20
trans-1,4-Dichloro-2-butene	0.318	0.321		0.94	20
Methacrylonitrile	0.242	0.260		7.44	20
Ethyl methacrylate	0.417	0.483		15.83	20

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	F2255	**OrderDate:**	5/8/2014 1:15:00 PM
Client:	Cardno ATC	**Project:**	Avalon- WP9
Contact:	Denise Cosenza	**Location:**	D11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
F2255-01	**MW-12R**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-02	**MW-11R**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-05	**MW-16**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-06	**MW-15**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-07	**MW-14**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-08	**MW-8**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-08DL	**MW-8DL**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-09	**MW-2**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-10	**DUP**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	
F2255-11	**FB**	**Water**			**05/07/14**			**05/08/14**
			SVOC- Chemtech Full	625		05/09/14	05/14/14	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: F2255

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : MW-12R									
F2255-01	MW-12R	WATER	Dimethylphthalate	5.500		0.17	1.3	2.5	ug/L
F2255-01	MW-12R	WATER	Bis(2-ethylhexyl)phthalate	4.700		0.29	1.3	2.5	ug/L
			Total Svoc :		**10.20**				
			Total Concentration:		**10.20**				
Client ID : MW-11R									
F2255-02	MW-11R	WATER	Dimethylphthalate	6.000		0.17	1.3	2.5	ug/L
			Total Svoc :		**6.00**				
			Total Concentration:		**6.00**				
Client ID : MW-15									
F2255-06	MW-15	WATER	2-Methylnaphthalene	6.300		0.19	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Dimethylphthalate	3.300		0.17	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Acenaphthene	22.500		0.17	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Dibenzofuran	3.000	J	2.1	5	10	ug/L
F2255-06	MW-15	WATER	Fluorene	9.700		0.15	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Phenanthrene	10.200		0.11	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Anthracene	2.400	J	0.3	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Fluoranthene	5.700		0.84	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Pyrene	8.000		0.13	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Benzo(a)anthracene	2.700		0.12	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Benzo(b)fluoranthene	2.700		0.17	1.3	2.5	ug/L
F2255-06	MW-15	WATER	Benzo(a)pyrene	2.400	J	0.17	1.3	2.5	ug/L
			Total Svoc :		**78.90**				
			Total Concentration:		**78.90**				
Client ID : MW-14									
F2255-07	MW-14	WATER	Dimethylphthalate	2.300	J	0.17	1.3	2.5	ug/L
			Total Svoc :		**2.30**				
			Total Concentration:		**2.30**				
Client ID : MW-8									
F2255-08	MW-8	WATER	Naphthalene	250.000	E	0.19	1.3	2.5	ug/L
F2255-08	MW-8	WATER	2-Methylnaphthalene	3.300		0.19	1.3	2.5	ug/L
F2255-08	MW-8	WATER	1,1-Biphenyl	46.100		0.26	1.3	2.5	ug/L
F2255-08	MW-8	WATER	Dimethylphthalate	2.900		0.17	1.3	2.5	ug/L
F2255-08	MW-8	WATER	Acenaphthene	83.100	E	0.17	1.3	2.5	ug/L
F2255-08	MW-8	WATER	Dibenzofuran	58.900		2.1	5.1	10.1	ug/L
F2255-08	MW-8	WATER	Fluorene	27.700		0.15	1.3	2.5	ug/L
F2255-08	MW-8	WATER	Phenanthrene	9.700		0.11	1.3	2.5	ug/L
F2255-08	MW-8	WATER	Carbazole	53.800		0.47	1.3	2.5	ug/L
			Total Svoc :		**535.50**				

Hit Summary Sheet
SW-846

SDG No.: F2255

Client: Cardno ATC

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
			Total Concentration:		**535.50**				
Client ID : MW-8DL									
F2255-08DL	MW-8DL	WATER	Naphthalene	640.000	D	1.2	10.1	100	ug/L
F2255-08DL	MW-8DL	WATER	1,1-Biphenyl	54.200	JD	1.5	10.1	100	ug/L
F2255-08DL	MW-8DL	WATER	Acenaphthene	110.000	D	2.1	10.1	100	ug/L
F2255-08DL	MW-8DL	WATER	Dibenzofuran	69.600	JD	2.4	10.1	100	ug/L
F2255-08DL	MW-8DL	WATER	Fluorene	30.300	JD	3.1	10.1	100	ug/L
F2255-08DL	MW-8DL	WATER	Carbazole	60.800	JD	2.2	10.1	100	ug/L
			Total Svoc :		**964.90**				
			Total Concentration:		**964.90**				
Client ID : MW-2									
F2255-09	MW-2	WATER	Dimethylphthalate	4.000		0.17	1.3	2.5	ug/L
F2255-09	MW-2	WATER	Acenaphthene	25.200		0.17	1.3	2.5	ug/L
F2255-09	MW-2	WATER	Dibenzofuran	5.900	J	2.1	5.1	10.1	ug/L
F2255-09	MW-2	WATER	Fluorene	2.100	J	0.15	1.3	2.5	ug/L
			Total Svoc :		**37.20**				
			Total Concentration:		**37.20**				

SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070859.D	1	05/09/14 08:00	05/14/14 11:58	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070859.D	1	05/09/14 08:00	05/14/14 11:58	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	5.5		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-12R	SDG No.:	F2255
Lab Sample ID:	F2255-01	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070859.D	1	05/09/14 08:00	05/14/14 11:58	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	4.7		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	35.1		10 - 130		35%	SPK: 100
13127-88-3	Phenol-d6	22.6		10 - 130		23%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		36 - 131		102%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.3		39 - 131		82%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.6		25 - 155		99%	SPK: 100
1718-51-0	Terphenyl-d14	84.8		23 - 130		85%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	243300	7.11				
1146-65-2	Naphthalene-d8	1027740	8.68				
15067-26-2	Acenaphthene-d10	512495	10.84				
1517-22-2	Phenanthrene-d10	878199	12.67				
1719-03-5	Chrysene-d12	882695	15.92				
1520-96-3	Perylene-d12	811585	17.64				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-12R			SDG No.:	F2255
Lab Sample ID:	F2255-01			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070859.D	1	05/09/14 08:00	05/14/14 11:58	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070854.D	1	05/09/14 08:00	05/14/14 09:35	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070854.D	1	05/09/14 08:00	05/14/14 09:35	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11R	SDG No.:	F2255
Lab Sample ID:	F2255-02	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070854.D	1	05/09/14 08:00	05/14/14 09:35	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	22.3		10 - 130		22%	SPK: 100
13127-88-3	Phenol-d6	16		10 - 130		16%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		36 - 131		101%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.3		39 - 131		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	60.3		25 - 155		60%	SPK: 100
1718-51-0	Terphenyl-d14	80.1		23 - 130		80%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	245880	7.11				
1146-65-2	Naphthalene-d8	1060510	8.68				
15067-26-2	Acenaphthene-d10	560164	10.84				
1517-22-2	Phenanthrene-d10	966453	12.67				
1719-03-5	Chrysene-d12	946594	15.92				
1520-96-3	Perylene-d12	758405	17.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-11R			SDG No.:	F2255
Lab Sample ID:	F2255-02			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070854.D	1	05/09/14 08:00	05/14/14 09:35	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-16	SDG No.:	F2255
Lab Sample ID:	F2255-05	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070855.D	1	05/09/14 08:00	05/14/14 10:03	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.2	ug/L
110-86-1	Pyridine	6	U	6	12.8	25.5	ug/L
100-52-7	Benzaldehyde	0.29	U	0.29	1.3	2.6	ug/L
62-53-3	Aniline	3.9	U	3.9	5.1	10.2	ug/L
108-95-2	Phenol	0.47	U	0.47	1.3	2.6	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.36	U	0.36	1.3	2.6	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.6	ug/L
95-50-1	1,2-Dichlorobenzene	0.26	U	0.26	1.3	2.6	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.6	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.6	ug/L
100-51-6	Benzyl Alcohol	0.33	U	0.33	1.3	2.6	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.2	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.36	U	0.36	1.3	2.6	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.6	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.6	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.6	ug/L
67-72-1	Hexachloroethane	0.26	U	0.26	1.3	2.6	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.6	ug/L
78-59-1	Isophorone	0.42	U	0.42	1.3	2.6	ug/L
88-75-5	2-Nitrophenol	4.5	U	4.5	5.1	10.2	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.6	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.6	ug/L
120-83-2	2,4-Dichlorophenol	3.3	U	3.3	5.1	10.2	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.6	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.8	25.5	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.6	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.2	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.6	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.2	ug/L
59-50-7	4-Chloro-3-methylphenol	1.8	U	1.8	5.1	10.2	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-16			SDG No.:	F2255
Lab Sample ID:	F2255-05			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070855.D	1	05/09/14 08:00	05/14/14 10:03	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.2	ug/L
88-06-2	2,4,6-Trichlorophenol	2.2	U	2.2	5.1	10.2	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.2	ug/L
92-52-4	1,1-Biphenyl	0.27	U	0.27	1.3	2.6	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.6	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.2	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.6	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.6	ug/L
606-20-2	2,6-Dinitrotoluene	0.28	U	0.28	1.3	2.6	ug/L
99-09-2	3-Nitroaniline	2.1	U	2.1	5.1	10.2	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.6	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.8	25.5	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.2	ug/L
132-64-9	Dibenzofuran	2.2	U	2.2	5.1	10.2	ug/L
121-14-2	2,4-Dinitrotoluene	2.2	U	2.2	5.1	10.2	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.6	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.28	U	0.28	1.3	2.6	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.6	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.6	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.2	ug/L
86-30-6	n-Nitrosodiphenylamine	0.82	U	0.82	1.3	2.6	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.6	ug/L
101-55-3	4-Bromophenyl-phenylether	0.43	U	0.43	1.3	2.6	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.6	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.6	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.2	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.6	ug/L
120-12-7	Anthracene	0.31	U	0.31	1.3	2.6	ug/L
86-74-8	Carbazole	0.48	U	0.48	1.3	2.6	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.6	ug/L
206-44-0	Fluoranthene	0.86	U	0.86	1.3	2.6	ug/L
92-87-5	Benzidine	8.9	U	8.9	12.8	25.5	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.6	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-16			SDG No.:	F2255
Lab Sample ID:	F2255-05			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070855.D	1	05/09/14 08:00	05/14/14 10:03	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.6	ug/L
91-94-1	3,3-Dichlorobenzidine	3.7	U	3.7	5.1	10.2	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.6	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.6	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.3	U	0.3	1.3	2.6	ug/L
117-84-0	Di-n-octyl phthalate	0.32	U	0.32	1.3	2.6	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.6	ug/L
207-08-9	Benzo(k)fluoranthene	0.29	U	0.29	1.3	2.6	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.6	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.6	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.29	U	0.29	1.3	2.6	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.6	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.38	U	0.38	1.3	2.6	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.2	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.2	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	24.9		10 - 130		25%	SPK: 100
13127-88-3	Phenol-d6	16.8		10 - 130		17%	SPK: 100
4165-60-0	Nitrobenzene-d5	90.9		36 - 131		91%	SPK: 100
321-60-8	2-Fluorobiphenyl	69.2		39 - 131		69%	SPK: 100
118-79-6	2,4,6-Tribromophenol	68.2		25 - 155		68%	SPK: 100
1718-51-0	Terphenyl-d14	74.1		23 - 130		74%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	259775	7.11				
1146-65-2	Naphthalene-d8	1140560	8.68				
15067-26-2	Acenaphthene-d10	612104	10.84				
1517-22-2	Phenanthrene-d10	1029670	12.67				
1719-03-5	Chrysene-d12	977680	15.92				
1520-96-3	Perylene-d12	919069	17.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-16			SDG No.:	F2255
Lab Sample ID:	F2255-05			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070855.D	1	05/09/14 08:00	05/14/14 10:03	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070863.D	1	05/09/14 08:00	05/14/14 13:52	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	6.3		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070863.D	1	05/09/14 08:00	05/14/14 13:52	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	3.3		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	22.5		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	3	J	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	9.7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	10.2		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	2.4	J	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	5.7		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	8		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-15	SDG No.:	F2255
Lab Sample ID:	F2255-06	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070863.D	1	05/09/14 08:00	05/14/14 13:52	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	2.7		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	2.7		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	2.4	J	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	21.6		10 - 130		22%	SPK: 100
13127-88-3	Phenol-d6	13.6	*	10 - 130		14%	SPK: 100
4165-60-0	Nitrobenzene-d5	86.2		36 - 131		86%	SPK: 100
321-60-8	2-Fluorobiphenyl	67.3		39 - 131		67%	SPK: 100
118-79-6	2,4,6-Tribromophenol	58.9		25 - 155		59%	SPK: 100
1718-51-0	Terphenyl-d14	64.6		23 - 130		65%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	237330	7.11				
1146-65-2	Naphthalene-d8	973009	8.68				
15067-26-2	Acenaphthene-d10	495221	10.84				
1517-22-2	Phenanthrene-d10	824784	12.67				
1719-03-5	Chrysene-d12	843919	15.92				
1520-96-3	Perylene-d12	803168	17.65				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-15			SDG No.:	F2255
Lab Sample ID:	F2255-06			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070863.D	1	05/09/14 08:00	05/14/14 13:52	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070853.D	1	05/09/14 08:00	05/14/14 09:06	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070853.D	1	05/09/14 08:00	05/14/14 09:06	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	2.3	J	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-14	SDG No.:	F2255
Lab Sample ID:	F2255-07	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070853.D	1	05/09/14 08:00	05/14/14 09:06	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	33.9		10 - 130		34%	SPK: 100
13127-88-3	Phenol-d6	20.5		10 - 130		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		36 - 131		101%	SPK: 100
321-60-8	2-Fluorobiphenyl	78.6		39 - 131		79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	82.3		25 - 155		82%	SPK: 100
1718-51-0	Terphenyl-d14	75.4		23 - 130		75%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	236006	7.11				
1146-65-2	Naphthalene-d8	1060260	8.68				
15067-26-2	Acenaphthene-d10	559743	10.84				
1517-22-2	Phenanthrene-d10	924419	12.66				
1719-03-5	Chrysene-d12	926948	15.92				
1520-96-3	Perylene-d12	863736	17.64				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-14			SDG No.:	F2255
Lab Sample ID:	F2255-07			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070853.D	1	05/09/14 08:00	05/14/14 09:06	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070862.D	1	05/09/14 08:00	05/14/14 13:24	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	250	E	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	3.3		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-8			SDG No.:	F2255
Lab Sample ID:	F2255-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070862.D	1	05/09/14 08:00	05/14/14 13:24	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	46.1		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	2.9		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	83.1	E	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	58.9		2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	27.7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	9.7		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	53.8		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8	SDG No.:	F2255
Lab Sample ID:	F2255-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070862.D	1	05/09/14 08:00	05/14/14 13:24	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	40.6		10 - 130		41%	SPK: 100
13127-88-3	Phenol-d6	25.1		10 - 130		25%	SPK: 100
4165-60-0	Nitrobenzene-d5	98.5		36 - 131		99%	SPK: 100
321-60-8	2-Fluorobiphenyl	81		39 - 131		81%	SPK: 100
118-79-6	2,4,6-Tribromophenol	94.1		25 - 155		94%	SPK: 100
1718-51-0	Terphenyl-d14	69.3		23 - 130		69%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	242407	7.11				
1146-65-2	Naphthalene-d8	1026270	8.69				
15067-26-2	Acenaphthene-d10	507568	10.84				
1517-22-2	Phenanthrene-d10	778915	12.67				
1719-03-5	Chrysene-d12	855062	15.92				
1520-96-3	Perylene-d12	829934	17.61				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-8			SDG No.:	F2255
Lab Sample ID:	F2255-08			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070862.D	1	05/09/14 08:00	05/14/14 13:24	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070873.D	10	05/09/14 08:00	05/14/14 20:49	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	UD	2.7	20.2	100	ug/L
110-86-1	Pyridine	10.1	UD	10.1	10.1	100	ug/L
100-52-7	Benzaldehyde	7.8	UD	7.8	10.1	100	ug/L
62-53-3	Aniline	10.1	UD	10.1	10.1	100	ug/L
108-95-2	Phenol	2.1	UD	2.1	10.1	100	ug/L
111-44-4	bis(2-Chloroethyl)ether	5.6	UD	5.6	10.1	100	ug/L
95-57-8	2-Chlorophenol	5.5	UD	5.5	10.1	100	ug/L
95-50-1	1,2-Dichlorobenzene	2.6	UD	2.6	10.1	100	ug/L
541-73-1	1,3-Dichlorobenzene	1.3	UD	1.3	10.1	100	ug/L
106-46-7	1,4-Dichlorobenzene	2	UD	2	10.1	100	ug/L
100-51-6	Benzyl Alcohol	3.5	UD	3.5	10.1	100	ug/L
95-48-7	2-Methylphenol	2.4	UD	2.4	10.1	100	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.7	UD	1.7	10.1	100	ug/L
98-86-2	Acetophenone	1.4	UD	1.4	10.1	100	ug/L
65794-96-9	3+4-Methylphenols	3.8	UD	3.8	10.1	100	ug/L
621-64-7	n-Nitroso-di-n-propylamine	2	UD	2	10.1	100	ug/L
67-72-1	Hexachloroethane	2.5	UD	2.5	10.1	100	ug/L
98-95-3	Nitrobenzene	6.9	UD	6.9	10.1	100	ug/L
78-59-1	Isophorone	3	UD	3	10.1	100	ug/L
88-75-5	2-Nitrophenol	5.3	UD	5.3	10.1	100	ug/L
105-67-9	2,4-Dimethylphenol	7.2	UD	7.2	10.1	100	ug/L
111-91-1	bis(2-Chloroethoxy)methane	5.6	UD	5.6	10.1	100	ug/L
120-83-2	2,4-Dichlorophenol	6.7	UD	6.7	10.1	100	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.5	UD	1.5	10.1	100	ug/L
65-85-0	Benzoic acid	20.2	UD	20.2	80.8	100	ug/L
91-20-3	Naphthalene	640	D	1.2	10.1	100	ug/L
106-47-8	4-Chloroaniline	10.1	UD	10.1	10.1	100	ug/L
87-68-3	Hexachlorobutadiene	2.5	UD	2.5	10.1	100	ug/L
105-60-2	Caprolactam	10.1	UD	10.1	10.1	100	ug/L
59-50-7	4-Chloro-3-methylphenol	4	UD	4	10.1	100	ug/L
91-57-6	2-Methylnaphthalene	3.2	UD	3.2	10.1	100	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-8DL	SDG No.:	F2255
Lab Sample ID:	F2255-08DL	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070873.D	10	05/09/14 08:00	05/14/14 20:49	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	2.4	UD	2.4	10.1	100	ug/L
88-06-2	2,4,6-Trichlorophenol	5.7	UD	5.7	10.1	100	ug/L
95-95-4	2,4,5-Trichlorophenol	4	UD	4	10.1	100	ug/L
92-52-4	1,1-Biphenyl	54.2	JD	1.5	10.1	100	ug/L
91-58-7	2-Chloronaphthalene	1.6	UD	1.6	10.1	100	ug/L
88-74-4	2-Nitroaniline	4.9	UD	4.9	10.1	100	ug/L
131-11-3	Dimethylphthalate	2.2	UD	2.2	10.1	100	ug/L
208-96-8	Acenaphthylene	7.1	UD	7.1	10.1	100	ug/L
606-20-2	2,6-Dinitrotoluene	3.2	UD	3.2	10.1	100	ug/L
99-09-2	3-Nitroaniline	10.1	UD	10.1	10.1	100	ug/L
83-32-9	Acenaphthene	110	D	2.1	10.1	100	ug/L
51-28-5	2,4-Dinitrophenol	21.2	UD	21.2	80.8	100	ug/L
100-02-7	4-Nitrophenol	20.2	UD	20.2	50.5	100	ug/L
132-64-9	Dibenzofuran	69.6	JD	2.4	10.1	100	ug/L
121-14-2	2,4-Dinitrotoluene	10.1	UD	10.1	10.1	100	ug/L
84-66-2	Diethylphthalate	3.8	UD	3.8	10.1	100	ug/L
7005-72-3	4-Chlorophenyl-phenylether	2.1	UD	2.1	10.1	100	ug/L
86-73-7	Fluorene	30.3	JD	3.1	10.1	100	ug/L
100-01-6	4-Nitroaniline	13.7	UD	13.7	20.2	100	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	7.5	UD	7.5	20.2	100	ug/L
86-30-6	n-Nitrosodiphenylamine	6.1	UD	6.1	10.1	100	ug/L
103-33-3	Azobenzene	2.2	UD	2.2	10.1	100	ug/L
101-55-3	4-Bromophenyl-phenylether	2.3	UD	2.3	10.1	100	ug/L
118-74-1	Hexachlorobenzene	1.8	UD	1.8	10.1	100	ug/L
1912-24-9	Atrazine	4	UD	4	10.1	100	ug/L
87-86-5	Pentachlorophenol	10.1	UD	10.1	10.1	100	ug/L
85-01-8	Phenanthrene	2.6	UD	2.6	10.1	100	ug/L
120-12-7	Anthracene	1.6	UD	1.6	10.1	100	ug/L
86-74-8	Carbazole	60.8	JD	2.2	10.1	100	ug/L
84-74-2	Di-n-butylphthalate	10.1	UD	10.1	10.1	100	ug/L
206-44-0	Fluoranthene	4	UD	4	10.1	100	ug/L
92-87-5	Benzidine	20.2	UD	20.2	20.2	100	ug/L
129-00-0	Pyrene	2	UD	2	10.1	100	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-8DL			SDG No.:	F2255
Lab Sample ID:	F2255-08DL			Matrix:	Water
Analytical Method:	SW8270			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070873.D	10	05/09/14 08:00	05/14/14 20:49	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	1.9	UD	1.9	10.1	100	ug/L
91-94-1	3,3-Dichlorobenzidine	10.1	UD	10.1	10.1	100	ug/L
56-55-3	Benzo(a)anthracene	1.6	UD	1.6	10.1	100	ug/L
218-01-9	Chrysene	1.8	UD	1.8	10.1	100	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.6	UD	1.6	10.1	100	ug/L
117-84-0	Di-n-octyl phthalate	5.2	UD	5.2	10.1	100	ug/L
205-99-2	Benzo(b)fluoranthene	2.9	UD	2.9	10.1	100	ug/L
207-08-9	Benzo(k)fluoranthene	1.8	UD	1.8	10.1	100	ug/L
50-32-8	Benzo(a)pyrene	1.4	UD	1.4	10.1	100	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.5	UD	1.5	10.1	100	ug/L
53-70-3	Dibenzo(a,h)anthracene	4.2	UD	4.2	10.1	100	ug/L
191-24-2	Benzo(g,h,i)perylene	2.9	UD	2.9	10.1	100	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	2	UD	2	10.1	100	ug/L
123-91-1	1,4-Dioxane	2	UDQ	2	50.5	100	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	2	UD	2	10.1	100	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	43.1		10 - 130		29%	SPK: 150
13127-88-3	Phenol-d6	25.7		10 - 130		17%	SPK: 150
4165-60-0	Nitrobenzene-d5	100		36 - 131		104%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.9		39 - 131		100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		25 - 155		67%	SPK: 150
1718-51-0	Terphenyl-d14	83.2		23 - 130		83%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	202405	7.09				
1146-65-2	Naphthalene-d8	901083	8.66				
15067-26-2	Acenaphthene-d10	470943	10.83				
1517-22-2	Phenanthrene-d10	809282	12.64				
1719-03-5	Chrysene-d12	897596	15.9				
1520-96-3	Perylene-d12	864416	17.55				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-8DL			SDG No.:	F2255
Lab Sample ID:	F2255-08DL			Matrix:	Water
Analytical Method:	SW8270			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070873.D	10	05/09/14 08:00	05/14/14 20:49	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070858.D	1	05/09/14 08:00	05/14/14 11:29	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-2	SDG No.:	F2255
Lab Sample ID:	F2255-09	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070858.D	1	05/09/14 08:00	05/14/14 11:29	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	4		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	25.2		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	5.9	J	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	2.1	J	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-2			SDG No.:	F2255
Lab Sample ID:	F2255-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070858.D	1	05/09/14 08:00	05/14/14 11:29	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	33.6		10 - 130		34%	SPK: 100
13127-88-3	Phenol-d6	22		10 - 130		22%	SPK: 100
4165-60-0	Nitrobenzene-d5	97.4		36 - 131		97%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.8		39 - 131		77%	SPK: 100
118-79-6	2,4,6-Tribromophenol	75.2		25 - 155		75%	SPK: 100
1718-51-0	Terphenyl-d14	77.3		23 - 130		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	253175	7.11				
1146-65-2	Naphthalene-d8	1106970	8.68				
15067-26-2	Acenaphthene-d10	581786	10.84				
1517-22-2	Phenanthrene-d10	987381	12.67				
1719-03-5	Chrysene-d12	973123	15.92				
1520-96-3	Perylene-d12	850051	17.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-2			SDG No.:	F2255
Lab Sample ID:	F2255-09			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070858.D	1	05/09/14 08:00	05/14/14 11:29	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070857.D	1	05/09/14 08:00	05/14/14 11:01	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070857.D	1	05/09/14 08:00	05/14/14 11:01	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	DUP	SDG No.:	F2255
Lab Sample ID:	F2255-10	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070857.D	1	05/09/14 08:00	05/14/14 11:01	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	UQ	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	34.5		10 - 130		34%	SPK: 100
13127-88-3	Phenol-d6	22.4		10 - 130		22%	SPK: 100
4165-60-0	Nitrobenzene-d5	98.6		36 - 131		99%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.3		39 - 131		76%	SPK: 100
118-79-6	2,4,6-Tribromophenol	89		25 - 155		89%	SPK: 100
1718-51-0	Terphenyl-d14	76.4		23 - 130		76%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	242705	7.11				
1146-65-2	Naphthalene-d8	1070130	8.68				
15067-26-2	Acenaphthene-d10	574052	10.84				
1517-22-2	Phenanthrene-d10	980092	12.67				
1719-03-5	Chrysene-d12	975888	15.91				
1520-96-3	Perylene-d12	864339	17.6				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	DUP			SDG No.:	F2255
Lab Sample ID:	F2255-10			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070857.D	1	05/09/14 08:00	05/14/14 11:01	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070856.D	1	05/09/14 08:00	05/14/14 10:32	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5.1	10.1	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.6	25.3	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5.1	10.1	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5.1	10.1	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.59	U	0.59	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.66	U	0.66	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5.1	10.1	ug/L
105-67-9	2,4-Dimethylphenol	0.71	U	0.71	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5.1	10.1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.3	U	3.3	12.6	25.3	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.7	U	2.7	5.1	10.1	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5.1	10.1	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5.1	10.1	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	FB	SDG No.:	F2255
Lab Sample ID:	F2255-11	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070856.D	1	05/09/14 08:00	05/14/14 10:32	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5.1	10.1	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5.1	10.1	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5.1	10.1	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.3	U	4.3	5.1	10.1	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5.1	10.1	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.6	25.3	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5.1	10.1	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5.1	10.1	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5.1	10.1	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5.1	10.1	ug/L
86-30-6	n-Nitrosodiphenylamine	0.81	U	0.81	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.57	U	0.57	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5.1	10.1	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.6	U	0.6	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.85	U	0.85	1.3	2.5	ug/L
92-87-5	Benzidine	8.8	U	8.8	12.6	25.3	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	FB			SDG No.:	F2255
Lab Sample ID:	F2255-11			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070856.D	1	05/09/14 08:00	05/14/14 10:32	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5.1	10.1	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5.1	U	5.1	5.1	10.1	ug/L
123-91-1	1,4-Dioxane	5.1	UQ	5.1	5.1	10.1	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	32.5		10 - 130		33%	SPK: 100
13127-88-3	Phenol-d6	20.4		10 - 130		20%	SPK: 100
4165-60-0	Nitrobenzene-d5	96.1		36 - 131		96%	SPK: 100
321-60-8	2-Fluorobiphenyl	73.1		39 - 131		73%	SPK: 100
118-79-6	2,4,6-Tribromophenol	89		25 - 155		89%	SPK: 100
1718-51-0	Terphenyl-d14	78.8		23 - 130		79%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	261871	7.11				
1146-65-2	Naphthalene-d8	1159670	8.68				
15067-26-2	Acenaphthene-d10	622293	10.84				
1517-22-2	Phenanthrene-d10	1064740	12.67				
1719-03-5	Chrysene-d12	1069890	15.92				
1520-96-3	Perylene-d12	934599	17.63				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	FB			SDG No.:	F2255
Lab Sample ID:	F2255-11			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070856.D	1	05/09/14 08:00	05/14/14 10:32	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
F2255-01	MW-12R	2-Fluorophenol	100	35.09	35		10	160
		Phenol-d6	100	22.56	23		10	161
		Nitrobenzene-d5	100	101.89	102		25	124
		2-Fluorobiphenyl	100	82.33	82		20	129
		2,4,6-Tribromophenol	100	98.58	99		10	140
		Terphenyl-d14	100	84.80	85		14	155
F2255-02	MW-11R	2-Fluorophenol	100	22.30	22		10	160
		Phenol-d6	100	16.00	16		10	161
		Nitrobenzene-d5	100	101.10	101		25	124
		2-Fluorobiphenyl	100	79.27	79		20	129
		2,4,6-Tribromophenol	100	60.27	60		10	140
		Terphenyl-d14	100	80.11	80		14	155
F2255-03MS	MW-11RMS	2-Fluorophenol	100	35.95	36		10	160
		Phenol-d6	100	21.18	21		10	161
		Nitrobenzene-d5	100	98.21	98		25	124
		2-Fluorobiphenyl	100	85.53	86		20	129
		2,4,6-Tribromophenol	100	93.99	94		10	140
		Terphenyl-d14	100	81.67	82		14	155
F2255-04MSD	MW-11RMSD	2-Fluorophenol	100	36.03	36		10	160
		Phenol-d6	100	20.84	21		10	161
		Nitrobenzene-d5	100	99.97	100		25	124
		2-Fluorobiphenyl	100	84.65	85		20	129
		2,4,6-Tribromophenol	100	97.44	97		10	140
		Terphenyl-d14	100	76.63	77		14	155
F2255-05	MW-16	2-Fluorophenol	100	24.93	25		10	160
		Phenol-d6	100	16.81	17		10	161
		Nitrobenzene-d5	100	90.91	91		25	124
		2-Fluorobiphenyl	100	69.24	69		20	129
		2,4,6-Tribromophenol	100	68.19	68		10	140
		Terphenyl-d14	100	74.11	74		14	155
F2255-06	MW-15	2-Fluorophenol	100	21.57	22		10	160
		Phenol-d6	100	13.62	14		10	161
		Nitrobenzene-d5	100	86.18	86		25	124
		2-Fluorobiphenyl	100	67.25	67		20	129
		2,4,6-Tribromophenol	100	58.90	59		10	140
		Terphenyl-d14	100	64.58	65		14	155
F2255-07	MW-14	2-Fluorophenol	100	33.92	34		10	160
		Phenol-d6	100	20.45	20		10	161
		Nitrobenzene-d5	100	101.33	101		25	124
		2-Fluorobiphenyl	100	78.59	79		20	129
		2,4,6-Tribromophenol	100	82.27	82		10	140
		Terphenyl-d14	100	75.37	75		14	155
F2255-08	MW-8	2-Fluorophenol	100	40.63	41		10	160
		Phenol-d6	100	25.10	25		10	161
		Nitrobenzene-d5	100	98.53	99		25	124
		2-Fluorobiphenyl	100	81.04	81		20	129
		2,4,6-Tribromophenol	100	94.13	94		10	140
		Terphenyl-d14	100	69.34	69		14	155
F2255-08DL	MW-8DL	2-Fluorophenol	100	43.10	43		10	160
		Phenol-d6	100	25.70	26		10	161
		Nitrobenzene-d5	100	104.10	104		25	124
		2-Fluorobiphenyl	100	99.90	100		20	129

Surrogate Summary

SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
F2255-08DL	MW-8DL	2,4,6-Tribromophenol	100	100.00	100		10	140
		Terphenyl-d14	100	83.20	83		14	155
F2255-09	MW-2	2-Fluorophenol	100	33.60	34		10	160
		Phenol-d6	100	22.00	22		10	161
		Nitrobenzene-d5	100	97.44	97		25	124
		2-Fluorobiphenyl	100	76.82	77		20	129
		2,4,6-Tribromophenol	100	75.21	75		10	140
		Terphenyl-d14	100	77.26	77		14	155
F2255-10	DUP	2-Fluorophenol	100	34.48	34		10	160
		Phenol-d6	100	22.43	22		10	161
		Nitrobenzene-d5	100	98.56	99		25	124
		2-Fluorobiphenyl	100	76.27	76		20	129
		2,4,6-Tribromophenol	100	88.95	89		10	140
		Terphenyl-d14	100	76.37	76		14	155
F2255-11	FB	2-Fluorophenol	100	32.53	33		10	160
		Phenol-d6	100	20.44	20		10	161
		Nitrobenzene-d5	100	96.05	96		25	124
		2-Fluorobiphenyl	100	73.12	73		20	129
		2,4,6-Tribromophenol	100	88.95	89		10	140
		Terphenyl-d14	100	78.82	79		14	155
PB76486BL	PB76486BL	2-Fluorophenol	100	81.74	82		10	160
		Phenol-d6	100	72.49	72		10	161
		Nitrobenzene-d5	100	90.41	90		25	124
		2-Fluorobiphenyl	100	76.41	76		20	129
		2,4,6-Tribromophenol	100	81.32	81		10	140
		Terphenyl-d14	100	77.14	77		14	155
PB76486BS	PB76486BS	2-Fluorophenol	100	84.52	85		10	160
		Phenol-d6	100	84.22	84		10	161
		Nitrobenzene-d5	100	93.44	93		25	124
		2-Fluorobiphenyl	100	81.19	81		20	129
		2,4,6-Tribromophenol	100	91.50	92		10	140
		Terphenyl-d14	100	82.71	83		14	155

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: F2255-03MS	**Client Sample ID: MW-11RMS**						**DataFile: BF070860.D**				
n-Nitrosodimethylamine	50	0	15.8	ug/L	32				10	160	
Pyridine	50	0	15.3	ug/L	31				10	145	
Benzaldehyde	50	0	2.1	ug/L	4	*			10	160	
Aniline	50	0	20.8	ug/L	42	*			50	150	
Phenol	50	0	11.6	ug/L	23				5	112	
bis(2-Chloroethyl)ether	50	0	40.6	ug/L	81				12	158	
2-Chlorophenol	50	0	33.4	ug/L	67				23	134	
1,2-Dichlorobenzene	50	0	37.6	ug/L	75				32	129	
1,3-Dichlorobenzene	50	0	37.4	ug/L	75				1	172	
1,4-Dichlorobenzene	50	0	38.3	ug/L	77				20	124	
Benzyl Alcohol	50	0	25.7	ug/L	51				10	145	
2-Methylphenol	50	0	26.5	ug/L	53				10	152	
2,2-oxybis(1-Chloropropane)	50	0	38.9	ug/L	78				36	166	
Acetophenone	50	0	37.1	ug/L	74				50	135	
3+4-Methylphenols	50	0	23.2	ug/L	46				10	152	
N-Nitroso-di-n-propylamine	50	0	40.2	ug/L	80				1	230	
Hexachloroethane	50	0	38.4	ug/L	77				40	113	
Nitrobenzene	50	0	46.4	ug/L	93				35	180	
Isophorone	50	0	39.7	ug/L	79				21	196	
2-Nitrophenol	50	0	51.9	ug/L	104				29	182	
2,4-Dimethylphenol	50	0	37.3	ug/L	75				32	119	
bis(2-Chloroethoxy)methane	50	0	41	ug/L	82				33	184	
2,4-Dichlorophenol	50	0	40	ug/L	80				39	135	
1,2,4-Trichlorobenzene	50	0	40.5	ug/L	81				44	142	
Benzoic acid	50	0	19.5	ug/L	39				10	145	
Naphthalene	50	0	40	ug/L	80				21	133	
4-Chloroaniline	50	0	24.4	ug/L	49				10	157	
Hexachlorobutadiene	50	0	37.4	ug/L	75				24	116	
Caprolactam	50	0	5.8	ug/L	12				10	161	
4-Chloro-3-methylphenol	50	0	34.7	ug/L	69				22	147	
2-Methylnaphthalene	50	0	40.9	ug/L	82				41	130	
Hexachlorocyclopentadiene	100	0	92.9	ug/L	93				10	218	
2,4,6-Trichlorophenol	50	0	45.2	ug/L	90				37	144	
2,4,5-Trichlorophenol	50	0	41.9	ug/L	84				10	136	
1,1-Biphenyl	50	0	41.1	ug/L	82				51	126	
2-Chloronaphthalene	50	0	42.6	ug/L	85				60	118	
2-Nitroaniline	50	0	49.5	ug/L	99				46	154	
Dimethylphthalate	50	4.9	46.6	ug/L	83				1	112	
Acenaphthylene	50	0	42.6	ug/L	85				33	145	
2,6-Dinitrotoluene	50	0	49.7	ug/L	99				50	158	
3-Nitroaniline	50	0	33	ug/L	66				10	152	
Acenaphthene	50	0	41.7	ug/L	83				47	145	
2,4-Dinitrophenol	100	0	120	ug/L	120				1	191	
4-Nitrophenol	100	0	35.4	ug/L	35				1	132	
Dibenzofuran	50	0	42.6	ug/L	85				44	140	
2,4-Dinitrotoluene	50	0	53	ug/L	106				39	139	
Diethylphthalate	50	0	43.1	ug/L	86				1	114	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
4-Chlorophenyl-phenylether	50	0	41.6	ug/L	83				25	158	
Fluorene	50	0	42.2	ug/L	84				59	121	
4-Nitroaniline	50	0	42.1	ug/L	84				45	160	
4,6-Dinitro-2-methylphenol	50	0	62.4	ug/L	125				1	181	
N-Nitrosodiphenylamine	50	0	40.6	ug/L	81				59	137	
Azobenzene	50	0	41.5	ug/L	83				70	124	
4-Bromophenyl-phenylether	50	0	42.2	ug/L	84				53	127	
Hexachlorobenzene	50	0	42.5	ug/L	85				1	152	
Atrazine	50	0	30.1	ug/L	60				59	152	
Pentachlorophenol	100	0	81.2	ug/L	81				14	176	
Phenanthrene	50	0	41.1	ug/L	82				54	120	
Anthracene	50	0	41.9	ug/L	84				27	133	
Carbazole	50	0	42.9	ug/L	86				51	160	
Di-n-butylphthalate	50	0	42.3	ug/L	85				1	118	
Fluoranthene	50	0	42	ug/L	84				26	137	
Benzidine	100	0	0	ug/L	0	*			10	159	
Pyrene	50	0	41.1	ug/L	82				52	115	
Butylbenzylphthalate	50	0	43.3	ug/L	87				1	152	
3,3-Dichlorobenzidine	50	0	28.2	ug/L	56				1	262	
Benzo(a)anthracene	50	0	41.9	ug/L	84				33	143	
Chrysene	50	0	42.8	ug/L	86				17	168	
bis(2-Ethylhexyl)phthalate	50	0	45.2	ug/L	90				8	158	
Di-n-octyl phthalate	50	0	46.6	ug/L	93				4	146	
Benzo(b)fluoranthene	50	0	46.3	ug/L	93				24	159	
Benzo(k)fluoranthene	50	0	40	ug/L	80				11	162	
Benzo(a)pyrene	50	0	46.2	ug/L	92				17	163	
Indeno(1,2,3-cd)pyrene	50	0	43.2	ug/L	86				1	171	
Dibenz(a,h)anthracene	50	0	46.3	ug/L	93				1	227	
Benzo(g,h,i)perylene	50	0	47	ug/L	94				1	219	
1,2,4,5-Tetrachlorobenzene	50	0	45.6	ug/L	91				70	130	
2,3,4,6-Tetrachlorophenol	50	0	47.4	ug/L	95				70	130	
1,4-Dioxane	50	0	14.2	ug/L	28	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: F2255-04MSD	**Client Sample ID:**		**MW-11RMSD**				**DataFile:**		**BF070861.D**		
n-Nitrosodimethylamine	50	0	16.7	ug/L	33		3		10	160	20
Pyridine	50	0	13	ug/L	26		18		10	145	20
Benzaldehyde	50	0	3.9	ug/L	8	*	67	*	10	160	20
Aniline	50	0	19.6	ug/L	39	*	7		50	150	20
Phenol	50	0	12	ug/L	24		4		5	112	20
bis(2-Chloroethyl)ether	50	0	42.3	ug/L	85		5		12	158	20
2-Chlorophenol	50	0	35.2	ug/L	70		4		23	134	20
1,2-Dichlorobenzene	50	0	40.1	ug/L	80		6		32	129	20
1,3-Dichlorobenzene	50	0	40.1	ug/L	80		6		1	172	20
1,4-Dichlorobenzene	50	0	39.4	ug/L	79		3		20	124	20
Benzyl Alcohol	50	0	25.2	ug/L	50		2		10	145	20
2-Methylphenol	50	0	28.1	ug/L	56		6		10	152	20
2,2-oxybis(1-Chloropropane)	50	0	40.7	ug/L	81		4		36	166	20
Acetophenone	50	0	38.9	ug/L	78		5		50	135	20
3+4-Methylphenols	50	0	23.6	ug/L	47		2		10	152	20
N-Nitroso-di-n-propylamine	50	0	42	ug/L	84		5		1	230	20
Hexachloroethane	50	0	40.7	ug/L	81		5		40	113	20
Nitrobenzene	50	0	48.6	ug/L	97		4		35	180	20
Isophorone	50	0	41.7	ug/L	83		5		21	196	20
2-Nitrophenol	50	0	56.9	ug/L	114		9		29	182	20
2,4-Dimethylphenol	50	0	38	ug/L	76		1		32	119	20
bis(2-Chloroethoxy)methane	50	0	43.4	ug/L	87		6		33	184	20
2,4-Dichlorophenol	50	0	42.2	ug/L	84		5		39	135	20
1,2,4-Trichlorobenzene	50	0	42	ug/L	84		4		44	142	20
Benzoic acid	50	0	22.3	ug/L	45		14		10	145	20
Naphthalene	50	0	41.5	ug/L	83		4		21	133	20
4-Chloroaniline	50	0	26	ug/L	52		6		10	157	20
Hexachlorobutadiene	50	0	40.5	ug/L	81		8		24	116	20
Caprolactam	50	0	5.1	ug/L	10		18		10	161	20
4-Chloro-3-methylphenol	50	0	37.4	ug/L	75		8		22	147	20
2-Methylnaphthalene	50	0	43.3	ug/L	87		6		41	130	20
Hexachlorocyclopentadiene	100	0	100	ug/L	100		7		10	218	20
2,4,6-Trichlorophenol	50	0	46.2	ug/L	92		2		37	144	20
2,4,5-Trichlorophenol	50	0	45.1	ug/L	90		7		10	136	20
1,1-Biphenyl	50	0	44.3	ug/L	89		8		51	126	20
2-Chloronaphthalene	50	0	44.3	ug/L	89		5		60	118	20
2-Nitroaniline	50	0	52.9	ug/L	106		7		46	154	20
Dimethylphthalate	50	4.9	45.3	ug/L	81		2		1	112	20
Acenaphthylene	50	0	44.2	ug/L	88		3		33	145	20
2,6-Dinitrotoluene	50	0	53.8	ug/L	108		9		50	158	20
3-Nitroaniline	50	0	38.3	ug/L	77		15		10	152	20
Acenaphthene	50	0	43.5	ug/L	87		5		47	145	20
2,4-Dinitrophenol	100	0	140	ug/L	140		15		1	191	20
4-Nitrophenol	100	0	36.2	ug/L	36		3		1	132	20
Dibenzofuran	50	0	44	ug/L	88		3		44	140	20
2,4-Dinitrotoluene	50	0	58.2	ug/L	116		9		39	139	20
Diethylphthalate	50	0	46.1	ug/L	92		7		1	114	20

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: SW625

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
4-Chlorophenyl-phenylether	50	0	43.5	ug/L	87		5		25	158	20
Fluorene	50	0	44.7	ug/L	89		6		59	121	20
4-Nitroaniline	50	0	43.2	ug/L	86		2		45	160	20
4,6-Dinitro-2-methylphenol	50	0	67	ug/L	134		7		1	181	20
N-Nitrosodiphenylamine	50	0	43.7	ug/L	87		7		59	137	20
Azobenzene	50	0	44.8	ug/L	90		8		70	124	20
4-Bromophenyl-phenylether	50	0	43.1	ug/L	86		2		53	127	20
Hexachlorobenzene	50	0	44.7	ug/L	89		5		1	152	20
Atrazine	50	0	33.5	ug/L	67		11		59	152	20
Pentachlorophenol	100	0	83.5	ug/L	84		4		14	176	20
Phenanthrene	50	0	43.1	ug/L	86		5		54	120	20
Anthracene	50	0	43.6	ug/L	87		4		27	133	20
Carbazole	50	0	45.6	ug/L	91		6		51	160	20
Di-n-butylphthalate	50	0	45.3	ug/L	91		7		1	118	20
Fluoranthene	50	0	44	ug/L	88		5		26	137	20
Benzidine	100	0	0	ug/L	0	*	0		10	159	20
Pyrene	50	0	41.9	ug/L	84		2		52	115	20
Butylbenzylphthalate	50	0	44.6	ug/L	89		2		1	152	20
3,3-Dichlorobenzidine	50	0	30.9	ug/L	62		10		1	262	20
Benzo(a)anthracene	50	0	43.6	ug/L	87		4		33	143	20
Chrysene	50	0	43.6	ug/L	87		1		17	168	20
bis(2-Ethylhexyl)phthalate	50	0	45.6	ug/L	91		1		8	158	20
Di-n-octyl phthalate	50	0	47.6	ug/L	95		2		4	146	20
Benzo(b)fluoranthene	50	0	41.6	ug/L	83		11		24	159	20
Benzo(k)fluoranthene	50	0	48.7	ug/L	97		19		11	162	20
Benzo(a)pyrene	50	0	46.4	ug/L	93		1		17	163	20
Indeno(1,2,3-cd)pyrene	50	0	45.7	ug/L	91		6		1	171	20
Dibenz(a,h)anthracene	50	0	45.7	ug/L	91		2		1	227	20
Benzo(g,h,i)perylene	50	0	47.1	ug/L	94		0		1	219	20
1,2,4,5-Tetrachlorobenzene	50	0	48.8	ug/L	98		7		70	130	20
2,3,4,6-Tetrachlorophenol	50	0	51.5	ug/L	103		8		70	130	20
1,4-Dioxane	50	0	14	ug/L	28	*	0		70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF070852.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD Qual	Rec Qual	Limits Low	Limits High	RPD
PB76486BS	n-Nitrosodimethylamine	50	39.2	ug/L	78				10	156	
	Pyridine	50	31.7	ug/L	63				55	145	
	Benzaldehyde	50	6.5	ug/L	13				10	161	
	Aniline	50	26.7	ug/L	53				50	150	
	Phenol	50	42.3	ug/L	85				5	112	
	bis(2-Chloroethyl)ether	50	40.8	ug/L	82				12	158	
	2-Chlorophenol	50	42.4	ug/L	85				23	134	
	1,2-Dichlorobenzene	50	38.9	ug/L	78				32	129	
	1,3-Dichlorobenzene	50	39.3	ug/L	79				1	172	
	1,4-Dichlorobenzene	50	38.1	ug/L	76				20	124	
	Benzyl Alcohol	50	41.4	ug/L	83				10	156	
	2-Methylphenol	50	41.5	ug/L	83				15	153	
	2,2-oxybis(1-Chloropropane)	50	38.7	ug/L	77				36	166	
	Acetophenone	50	35.5	ug/L	71				21	128	
	3+4-Methylphenols	50	39.7	ug/L	79				10	156	
	N-Nitroso-di-n-propylamine	50	38.3	ug/L	77				1	230	
	Hexachloroethane	50	40.9	ug/L	82				40	113	
	Nitrobenzene	50	42.6	ug/L	85				35	180	
	Isophorone	50	39.1	ug/L	78				21	196	
	2-Nitrophenol	50	47.5	ug/L	95				29	182	
	2,4-Dimethylphenol	50	42	ug/L	84				32	119	
	bis(2-Chloroethoxy)methane	50	40.8	ug/L	82				33	184	
	2,4-Dichlorophenol	50	43.2	ug/L	86				39	135	
	1,2,4-Trichlorobenzene	50	39.4	ug/L	79				44	142	
	Benzoic acid	50	50	ug/L	100				10	159	
	Naphthalene	50	39.3	ug/L	79				21	133	
	4-Chloroaniline	50	18.7	ug/L	37				10	156	
	Hexachlorobutadiene	50	39.4	ug/L	79				24	116	
	Caprolactam	50	41.4	ug/L	83				10	160	
	4-Chloro-3-methylphenol	50	40.9	ug/L	82				22	147	
	2-Methylnaphthalene	50	40.9	ug/L	82				25	124	
	Hexachlorocyclopentadiene	100	98	ug/L	98				10	143	
	2,4,6-Trichlorophenol	50	40.8	ug/L	82				37	144	
	2,4,5-Trichlorophenol	50	42.4	ug/L	85				41	120	
	1,1-Biphenyl	50	38	ug/L	76				20	125	
	2-Chloronaphthalene	50	39.8	ug/L	80				60	118	
	2-Nitroaniline	50	45.7	ug/L	91				38	131	
	Dimethylphthalate	50	39.7	ug/L	79				1	112	
	Acenaphthylene	50	39.7	ug/L	79				33	145	
	2,6-Dinitrotoluene	50	45.1	ug/L	90				50	158	
	3-Nitroaniline	50	32.4	ug/L	65				24	126	
	Acenaphthene	50	39.1	ug/L	78				47	145	
	2,4-Dinitrophenol	100	110	ug/L	110				1	191	
	4-Nitrophenol	100	81.6	ug/L	82				1	132	
	Dibenzofuran	50	40.1	ug/L	80				29	125	
	2,4-Dinitrotoluene	50	48.2	ug/L	96				39	139	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: F2255

Client: Cardno ATC

Analytical Method: 625 **DataFile:** BF070852.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB76486BS	Diethylphthalate	50	41	ug/L	82				1	114	
	4-Chlorophenyl-phenylether	50	40.1	ug/L	80				25	158	
	Fluorene	50	39.4	ug/L	79				59	121	
	4-Nitroaniline	50	42.3	ug/L	85				50	137	
	4,6-Dinitro-2-methylphenol	50	54.9	ug/L	110				1	181	
	N-Nitrosodiphenylamine	50	38.6	ug/L	77				37	139	
	Azobenzene	50	39.4	ug/L	79				45	134	
	4-Bromophenyl-phenylether	50	39.3	ug/L	79				53	127	
	Hexachlorobenzene	50	39.5	ug/L	79				1	152	
	Atrazine	50	41.6	ug/L	83				51	130	
	Pentachlorophenol	100	77.2	ug/L	77				14	176	
	Phenanthrene	50	38.5	ug/L	77				54	120	
	Anthracene	50	39.2	ug/L	78				27	133	
	Carbazole	50	40.7	ug/L	81				60	125	
	Di-n-butylphthalate	50	40.9	ug/L	82				1	118	
	Fluoranthene	50	39.9	ug/L	80				26	137	
	Benzidine	100	27.2	ug/L	27				10	158	
	Pyrene	50	39.9	ug/L	80				52	115	
	Butylbenzylphthalate	50	40.3	ug/L	81				1	152	
	3,3-Dichlorobenzidine	50	22.8	ug/L	46				1	262	
	Benzo(a)anthracene	50	40.1	ug/L	80				33	143	
	Chrysene	50	39.2	ug/L	78				17	168	
	bis(2-Ethylhexyl)phthalate	50	42.8	ug/L	86				8	158	
	Di-n-octyl phthalate	50	43.2	ug/L	86				4	146	
	Benzo(b)fluoranthene	50	36.6	ug/L	73				24	159	
	Benzo(k)fluoranthene	50	43.8	ug/L	88				11	162	
	Benzo(a)pyrene	50	41.4	ug/L	83				17	163	
	Indeno(1,2,3-cd)pyrene	50	39.8	ug/L	80				1	171	
	Dibenz(a,h)anthracene	50	41	ug/L	82				1	227	
	Benzo(g,h,i)perylene	50	41.8	ug/L	84				1	219	
	1,2,4,5-Tetrachlorobenzene	50	42.9	ug/L	86				70	130	
	2,3,4,6-Tetrachlorophenol	50	45.3	ug/L	91				70	130	
	1,4-Dioxane	50	31.9	ug/L	64		*		70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB76486BL

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

Lab File ID: BF070851.D Lab Sample ID: PB76486BL

Instrument ID: BNA_F Date Extracted: 05/09/2014

Matrix: (soil/water) Water Date Analyzed: 05/14/2014

Level: (low/med) LOW Time Analyzed: 08:09

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB76486BS	PB76486BS	BF070852.D	05/14/2014
MW-14	F2255-07	BF070853.D	05/14/2014
FB	F2255-11	BF070856.D	05/14/2014
DUP	F2255-10	BF070857.D	05/14/2014
MW-2	F2255-09	BF070858.D	05/14/2014
MW-8	F2255-08	BF070862.D	05/14/2014
MW-12R	F2255-01	BF070859.D	05/14/2014
MW-11R	F2255-02	BF070854.D	05/14/2014
MW-16	F2255-05	BF070855.D	05/14/2014
MW-11RMS	F2255-03MS	BF070860.D	05/14/2014
MW-11RMSD	F2255-04MSD	BF070861.D	05/14/2014
MW-15	F2255-06	BF070863.D	05/14/2014

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F2255 SDG NO.: F2255

Lab File ID: BF070834.D DFTPP Injection Date: 05/13/2014

Instrument ID: BNA_F DFTPP Injection Time: 23:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	62.7
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	45
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	49.5
197	Less than 2.0% of mass 198	0.9
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	22.9
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	14.5
442	Greater than 50% of mass 198	90.5
443	15.0 - 24.0% of mass 442	18.6 (20.6) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF070835.D	05/14/2014	00:05
SSTDICC010	SSTDICC010	BF070836.D	05/14/2014	00:34
SSTDICC025	SSTDICC025	BF070837.D	05/14/2014	01:02
SSTDICCC040	SSTDICCC040	BF070838.D	05/14/2014	01:31
SSTDICC050	SSTDICC050	BF070839.D	05/14/2014	01:59
SSTDICC060	SSTDICC060	BF070840.D	05/14/2014	02:28
SSTDICC080	SSTDICC080	BF070841.D	05/14/2014	02:56

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F2255 SDG NO.: F2255

Lab File ID: BF070843.D DFTPP Injection Date: 05/14/2014

Instrument ID: BNA_F DFTPP Injection Time: 03:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	63.6
68	Less than 2.0% of mass 69	0.6 (1.4) 1
69	Mass 69 relative abundance	44.3
70	Less than 2.0% of mass 69	0.6 (1.3) 1
127	10.0 - 80.0% of mass 198	50.2
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6
275	10.0 - 60.0% of mass 198	22.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	16.3
442	Greater than 50% of mass 198	97.9
443	15.0 - 24.0% of mass 442	18.1 (18.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF070844.D	05/14/2014	04:22
PB76486BL	PB76486BL	BF070851.D	05/14/2014	08:09
PB76486BS	PB76486BS	BF070852.D	05/14/2014	08:38
MW-14	F2255-07	BF070853.D	05/14/2014	09:06
MW-11R	F2255-02	BF070854.D	05/14/2014	09:35
MW-16	F2255-05	BF070855.D	05/14/2014	10:03
FB	F2255-11	BF070856.D	05/14/2014	10:32
DUP	F2255-10	BF070857.D	05/14/2014	11:01
MW-2	F2255-09	BF070858.D	05/14/2014	11:29
MW-12R	F2255-01	BF070859.D	05/14/2014	11:58
MW-11RMS	F2255-03MS	BF070860.D	05/14/2014	12:27
MW-11RMSD	F2255-04MSD	BF070861.D	05/14/2014	12:56
MW-8	F2255-08	BF070862.D	05/14/2014	13:24
MW-15	F2255-06	BF070863.D	05/14/2014	13:52

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM SAS No.: F2255 SDG NO.: F2255

Lab File ID: BF070867.D DFTPP Injection Date: 05/14/2014

Instrument ID: BNA_F DFTPP Injection Time: 16:50

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	56.5
68	Less than 2.0% of mass 69	0.2 (0.4) 1
69	Mass 69 relative abundance	44
70	Less than 2.0% of mass 69	0.5 (1.1) 1
127	10.0 - 80.0% of mass 198	47.2
197	Less than 2.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	5.9
275	10.0 - 60.0% of mass 198	23.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	17.2
442	Greater than 50% of mass 198	99.5
443	15.0 - 24.0% of mass 442	18.2 (18.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF070868.D	05/14/2014	18:22
MW-8DL	F2255-08DL	BF070873.D	05/14/2014	20:49

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

EPA Sample No.: SSTDCCC040 Date Analyzed: 05/14/2014

Lab File ID: BF070844.D Time Analyzed: 04:22

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	208174	7.11	883173	8.68	445909	10.84
	UPPER LIMIT	416348	7.61	1766350	9.18	891818	11.34
	LOWER LIMIT	104087	6.61	441587	8.18	222955	10.34
	EPA SAMPLE NO.						
01	MW-12R	243300	7.11	1027740	8.68	512495	10.84
02	MW-11R	245880	7.11	1060510	8.68	560164	10.84
03	MW-11RMS	239230	7.11	1018180	8.68	501455	10.84
04	MW-11RMSD	249891	7.11	1055010	8.68	523648	10.84
05	MW-16	259775	7.11	1140560	8.68	612104	10.84
06	MW-15	237330	7.11	973009	8.68	495221	10.84
07	MW-14	236006	7.11	1060260	8.68	559743	10.84
08	MW-8	242407	7.11	1026270	8.69	507568	10.84
09	MW-2	253175	7.11	1106970	8.68	581786	10.84
10	DUP	242705	7.11	1070130	8.68	574052	10.84
11	FB	261871	7.11	1159670	8.68	622293	10.84
12	PB76486BL	240870	7.11	1034180	8.68	525631	10.84
13	PB76486BS	239556	7.11	1032860	8.68	546015	10.84

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

EPA Sample No.: SSTDCCC040 Date Analyzed: 05/14/2014

Lab File ID: BF070844.D Time Analyzed: 04:22

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	748611	12.67	767372	15.92	694875	17.58
	UPPER LIMIT	1497220	13.17	1534740	16.42	1389750	18.08
	LOWER LIMIT	374306	12.17	383686	15.42	347438	17.08
	EPA SAMPLE NO.						
01	MW-12R	878199	12.67	882695	15.92	811585	17.64
02	MW-11R	966453	12.67	946594	15.92	758405	17.63
03	MW-11RMS	862167	12.67	866828	15.92	812486	17.63
04	MW-11RMSD	901146	12.67	932333	15.92	861154	17.61
05	MW-16	1029670	12.67	977680	15.92	919069	17.63
06	MW-15	824784	12.67	843919	15.92	803168	17.65
07	MW-14	924419	12.66	926948	15.92	863736	17.64
08	MW-8	778915	12.67	855062	15.92	829934	17.61
09	MW-2	987381	12.67	973123	15.92	850051	17.63
10	DUP	980092	12.67	975888	15.91	864339	17.60
11	FB	1064740	12.67	1069890	15.92	934599	17.63
12	PB76486BL	914917	12.67	896761	15.92	861167	17.61
13	PB76486BS	944895	12.67	907906	15.92	864428	17.64

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

EPA Sample No.: SSTDCCC040 Date Analyzed: 05/14/2014

Lab File ID: BF070868.D Time Analyzed: 18:22

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	197036	7.09	828280	8.66	434680	10.82
	UPPER LIMIT	394072	7.59	1656560	9.16	869360	11.32
	LOWER LIMIT	98518	6.59	414140	8.16	217340	10.32
	EPA SAMPLE NO.						
01	MW-8DL	202405	7.09	901083	8.66	470943	10.83

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG NO.: F2255

EPA Sample No.: SSTDCCC040 Date Analyzed: 05/14/2014

Lab File ID: BF070868.D Time Analyzed: 18:22

Instrument ID: BNA_F GC Column: RTX-5 ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	746001	12.64	795331	15.9	812750	17.61
	UPPER LIMIT	1492000	13.14	1590660	16.4	1625500	18.11
	LOWER LIMIT	373001	12.14	397666	15.4	406375	17.11
	EPA SAMPLE NO.						
01	MW-8DL	809282	12.64	897596	15.90	864416	17.55

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB76486BL	SDG No.:	F2255
Lab Sample ID:	PB76486BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070851.D	1	05/09/14 08:00	05/14/14 08:09	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	2.7	U	2.7	5	10	ug/L
110-86-1	Pyridine	5.9	U	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	0.28	U	0.28	1.3	2.5	ug/L
62-53-3	Aniline	3.9	U	3.9	5	10	ug/L
108-95-2	Phenol	0.46	U	0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	0.35	U	0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	0.19	U	0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	0.25	U	0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	0.12	U	0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	0.18	U	0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	0.32	U	0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	1.8	U	1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	0.35	U	0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	0.2	U	0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	0.58	U	0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	0.22	U	0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	0.25	U	0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	0.65	U	0.65	1.3	2.5	ug/L
78-59-1	Isophorone	0.41	U	0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	4.4	U	4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	0.7	U	0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.1	U	1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	3.2	U	3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.14	U	0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	3.2	U	3.2	12.5	25	ug/L
91-20-3	Naphthalene	0.19	U	0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	2.6	U	2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	0.17	U	0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	2	U	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1.7	U	1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	0.19	U	0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB76486BL	SDG No.:	F2255
Lab Sample ID:	PB76486BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070851.D	1	05/09/14 08:00	05/14/14 08:09	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	1.5	U	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	2.1	U	2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	2.3	U	2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	0.26	U	0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	0.15	U	0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	4.2	U	4.2	5	10	ug/L
131-11-3	Dimethylphthalate	0.17	U	0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	0.16	U	0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	0.27	U	0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	2	U	2	5	10	ug/L
83-32-9	Acenaphthene	0.17	U	0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	1.9	U	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	3.9	U	3.9	5	10	ug/L
132-64-9	Dibenzofuran	2.1	U	2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	2.1	U	2.1	5	10	ug/L
84-66-2	Diethylphthalate	0.1	U	0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.27	U	0.27	1.3	2.5	ug/L
86-73-7	Fluorene	0.15	U	0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	2.5	U	2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	1.9	U	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	0.8	U	0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	0.22	U	0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	0.42	U	0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	0.22	U	0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	0.56	U	0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	2.7	U	2.7	5	10	ug/L
85-01-8	Phenanthrene	0.11	U	0.11	1.3	2.5	ug/L
120-12-7	Anthracene	0.3	U	0.3	1.3	2.5	ug/L
86-74-8	Carbazole	0.47	U	0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	0.59	U	0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	0.84	U	0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	0.13	U	0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB76486BL	SDG No.:	F2255
Lab Sample ID:	PB76486BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070851.D	1	05/09/14 08:00	05/14/14 08:09	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	0.22	U	0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	3.6	U	3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	0.12	U	0.12	1.3	2.5	ug/L
218-01-9	Chrysene	0.24	U	0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	0.29	U	0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	0.31	U	0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	0.17	U	0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	0.28	U	0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	0.17	U	0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.66	U	0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.28	U	0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	0.13	U	0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	0.37	U	0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	5	U	5	5	10	ug/L
123-91-1	1,4-Dioxane	5	U	5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	81.7		10 - 130		82%	SPK: 100
13127-88-3	Phenol-d6	72.5		10 - 130		72%	SPK: 100
4165-60-0	Nitrobenzene-d5	90.4		36 - 131		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.4		39 - 131		76%	SPK: 100
118-79-6	2,4,6-Tribromophenol	81.3		25 - 155		81%	SPK: 100
1718-51-0	Terphenyl-d14	77.1		23 - 130		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	240870	7.11				
1146-65-2	Naphthalene-d8	1034180	8.68				
15067-26-2	Acenaphthene-d10	525631	10.84				
1517-22-2	Phenanthrene-d10	914917	12.67				
1719-03-5	Chrysene-d12	896761	15.92				
1520-96-3	Perylene-d12	861167	17.61				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB76486BL			SDG No.:	F2255
Lab Sample ID:	PB76486BL			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070851.D	1	05/09/14 08:00	05/14/14 08:09	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	
Project:	Avalon- WP9	Date Received:	
Client Sample ID:	PB76486BS	SDG No.:	F2255
Lab Sample ID:	PB76486BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070852.D	1	05/09/14 08:00	05/14/14 08:38	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	39.2		2.7	5	10	ug/L
110-86-1	Pyridine	31.7		5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	6.5		0.28	1.3	2.5	ug/L
62-53-3	Aniline	26.7		3.9	5	10	ug/L
108-95-2	Phenol	42.3		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	40.8		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	42.4		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	38.9		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	39.3		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	38.1		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	41.4		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	41.5		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	38.7		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	35.5		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	39.7		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	38.3		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	40.9		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	42.6		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	39.1		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	47.5		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	42		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	40.8		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	43.2		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	39.4		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	50		3.2	12.5	25	ug/L
91-20-3	Naphthalene	39.3		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	18.7		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	39.4		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	41.4		2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	40.9		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	40.9		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB76486BS			SDG No.:	F2255
Lab Sample ID:	PB76486BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070852.D	1	05/09/14 08:00	05/14/14 08:38	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	98	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	40.8		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	42.4		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	38		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	39.8		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	45.7		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	39.7		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	39.7		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	45.1		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	32.4		2	5	10	ug/L
83-32-9	Acenaphthene	39.1		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	110	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	81.6	E	3.9	5	10	ug/L
132-64-9	Dibenzofuran	40.1		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	48.2		2.1	5	10	ug/L
84-66-2	Diethylphthalate	41		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	40.1		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	39.4		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	42.3		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	54.9		1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	38.6		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	39.4		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	39.3		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	39.5		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	41.6		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	77.2	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	38.5		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	39.2		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	40.7		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	40.9		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	39.9		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	27.2		8.7	12.5	25	ug/L
129-00-0	Pyrene	39.9		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB76486BS			SDG No.:	F2255
Lab Sample ID:	PB76486BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070852.D	1	05/09/14 08:00	05/14/14 08:38	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	40.3		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	22.8		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	40.1		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	39.2		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	42.8		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	43.2		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	36.6		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	43.8		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	41.4		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	39.8		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	41		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	41.8		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	42.9		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	45.3		5	5	10	ug/L
123-91-1	1,4-Dioxane	31.9		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	84.5		10 - 130		85%	SPK: 100
13127-88-3	Phenol-d6	84.2		10 - 130		84%	SPK: 100
4165-60-0	Nitrobenzene-d5	93.4		36 - 131		93%	SPK: 100
321-60-8	2-Fluorobiphenyl	81.2		39 - 131		81%	SPK: 100
118-79-6	2,4,6-Tribromophenol	91.5		25 - 155		92%	SPK: 100
1718-51-0	Terphenyl-d14	82.7		23 - 130		83%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	239556	7.11				
1146-65-2	Naphthalene-d8	1032860	8.68				
15067-26-2	Acenaphthene-d10	546015	10.84				
1517-22-2	Phenanthrene-d10	944895	12.67				
1719-03-5	Chrysene-d12	907906	15.92				
1520-96-3	Perylene-d12	864428	17.64				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	
Project:	Avalon- WP9			Date Received:	
Client Sample ID:	PB76486BS			SDG No.:	F2255
Lab Sample ID:	PB76486BS			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070852.D	1	05/09/14 08:00	05/14/14 08:38	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070860.D	1	05/09/14 08:00	05/14/14 12:27	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	15.8		2.7	5	10	ug/L
110-86-1	Pyridine	15.3	J	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	2.1	J	0.28	1.3	2.5	ug/L
62-53-3	Aniline	20.8		3.9	5	10	ug/L
108-95-2	Phenol	11.6		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	40.6		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	33.4		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	37.6		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	37.4		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	38.3		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	25.7		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	26.5		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	38.9		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	37.1		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	23.2		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	40.2		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	38.4		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	46.4		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	39.7		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	51.9		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	37.3		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	41		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	40		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	40.5		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	19.5	J	3.2	12.5	25	ug/L
91-20-3	Naphthalene	40		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	24.4		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	37.4		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	5.8	J	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	34.7		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	40.9		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070860.D	1	05/09/14 08:00	05/14/14 12:27	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	92.9	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	45.2		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	41.9		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	41.1		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	42.6		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	49.5		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	46.6		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	42.6		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	49.7		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	33		2	5	10	ug/L
83-32-9	Acenaphthene	41.7		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	120	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	35.4		3.9	5	10	ug/L
132-64-9	Dibenzofuran	42.6		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	53		2.1	5	10	ug/L
84-66-2	Diethylphthalate	43.1		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	41.6		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	42.2		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	42.1		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	62.4	E	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	40.6		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	41.5		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	42.2		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	42.5		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	30.1		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	81.2	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	41.1		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	41.9		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	42.9		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	42.3		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	42		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	41.1		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070860.D	1	05/09/14 08:00	05/14/14 12:27	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	43.3		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	28.2		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	41.9		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	42.8		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	45.2		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	46.6		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	46.3		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	40		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	46.2		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	43.2		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	46.3		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	47		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	45.6		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	47.4		5	5	10	ug/L
123-91-1	1,4-Dioxane	14.2		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	36		10 - 130		36%	SPK: 100
13127-88-3	Phenol-d6	21.2		10 - 130		21%	SPK: 100
4165-60-0	Nitrobenzene-d5	98.2		36 - 131		98%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.5		39 - 131		86%	SPK: 100
118-79-6	2,4,6-Tribromophenol	94		25 - 155		94%	SPK: 100
1718-51-0	Terphenyl-d14	81.7		23 - 130		82%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	239230	7.11				
1146-65-2	Naphthalene-d8	1018180	8.68				
15067-26-2	Acenaphthene-d10	501455	10.84				
1517-22-2	Phenanthrene-d10	862167	12.67				
1719-03-5	Chrysene-d12	866828	15.92				
1520-96-3	Perylene-d12	812486	17.63				

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Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMS	SDG No.:	F2255
Lab Sample ID:	F2255-03MS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070860.D	1	05/09/14 08:00	05/14/14 12:27	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070861.D	1	05/09/14 08:00	05/14/14 12:56	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
62-75-9	n-Nitrosodimethylamine	16.7		2.7	5	10	ug/L
110-86-1	Pyridine	13	J	5.9	12.5	25	ug/L
100-52-7	Benzaldehyde	3.9		0.28	1.3	2.5	ug/L
62-53-3	Aniline	19.6		3.9	5	10	ug/L
108-95-2	Phenol	12		0.46	1.3	2.5	ug/L
111-44-4	bis(2-Chloroethyl)ether	42.3		0.35	1.3	2.5	ug/L
95-57-8	2-Chlorophenol	35.2		0.19	1.3	2.5	ug/L
95-50-1	1,2-Dichlorobenzene	40.1		0.25	1.3	2.5	ug/L
541-73-1	1,3-Dichlorobenzene	40.1		0.12	1.3	2.5	ug/L
106-46-7	1,4-Dichlorobenzene	39.4		0.18	1.3	2.5	ug/L
100-51-6	Benzyl Alcohol	25.2		0.32	1.3	2.5	ug/L
95-48-7	2-Methylphenol	28.1		1.8	5	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	40.7		0.35	1.3	2.5	ug/L
98-86-2	Acetophenone	38.9		0.2	1.3	2.5	ug/L
65794-96-9	3+4-Methylphenols	23.6		0.58	1.3	2.5	ug/L
621-64-7	n-Nitroso-di-n-propylamine	42		0.22	1.3	2.5	ug/L
67-72-1	Hexachloroethane	40.7		0.25	1.3	2.5	ug/L
98-95-3	Nitrobenzene	48.6		0.65	1.3	2.5	ug/L
78-59-1	Isophorone	41.7		0.41	1.3	2.5	ug/L
88-75-5	2-Nitrophenol	56.9		4.4	5	10	ug/L
105-67-9	2,4-Dimethylphenol	38		0.7	1.3	2.5	ug/L
111-91-1	bis(2-Chloroethoxy)methane	43.4		1.1	1.3	2.5	ug/L
120-83-2	2,4-Dichlorophenol	42.2		3.2	5	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	42		0.14	1.3	2.5	ug/L
65-85-0	Benzoic acid	22.3	J	3.2	12.5	25	ug/L
91-20-3	Naphthalene	41.5		0.19	1.3	2.5	ug/L
106-47-8	4-Chloroaniline	26		2.6	5	10	ug/L
87-68-3	Hexachlorobutadiene	40.5		0.17	1.3	2.5	ug/L
105-60-2	Caprolactam	5.1	J	2	5	10	ug/L
59-50-7	4-Chloro-3-methylphenol	37.4		1.7	5	10	ug/L
91-57-6	2-Methylnaphthalene	43.3		0.19	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070861.D	1	05/09/14 08:00	05/14/14 12:56	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
77-47-4	Hexachlorocyclopentadiene	100	E	1.5	5	10	ug/L
88-06-2	2,4,6-Trichlorophenol	46.2		2.1	5	10	ug/L
95-95-4	2,4,5-Trichlorophenol	45.1		2.3	5	10	ug/L
92-52-4	1,1-Biphenyl	44.3		0.26	1.3	2.5	ug/L
91-58-7	2-Chloronaphthalene	44.3		0.15	1.3	2.5	ug/L
88-74-4	2-Nitroaniline	52.9		4.2	5	10	ug/L
131-11-3	Dimethylphthalate	45.3		0.17	1.3	2.5	ug/L
208-96-8	Acenaphthylene	44.2		0.16	1.3	2.5	ug/L
606-20-2	2,6-Dinitrotoluene	53.8		0.27	1.3	2.5	ug/L
99-09-2	3-Nitroaniline	38.3		2	5	10	ug/L
83-32-9	Acenaphthene	43.5		0.17	1.3	2.5	ug/L
51-28-5	2,4-Dinitrophenol	140	E	1.9	12.5	25	ug/L
100-02-7	4-Nitrophenol	36.2		3.9	5	10	ug/L
132-64-9	Dibenzofuran	44		2.1	5	10	ug/L
121-14-2	2,4-Dinitrotoluene	58.2		2.1	5	10	ug/L
84-66-2	Diethylphthalate	46.1		0.1	1.3	2.5	ug/L
7005-72-3	4-Chlorophenyl-phenylether	43.5		0.27	1.3	2.5	ug/L
86-73-7	Fluorene	44.7		0.15	1.3	2.5	ug/L
100-01-6	4-Nitroaniline	43.2		2.5	1.3	2.5	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	67	E	1.9	5	10	ug/L
86-30-6	n-Nitrosodiphenylamine	43.7		0.8	1.3	2.5	ug/L
103-33-3	Azobenzene	44.8		0.22	1.3	2.5	ug/L
101-55-3	4-Bromophenyl-phenylether	43.1		0.42	1.3	2.5	ug/L
118-74-1	Hexachlorobenzene	44.7		0.22	1.3	2.5	ug/L
1912-24-9	Atrazine	33.5		0.56	1.3	2.5	ug/L
87-86-5	Pentachlorophenol	83.5	E	2.7	5	10	ug/L
85-01-8	Phenanthrene	43.1		0.11	1.3	2.5	ug/L
120-12-7	Anthracene	43.6		0.3	1.3	2.5	ug/L
86-74-8	Carbazole	45.6		0.47	1.3	2.5	ug/L
84-74-2	Di-n-butylphthalate	45.3		0.59	1.3	2.5	ug/L
206-44-0	Fluoranthene	44		0.84	1.3	2.5	ug/L
92-87-5	Benzidine	8.7	U	8.7	12.5	25	ug/L
129-00-0	Pyrene	41.9		0.13	1.3	2.5	ug/L

Report of Analysis

Client:	Cardno ATC	Date Collected:	05/07/14
Project:	Avalon- WP9	Date Received:	05/08/14
Client Sample ID:	MW-11RMSD	SDG No.:	F2255
Lab Sample ID:	F2255-04MSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC- Chemtech Full
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070861.D	1	05/09/14 08:00	05/14/14 12:56	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
85-68-7	Butylbenzylphthalate	44.6		0.22	1.3	2.5	ug/L
91-94-1	3,3-Dichlorobenzidine	30.9		3.6	5	10	ug/L
56-55-3	Benzo(a)anthracene	43.6		0.12	1.3	2.5	ug/L
218-01-9	Chrysene	43.6		0.24	1.3	2.5	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	45.6		0.29	1.3	2.5	ug/L
117-84-0	Di-n-octyl phthalate	47.6		0.31	1.3	2.5	ug/L
205-99-2	Benzo(b)fluoranthene	41.6		0.17	1.3	2.5	ug/L
207-08-9	Benzo(k)fluoranthene	48.7		0.28	1.3	2.5	ug/L
50-32-8	Benzo(a)pyrene	46.4		0.17	1.3	2.5	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	45.7		0.66	1.3	2.5	ug/L
53-70-3	Dibenzo(a,h)anthracene	45.7		0.28	1.3	2.5	ug/L
191-24-2	Benzo(g,h,i)perylene	47.1		0.13	1.3	2.5	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	48.8		0.37	1.3	2.5	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	51.5		5	5	10	ug/L
123-91-1	1,4-Dioxane	14		5	5	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	36		10 - 130		36%	SPK: 100
13127-88-3	Phenol-d6	20.8		10 - 130		21%	SPK: 100
4165-60-0	Nitrobenzene-d5	100		36 - 131		100%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.7		39 - 131		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	97.4		25 - 155		97%	SPK: 100
1718-51-0	Terphenyl-d14	76.6		23 - 130		77%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	249891	7.11				
1146-65-2	Naphthalene-d8	1055010	8.68				
15067-26-2	Acenaphthene-d10	523648	10.84				
1517-22-2	Phenanthrene-d10	901146	12.67				
1719-03-5	Chrysene-d12	932333	15.92				
1520-96-3	Perylene-d12	861154	17.61				

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Report of Analysis

Client:	Cardno ATC			Date Collected:	05/07/14
Project:	Avalon- WP9			Date Received:	05/08/14
Client Sample ID:	MW-11RMSD			SDG No.:	F2255
Lab Sample ID:	F2255-04MSD			Matrix:	Water
Analytical Method:	625			% Moisture:	100
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC- Chemtech Full
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF070861.D	1	05/09/14 08:00	05/14/14 12:56	PB76486

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date(s): 05/14/2014 05/14/2014

Calibration Time(s): 00:05 02:56

LAB FILE ID: RRF2.5 = BF070835.D RRF010 = BF070836.D RRF025 = BF070837.D
RRF040 = BF070838.D RRF050 = BF070839.D RRF060 = BF070840.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
n-Nitrosodimethylamine	0.815	0.931	0.971	1.037	0.978	1.005	0.970	8.3
Pyridine	1.239	1.330	1.944	1.805	2.133	2.196	1.831	21.8
2-Fluorophenol	1.495	1.477	1.503	1.514	1.406	1.483	1.478	2.4
Benzaldehyde	1.654	1.755	1.583	1.544	1.445	1.392	1.529	9.8
Aniline	2.804	2.808	2.838	2.823	2.569	2.554	2.710	5.0
Phenol-d6	2.145	2.137	1.987	2.073	1.996	2.010	2.030	4.8
Phenol	2.576	2.345	2.326	2.455	2.263	2.170	2.305	8.1
bis(2-Chloroethyl)ether	1.862	1.795	1.868	1.849	1.741	1.734	1.778	5.5
2-Chlorophenol	1.442	1.476	1.527	1.536	1.468	1.508	1.491	2.3
1,2-Dichlorobenzene	1.689	1.587	1.608	1.596	1.517	1.534	1.581	3.7
1,3-Dichlorobenzene	1.606	1.721	1.732	1.672	1.574	1.617	1.643	4.0
1,4-Dichlorobenzene	1.675	1.670	1.676	1.689	1.607	1.633	1.656	1.8
Benzyl Alcohol	1.448	1.582	1.613	1.599	1.493	1.425	1.499	6.9
2-Methylphenol	1.392	1.360	1.398	1.385	1.276	1.267	1.339	4.3
2,2-oxybis(1-Chloropropane)	3.794	3.849	3.899	3.856	3.628	3.706	3.769	2.8
Acetophenone	0.623	0.598	0.583	0.579	0.543	0.576	0.585	4.2
3+4-Methylphenols	1.816	1.760	1.755	1.734	1.597	1.633	1.708	4.6
n-Nitroso-di-n-propylamine	1.476	1.476	1.552	1.497	1.388	1.341	1.449	5.0
Nitrobenzene-d5	0.279	0.274	0.355	0.399	0.364	0.367	0.347	14.6
Hexachloroethane	0.579	0.584	0.582	0.617	0.583	0.623	0.600	3.8
Nitrobenzene	0.280	0.311	0.396	0.449	0.426	0.416	0.383	16.4
Isophorone	0.891	0.799	0.861	0.878	0.827	0.802	0.835	5.0
2-Nitrophenol	0.059	0.060	0.079	0.101	0.108	0.121	0.096	32.8
2,4-Dimethylphenol	0.343	0.310	0.336	0.334	0.308	0.316	0.323	4.3
bis(2-Chloroethoxy)methane	0.561	0.511	0.540	0.555	0.507	0.497	0.523	5.7
2,4-Dichlorophenol	0.254	0.250	0.271	0.278	0.270	0.272	0.269	4.9
1,2,4-Trichlorobenzene	0.307	0.295	0.314	0.320	0.298	0.302	0.303	3.7
Benzoic acid	0.065	0.059	0.086	0.116	0.125	0.133	0.105	33.3
Naphthalene	1.062	1.010	1.055	1.082	0.999	1.011	1.027	3.9
4-Chloroaniline	0.453	0.437	0.438	0.444	0.414	0.409	0.429	4.3
Hexachlorobutadiene	0.173	0.162	0.172	0.174	0.167	0.167	0.169	2.5
Caprolactam	0.101	0.090	0.096	0.107	0.095	0.106	0.099	6.2
4-Chloro-3-methylphenol	0.331	0.316	0.337	0.333	0.319	0.325	0.329	2.7
2-Methylnaphthalene	0.731	0.679	0.710	0.747	0.678	0.694	0.701	4.2
Hexachlorocyclopentadiene	0.170	0.188	0.215	0.232	0.216	0.239	0.217	14.4
2,4,6-Trichlorophenol	0.320	0.320	0.339	0.341	0.327	0.339	0.333	3.3

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date(s): 05/14/2014 05/14/2014

Calibration Time(s): 00:05 02:56

LAB FILE ID: RRF2.5 = BF070835.D RRF010 = BF070836.D RRF025 = BF070837.D
RRF040 = BF070838.D RRF050 = BF070839.D RRF060 = BF070840.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
2-Fluorobiphenyl	1.412	1.296	1.276	1.199	1.147	1.163	1.235	8.0
2,4,5-Trichlorophenol	0.330	0.332	0.359	0.364	0.365	0.375	0.358	5.6
1,1-Biphenyl	1.746	1.654	1.663	1.637	1.583	1.595	1.633	4.0
2-Chloronaphthalene	1.245	1.218	1.227	1.221	1.149	1.129	1.187	4.4
2-Nitroaniline	0.183	0.198	0.277	0.342	0.399	0.428	0.327	33.8
Dimethylphthalate	1.414	1.393	1.436	1.379	1.289	1.288	1.356	4.8
Acenaphthylene	2.047	1.952	2.017	1.962	1.865	1.805	1.912	5.9
2,6-Dinitrotoluene	0.072	0.129	0.203	0.229	0.236	0.239	0.195	35.0
3-Nitroaniline	0.123	0.162	0.279	0.334	0.324	0.309	0.263	32.2
Acenaphthene	1.310	1.253	1.331	1.244	1.195	1.152	1.233	5.8
2,4-Dinitrophenol	0.006	0.015	0.021	0.028	0.033	0.039	0.027	51.1
4-Nitrophenol	0.075	0.138	0.211	0.220	0.220	0.252	0.201	36.2
Dibenzofuran	1.826	1.671	1.748	1.693	1.624	1.622	1.682	4.9
2,4-Dinitrotoluene	0.076	0.120	0.223	0.279	0.298	0.313	0.230	41.6
Diethylphthalate	1.426	1.359	1.391	1.396	1.369	1.322	1.367	3.1
4-Chlorophenyl-phenylether	0.652	0.659	0.628	0.608	0.587	0.590	0.617	4.9
Fluorene	1.471	1.380	1.395	1.356	1.317	1.292	1.357	4.8
4-Nitroaniline	0.126	0.167	0.267	0.262	0.282	0.322	0.250	30.4
4,6-Dinitro-2-methylphenol	0.016	0.017	0.035	0.045	0.051	0.058	0.042	51.2
n-Nitrosodiphenylamine	0.687	0.697	0.715	0.712	0.687	0.669	0.691	2.6
Azobenzene	1.904	1.831	1.874	1.840	1.742	1.691	1.788	5.5
2,4,6-Tribromophenol	0.184	0.186	0.204	0.209	0.204	0.210	0.202	6.3
4-Bromophenyl-phenylether	0.234	0.226	0.239	0.244	0.235	0.233	0.236	2.5
Hexachlorobenzene	0.268	0.256	0.262	0.253	0.250	0.252	0.257	2.4
Atrazine	0.199	0.186	0.227	0.219	0.203	0.195	0.205	6.9
Pentachlorophenol	0.091	0.109	0.134	0.138	0.141	0.144	0.131	17.6
Phenanthrene	1.263	1.196	1.241	1.197	1.174	1.156	1.192	4.2
Anthracene	1.272	1.231	1.276	1.195	1.133	1.114	1.192	5.8
Carbazole	1.135	1.088	1.177	1.134	1.066	1.035	1.091	5.6
Di-n-butylphthalate	1.292	1.291	1.366	1.339	1.292	1.275	1.298	3.4
Fluoranthene	1.222	1.204	1.315	1.260	1.219	1.172	1.228	3.8
Benzidine	0.642	0.662	0.685	0.724	0.665	0.660	0.673	3.9
Pyrene	1.441	1.318	1.332	1.360	1.299	1.247	1.324	4.8
Terphenyl-d14	0.934	0.904	0.881	0.880	0.826	0.808	0.861	6.0
Butylbenzylphthalate	0.364	0.426	0.491	0.539	0.537	0.552	0.501	16.0
3,3-Dichlorobenzidine	0.360	0.385	0.413	0.440	0.417	0.420	0.407	6.5

All other compounds must meet a minimum RRF of 0.010.

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6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date(s): 05/14/2014 05/14/2014

Calibration Time(s): 00:05 02:56

LAB FILE ID: RRF2.5 = BF070835.D RRF010 = BF070836.D RRF025 = BF070837.D
RRF040 = BF070838.D RRF050 = BF070839.D RRF060 = BF070840.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
Benzo(a)anthracene	1.185	1.164	1.129	1.162	1.072	1.073	1.131	3.9
Chrysene	1.082	1.036	1.037	1.093	0.995	0.997	1.038	3.7
Bis(2-ethylhexyl)phthalate	0.717	0.742	0.770	0.871	0.834	0.843	0.805	7.6
Di-n-octyl phthalate	1.044	1.172	1.262	1.421	1.336	1.395	1.295	11.2
Benzo(b)fluoranthene	1.212	1.154	1.450	1.201	1.150	1.180	1.231	8.5
Benzo(k)fluoranthene	1.365	1.218	0.973	1.195	1.125	1.039	1.120	13.7
Benzo(a)pyrene	1.195	1.024	1.099	1.112	1.040	1.048	1.076	5.9
Indeno(1,2,3-cd)pyrene	1.386	1.070	1.151	1.242	1.157	1.275	1.235	9.4
Dibenzo(a,h)anthracene	1.201	0.953	1.025	1.060	0.984	1.009	1.035	7.8
Benzo(g,h,i)perylene	1.216	1.030	1.069	1.104	1.052	1.071	1.089	5.5
1,2,4,5-Tetrachlorobenzene	0.465	0.483	0.519	0.508	0.482	0.476	0.487	4.0
2,3,4,6-Tetrachlorophenol	0.242	0.257	0.293	0.319	0.311	0.315	0.293	10.5
1,4-Dioxane	0.773	0.733	0.800	0.760	0.717	0.751	0.756	3.5

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 04:22

Lab File ID: BF070844.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.970	1.028	0.010	6.0	20.0
Pyridine	1.831	2.237	0.010	22.2	20.0
2-Fluorophenol	1.478	1.466	0.010	-0.8	20.0
Benzaldehyde	1.529	1.528	0.010	-0.1	20.0
Aniline	2.710	2.734	0.010	0.9	20.0
Phenol-d6	2.030	1.985	0.010	-2.2	20.0
Phenol	2.305	2.418	0.010	4.9	20.0
bis(2-Chloroethyl)ether	1.778	1.813	0.010	2.0	20.0
2-Chlorophenol	1.491	1.566	0.010	5.0	20.0
1,2-Dichlorobenzene	1.581	1.549	0.010	-2.0	20.0
1,3-Dichlorobenzene	1.643	1.668	0.010	1.5	20.0
1,4-Dichlorobenzene	1.656	1.650	0.010	-0.4	20.0
Benzyl Alcohol	1.499	1.531	0.010	2.1	20.0
2-Methylphenol	1.339	1.355	0.010	1.2	20.0
2,2-oxybis(1-Chloropropane)	3.769	3.739	0.010	-0.8	20.0
Acetophenone	0.585	0.573	0.010	-2.1	20.0
3+4-Methylphenols	1.708	1.718	0.010	0.6	20.0
n-Nitroso-di-n-propylamine	1.449	1.488	0.010	2.7	20.0
Nitrobenzene-d5	0.347	0.391	0.010	12.7	20.0
Hexachloroethane	0.600	0.604	0.010	0.7	20.0
Nitrobenzene	0.383	0.457	0.010	19.3	20.0
Isophorone	0.835	0.842	0.010	0.8	20.0
2-Nitrophenol	0.096	0.116	0.010	20.8	20.0
2,4-Dimethylphenol	0.323	0.328	0.010	1.5	20.0
bis(2-Chloroethoxy)methane	0.523	0.538	0.010	2.9	20.0
2,4-Dichlorophenol	0.269	0.282	0.010	4.8	20.0
1,2,4-Trichlorobenzene	0.303	0.308	0.010	1.6	20.0
Benzoic acid	0.105	0.129	0.010	22.9	20.0
Naphthalene	1.027	1.054	0.010	2.6	20.0
4-Chloroaniline	0.429	0.437	0.010	1.9	20.0
Hexachlorobutadiene	0.169	0.173	0.010	2.4	20.0
Caprolactam	0.099	0.103	0.010	4.0	20.0
4-Chloro-3-methylphenol	0.329	0.319	0.010	-3.0	20.0
2-Methylnaphthalene	0.701	0.706	0.010	0.7	20.0
Hexachlorocyclopentadiene	0.217	0.253	0.010	16.6	20.0
2,4,6-Trichlorophenol	0.333	0.341	0.010	2.4	20.0
2-Fluorobiphenyl	1.235	1.233	0.010	-0.2	20.0
2,4,5-Trichlorophenol	0.358	0.377	0.010	5.3	20.0
1,1-Biphenyl	1.633	1.705	0.010	4.4	20.0
2-Chloronaphthalene	1.187	1.210	0.010	1.9	20.0
2-Nitroaniline	0.327	0.393	0.010	20.2	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 04:22

Lab File ID: BF070844.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.356	1.431	0.010	5.5	20.0
Acenaphthylene	1.912	2.022	0.010	5.8	20.0
2,6-Dinitrotoluene	0.195	0.261	0.010	33.8	20.0
3-Nitroaniline	0.263	0.354	0.010	34.6	20.0
Acenaphthene	1.233	1.312	0.010	6.4	20.0
2,4-Dinitrophenol	0.027	0.037	0.010	37.0	20.0
4-Nitrophenol	0.201	0.243	0.010	20.9	20.0
Dibenzofuran	1.682	1.754	0.010	4.3	20.0
2,4-Dinitrotoluene	0.230	0.312	0.010	35.7	20.0
Diethylphthalate	1.367	1.423	0.010	4.1	20.0
4-Chlorophenyl-phenylether	0.617	0.620	0.010	0.5	20.0
Fluorene	1.357	1.372	0.010	1.1	20.0
4-Nitroaniline	0.250	0.294	0.010	17.6	20.0
4,6-Dinitro-2-methylphenol	0.042	0.057	0.010	35.7	20.0
n-Nitrosodiphenylamine	0.691	0.722	0.010	4.5	20.0
Azobenzene	1.788	1.858	0.010	3.9	20.0
2,4,6-Tribromophenol	0.202	0.223	0.010	10.4	20.0
4-Bromophenyl-phenylether	0.236	0.240	0.010	1.7	20.0
Hexachlorobenzene	0.257	0.269	0.010	4.7	20.0
Atrazine	0.205	0.233	0.010	13.7	20.0
Pentachlorophenol	0.131	0.148	0.010	13.0	20.0
Phenanthrene	1.192	1.232	0.010	3.4	20.0
Anthracene	1.192	1.240	0.010	4.0	20.0
Carbazole	1.091	1.172	0.010	7.4	20.0
Di-n-butylphthalate	1.298	1.365	0.010	5.2	20.0
Fluoranthene	1.228	1.277	0.010	4.0	20.0
Benzidine	0.673	0.695	0.010	3.3	20.0
Pyrene	1.324	1.300	0.010	-1.8	20.0
Terphenyl-d14	0.861	0.848	0.010	-1.5	20.0
Butylbenzylphthalate	0.501	0.529	0.010	5.6	20.0
3,3-Dichlorobenzidine	0.407	0.430	0.010	5.7	20.0
Benzo(a)anthracene	1.131	1.119	0.010	-1.1	20.0
Chrysene	1.038	1.055	0.010	1.6	20.0
Bis(2-ethylhexyl)phthalate	0.805	0.835	0.010	3.7	20.0
Di-n-octyl phthalate	1.295	1.371	0.010	5.9	20.0
Benzo(b)fluoranthene	1.231	1.382	0.010	12.3	20.0
Benzo(k)fluoranthene	1.120	1.107	0.010	-1.2	20.0
Benzo(a)pyrene	1.076	1.140	0.010	5.9	20.0
Indeno(1,2,3-cd)pyrene	1.235	1.260	0.010	2.0	20.0
Dibenzo(a,h)anthracene	1.035	1.096	0.010	5.9	20.0
Benzo(g,h,i)perylene	1.089	1.153	0.010	5.9	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 04:22

Lab File ID: BF070844.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.487	0.524	0.010	7.6	20.0
2,3,4,6-Tetrachlorophenol	0.293	0.338	0.010	15.4	20.0
1,4-Dioxane	0.756	0.768	0.010	1.6	20.0

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 18:22

Lab File ID: BF070868.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
n-Nitrosodimethylamine	0.970	1.012	0.010	4.3	20.0
Pyridine	1.831	1.990	0.010	8.7	20.0
2-Fluorophenol	1.478	1.495	0.010	1.1	20.0
Benzaldehyde	1.529	1.546	0.010	1.1	20.0
Aniline	2.710	2.745	0.010	1.3	20.0
Phenol-d6	2.030	2.103	0.010	3.6	20.0
Phenol	2.305	2.384	0.010	3.4	20.0
bis(2-Chloroethyl)ether	1.778	1.731	0.010	-2.6	20.0
2-Chlorophenol	1.491	1.566	0.010	5.0	20.0
1,2-Dichlorobenzene	1.581	1.524	0.010	-3.6	20.0
1,3-Dichlorobenzene	1.643	1.682	0.010	2.4	20.0
1,4-Dichlorobenzene	1.656	1.692	0.010	2.2	20.0
Benzyl Alcohol	1.499	1.579	0.010	5.3	20.0
2-Methylphenol	1.339	1.310	0.010	-2.2	20.0
2,2-oxybis(1-Chloropropane)	3.769	3.487	0.010	-7.5	20.0
Acetophenone	0.585	0.589	0.010	0.7	20.0
3+4-Methylphenols	1.708	1.708	0.010	0.0	20.0
n-Nitroso-di-n-propylamine	1.449	1.468	0.010	1.3	20.0
Nitrobenzene-d5	0.347	0.468	0.010	34.9	20.0
Hexachloroethane	0.600	0.612	0.010	2.0	20.0
Nitrobenzene	0.383	0.473	0.010	23.5	20.0
Isophorone	0.835	0.849	0.010	1.7	20.0
2-Nitrophenol	0.096	0.172	0.010	79.2	20.0
2,4-Dimethylphenol	0.323	0.340	0.010	5.3	20.0
bis(2-Chloroethoxy)methane	0.523	0.553	0.010	5.7	20.0
2,4-Dichlorophenol	0.269	0.285	0.010	5.9	20.0
1,2,4-Trichlorobenzene	0.303	0.314	0.010	3.6	20.0
Benzoic acid	0.105	0.226	0.010	115.2	20.0
Naphthalene	1.027	1.031	0.010	0.4	20.0
4-Chloroaniline	0.429	0.453	0.010	5.6	20.0
Hexachlorobutadiene	0.169	0.172	0.010	1.8	20.0
Caprolactam	0.099	0.107	0.010	8.1	20.0
4-Chloro-3-methylphenol	0.329	0.328	0.010	-0.3	20.0
2-Methylnaphthalene	0.701	0.691	0.010	-1.4	20.0
Hexachlorocyclopentadiene	0.217	0.291	0.010	34.1	20.0
2,4,6-Trichlorophenol	0.333	0.396	0.010	18.9	20.0
2-Fluorobiphenyl	1.235	1.226	0.010	-0.7	20.0
2,4,5-Trichlorophenol	0.358	0.392	0.010	9.5	20.0
1,1-Biphenyl	1.633	1.619	0.010	-0.9	20.0
2-Chloronaphthalene	1.187	1.188	0.010	0.1	20.0
2-Nitroaniline	0.327	0.503	0.010	53.8	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 18:22

Lab File ID: BF070868.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dimethylphthalate	1.356	1.453	0.010	7.2	20.0
Acenaphthylene	1.912	2.000	0.010	4.6	20.0
2,6-Dinitrotoluene	0.195	0.308	0.010	57.9	20.0
3-Nitroaniline	0.263	0.398	0.010	51.3	20.0
Acenaphthene	1.233	1.261	0.010	2.3	20.0
2,4-Dinitrophenol	0.027	0.097	0.010	259.3	20.0
4-Nitrophenol	0.201	0.301	0.010	49.8	20.0
Dibenzofuran	1.682	1.647	0.010	-2.1	20.0
2,4-Dinitrotoluene	0.230	0.373	0.010	62.2	20.0
Diethylphthalate	1.367	1.405	0.010	2.8	20.0
4-Chlorophenyl-phenylether	0.617	0.630	0.010	2.1	20.0
Fluorene	1.357	1.385	0.010	2.1	20.0
4-Nitroaniline	0.250	0.387	0.010	54.8	20.0
4,6-Dinitro-2-methylphenol	0.042	0.114	0.010	171.4	20.0
n-Nitrosodiphenylamine	0.691	0.694	0.010	0.4	20.0
Azobenzene	1.788	1.829	0.010	2.2	20.0
2,4,6-Tribromophenol	0.202	0.252	0.010	24.8	20.0
4-Bromophenyl-phenylether	0.236	0.244	0.010	3.4	20.0
Hexachlorobenzene	0.257	0.276	0.010	7.4	20.0
Atrazine	0.205	0.229	0.010	11.7	20.0
Pentachlorophenol	0.131	0.169	0.010	29.0	20.0
Phenanthrene	1.192	1.232	0.010	3.4	20.0
Anthracene	1.192	1.261	0.010	5.8	20.0
Carbazole	1.091	1.149	0.010	5.3	20.0
Di-n-butylphthalate	1.298	1.550	0.010	19.4	20.0
Fluoranthene	1.228	1.334	0.010	8.6	20.0
Benzidine	0.673	0.553	0.010	-17.8	20.0
Pyrene	1.324	1.293	0.010	-2.3	20.0
Terphenyl-d14	0.861	0.850	0.010	-1.3	20.0
Butylbenzylphthalate	0.501	0.589	0.010	17.6	20.0
3,3-Dichlorobenzidine	0.407	0.462	0.010	13.5	20.0
Benzo(a)anthracene	1.131	1.160	0.010	2.6	20.0
Chrysene	1.038	1.097	0.010	5.7	20.0
Bis(2-ethylhexyl)phthalate	0.805	0.880	0.010	9.3	20.0
Di-n-octyl phthalate	1.295	1.494	0.010	15.4	20.0
Benzo(b)fluoranthene	1.231	1.225	0.010	-0.5	20.0
Benzo(k)fluoranthene	1.120	1.116	0.010	-0.4	20.0
Benzo(a)pyrene	1.076	1.102	0.010	2.4	20.0
Indeno(1,2,3-cd)pyrene	1.235	1.392	0.010	12.7	20.0
Dibenzo(a,h)anthracene	1.035	1.078	0.010	4.2	20.0
Benzo(g,h,i)perylene	1.089	1.131	0.010	3.9	20.0

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ATCE02

Lab Code: CHEM Case No.: F2255 SAS No.: F2255 SDG No.: F2255

Instrument ID: BNA_F Calibration Date/Time: 05/14/2014 18:22

Lab File ID: BF070868.D Init. Calib. Date(s): 05/14/2014 05/14/2014

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 00:05 02:56

GC Column: RTX-5 ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
1,2,4,5-Tetrachlorobenzene	0.487	0.518	0.010	6.4	20.0
2,3,4,6-Tetrachlorophenol	0.293	0.352	0.010	20.1	20.0
1,4-Dioxane	0.756	0.758	0.010	0.3	20.0

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. F2255
QUOTE NO.
COC Number 028314

7.1

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: CARDNO ATC
ADDRESS: 104 E 25th St
CITY: NY STATE: NY ZIP: 10010
ATTENTION: denise.cosenza@cardno.com
PHONE: 2124328541 FAX: 2129798447

CLIENT PROJECT INFORMATION

PROJECT NAME: Avalon Bay WP9
PROJECT NO. 005754.0116 LOCATION: LIC, NY
PROJECT MANAGER: Denise Cosenza
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: CARDNO ATC PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: 10 DAY DAYS *
HARD COPY: DAYS *
EDD: DAYS *
PREAPPROVED TAT: ☐ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☐ EDD Format:

ANALYSIS

1 VOCs low level
2 SVOCs low level
3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 (A)	2 (E)	3	4	5	6	7	8	9	COMMENTS
1.	MW-12R				5/7/14	9:30	3	X	X								
2.	MW-11R				5/7/14	10:15	9	X	X								MS/MSD
3.	MW-16				5/7/14	11:00	3	X	X								
4.	MW-15				5/7/14	11:55	3	X	X								
5.	MW-14				5/7/14	13:15	3	X	X								
6.	MW-8				5/7/14	14:05	3	X	X								
7.	MW-2				5/7/14	15:05	3	X	X								
8.	DUP				5/7/14		3	X	X								
9.	FB				5/7/14	13:20	3	X	X								
10.	Trip Blank				5/7/14		2	X									

PRESERVATIVES: A – HCl B – HNO_3 C – H_2SO_4 D – NaOH E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	5/8/14 0945	1.
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3.	5-8-14 1505	3.

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 5°
Ice in Cooler?: Yes

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

CHEMTECH 284 Sheffield Street Mountainside NJ 07092 Tel. 908-7898900

Laboratory Certification

State	License No.
New Jersey	20012
New York	11376
Connecticut	PH-0649
Florida	E87935
Louisiana	5035
Maryland	296
Massachusetts	M-NJ503
Pennsylvania	68-548
Rhode Island	LAO00259
Virginia	460220
Texas	T10470448-10-1

Other :

DOD ELAP Certified (L-A-B Accredited), ISO/IEC 17025	L2219
Soil Permit	P330-11-00012
CLP Inorganic Contract	EPW09038
CLP Organic Contract	EPW11030

QA Control Code: A2070148

Appendix E - Site-wide Inspection Log

SITE WIDE INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

Inspector: DENISE COSENZA

Date: DECEMBER 11, 2014

1. Site Use Restrictions

No on-site vegetable gardens?

NONE

No groundwater withdrawal for potable/non-potable use?

NONE

Restricted residential maintained (single owner, or common ownership)?

YES

2. Site Cap

Note the date that the annual site cap inspection was performed:

December 11, 2014

Repairs made as noted during inspection?

NONE NOTED - N/A

3. Soil Management

Note the date(s) of any soil disturbance activities conducted during the past year:

NONE

Proper soil management procedures implemented (cite appropriate close out reports)?

N/A NOT APPLICABLE

4. Groundwater Monitoring

Monitoring being conducted on a quarterly basis (note the dates of sampling conducted)?

MAY 7, 2014 & October 7, 2014

All on-site monitoring wells in working condition (note any repairs/replacement)?

YES

5. Vapor Discharge Monitoring

Monitoring being conducted on a quarterly basis (note the dates of sampling conducted)?

N/A

All vapor monitoring points in working condition (note any repairs/replacement)?

N/A

SITE WIDE INSPECTION FORM
QUEENS WEST PARCEL 9
48th AVE. AND CENTER BLVD., LONG ISLAND CITY, NEW YORK

6. Permits

Do vapor emissions meet NYSDEC regulatory standards?

N/A

7. Vapor mitigation system O&M

Are routine system check logs being completed by on-site representative?

YES

Are Periodic Inspections being conducted as scheduled (note the dates of all inspections)?

yes – 1/31/14, 2/19/14, 3/26/14, 4/30/14, 5/29/14, 6/26/14 7/31/14, 8/29,14, 9/30/14, 10/30/14, 11/20/14, 12/11/14

8. Recordkeeping

Check that the following records/reports are being maintained/completed (note report/log dates as appropriate):

1) Annual site cap inspection log

yes, 12/11/14

2) Close-out report(s) for soil disturbance activities (including manifests for soil disposal)

N/A

3) Annual groundwater monitoring reports (including laboratory analytical data reports/groundwater contours)

yes – Included in 2014 PRR

4) Annual vapor discharge monitoring reports

N/A

5) Routine System Check Log for vapor mitigation system

yes

6) Periodic Inspection Log for vapor mitigation system

yes

7) Annual vapor mitigation system O&M reports

yes

9. Comments

(Note any deficiencies and recommendations for corrective actions.)

NONE

Appendix F - Institutional and Engineering Control Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C241049

Site Name Queens West (Hunter's Point) Parcel 9

Site Address: Center Blvd. and 47th Rd. and 48th Ave. Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 1.8

Reporting Period: December 31, 2013 to December 31, 2014

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C241049 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
19-1	Queens West Development Corporation	Ground Water Use Restriction Landuse Restriction Site Management Plan

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

19-19	Queens West Development Corporation	Ground Water Use Restriction Site Management Plan Landuse Restriction

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

19-5 Queens West Development Corporation

Site Management Plan
Landuse Restriction
Ground Water Use Restriction

The Controlled Property may be used for restricted residential use as long as the following long-term engineering and institutional controls are employed:

a) All engineering controls (including the site cover and sub-slab vapor depressurization system and active venting system) must be operated and maintained as specified in the NYSDEC-approved Site Management Plan (SMP). No Engineering or Institutional Controls may be discontinued without a NYSDEC-approved amendment or extinguishment of the Environmental Easement;
b) Annual inspections of the Site, certifications of Institutional and Engineering Controls and Site usage of the controlled property, and Site Management Reporting to the Department must be conducted in accordance with the NYSDEC-approved SMP;
c) all future soil disturbance activities on the Site that will impact residual contaminated material, including, but not limited to, building construction or expansion, subgrade utility line construction or repair, must be conducted in accordance with the Soil Management provisions in the NYSDEC-approved SMP;
d) Operation Monitoring and Maintenance (OM&M) of the sub-slab depressurization system must be performed in a manner specified in the NYSDEC-approved SMP;
e) Groundwater and other environmental or public health monitoring required by the NYSDEC-approved SMP must be performed in a manner specified in that Plan;
f) Onsite environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the NYSDEC-approved SMP;
g) The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose; and
h) Vegetable gardens are prohibited.

The Controlled Property may not be used for a higher level of use such as unrestricted residential without proper notification of NYSDEC of the change of, approval of that use by the NYSDEC, and an amendment of the SMP approved by NYSDEC.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
19-1	Vapor Mitigation Cover System Subsurface Barriers
19-19	Vapor Mitigation Cover System Subsurface Barriers
19-5	Vapor Mitigation Cover System Subsurface Barriers

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C241049

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I DAVID LEWIS at 671 CLEBE RD, #900 ARLINGTON, VA 22203,
print name print business address

am certifying as OWNER REPRESENTATIVE (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1-26-2015
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gilbert Gedeon (print name) at 104 E 25th St NY, NY 10010 (print business address)

am certifying as a Qualified Environmental Professional for the Hudson Bay Communities (Owner or Remedial Party)



Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		1/28/15

Appendix G - NYSDEC Site Management Modification Approval Letters

New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street, Long Island City, NY 11101
Phone: (718) 482-6454 • **Fax:** 718-482-6358
Website: www.dec.ny.gov

Joe Martens
Commissioner

June 4, 2013

Martin Piazzola
Avalon Bay Communities, Inc.
275 7th Avenue, 25th Floor
New York, NY 10001

Re: Site Management Plan (SMP) Modification Request
Queens West (Hunter's Point) Parcel 9, Long Island City
Queens County, Site No.: C241049

Dear Mr. Piazzola:

The New York State Department of Environmental Conservation has reviewed your letter dated March 26, 2013, requesting changes in the SMP requirements for monitoring soil vapor and groundwater. The requested changes for the sampling of soil vapor are under review and will be addressed in separate letter. In the meantime, the monitoring for soil vapor must continue as specified in the SMP. The request to change the frequency of groundwater monitoring from quarterly to semi-annually is approved.

The Site Management Plan must be updated to reflect the approved changes in the groundwater monitoring requirements. Please submit revised pages to the Department within 30 days from the date of this letter. Subsequent to the approval of the changed pages, a revised SMP (in pdf format) with an updated title page must be submitted.

If you have any questions, please contact me at 718-482-4891 or e-mail: smmartin@gw.dec.state.ny.us.

Sincerely,

Sondra Martinkat-Taule
Project Manager

ec: Jane O'Connell - NYSDEC
Dawn Hettrick - NYSDOH
Arana Hankin - QWDC
John Mascioli – Cardno

New York State Department of Environmental Conservation
Division of Environmental Remediation
One Hunters Point Plaza, 47-40 21st Street , Long Island City, New York 11101
Phone: (718) 482-6454
Fax: 718-482-6358
Website: www.dec.ny.gov

Joe Martens
Commissioner

June 6, 2012

AVALON RIVERVIEW II, LLC,
FREDERICK S. HARRIS
c/o Avalon Bay Communities, Inc.
275 7th Avenue, 25th Floor
NEW YORK, NY 10001

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

Queens West (Hunter's Point) Parcel 9, Long Island City
Queens County, Site No.: C241049

Dear FREDERICK S. HARRIS (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 01/10/2011 to 02/17/2013.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year(s), your next PRR is due on March 19, 2013. You will receive a reminder letter and updated certification form 45-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 718-482-4891 or e-mail: smmartin@gw.dec.state.ny.us

Sincerely,

Sondra Martinkat-Taule
Project Manager

ec: Dawn Hettrick, NYSDOH
Simon Wynn, Queens West Development Corporation
Jane O'Connell, RHWRE

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2 Office
47-40 21st Street, Long Island City, New York 11101
Phone: (718) 482-6454 • **Fax:** 718-482-6358
Website: www.dec.ny.gov

Joe Martens
Commissioner

December 20, 2013

Martin Piazzola
Avalon Riverview II, LLC
c/o Avalon Bay Communities, Inc.
275 Seventh Avenue, 25th Floor
New York, NY 10001

Re: Site Management Modification Approval
Queens West (Hunter's Point) Parcel 9, Long Island City
Queens County, Site No.: C241049

Dear Mr. Piazzola:

The New York State Department of Environmental Conservation (the Department), in conjunction with the New York State Department of Health, has reviewed the letter submitted by ATC-Cardno Inc, on behalf of Avalon Riverview II, LLC, on March 26, 2013, requesting modification to monitoring requirements specified in the Site Management Plan (SMP). The frequency of groundwater monitoring was the subject of a previous letter dated June 4, 2013. This letter addresses the request to alter the monitoring schedule for soil vapor effluent at the sub-slab depressurization systems (SSDS).

The Department hereby approves the request to modify the SMP. The quarterly sampling at the four SSDS zones may be discontinued. The carbon may be removed and properly disposed of, with documentation included in the Periodic Review Report. All other monitoring requirements remain in effect.

Within 30 days, please submit the appropriate sections of the SMP with revisions (in redline/strikeout mode if possible) to my attention, and include a revised cover page noting the modifications. Following approval of the revised SMP sections, the report will be distributed and a new copy placed in the project repository.

If you have any questions, or need additional forms, please contact me at 718-482-4891 or e-mail: smmartin@gw.dec.state.ny.us.

Sincerely,

Sondra Martinkat
Environmental Engineer 2

ec: Jane O'Connell – NYSDEC
Dawn Hettrick – NYSDOH
John Mascioli – ATC-Cardno