First Quarter 2015 Groundwater Monitoring and Sampling Report

Maryland Square PCE Site

3661 South Maryland Parkway
Las Vegas, Nevada
Facility ID: H-000086

Cardno ATC Project No. Z085000030

Prepared for
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April 27, 2015

Cardno ATC
Shaping the Future

Executive Summary

April 27, 2015

Herman Kishner Trust
c/o Mr. Tom Vandenberg, Esq.
707 Wilshire Boulevard, 45th Floor
Los Angeles, California 90017

Re: First Quarter 2015 Groundwater Monitoring and Sampling Report
Maryland Square PCE Site
3661 South Maryland Parkway
Las Vegas, Nevada
NDEP Facility ID No. H-000086

Dear Mr. Vandenberg:

Cardno ATC is submitting this report documenting the results of a recent quarterly groundwater monitoring event conducted at the Maryland Square PCE Site (site). The groundwater monitoring was conducted to evaluate dissolved chlorinated ethenes, specifically tetrachloroethene (PCE), detected in the soil and groundwater in the vicinity of the above referenced site in accordance with requests from the Nevada Division of Environmental Protection (NDEP).

Work Performed First Quarter 2015

Cardno ATC performed quarterly monitoring and sampling activities at 59 of the 59 site groundwater monitoring wells.

Current Phase of Project:	Monitoring and Sampling
Frequency of Sampling:	Groundwater: Select Wells Quarterly (Semi-annual or Annual for 2015)
Frequency of Monitoring:	Groundwater: Select Wells Quarterly (Semi-annual or Annual for 2015)
Purge Water Removed This Quarter:	79.59 gallons
Approximate Depth to Groundwater:	19.66 ft btoc
Groundwater Gradient:	Site Monitoring Network: 0.013 feet/foot
Groundwater Flow Direction:	Site Monitoring Network: East
Groundwater Analytical Methods:	Select VOCs by EPA 8260B, metals by EPA 6020, and hexavalent chromium (Cr(VI)) by EPA 218.6
Monitoring Wells Sampled with PCE Concentrations Greater than 5.0 µg/L:	41 of 59 monitoring points
Maximum PCE Concentration (µg/L):	11,000 (MW-14I)
Monitoring Wells Sampled with PCE Concentrations Greater than 5.0 µg/L Previous Quarter:	18 of 22 monitoring points
Maximum PCE Concentration Previous Quarter (µg/L):	11,000 (MW-14I)

Historical groundwater elevation data and analytical results are summarized in Table A-1. Current groundwater elevation data and analytical results are summarized in Table A-2. Site figures and groundwater analytical isoconcentration maps, are included as Figures 1 and 2. Groundwater field sampling forms and laboratory analytical reports are included in Appendix A and B, respectively. Mann-Kendall Trend Tests for Plume Stability are included in Appendix C.

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1 Background

The source area for the Maryland Square Tetrachloroethylene (PCE) Site is located at 3661 South Maryland Parkway in Las Vegas, Nevada. The source area is the location of a former dry cleaner (Al Phillips the Cleaner) that was contained within the former Maryland Square Shopping Center. Al Phillips the Cleaner operated at the site from 1969 through 2000.

The parent parcel for the former shopping center is located at the northwest corner of Maryland Parkway and Twain Avenue, and lies within the Southeast ¼ of the Northeast ¼ of Section 15, Township 21 South, Range 61 East. This parcel is designated as assessor's parcel number (APN) 162-15-602-009 and is a 6.57-acre tract of land. The parcel lies northwest of the corner of South Maryland Parkway and East Twain Avenue.

Properties surrounding the former Maryland Square Shopping Center consist primarily of commercial developments, as well as some residential areas. The Boulevard Mall lies directly east of the source area, across South Maryland Parkway. A residential neighborhood and a golf course are located east of The Boulevard Mall.

The initial spill report for PCE in groundwater was reported to NDEP in November 2000. The contamination was discovered during environmental investigations being performed for a property transaction. A soil boring installed during the initial environmental investigation at the former shopping center was converted into a monitoring well (MW-1). Analysis of the groundwater sample collected from MW-1 found 2,300 micrograms per liter (µg/L) or parts per billion (ppb) of PCE in groundwater. This concentration of PCE exceeded Nevada's action level of 5 µg/L, as defined in NAC445A.2273.5(1)(c), which adopts the primary maximum contamination level (MCL) of 5 µg/L for PCE in drinking water, as defined by the U.S. Environmental Protection Agency (EPA).

From 2000 through 2004, additional soil borings and monitoring wells were installed at the former Maryland Square Shopping Center and to the east on the Boulevard Mall property in an attempt to find the eastern extent of the PCE plume. In February, the parent company (DCI) of the former dry cleaners accepted responsibility for the PCE contamination and assumed control of assessment activities, using URS Corporation (URS) to perform additional characterization and groundwater monitoring.

In March 2005, after not finding the eastern extent of the PCE plume on mall property, URS installed five monitoring wells within the residential neighborhood east of the Boulevard Mall (see: http://ndep.nv.gov/pce/graphic/2012_Map_Well_History.pdf). Concentrations of PCE exceeded the action level (5 µg/L) in groundwater samples collected from three of these five wells, with the highest concentration at 1,430 µg/L. In 2006, two additional wells were installed farther east in the neighborhood, and groundwater samples from the wells confirmed the presence of the PCE plume in groundwater beneath the neighborhood.

In early 2007, the NDEP performed vapor transport modeling using the analytical data for wells within the neighborhood. The results of modeling indicated the potential for unacceptable level of PCE vapors in indoor air, via the process of vapor intrusion. In response to a NDEP requirement to sample soil gas for PCE, URS conducted a soil vapor study in March 2007. Soil borings were installed along three transects across the inferred extent of the PCE plume; one transect in the eastern parking lot of the Boulevard Mall, and two within the residential neighborhood east of the mall. Soil gas samples were collected at multiple depths within each boring. The concentrations of PCE in soil vapor samples ranged from not detected to170,000 micrograms per cubic meter (µg/m3), with the maximum concentration measured for a vapor sample collected at 20 feet bgs from boring SVB-14.

The dry cleaner's parent company (DCI) declared bankruptcy in July 2008, and URS discontinued work at the site. Converse, on behalf of the Trust, resumed quarterly monitoring as required by the NDEP. Converse continued with monitoring until July 2010, when field activities and responsibilities were transferred from Converse to Tetra Tech EM Inc. (Tetra Tech) during the second quarter of 2010. Groundwater monitoring

protocol and procedures used by Converse and accepted by NDEP were continued to maintain data consistency.

On December 27, 2010, the U.S District Court issued a Permanent Injunction that dictated the schedule for remediation of source-area soils and PCE-contaminated groundwater across the site. The injunction also decreed that groundwater monitoring should continue based on the schedule previously defined by the NDEP.

Responsibilities for groundwater monitoring and sampling were transferred from Tetra Tech to Cardno ATC in the fourth quarter of 2011. Tetra Tech continued to provide the Trust with support for indoor air testing and performed field pilot testing for groundwater remedies in early 2013. Pilot testing focused on in situ chemical oxidation (ISCO).

As of the date of this quarterly report, there are 59 monitoring wells (some of which include nested and multi-depth wells) located across the site. The site spans approximately 6,000 feet in length, from the source area to the terminus of the plume, as defined by the 5 µg/L boundary.

Additional information, including the full administrative record detailing correspondence with NDEP can be found at http://ndep.nv.gov/pce/maryland_square.htm and clicking on the Administrative Record link.

2 Groundwater Monitoring and Sampling

NDEP has directed monitoring of the site-related groundwater monitoring well network as outlined in its response letter to the Converse report titled "Groundwater Monitoring Report, 3rd Quarter 2009, Maryland Square Shopping Center," dated December 22, 2009.

Select monitoring wells are sampled in 2015 on a quarterly, semi-annual, or annual basis as per agreement with NDEP. The sampling schedule is based on the relative PCE concentrations detected in individual monitoring wells in addition to the proximity of a monitoring well to the ascertained plume area. The 2015 sampling schedule has been modified and approved by NDEP.

The NDEP modified the sampling schedule in response to Cardno ATC's request in the "Fourth Quarter 2013 Groundwater Monitoring and Sampling Report," dated January 28, 2014. The letter proposed that the 2014 monitoring be revised to include all site wells as the annual sampling event. The NDEP concurred with Cardno ATC's recommended sampling schedule, with minor changes, in the response letter dated February 21, 2014. The sampling schedule is expected to continue in 2015.

The NDEP approved annual sampling schedule for monitoring wells in the groundwater monitoring program is as follows:

- First Quarter – MW-1 through MW-3, MW-5 through MW-39, MW-40 (all depths), MW-41, MW-42, MW-43 MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3.
- Second Quarter – MW-1, MW-5, MW-6, MW-18, MW-38, MW-41, MW-42, MW-43, MW-14I, MW-19I, MW-6D1, MW-19D1, MW-19D2, MW-19D3, MW-20D2, MW-40 CMT-30, MW-40 CMT-45, and MW-40 CMT-60 (plus any newly installed wells).
- Third Quarter – MW-1, MW-5, MW-6, MW-13, MW-14, MW-18, MW-19, MW-23, MW-25, MW-26, MW-32, MW-38, MW-41, MW-42, MW-43, MW-14I, MW-19I, MW-6D1, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, MW-20D3, MW-40 CMT-30, MW-40 CMT-45, and MW-40 CMT-60 (plus any newly installed wells).
- Fourth Quarter – MW-1, MW-5, MW-6, MW-18, MW-38, MW-41, MW-42, MW-43, MW-14I, MW-19I, MW-6D1, MW-19D1, MW-19D2, MW-19D3, MW-20D2, MW-40 CMT-30, MW-40 CMT-45, and MW-40 CMT-60 (plus any newly installed wells).

The groundwater monitoring procedures are consistent with the protocol presented by URS in its August 2007 letter and accepted by NDEP in its September 10, 2007 letter. The prescribed groundwater monitoring protocol used at the site was revised to employ the ASTM D6771-02 method in the fourth quarter of 2007. This sampling method relies on low flow pumping that moderates the velocity of water entering the pump intake from the formation pore water surrounding the well. Minimized stress and turbulence within the water-bearing unit during pumping allows collection of groundwater samples generally considered more representative of water quality in the formation than the conventional method, which calls for evacuation of three well volumes of groundwater using downhole pumps or bailers.

Cardno ATC reviewed prior field notes to determine a consistent sampling depth in each well within the monitoring network. The depth chosen was based on the PCE results taken over time. The representative depth was placed on each sampling sheet along with a marking on the dedicated hose in each well casing, and will be carried over for each sampling event, irrespective of the depth to water and total depth measurements. Based on the results of the First Quarter 2015 sampling event, Cardno ATC will continue to utilize the depths used this quarter going forward.

Groundwater parameters (i.e., pH, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), and electrical conductivity) were measured to evaluate the entrance of actual formation water into the well. Cardno

Cardno ATC placed the inlet of the pump at the pre-determined depth that will be consistently used at each particular well. Groundwater was pumped at a flow rate of 0.25 L/min. The pump rate was lowered following the stabilization of groundwater parameters to minimize turbulence, and groundwater was transferred to clean laboratory-supplied 40-milliliter glass volatile organic analysis vials (VOAs), sealed, labeled, and placed in a cool environment for transport to an NDEP-certified laboratory for analysis.

The groundwater monitoring procedure for MW-40 CMT wells had to be modified due to the well construction of MW-40 CMT. CMT is a product manufactured by Solinst that stands for continuous multichannel tubing, meaning that there are multiple tubings set at different depths in one borehole. The benefits of a CMT well is that each channel of tubing allows for discrete sampling at a particular depth which in turn gives a three dimensional view of contamination through the entire range of sampling depths, rather than an average of the entire well length. The method used for groundwater sampling all depths of MW-40 CMT was a 3/8 inch Model 408M Micro Double Valve Pump. The double-valve pump is a pneumatic pump which was set to the bottom of each well depth, and pumped at each depth until groundwater parameters stabilized, and then groundwater was transferred to clean laboratory-supplied 40-milliliter glass volatile organic analysis vials (VOAs), sealed, labeled, and placed in a cool environment for transport to an NDEP-certified laboratory for analysis.

Decontamination procedures were performed throughout sampling. The pump, water level meter, and field meter probe were decontaminated after sampling each well. Purge water generated during the sampling of the monitoring wells was containerized in properly labeled steel 55-gallon drums and stored onsite pending off-site disposal.

Cardno ATC submitted the collected groundwater samples to an NDEP-certified analytical laboratory for the analysis of volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8260B. The analysis of metals (arsenic, chromium, and manganese) using EPA method 6020 for wells MW-19, MW-20, MW-19I, MW-40 CMT-30 through MW-40 CMT-60, and the analysis of hexavalent chromium using EPA method 218.6 for wells MW-19, MW-20, MW-19I, MW-40 CMT-30 through MW-40 CMT-60 was also performed.

Groundwater data collected during this sampling event are summarized in Table 1 and Table A-1. Monitoring and sampling field sheets are included in Appendix A.

2.1 Deviations

Trip, field, and equipment blanks were sent to the lab along with the groundwater samples collected at each monitoring well in order to insure quality control. Cardno ATC also collected a duplicate groundwater sample from monitoring well MW-1.

Laboratory analysis of each groundwater sample produced quantitative data within quality assurance standards, with the exception of the analysis for hexavalent chromium from MW-19I and four comments made about sample issues. The sample for MW-19I was purple, most likely due to continued saturation from the prior nearby potassium permanganate pilot test, and therefore the analysis could not be performed. Other comments made were:

- EPA 8260B: Dilution was necessary on samples N014984-005 and N014984-016 due to high concentration of Tetrachloroethene.
- EPA 6020: Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery for Arsenic and Chromium on QC samples N014985-001B-MS and N014985-001B-MSD criteria possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.
- EPA 6020: Hexavalent Chromium was reported at 1.5 µg/L while Chromium was ND on sample N014984-023. Chromium was detected at concentration of 0.5 µg/L (J-flag value) which is less than the PQL of 1 µg/L.

With the exception of the above mentioned comments, no laboratory quality control data were flagged outside of established tolerances. The analytical data on water quality for the fourth quarter were accepted as representative of actual site conditions.

2.2 Groundwater Conditions

Groundwater elevations for this sampling event are summarized in Table 1, while historical groundwater data are summarized in Table A-1. Depths to groundwater in the wells sampled during this quarterly event ranged from 12.36 feet bgs (MW-28) to 27.55 feet bgs (MW-16). The average groundwater elevation of monitored wells (excluding MW-40 CMT-35 through CMT-60) was 19.66 feet bgs. There was a 0.77 foot increase when comparing depth to water of similar monitoring wells that had groundwater measurements for both the Fourth Quarter 2014 and First Quarter 2015. Based on the first quarter results, the local hydraulic gradient across the site is generally toward the east.

DO readings for across the site ranged from 0.27 to 6.27 milligrams per liter (mg/L). ORP readings from across the site ranged from -181.3 to 538.6 millivolts (mV). In response to NDEP's comment, the DO meter is re-calibrated each quarter, and the maximum DO readings decreased to within reasonable limits.

2.2.1 Vertical Gradient Assessment

Cardno ATC utilized measured groundwater elevations to determine vertical gradients within two of the five sets of clustered wells at the site (MW-1/MW-9, MW-6D, MW-19D, MW-20D, and MW-40 CMT). Vertical gradients are measured to determine the upward or downward flow of groundwater. Clustered wells measured will have a deep and shallow well that are screened at different lengths which shows the vertical movement of the water within the adjacent geologic units. The EPA On-Line Vertical Gradient Calculator (http://www.epa.gov/athens/learn2model/part-two/onsite/vgradient.html) was used to determine the vertical gradient at the various well clusters.

Table 2-1 Vertical Gradient Calculation, 1st Quarter 2015

Clustered/ Nested Well	Surface Elevation (feet asml)	Depth to Well Screen (feet bgs)	Screen Length (feet)	Depth to Water (feet bgs)	Magnitude (Screen mid-point value)	Flow Direction
MW-1 MW-9	MW-1: 1992.01 MW-9: 1992.25	MW-1: 10 MW-9: 48.5	MW-1: 20 MW-9: 1.5	MW-1: 20.15 MW-9: 20.62	0.009609	Down
MW-6D1 MW-6D2	MW-6D1: 1988.72 MW-6D2: 1988.72	MW-6D1: 50 MW-6D2: 80	MW-6D1: 10 MW-6D2: 10	MW-6D1: 15.41 MW-6D2: 15.35	0.00200	Up
MW-6D2 MW-6D3	MW-6D2: 1988.72 MW-6D3: 1988.72	MW-6D2: 80 MW-6D3: 100	MW-6D2: 10 MW-6D3: 10	MW-6D2: 15.35 MW-6D3: 15.47	0.006000	Down
MW-6D1 MW-6D3	MW-6D1: 1988.72 MW-6D3: 1988.72	MW-6D1: 50 MW-6D3: 100	MW-6D1: 10 MW-6D3: 10	MW-6D1: 15.41 MW-6D3: 15.47	0.001200	Down
MW-19D1 MW-19D2	MW-19D1: 1979.25 MW-19D2: 1979.28	MW-19D1: 31 MW-19D2: 60	MW-19D1: 20 MW-19D2: 10	MW-19D1: 25.74 MW-19D2: 26.88	0.04631	Down
MW-19D2 MW-19D3	MW-19D2: 1979.28 MW-19D3: 1979.32	MW-19D1: 60 MW-19D3: 92	MW-19D1: 10 MW-19D3: 10	MW-19D2: 26.88 MW-19D3: 24.12	0.08761	Up
MW-19D1 MW-19D3	MW-19D1: 1979.25 MW-19D3: 1979.32	MW-19D1: 31 MW-19D3: 92	MW-19D1: 20 MW-19D3: 10	MW-19D1: 25.74 MW-19D3: 24.12	0.03022	Up

Clustered/ Nested Well	Surface Elevation (feet asml)	Depth to Well Screen (feet bgs)	Screen Length (feet)	Depth to Water (feet bgs)	Magnitude (Screen mid-point value)	Flow Direction
MW-20D1 MW-20D2	MW-20D1: 1978.81 MW-20D2: 1978.66	MW-20D1: 25 MW-20D2: 55	MW-20D1: 20 MW-20D2: 10	MW-20D1: 25.56 MW-20D2: 25.95	0.02171	Down
MW-20D2 MW-20D3	MW-20D2: 1978.66 MW-20D3: 1978.69	MW-20D2: 55 MW-20D3: 90	MW-20D2: 10 MW-20D3: 10	MW-20D2: 25.95 MW-20D3: 20.10	0.1681	Up
MW-20D1 MW-20D3	MW-20D1: 1978.81 MW-20D3: 1978.69	MW-20D1: 25 MW-20D3: 90	MW-20D1: 20 MW-20D3: 10	MW-20D1: 25.56 MW-20D3: 20.10	0.08924	Up
MW-40 CMT-30 MW-40 CMT-45	MW-40 CMT-30: 1978.48 MW-40 CMT-45: 1978.48	MW-40 CMT-30: 30 MW-40 CMT-45: 45	MW-40 CMT-30: 0.6 MW-40 CMT-45: 0.6	MW-40 CMT-30: 25.19 MW-40 CMT-45: 25.12	0.004667	Up
MW-40 CMT-45 MW-40 CMT-55	MW-40 CMT-45: 1978.48 MW-40 CMT-55: 1978.48	MW-40 CMT-45: 45 MW-40 CMT-55: 55	MW-40 CMT-45: 0.6 MW-40 CMT-55: 0.6	MW-40 CMT-45: 25.12 MW-40 CMT-55: 25.17	0.005000	Down
MW-40 CMT-30 MW-40 CMT-55	MW-40 CMT-30: 1978.48 MW-40 CMT-55: 1978.48	MW-40 CMT-30: 30 MW-40 CMT-55: 55	MW-40 CMT-30: 0.6 MW-40 CMT-55: 0.6	MW-40 CMT-30: 25.19 MW-40 CMT-55: 25.17	0.000800	Up

Bold: Direction change from previous quarter measured

2.3 Groundwater Analytical Results

Cardno ATC collected groundwater samples on March 2nd through 12th, 2015 from the existing groundwater monitoring wells (MW-1 through MW-3, MW-5 through MW-39, MW-40 (all depths), MW-41, MW-42, MW-43 MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3.) over the vicinity of the site (Figure 2).

Groundwater samples were submitted to Asset Laboratories of Las Vegas, Nevada, an NDEP-certified laboratory, for the analysis of VOCs using EPA method 8260B for samples collected, the analysis of metals (arsenic, chromium, and manganese) using EPA method 6020 for wells MW-19, MW-20, MW-19I, MW-40 CMT-30, MW-40 CMT-45, and MW-40 CMT-60, and the analysis of hexavalent chromium using EPA method 218.6 for wells MW-19, MW-20, MW-19I, MW-40 CMT-30, MW-40 CMT-45, and MW-40 CMT-60.

The laboratory analytical results compared with qualitative changes in groundwater elevation and concentrations are summarized in Table 1. Laboratory analytical reports are provided in Appendix B.

Table 2-2 Groundwater Elevations, Current PCE/TCE Concentrations, and PCE Plume Stability Test

Well ID	Depth to GW Level (feet)	Groundwater Elevation (feet amsl)	PCE (µg/L)	TCE (µg/L)	Mann-Kendall Trend (Since Well Installation)
MW-1	20.15	1971.86	210	<0.50	Decreasing
MW-2	19.17	1964.36	550	2.3	Decreasing
MW-3	20.02	1963.79	13	<0.50	**Probably Increasing** (No Trend 4th Quarter 2014)
MW-5	19.35	1969.34	790	3.7	Increasing
MW-6	19.96	1968.16	3,300	9.3	Increasing
MW-6D1	15.41	1973.31	3.0	<0.50	No Trend
MW-6D2	15.35	1975.37	3.2	<0.50	No Trend
MW-6D3	15.47	1974.25	32	0.50	Increasing
MW-7	18.20	1972.58	17	<0.50	Increasing
MW-8	20.55	1971.16	2.4	<0.50	Decreasing
MW-9	20.62	1971.63	9.7	<0.50	Decreasing
MW-10	21.60	1961.68	<0.50	<0.50	No Trend
MW-11	26.55	1953.32	<0.50	<0.50	N/A[1]
MW-12	16.69	1979.26	0.77	<0.50	No Trend
MW-13	18.40	1964.91	1,700	4.6	Decreasing
MW-14	18.85	1968.48	1,900	3.6	Decreasing
MW-14I	19.41	1968.13	11,000	32	**Increasing** (No Trend 4th Quarter 2014)
MW-15	16.70	1966.04	3.6	<0.50	Stable
MW-16	27.55	1952.98	<0.50	<0.50	N/A[1]
MW-17	19.80	1971.24	65	<0.50	Decreasing
MW-18	12.50	1950.40	1,200	2.5	Decreasing
MW-19	26.60	1953.53	930	4.0	Probably Decreasing
MW-19I	25.52	1952.85	0.62	<0.50	No Trend
MW-19D1	25.74	1953.51	210	1.3	**Stable** (No Trend 4th Quarter 2014)
MW-19D2	26.88	1952.40	44	<0.50	Increasing
MW-19D3	24.12	1955.20	41	<0.50	**No Trend** (Probably Increasing 4th Quarter 2014)
MW-20	26.34	1953.48	680	2.3	Decreasing
MW-20D1	25.56	1954.25	340	0.98	No Trend
MW-20D2	25.95	1952.71	230	1.9	No Trend
MW-20D3	20.10	1958.59	<0.50	<0.50	No Trend
MW-21	25.37	1953.88	11	<0.50	Decreasing
MW-22	26.95	1948.24	0.58	<0.50	N/A[1]
MW-23	16.50	1945.95	740	1.5	Decreasing
MW-24	14.32	1946.50	0.58	<0.50	**Decreasing**

Well ID	Depth to GW Level (feet)	Groundwater Elevation (feet amsl)	PCE (µg/L)	TCE (µg/L)	Mann-Kendall Trend (Since Well Installation)
					(Probably Decreasing 4th Quarter 2014)
MW-25	19.25	1940.04	640	0.71	Decreasing
MW-26	17.09	1936.36	680	<0.50	Decreasing
MW-27	13.33	1930.82	450	1.3	No Trend
MW-28	12.36	1930.71	0.69	<0.50	Decreasing
MW-29	13.85	1918.50	<0.50	<0.50	Decreasing
MW-30	15.90	1924.69	93	0.76	**Stable** (Probably Decreasing 4th Quarter 2014)
MW-31	15.34	1922.32	73	<0.50	**Probably Increasing** (No Trend 4th Quarter 2014)
MW-32	18.32	1934.58	730	2.0	Decreasing
MW-33	17.06	1933.92	<0.50	<0.50	Decreasing
MW-34	19.09	1974.79	370	0.91	Decreasing
MW-35	19.82	1971.55	180	<0.50	Decreasing
MW-36	19.09	1936.21	150	<0.50	Stable
MW-37	19.25	1910.73	35	<0.50	No Trend
MW-38	14.75	1893.63	6.0	<0.50	No Trend
MW-39	24.67	1942.88	160	<0.50	**Probably Decreasing** (Stable 4th Quarter 2014)
MW-40 CMT-30	25.19	1953.30	14	<0.50	No Trend
MW-40 CMT-35	25.36	1953.13	13	1.6	No Trend
MW-40 CMT-40	25.32	1953.17	100	1.5	**Stable** (Decreasing 4th Quarter 2014)
MW-40 CMT-45	25.12	1953.37	120	3.2	Stable
MW-40 CMT-50	25.11	1954.38	160	6.8	Stable
MW-40 CMT-55	25.11	1954.38	430	6.7	Stable
MW-40 CMT-60	25.17	1953.32	190	8.9	**Probably Decreasing** (Stable 4th Quarter 2014)
MW-41	14.85	1894.04	3.5	<0.50	Increasing
MW-42	16.12	1894.19	0.62	<0.50	No Trend
MW-43	15.60	1942.73	<0.50	<0.50	Stable

Notes: [1]Mann-Kendall Trend Test was not utilized on MW-11, MW-16, and MW-22 because they had historically been reported under laboratory detection limits
NM = Not sampled and dtw measurements not taken
Amsl: Above Mean Sea Level
Bold: Trend change from previous quarter

The groundwater locations selected for quarterly monitoring represent the wells that cover the groundwater conditions at the Maryland Square site. The range of groundwater elevations spanned from 1893.63 feet above

mean sea level (amsl) (MW-38) to 1975.37 feet amsl (MW-6D2). Groundwater elevations are summarized in Tables 1, A-1, and A-2.

Groundwater elevations increased across groundwater monitoring wells located on the Maryland Square property by 0.27 feet compared with similar wells with Fourth Quarter 2014 data. Groundwater elevations across the Boulevard Mall property increased by an average of 0.58 feet. Groundwater elevations increased across groundwater monitoring wells located on the surrounding streets and golf course area by 0.78 feet when compared with similar wells with Fourth Quarter 2014 data. Application of a large volume of irrigation water at the golf course, especially during summer months, may influence water elevation in shallow groundwater measured in the monitoring wells. This influence is historically observed in MW-27, MW-28, MW-30, MW-31, MW-32, and MW-33.

PCE was detected in the groundwater samples collected from the project monitoring wells except MW-10, MW-11, MW-16, MW-20D3, MW-29, MW-33, and MW-43. PCE was detected at concentrations ranging from 0.58 µg/L (MW-22) to 11,000 µg/L (MW-14I). PCE concentrations identified by the laboratory in the groundwater samples collected exceeded the maximum contaminant levels (MCL) for PCE in groundwater of 5 µg/L in 41 of 59 wells.

Based on NDEP comments, Cardno ATC conducted additional analysis of the groundwater samples collected from MW-5, MW-6, MW-19, and MW-20. In the Third Quarter 2014 Groundwater Monitoring and Sampling Report Response, NDEP noted that water levels suddenly had varied inconsistently with surrounding wells in MW-5, MW-6, MW-19, and MW-20 within two studied time periods. MW-5, MW-6, MW-19, and MW-20 experienced an increase in water levels while the overall water levels in the mall parking lot increased during the first quarter. Cardno ATC requested additional sampling of MW-5, MW-6, MW-19, and MW-20 for the full suite of volatile organic compounds (VOCs) via EPA Method 8260B to evaluate for chlorinated disinfection by-products. Chloroform ranging from 1.1 µg/L to 6.5 µg/L was found during First Quarter 2015 in the four monitoring wells, however PCE concentrations increased to around their historical averages at each well. Cardno ATC will continue to monitor the water levels in these wells, but requests discontinuation of the full suite VOC analysis.

A potential reason for the inconsistent sampling results of First Quarter 2014 and Third Quarter 2014 may have had to do with the pump depth placement from one quarter to another. Historically, in accordance with NDEP approved sampling techniques, Cardno ATC has measured the depth to water and total depth of the well, and if the well screen was not submerged we would place the pump depth halfway between the depth to water measurement and total depth measurement. With changing groundwater depths, this would result in the pump drawing water from a potential pathway of a higher or lower permeable zone which could result in higher or lower concentrations over time. Due to the heterogeneous soil conditions present across the site, it is possible that the pump depth could have been placed in a higher or lower permeability zone that led to varying PCE results. In additional vertical gradients have changed to downward in some of the nested wells indicating that PCE may be also migrating vertically and that concentrations could alter with depth of screen or length of the screen (greater than 10 feet impacts the effectiveness of low flow sampling). In order to determine the permanent sampling depth that the pump would be set at, Cardno ATC reviewed the previous three years of pump depths from the field notes, and took the average depth of the pump placement while omitting the depths that produce anomalous PCE concentrations. The permanent pump depth was placed on to the sampling sheets before sampling occurred, so that the depth would remain consistent from quarter to quarter. The hose present in each well was measured and marked to the proper depth, to ensure consistency for future sampling events. This method produced PCE concentrations during First Quarter 2015 that were consistent with expected values for PCE based on recent historical averages.

Additional sampling was recommended at well MW-19D following pilot testing activities utilizing potassium permanganate. Pilot testing activities seemed to have unintended consequences in the movement of contamination due to the injection that warranted further investigation. The following table shows the results of testing following pilot testing activities that occurred in March 2013.

Table 2-3 Summary of MW-19D Groundwater Testing, 1st Quarter 2013 to 4th Quarter 2014

Well ID	Date	PCE (µg/L)	TCE (µg/L)
MW-19D1	03/08/13	300	2.9
	06/13/13	690	4.2
	09/09/13	990	4.2
	11/08/13	620	3.5
	01/27/14	490	2.4
	02/19/14	210	1.1
	03/12/14	3.7	<0.50
	06/11/14	730	4.2
	09/19/14	240	1.5
	11/18/14	1,000	5.9
	03/15/15	210	1.3
MW-19D2	03/08/13	170	1.5
	06/13/13	<0.50	<0.50
	09/09/13	<0.50	<0.50
	11/08/13	<0.50	<0.50
	01/27/14	<0.50	<0.50
	02/19/14	<0.50	<0.50
	03/12/14	0.53	<0.50
	06/11/14	6.0	<0.50
	09/19/14	10	<0.50
	11/18/14	39	<0.50
	03/15/15	44	<0.50
MW-19D3	03/08/13	0.50	<0.50
	06/13/13	0.68	<0.50
	09/09/13	710	4.8
	11/08/13	160	0.75
	01/27/14	32	<0.50
	02/19/14	36	<0.50
	03/12/14	17	<0.50
	06/11/14	40	<0.50
	09/19/14	710	4.7
	11/28/14	190	3.2
	03/15/15	41	<0.50

Shaded row represents results prior to pilot testing
Grey text represents First Quarter 2014 sampling event, not deemed representative of site conditions.

After potassium permanganate pilot testing, by the Third Quarter 2013 sampling event, PCE concentrations had increased significantly at MW-19D1 and MW-19D3 while decreasing significantly at MW-19D2. After monthly and quarterly monitoring of MW-19D, it appeared that PCE concentrations had either stabilized or were decreasing from the high points observed during the Third Quarter 2013 sampling at MW-19D2 and MW-19D3, but may still have been increasing at MW-19D1. After the Third Quarter 2014 sampling however, a large increase in PCE concentration occurred in MW-19D3 with a corresponding decrease in MW-19D1. The primary concern from the Third Quarter 2014 sampling event was the substantial increase in PCE concentration noted at MW-19D3, which was previously thought to have stabilized. When the initial spike happened in Third Quarter 2013, it was assumed that the nearby injection of large volumes of potassium permanganate had displaced the existing PCE contamination in the area and caused the PCE plume to travel deeper to areas it had not formerly thought to exist. Cardno ATC notes that both spikes occurred during the third quarter of the year. Cardno ATC assessed the vertical gradients between MW-19D1 and MW-19D3 for each quarter from First Quarter 2013 to Third Quarter 2014. The vertical gradient between the two wells was “up” every quarter monitored, except for Third Quarter 2013 and Third Quarter 2014 when the vertical gradient was “down”. The vertical gradient during the Fourth Quarter 2014 was also “down” but at a decreased magnitude when compared with Third Quarter 2014,

and switched back to “up” during First Quarter 2015. Groundwater extraction planned to be performed in this area next year should control vertical and horizontal gradients.

A duplicate sample was collected from MW-1. MW-1 PCE concentrations were measured at 210 µg/L and 210 µg/L, a relative percent difference (RPD) of 0.0%. The duplicate sample result did not show significant statistical variation based on the levels of the concentrations.

Trichloroethene (TCE) was detected at concentrations ranging from 0.50 µg/L to 32 µg/L in the groundwater samples collected from 25 of the 59 site monitoring wells. The detected concentrations were below the MCL for TCE in groundwater of 5 µg/L, with the exception of MW-6 (9.3 µg/L), MW-14I (32 µg/L), MW-40 CMT-50 (6.8 µg/L), MW-40 CMT-55 (6.7 µg/L), and MW-40 CMT-60 (8.9 µg/L).

Cis-1,2-dichloroethene (DCE) was detected in monitoring wells at concentrations ranging from 0.61 µg/L to 20 µg/L in 7 of the 59 site monitoring wells. The detected concentrations were below the MCL for DCE in groundwater of 70 µg/L.

Vinyl chloride (VC) was not detected at concentrations in excess of laboratory detection levels (0.50 µg/L). The presence of small amounts of TCE and cis-1,2 DCE suggests that reductive dechlorination is not significant at the site.

Metals and Hexavalent Chromium were also analyzed this quarter, to compare with concentrations obtained by Tetra Tech after pilot tests were conducted using potassium permanganate ($KMnO_4$) and PulseOx in early 2013. The following table shows Tetra Tech data along with concentrations detected during Cardno ATC’s successive sampling events.

Table 2-4 Summary of Metals Concentrations in Select Wells, 1st Quarter 2013 to 1st Quarter 2015

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
MW-19 ($KMnO_4$ Pilot Test, upgradient)	03/08/13	520	7.4	170	17	NA
	03/12/13	390	2	120,000	25	NA
	03/27/13	14	0.33	43,000	130	NA
	04/04/13	110	2	7,100	79	NA
	04/11/13	220	1.8	5,400	44	NA
	05/02/13	810	2.7	460	9.7	NA
	06/14/13	530	2.3	68	4.6	2.5
	09/09/13	840	4.0	<0.50	1.8	1.9
	11/07/13	440	3.3	<0.50	1.3	1.7
	03/07/14	910	3.2	<0.50	1.7	2.0
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/04/15	930	3.8	<0.50	1.4	1.7
MW-19I ($KMnO_4$ Pilot Test, downgradient)	03/08/13	710	2.0	ND	1.6	NA
	03/12/13	280	1.7	2,700	14	NA
	03/26/13	9.4	0.93	27,000	44	NA
	04/04/13	3.5	3	4,700	170	NA
	04/11/13	1.7	0.19	9,400	52	NA
	05/02/13	0.61	1.2	20,000	43	NA
	06/12/13	<0.50	0.34	62,000	87	NA*
	09/09/13	<0.50	0.24	26,000	12	NA*
	11/08/13	<0.50	1.1	48,000	290	NA*
	03/12/14	<0.50	<0.10	51,000	300	NA*
	06/11/14	<0.50	0.97	260,000	370	NA*
	09/18/14	<0.50	<0.10	14,000	260	NA*
	11/18/14	<0.50	<2.5	94,000	260	NA*
	03/04/15	0.62	1.0	54,000	160	NA*
MW-20	03/26/13	290	4.7	NA	4.3	NA

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
(PulseOx Pilot Test, upgradient)	04/10/13	480	5.6	NA	9.7	NA
	04/23/13	850	6.1	NA	8.8	NA
	05/02/13	470	4	NA	2.7	NA
	06/12/13	660	2.4	<0.50	1.6	1.1
	09/09/13	570	3.2	<0.50	1.1	1.2
	11/07/13	530	2.6	<0.50	<1.0	1.3
	03/12/14	170	3.6	64	5.1	3.5
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/11/15	680	1.3	<0.50	<1.0	1.5
MW-40 CMT-30 (PulseOx Pilot Test, downgradient)	03/25/13	4.7	4	NA	ND	NA
	04/10/13	0.86	7.2	NA	65	NA
	04/23/13	8.8	4.6	NA	180	NA
	05/01/13	1.2	5.9	NA	210	NA
	06/14/13	10	3.9	<0.50	140	140
	09/04/13	2.1	2.3	43	55	120
	11/06/13	1.3	3.6	77	110	110
	03/06/14	4.5	3.6	83	15	17
	06/10/14	3.2	3.6	25	5.0	5.5
	09/18/14	4.6	4.3	70	1.6	1.1
	11/19/14	35	3.7	22	1.5	1.4
	03/05/15	14	3.6	28	<1.0	0.88
MW-40 CMT-35 (PulseOx Pilot Test, downgradient)	03/25/13	14	14	NA	ND	NA
	04/10/13	6.9	6.9	NA	ND	NA
	04/23/13	2.6	2.6	NA	5.7	NA
	05/01/13	3.5	3.5	NA	25	NA
	06/14/13	3.6	4	250	2.9	1.1
	09/04/13	9.6	9.6	450	<1.0	0.23
	11/06/13	12	7.8	430	<1.0	<0.20
	03/06/14	2.6	4.6	370	<1.0	0.31
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/05/15	13	3.3	370	<1.0	0.25
MW-40 CMT-40 (PulseOx Pilot Test, downgradient)	03/25/13	270	2.5	NA	3.2	NA
	04/10/13	94	2.5	NA	6.6	NA
	04/23/13	150	2.4	NA	20	NA
	05/01/13	96	3.3	NA	38	NA
	06/14/13	53	3.0	26	9.8	22
	09/04/13	37	2.7	100	22	25
	11/06/13	51	1.9	61	14	15
	03/06/14	27	1.9	360	1.3	2.0
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/05/15	100	1.9	33	<1.0	0.71
MW-40 CMT-45 (PulseOx Pilot Test, downgradient)	03/25/13	310	2.4	NA	ND	NA
	04/10/13	120	2.0	NA	15	NA
	04/23/13	100	1.8	NA	41	NA
	05/01/13	78	2.7	NA	47	NA
	06/17/13	47	1.6	<0.50	39	43
	09/04/13	110	2.4	100	7.6	8.3
	11/06/13	77	1.5	110	6.0	6.1

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
	03/06/14	24	1.8	160	4.0	5.1
	06/10/14	250	1.6	250	<1.0	0.85
	09/18/14	240	1.5	70	<1.0	<0.20
	11/19/14	150	1.5	7.7	1.9	2.0
	03/05/15	120	1.9	15	<1.0	0.53
MW-40 CMT-50 (PulseOx Pilot Test, downgradient)	03/25/13	280	4.1	NA	ND	NA
	04/10/13	110	2.2	NA	14	NA
	04/23/13	120	2	NA	38	NA
	05/01/13	79	3.1	NA	41	NA
	06/17/13	64	2.2	<0.50	8.2	8.9
	09/11/13	24	4.3	43	<1.0	0.39
	11/06/13	120	1.9	250	<1.0	0.35
	03/06/14	72	2.0	120	<1.0	0.25
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/05/15	160	2.5	15	<1.0	0.40
MW-40 CMT-55 (PulseOx Pilot Test, downgradient)	03/25/13	390	1.5	NA	ND	NA
	04/10/13	570	1.6	NA	3.9	NA
	04/23/13	510	1.5	NA	10	NA
	05/01/13	430	2.7	NA	12	NA
	06/17/13	200	1.6	<0.50	26	27
	09/11/13	38	3.4	38	<1.0	0.49
	11/06/13	110	2.4	69	20	11
	03/06/14	130	1.2	380	4.7	5.1
	06/09/14	NS	NS	NS	NS	NS
	09/15/14	NS	NS	NS	NS	NS
	11/17/14	NS	NS	NS	NS	NS
	03/05/15	430	1.8	12	21	22
MW-40 CMT-60 (PulseOx Pilot Test, downgradient)	03/25/13	1,200	1.8	NA	ND	NA
	04/10/13	1,200	1.7	NA	ND	NA
	04/23/13	1,400	1.5	NA	1.1	NA
	05/01/13	1,200	2.7	NA	2	NA
	06/17/13	1,000	1.4	<0.50	5.7	6.6
	09/11/13	20	2.5	18	<1.0	0.92
	11/06/13	190	0.96	43	3.2	3.7
	03/06/14	360	1.3	470	4.4	1.3
	06/10/14	750	1.2	140	31	18
	09/18/14	700	1.3	290	52	12
	11/19/14	1,000	1.3	<0.50	110	120
	03/05/15	190	1.3	23	61	56

Notes: NA=Not Analyzed NS= Not Sampled
ND=Non Detect
Shaded row represents baseline test
Grey text represents First Quarter 2014 sampling event, not deemed representative of site conditions.
*=Sample could not be analyzed for Cr(VI) because sample was saturated with potassium permanganate

The primary metal of concern was the effects of the oxidant on trivalent and hexavalent chromium concentrations in groundwater. Cardno ATC performed groundwater testing after the completion of the pilot testing and found elevated levels of chromium in the tested wells, except for MW-19 and MW-20, compared to before pilot testing. Both MW-19 and MW-20 are located upgradient from the pilot testing. Cardno ATC also performed analysis of hexavalent chromium (Cr(VI)), because the oxidizing effect of the two treatments has the

potential to change the non-toxic, non- mobile Cr(III) into the acutely toxic, mobile Cr(VI). Hexavalent chromium levels ranged from 0.25 µg/L to 56 µg/L. Monitoring well MW-19I (160 µg/L) exceeded the MCL of 100 µg/L for total chromium in groundwater. No MCL has been established for CR(VI), but NDEP has set a basic comparison level (BCL) of 100 µg/L in groundwater, which none of the monitored wells exceeded. Literature suggests that the increase of chromium levels may be a temporary condition.

The potassium permanganate pilot test led to an expected increase of manganese at MW-19 and MW-19I due to the injection of the solution containing manganese into the groundwater. Manganese levels in MW-19 have steadily decreased to below laboratory detection limits; however monitoring well MW-19I had reported levels of manganese at 54,000 µg/L, which is equivalent to the manganese levels observed almost two years ago. Manganese has persisted within MW-19I longer than initially anticipated. Cardno ATC also noted a corresponding increase in the chromium concentration from MW-19I. This condition will continue to be monitored in the future.

PCE concentrations also appear to have undergone some rebound in wells MW-40 CMT-45 and MW-40 CMT-60, even though there is some residual manganese left from the pilot testing. Although manganese continues to persist within and near MW-19I, this is the first quarter since Second Quarter 2013 that has had a PCE concentration above laboratory reporting limits. This may represent the start of possible rebound in the well that has been noted in many of the other wells that had been affected by the potassium permanganate pilot test. Although the timeframe of the manganese within the wells lasted significantly longer than previously anticipated, rebound should be expected, especially in the deeper wells that proved difficult to administer the potassium permanganate injection effectively.

The NDEP stated in response to Cardno ATC's "Fourth Quarter 2014 Groundwater Monitoring and Sampling Report," dated January 27, 2015 that mobilization of naturally occurring arsenic does not appear to be a problem. The primary metal of concern is the levels of trivalent and hexavalent chromium, the levels of chromium in the wells monitored, with the exception of MW-19I and MW-40 CMT-60, have been well below the applicable MCLs and BCL for trivalent and hexavalent chromium for the past two years. For these reasons, Cardno ATC requests that metals testing be discontinued going forward at the site, except for MW-19I and MW-40 CMT-60 which will continue to be monitored until it is shown that the chromium levels are below the applicable regulatory limits.

2.4 Mann-Kendall Trend Test for Plume Stability

The Mann-Kendall Trend Test for Plume Stability was used to determine whether the plume is increasing, probably increasing, decreasing, probably increasing, stable, or showing no trend at each particular well. At least four quarters of sampling data is needed for the test to determine whether the plume is increasing or decreasing at a well. A confidence factor greater than 95% was needed to state whether PCE concentrations at a given well are increasing or decreasing. A confidence factor between 90% and 95% was needed to state PCE concentrations at a given well are increasing or decreasing. Past sample data was gathered for each well. Results of the Mann-Kendall Test indicated that the PCE plume was decreasing at twenty wells and increasing at seven wells. The Mann-Kendall Test also showed that the plume was probably decreasing at three wells, probably increasing at two wells, stable at nine wells, and showed no trend at fifteen wells (eighteen including MW-11, MW-16, and MW-22 which weren't analyzed due to historically low readings). Many wells have just reached or are close to the minimum amount of sampling data necessary for the Mann-Kendall Trend Test to give an output and therefore many currently show no trend.

Seven wells currently are increasing to the trend test at the site (MW-5, MW-6, MW-7, MW-14I, MW-41, MW-6D3, and MW-19D2).

Concentrations at MW-7 fluctuate between 1 and 11 µg/L over the span of twelve years. The low concentrations of PCE and small range of concentrations of MW-7 represent a low concern at the site, however the continued PCE results from the well could show that some residual source material still remains at the Maryland Square property.

Concentrations at MW-41 have fluctuated between 1.7 and 3.7 over the span of six quarters. The low concentrations of PCE, small range of concentrations, and low quantity of sampling events represent a low concern at the site for the time being. In regards to MW-41, as stated by NDEP in their response to Cardno ATC's "Fourth Quarter 2014 Groundwater Monitoring and Sampling Report," dated January 27, 2015, it is important to note that MW-41 is one of the three downgradient wells that represent the tail end of the plume. Cardno understands the importance in assessing the possible downgradient movement of the plume, however after looking at the No Trend results at MW-38 (which has eleven quarters of monitoring) and MW-42, that it is likely with more monitoring data that the Mann-Kendall data may soon show a Stable or No Trend result.

Although concentrations are also low at MW-6D3, ranging from less than the laboratory detection limit to 32 µg/L, MW-6D3 is screened from 100 feet to 110 feet below ground surface and could demonstrate that PCE contamination is deeper than originally thought or is migrating downward. The vertical gradient analysis between MW-6D1 and MW-6D3 showed a downward movement between the two wells. However, only six sampling events are used in the Mann-Kendall model currently so the model lacks precision at this time.

Results at MW-19D2 may have been affected by the pilot testing that occurred during First Quarter 2013. Only one sampling event was taken before pilot testing was conducted nearby, followed by a decrease in PCE concentration from 170 µg/L to below laboratory detection limits for three consecutive quarters. The four most recent monitoring events have experienced increasing concentrations that may be indicative of some rebound at the well however the most recent increase was minor. There has also been hypothesized movement of PCE due to vertical gradients in the vicinity of MW-19D over multiple quarters. The condition will continue to be monitored.

Wells MW-5, MW-6 both have higher PCE concentrations (approximately 800 µg/L in MW-5 and approximately 3,000 µg/L in MW-6). MW-6 is located directly along the centerline of the plume and MW-5 is south of MW-6 by approximately 90 feet. The two wells have exhibited the increasing trend over the span of fourteen years. Based on their location, to the east of Maryland Parkway, it is possible that additional source source material remains under the road and is continuing to contribute to the plume. Mann Kendall analysis during First Quarter 2015 also showed MW-14I has an increasing trend for the first time. Monitor well MW-14I has consistently had the highest PCE concentration across the entire site, averaging around 10,000 µg/L. Well MW-14I is also located near MW-5 and MW-6, approximately 100 feet north of MW-6, and on the east side of Maryland Parkway. The future remediation plan for the site should address the possibility of source material being present under Maryland Parkway and be prepared for the possible migration on to the Boulevard Mall Property.

3 Summary

Cardno ATC provides the following summary based on the results of the First Quarter 2015 groundwater sampling event:

- Tetrachloroethene (PCE) was detected at concentrations ranging from 0.58 µg/L to 11,000 µg/L. The MCL for PCE in groundwater is 5 µg/L. PCE concentrations are summarized in the following table:

Table 3-1 Summary of PCE Concentrations in Monitoring Wells across the Site, 1st Quarter 2015

Non Detect (<0.50 µg/L)	>0.50 µg/L to <5.0 µg/L	5.0 µg/L to 11,000 µg/L	
MW-10	MW-6D1	MW-1	MW-23
MW-11	MW-6D2	MW-2	MW-25
MW-16	MW-8	MW-3	MW-26
MW-20D3	MW-12	MW-5	MW-27
MW-22	MW-15	MW-6	MW-30
MW-29	MW-19I	MW-6D3	MW-31
MW-33	MW-24	MW-7	MW-32
MW-43	MW-28	MW-9	MW-34
	MW-41	MW-13	MW-35
	MW-42	MW-14	MW-36
		MW-14I	MW-37
		MW-17	MW-38
		MW-18	MW-39
		MW-19	MW-40 CMT-30
		MW-19D1	MW-40 CMT-35
		MW-19D2	MW-40 CMT-40
		MW-19D3	MW-40 CMT-45
		MW-20	MW-40 CMT-50
		MW-20D1	MW-40 CMT-55
		MW-20D2	MW-40 CMT-60
		MW-21	

- Trichloroethene (TCE) was detected at concentrations ranging from 0.50 µg/L to 32 µg/L. The MCL for TCE in groundwater is 5 µg/L. TCE concentrations are summarized in the following table:

Table 3-2 Summary of TCE Concentrations in Monitoring Wells across the Site, 1st Quarter 2015

Non Detect (<0.50 µg/L)		≥0.5 µg/L to <5.0 µg/L	5.0 µg/L to 32 µg/L
MW-1	MW-20D3	MW-2	MW-6
MW-3	MW-21	MW-5	MW-14I
MW-6D1	MW-22	MW-6D3	MW-40 CMT-50
MW-6D2	MW-24	MW-13	MW-40 CMT-55
MW-7	MW-26	MW-14	MW-40 CMT-60
MW-8	MW-28	MW-18	
MW-9	MW-29	MW-19	
MW-10	MW-31	MW-19D1	

Non Detect (<0.50 µg/L)		≥0.5 µg/L to <5.0 µg/L	5.0 µg/L to 32 µg/L
MW-11	MW-33	MW-20	
MW-12	MW-35	MW-23	
MW-15	MW-36	MW-25	
MW-16	MW-37	MW-27	
MW-17	MW-38	MW-30	
MW-19I	MW-39	MW-32	
MW-19D2	MW-40 CMT-30	MW-34	
MW-19D3	MW-41	MW-40 CMT-35	
MW-20D1	MW-42	MW-40 CMT-40	
MW-20D2	MW-43	MW-40 CMT-45	

- Cis-1,2-dichloroethene (DCE) was detected in monitoring wells at concentrations ranging from 0.61 µg/L to 20 µg/L in 7 of the 59 site monitoring wells. The detected concentrations were below the MCL for DCE in groundwater of 70 µg/L.
- Hexavalent Chromium (Cr(VI)) ranged from 0.25 µg/L to 56 µg/L in monitoring wells MW-19, MW-20, MW-19I, and MW-40 CMT-30 through MW-40 CMT-60. No monitoring wells were above the NDEP basic comparison level (BCL) of 100 µg/L in groundwater. The total chromium concentration measured in MW-19I (160 µg/L) exceeded the MCL of 100 µg/L in groundwater. MW-19I was not able to be analyzed for hexavalent chromium content due to the color of the groundwater sample.

3.2 Recommendations

Cardno ATC recommends continuing monitoring and sampling of the site monitoring wells in accordance with the NDEP approved 2014 schedule for 2015, with the exception that metals testing be reduced to only MW-19I and MW-40 CMT-60. The primary metal of concern is the levels of trivalent and hexavalent chromium, the levels of chromium in the wells monitored, with the exception of MW-19I and MW-40 CMT-60, have been well below the applicable MCLs and BCL for trivalent and hexavalent chromium for the past two years. For these reasons, Cardno ATC requests that metals testing be discontinued going forward at the site, except for MW-19I and MW-40 CMT-60 which will continue to be monitored until it is shown that the chromium levels are below the applicable regulatory limits.

Cardno ATC incorporated a system of custody seals on the site monitoring wells using zip ties. The zip ties were placed in a fashion so cap is secure but if the cap is removed, the zip tie system will come apart and show if any tampering occurred between monitoring events, results of these custody seals will be updated in the next quarterly report. The addition of custody seals was requested by NDEP due to uncharacteristically low PCE concentrations during First Quarter 2014. However, testing since that time shows that the low concentrations appear to have been related to variable pump depth placement, not due to outside interference.

A copy of this report has been forwarded to the NDEP case officer for review.

3.3 Limitations

This report has been prepared for the exclusive use of Herman Kishner Trust, as it pertains to Maryland Square PCE Site located at 3661 South Maryland Parkway, in Las Vegas, Nevada. Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions, or recommendations made by others based on the records review, site inspection, field exploration, and laboratory test data presented in this report.

It should be noted that all surficial environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. For these types of evaluations, it is often necessary to use information prepared by others and Cardno ATC cannot be responsible for the accuracy of such information. In addition, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does it warrant operations or conditions present of a type or at a location not investigated. This report is not a regulatory compliance audit and is not intended to satisfy the requirements of any state, federal, or local real estate transfer laws.

It must be noted that no investigation can absolutely rule out the existence of any hazardous materials at a given site. This assessment has been based upon prior site history, observable conditions, and the subsurface soil sampling described in this report. Existing hazardous materials and contaminants can escape detection using these methods.

4 Environmental Certification Jurat

This First Quarter 2015 Groundwater Monitoring and Sampling Report for Maryland Square PCE Site located at 3661 South Maryland Parkway, Las Vegas, Nevada, has been prepared in accordance with Nevada Administrative Code (NAC), Chapter 459, Section 9717.

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable Federal, State and local statutes, regulations and ordinances.

If you have any questions or require additional information, please feel free to contact the undersigned at (702) 990-9300.

Sincerely,

Cardno ATC

Adam Katlein
Project Manager

Andrew D. Stuart
Branch Manager
Nevada Certified Environmental Manager
No. EM-1905 (Expires 01/26/17)

cc: Dr. Mary Siders, Nevada Division of Environmental Protection-Carson City, Nevada

Maryland Square PCE Site

TABLES

Cardno ATC

Shaping the Future

Table A-1: Current Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
Project Monitoring Wells Located on Maryland Square Property												
MW-1	Aug 00	Mar 15	1992.01	20.15	1971.86	10-30	1.34	2.4	85.0	**210**	<0.50	<0.50
MW-7	Sep 02	Mar 15	1990.78	18.20	1972.58	10-30	2.28	2.4	206.1	**17**	<0.50	<0.50
MW-8	Sep 02	Mar 15	1991.71	20.55	1971.16	10-30	1.03	2.2	201.1	2.4	<0.50	<0.50
MW-9	Sep 02	Mar 15	1992.25	20.62	1971.63	48.5-50	2.37	1.0	90.8	**9.7**	<0.50	<0.50
MW-12	Sep 02	Mar 15	1995.95	16.69	1979.26	13.5-33.5	1.76	2.3	221.4	0.77	<0.50	<0.50
MW-17	Nov 03	Mar 15	1991.04	19.80	1971.24	15-30	1.01	2.3	88.6	**65**	<0.50	<0.50
MW-34	Dec 11	Mar 15	1993.88	19.09	1974.79	--	1.56	2.4	90.7	**370**	0.91	<0.50
MW-35	Dec 11	Mar 15	1991.37	19.82	1971.55	--	2.36	2.3	87.3	**180**	<0.50	<0.50
Project Monitoring Wells Located on Boulevard Mall Property												
MW-2	Oct 00	Mar 15	1983.53	19.17	1964.36	10-32	1.75	2.2	197.0	**550**	2.3	0.6
MW-3	Oct 00	Mar 15	1983.81	20.02	1963.79	10-31	0.65	2.8	218.5	**13**	<0.50	<0.50
MW-5	Oct 00	Mar 15	1988.69	19.35	1969.34	10-32	2.83	2.2	204.8	**790**	3.7	1.2
MW-6	Oct 00	Mar 15	1988.12	19.96	1968.16	10-32	2.31	2.2	99.1	**3,300**	**9.3**	2.3
MW-6D1	Jan 13	Mar 15	1988.72	15.41	1973.31	50-60	3.44	0.4	102.2	3.0	<0.50	<0.50
MW-6D2	Jan 13	Mar 15	1989.72	15.35	1975.37	80-90	3.69	0.4	113.4	3.2	<0.50	<0.50

Table A-1: Current Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
Project Monitoring Wells Located on Boulevard Mall Property												
MW-6D3	Jan 13	Mar 15	1988.72	15.47	1974.25	100-110	3.86	0.3	106.9	**32**	0.50	<0.50
MW-10	Sep 02	Mar 15	1983.28	21.60	1961.68	10-30	0.44	2.3	-181.3	<0.50	<0.50	<0.50
MW-11	Sep 02	Mar 15	1979.87	26.55	1953.32	13.5-33.5	1.01	2.3	-95.5	<0.50	<0.50	<0.50
MW-13	May 03	Mar 15	1983.31	18.40	1964.91	9-29	1.12	2.3	216.8	**1,700**	4.6	<0.50
MW-14	Nov 03	Mar 15	1987.33	18.85	1968.48	15-40	2.06	2.4	104.9	**1,900**	3.6	<0.50
MW-14I	Jul 12	Mar 15	1987.54	19.41	1968.13	40-55	2.65	0.8	106.0	**11,000**	**32**	20
MW-15	Nov 03	Mar 15	1982.74	16.70	1966.04	15-32	1.79	2.2	95.4	3.6	<0.50	<0.50
MW-16	Nov 03	Mar 15	1980.53	27.55	1952.98	19-32	0.27	2.1	1.5	<0.50	<0.50	<0.50
MW-19	Nov 03	Mar 15	1980.13	26.60	1953.53	19-35	3.40	2.2	NM	**930**	4.0	<0.50
MW-19D1	Jan 13	Mar 15	1979.25	25.74	1953.51	31-51	3.92	0.6	159.4	**210**	1.3	<0.50
MW-19D2	Jan 13	Mar 15	1979.28	26.88	1952.40	60-70	0.70	1.5	179.5	**44**	<0.50	<0.50
MW-19D3	Jan 13	Mar 15	1979.32	24.12	1955.20	92-102	3.87	0.4	201.4	**41**	<0.50	<0.50
MW-19I	Jul 12	Mar 15	1978.37	25.52	1952.85	34-54	2.93	2.2	538.6	0.62	<0.50	<0.50
MW-20	Nov 03	Mar 15	1979.82	26.34	1953.48	19-35	2.09	2.4	209.7	**680**	2.30	<0.50
MW-20D1	Jan 13	Mar 15	1979.81	25.56	1954.25	25-45	2.00	1.6	190.8	**340**	0.98	<0.50

Table A-1: Current Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
Project Monitoring Wells Located on Boulevard Mall Property												
MW-20D2	Jan 13	Mar 15	1978.66	25.95	1952.71	55-65	6.27	1.5	179.6	**230**	1.9	0.96
MW-20D3	Jan 13	Mar 15	1978.69	20.10	1958.59	90-100	3.24	0.3	207.7	<0.50	<0.50	<0.50
MW-21	Nov 03	Mar 15	1979.25	25.37	1953.88	19-36	0.41	2.3	46.1	**11**	<0.50	<0.50
MW-40 CMT-30	Jul 12	Mar 15	1978.49	25.19	1953.30	30-30.6	4.17	2.3	287.3	**14**	<0.50	<0.50
MW-40 CMT-35	Jul 12	Mar 15	1978.49	25.36	1953.13	35-35.6	4.97	1.8	306.7	**13**	1.6	<0.50
MW-40 CMT-40	Jul 12	Mar 15	1978.49	25.32	1953.17	40-40.7	3.54	1.9	339.9	**100**	1.5	<0.50
MW-40 CMT-45	Jul 12	Mar 15	1978.49	25.12	1953.37	45-45.6	4.21	0.5	361.0	**120**	3.2	<0.50
MW-40 CMT-50	Jul 12	Mar 15	1978.49	25.11	1954.38	50-50.6	3.21	0.3	314.5	**160**	6.80	<0.50
MW-40 CMT-55	Jul 12	Mar 15	1978.49	25.11	1953.38	55-55.6	2.84	0.4	378.6	**430**	6.7	1.0
MW-40 CMT-60	Jul 12	Mar 15	1978.49	25.17	1953.32	60-60.6	3.14	1.9	253.3	**190**	**8.9**	1.8
Project Monitoring Wells Located on Surrounding Streets and Golf Course												
MW-18	Nov 03	Mar 15	1962.90	12.50	1950.40	5-26	2.32	2.3	243.1	**1,200**	2.5	<0.50
MW-22	Mar 05	Mar 15	1975.19	26.47	1948.72	15-36	0.87	2.4	93.3	<0.50	<0.50	<0.50
MW-23	Mar 05	Mar 15	1962.45	16.50	1945.95	5-26	2.04	2.2	58.2	**740**	1.5	<0.50
MW-24	Mar 05	Mar 15	1960.82	14.32	1946.50	5-26	1.31	2.1	79.1	0.58	<0.50	<0.50
MW-25	Mar 05	Mar 15	1959.29	19.25	1940.04	5-26	1.15	2.4	52.9	**640**	0.71	<0.50

Table A-1: Current Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
Project Monitoring Wells Located on Surrounding Streets and Golf Course												
MW-26	Mar 06	Mar 15	1953.45	17.09	1936.36	10-36	1.80	2.4	66.5	**680**	<0.50	<0.50
MW-27	Mar 06	Mar 15	1944.15	13.33	1930.82	10-36	1.32	2.4	39.1	**450**	1.3	<0.50
MW-28	Oct 07	Mar 15	1943.07	12.36	1930.71	15-36	0.74	2.5	79.8	0.69	<0.50	<0.50
MW-29	Oct 07	Mar 15	1932.35	13.85	1918.50	15-36	2.68	2.6	85.0	<0.50	<0.50	<0.50
MW-30	Oct 07	Mar 15	1940.59	15.90	1924.69	20-41	2.39	1.9	49.6	**93**	0.76	<0.50
MW-31	Mar 08	Mar 15	1937.66	15.34	1922.32	13.5-33.6	2.71	2.6	56.9	**73**	<0.50	<0.50
MW-32	Mar 08	Mar 15	1952.90	18.32	1934.58	13.5-33.7	1.83	2.3	53.0	**730**	2.0	<0.50
MW-33	Mar 08	Mar 15	1950.98	17.06	1933.92	13.5-33.8	0.69	2.7	67.5	<0.50	<0.50	<0.50
MW-36	Jan 12	Mar 15	1955.30	19.09	1936.21	17-38	1.36	2.4	59.6	**150**	<0.50	<0.50
MW-37	Jan 12	Mar 15	1929.98	19.25	1910.73	17-38	3.03	2.5	63.7	**35**	<0.50	<0.50
MW-38	Apr 12	Mar 15	1908.38	14.75	1893.63	15-36	2.93	2.6	59.2	6.0	<0.50	<0.50
MW-39	Apr 12	Mar 15	1967.55	24.67	1942.88	15-36	1.25	2.4	59.8	**160**	<0.50	<0.50
MW-41	Aug 13	Mar 15	1908.89	14.85	1894.04	10-35	1.63	2.4	37.9	3.5	<0.50	<0.50
MW-42	Sep 13	Mar 15	1910.31	16.12	1894.19	10-35	2.30	2.7	22.6	0.62	<0.50	<0.50
MW-43	Sep 13	Mar 15	1958.33	15.60	1942.73	10-35	1.41	2.1	85.0	<0.50	<0.50	<0.50

Notes:

NM = Not Measured
msl = mean sea level
ND = Non Detect
NS = Not Sampled

°C = degrees Celsius
g/L = gallons per liter
mg/L = milligrams per liter
mS/cm = milli Siemens per centimeter

µg/L = micrograms per liter
mV = milllivolts
NTU = Nephelometric Turbudity Units

Bold value indicates concentration that exceeds regulatory standard.

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-1	Aug 00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND
	Oct 00	1991.81	17.54	1974.27	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 02	1992.04	17.90	1974.14	NM	NM	NM	NM	NM	NM	NM	2,000	ND	ND	ND
	May 03	1992.04	18.70	1973.34	NM	NM	NM	NM	NM	NM	NM	870	ND	ND	ND
	Sep 03	1992.04	18.97	1973.07	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND
	Jan 04	1992.04	19.30	1972.74	7.0	3.5	NM	0.9	22.50	NM	NM	1,700	ND	ND	ND
	May 05	1992.04	15.24	1976.8	7.0	4.0	441.0	5.4	26.00	NM	110	3,500	ND	ND	ND
	Sep 05	1992.04	16.74	1975.3	7.1	4.2	64.0	7.0	27.50	2.7	129	1,700	ND	ND	ND
	Dec 05	1992.04	17.61	1974.43	7.0	5.1	290.0	2.0	26.90	3.2	404	820	ND	ND	ND
	Mar 06	1992.04	18.42	1973.62	NM	5.6	>999	NM	23.10	3.7	545	420	ND	ND	ND
	Jun 06	1992.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1992.04	18.30	1973.74	6.3	3.7	81.0	4.6	26.70	2.4	129	1,100	ND	ND	ND
	Dec 06	1992.04	18.88	1973.16	6.7	4.4	>999	5.1	26.90	2.8	111	1,300	ND	ND	ND
	Mar 07	1992.04	20.08	1971.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1992.04	19.81	1972.23	7.0	2.3	611.0	6.2	25.70	1.4	468	450	ND	ND	ND
	Sep 07	1992.04	18.39	1973.65	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1992.04	19.01	1973.03	6.4	3.9	15.0	5.5	22.20	2.5	223	710	ND	ND	ND
	Mar 08	1992.04	20.03	1972.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1992.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	260	ND	ND	ND
	Oct 08	1992.01	19.82	1972.19	6.6	3.7	62.4	1.1	27.10	2.4	130	460	ND	ND	ND
	Feb 09	1992.01	19.65	1972.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1992.01	19.88	1972.13	7.1	3.7	39.6	1.6	26.20	2.4	101	NS	NS	NS	NS
	Jul 09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	590	ND	ND	ND
	Sep 09	1992.01	19.90	1970.11	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1992.01	20.33	1971.68	6.3	3.4	-10.0	1.5	26.90	2.2	126	390	ND	ND	ND
	Feb 10	1992.01	20.04	1971.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1992.01	19.98	1972.03	7.0	3.3	0.0	3.2	26.13	NM	NM	400	ND	ND	ND
	Oct 10	1992.01	19.44	1972.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1992.01	19.54	1972.47	6.7	3.5	1.2	1.4	27.56	NM	212	430	ND	ND	ND
	Mar 11	1992.01	20.10	1971.91	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1992.01	20.18	1971.83	7.2	3.6	0.0	1.7	25.58	NM	259	460	ND	ND	ND
	Sep 11	1992.01	19.85	1972.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1992.01	19.65	1972.36	7.0	3.4	NM	1.3	25.97	2.2	266	410	ND	ND	ND
	Mar 12	1992.01	20.41	1971.60	7.2	3.5	5.4	1.3	25.48	2.3	-70	370	NS	NS	NS
*	Jun 12	1992.01	19.18	1972.83	7.3	3.5	15.9	3.0	25.97	2.3	90	410	ND	ND	ND
	Sep 12	1992.01	19.97	1972.04	7.6	3.6	NM	1.2	27.28	2.3	98	390	ND	ND	ND
	Nov 12	1992.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1992.01	20.35	1971.66	6.97	3.9	NM	0.90	24.80	2.5	59	260	<0.50	<0.50	<0.50
	Jun 13	1992.01	20.69	1971.32	7.16	3.9	NM	1.72	25.43	2.5	78	240	<0.50	<0.50	<0.50
	Sep 13	1992.01	20.52	1971.49	7.06	3.8	NM	0.76	26.95	2.4	-14	240	<0.50	<0.50	<0.50
	Nov 13	1992.01	20.31	1971.70	5.97	3.5	2.9	0.31	25.51	2.2	166	270	<0.50	<0.50	<0.50
	Mar 14	1992.01	20.10	1971.91	7.23	3.3	28.7	1.71	24.14	2.2	1	350	<0.50	<0.50	<0.50
	Jun 14	1992.01	20.29	1971.72	6.94	3.3	28.7	2.61	28.57	2.4	133	350	<0.50	<0.50	<0.50
	Sep 14	1992.01	20.15	1971.86	7.68	3.6	10.6	6.41	29.16	2.3	66	96	<0.50	<0.50	<0.50
	Nov 14	1992.01	20.42	1971.59	7.05	3.8	9.3	2.12	25.08	2.4	-39	240	<0.50	<0.50	<0.50
	Mar 15	1992.01	20.15	1971.86	6.43	3.7	4.8	1.34	25.49	2.4	85	210	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-2	Oct 00	1983.79	15.52	1968.27	NM	NM	NM	NM	NM	NM	NM	3,000	18.0	18.0	ND
	Sep 02	1983.99	16.62	1967.37	NM	NM	NM	NM	NM	NM	NM	3,000	13.0	13.0	ND
	May 03	1983.99	17.15	1966.84	NM	NM	NM	NM	NM	NM	NM	1,400	ND	ND	ND
	Sep 03	1983.97	17.70	1966.27	NM	NM	NM	NM	NM	NM	NM	1,700	ND	ND	ND
	Jan 04	1983.97	18.25	1965.72	7.1	3.1	NM	1.1	23.20	NM	NM	1,700	ND	ND	ND
	May 05	1983.97	14.65	1969.32	6.9	3.5	698.0	4.8	23.40	NM	193	2,050	17.0	9.7	ND
	Dec 05	1983.97	16.00	1967.97	6.6	4.8	360.0	2.7	25.40	3.1	264	2,900	ND	ND	ND
	Mar 06	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1983.97	17.55	1966.42	NM	3.7	728.0	7.0	24.90	2.4	116	1,600	ND	ND	ND
	Oct 06	1983.97	17.25	1966.72	6.1	3.5	20.0	5.1	24.40	2.2	161	1,900	ND	ND	ND
	Dec 06	1983.97	17.60	1966.37	6.8	4.2	28.0	4.9	24.50	2.7	241	1,300	ND	ND	ND
	Mar 07	1983.97	18.84	1965.13	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.97	19.01	1964.96	7.0	3.5	539.0	5.7	24.40	2.3	305	1,400	ND	ND	ND
	Sep 07	1983.97	17.94	1966.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.97	18.04	1965.93	6.3	3.6	144.0	6.9	21.80	2.3	314	1,000	ND	ND	ND
	Mar 08	1983.97	18.82	1965.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	900	ND	ND	ND
	Oct 08	1983.97	18.54	1965.43	6.9	3.5	44.7	3.4	24.80	2.3	103	960	3.4	1.2	ND
	Feb 09	1983.97	18.68	1965.29	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.97	18.95	1965.02	7.0	3.7	15.4	1.9	24.50	2.4	116	880	3.2	1.1	ND
	Sep 09	1983.97	18.95	1965.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.97	19.32	1964.65	5.6	3.3	280.0	1.9	24.40	2.1	155	530	2.4	ND	ND
	Feb 10	1983.97	19.68	1964.29	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.97	19.08	1964.89	7.0	3.1	14.8	3.5	24.19	NM	NM	570	2.1	0.8	ND
	Oct 10	1983.97	18.76	1965.21	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.97	18.78	1965.19	6.9	3.4	32.8	3.0	24.11	NM	92	560	2.4	0.7	ND
	Mar 11	1983.97	19.19	1964.78	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.97	19.50	1964.47	7.2	3.4	25.9	2.6	24.47	NM	273	680	2.2	0.6	ND
	Sep 11	1983.97	19.11	1964.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.97	19.08	1964.89	7.0	3.3	NM	2.7	23.55	2.1	168	610	2.1	0.66	NS
	Mar 12	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1983.53	19.11	1964.42	7.2	3.3	57.1	2.6	23.57	2.2	87	490	2	0.6	ND
	Sep 12	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1983.53	19.29	1964.24	7.1	3.5	NM	2.7	23.24	2.3	205	580	2.5	1.0	<0.50
	Jun 13	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1983.53	19.27	1964.26	7.3	3.7	36.9	2.0	24.28	2.4	83	720	2.3	0.9	<0.50
	Mar 14	1983.53	19.15	1964.38	7.3	3.1	39.2	1.6	23.05	2.0	-65	340	1.8	<0.50	<0.50
	Jun 14	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1983.53	19.17	1964.36	6.44	3.38	19.21	1.75	23.35	2.20	197.00	550	2.3	0.61	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-3	Oct 00	1984.19	15.95	1968.24	NM	NM	NM	NM	NM	NM	NM	98	ND	ND	ND
	Sep 02	1984.46	17.20	1967.26	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1984.46	17.70	1966.76	NM	NM	NM	NM	NM	NM	NM	6.9	ND	ND	ND
	Sep 03	1984.46	18.35	1966.08	NM	NM	NM	NM	NM	NM	NM	12	ND	ND	ND
	Jan 04	1984.46	19.25	1965.18	6.9	2.9	NM	1.0	22.40	NM	NM	6.7	ND	ND	ND
	May 05	1984.46	15.22	1969.21	7.0	2.9	NM	2.5	26.00	NM	149	ND	ND	ND	ND
	Dec 05	1984.46	16.45	1967.98	6.6	4.7	100.0	0.9	27.30	3.0	33	ND	ND	ND	ND
	Mar 06	1984.46	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1984.46	18.38	1966.05	NM	3.8	285.0	5.6	26.40	2.4	-32	ND	ND	ND	ND
	Oct 06	1984.46	17.88	1966.55	5.9	3.9	26.0	2.0	26.70	2.5	279	ND	ND	ND	ND
	Dec 06	1984.46	18.26	1966.17	6.7	4.8	272.0	2.9	26.70	3.1	9	1.2	ND	ND	ND
	Mar 07	1984.46	19.86	1964.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1984.46	20.23	1964.2	7.1	3.7	605.0	3.6	25.90	2.4	43	ND	ND	ND	ND
	Sep 07	1984.46	18.99	1965.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1984.46	18.99	1965.44	6.1	3.9	55.1	2.2	21.90	2.5	135	1.4	ND	ND	ND
	Mar 08	1984.46	19.94	1964.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1984.46	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1984.41	19.46	1964.95	6.7	3.8	44.2	0.4	27.50	2.4	99	6.5	ND	ND	ND
	Feb 09	1984.41	19.80	1964.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1984.41	20.20	1964.21	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1984.41	20.16	1964.25	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1984.41	20.48	1963.93	6.0	3.8	180.0	1.3	26.60	2.4	143	5.1	ND	ND	ND
	Feb 10	1984.41	21.07	1963.34	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1984.41	13.91	1970.50	6.8	3.5	2.2	2.0	27.36	NM	NM	NS	NS	NS	NS
	Oct 10	1984.41	19.95	1964.46	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1984.41	19.91	1964.50	6.7	3.9	12.5	0.6	27.29	NM	106	5.8	ND	ND	ND
	Mar 11	1984.41	20.47	1963.94	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1984.41	20.86	1963.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1984.41	20.45	1963.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1984.41	20.35	1964.06	6.7	4.5	NM	3.3	26.17	NM	-38	16	ND	ND	NS
	Mar 12	1984.41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1983.81	20.43	1963.38	7.0	4.0	102.0	2.6	25.50	2.6	122	25	ND	ND	ND
	Sep 12	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1983.81	20.37	1963.44	6.9	4.5	NM	1.7	25.15	2.9	153	12	<0.50	<0.50	<0.50
	Jun 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1983.81	20.25	1963.56	7.2	4.3	107.0	2.0	24.79	2.8	149	11	<0.50	<0.50	<0.50
	Jun 14	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1983.81	20.02	1963.79	6.18	4.28	11.14	0.65	25.52	2.78	218.50	13	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-4	Oct 00	1989.68	16.95	1972.73	NM	NM	NM	NM	NM	NM	NM	14	ND	ND	ND
	Sep 02	1989.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	25	ND	ND	ND
	May 03	1989.87	18.71	1971.16	NM	NM	NM	NM	NM	NM	NM	24	ND	ND	ND
	Sep 03	1989.85	19.05	1970.8	NM	NM	NM	NM	NM	NM	NM	100	ND	ND	ND
	Jan 04	1989.85	19.86	1969.99	7.0	2.7	NM	1.2	22.00	NM	NM	220	ND	ND	ND
	May 05	1989.85	15.83	1974.02	6.8	3.7	664.0	3.7	24.20	NM	160	25	ND	ND	ND
	Dec 05	1989.85	17.62	1972.23	6.7	4.9	670.0	3.2	25.90	3.1	219	15	ND	ND	ND
	Mar 06	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.85	18.36	1971.49	NM	NM	NM	NM	NM	NM	NM	27	ND	ND	ND
	Oct 06	1989.85	18.34	1971.51	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 06	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 07	1989.85	18.96	1970.89	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 10	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 12	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 14	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Abandoned June 4, 2012														

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-5	Oct 00	1988.93	16.20	1972.73	NM	NM	NM	NM	NM	NM	NM	100	ND	ND	ND
	Sep 02	1989.18	17.00	1972.18	NM	NM	NM	NM	NM	NM	NM	110	ND	ND	ND
	May 03	1989.18	17.80	1971.38	NM	NM	NM	NM	NM	NM	NM	240	ND	ND	ND
	Sep 03	1989.18	18.07	1971.11	NM	NM	NM	NM	NM	NM	NM	220	ND	ND	ND
	Jan 04	1989.18	18.65	1970.53	6.7	2.6	NM	1.2	22.30	NM	NM	370	ND	ND	ND
	May 05	1989.18	14.87	1974.31	7.1	2.6	NM	4.6	25.40	NM	184	146	ND	ND	ND
	Dec 05	1989.18	16.80	1972.38	6.8	5.3	>999	1.5	26.80	3.3	377	93	ND	ND	ND
	Mar 06	1989.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.18	17.40	1971.78	NM	3.8	>999	6.9	26.60	2.4	126	220	ND	ND	ND
	Oct 06	1989.18	17.46	1971.72	6.2	3.5	21.0	4.8	26.70	2.2	99	67	ND	ND	ND
	Dec 06	1989.18	18.01	1971.17	6.8	4.5	134.0	5.4	26.50	2.9	93	130	ND	ND	ND
	Mar 07	1989.18	19.30	1969.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.18	19.12	1970.06	7.0	3.4	375.0	6.5	25.20	2.2	460	550	ND	ND	ND
	Sep 07	1989.18	17.85	1971.33	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.18	18.33	1970.85	6.3	3.8	28.3	5.7	24.40	2.4	159	170	ND	ND	ND
	Mar 08	1989.18	19.31	1969.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	400	ND	ND	ND
	Oct 08	1989.15	18.99	1970.16	6.8	3.5	21.4	4.8	27.40	2.3	119	340	2.7	1.2	ND
	Feb 09	1989.15	18.99	1970.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.15	19.17	1969.98	7.0	3.6	0.0	5.6	26.20	2.3	125	700	4.6	1.3	ND
	Sep 09	1989.15	19.14	1970.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.15	19.55	1969.6	5.8	3.2	-6.0	3.8	27.10	2.1	132	520	3.9	1.4	ND
	Feb 10	1989.15	19.57	1969.58	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.15	19.21	1969.94	7.1	3.1	7.0	6.7	25.60	NM	273	550	2.9	1.3	ND
	Oct 10	1989.15	18.67	1970.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.15	18.85	1970.30	7.0	5.4	2.0	4.7	25.64	NM	104	360	2.4	1.0	ND
	Mar 11	1989.15	19.41	1969.74	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.15	19.50	1969.65	6.9	3.5	14.0	4.9	26.58	NM	412	670	2.7	1.1	ND
	Sep 11	1989.15	19.19	1969.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.15	19.22	1969.93	6.9	4.0	NM	3.8	25.54	NM	-30	540	2.5	1.1	ND
	Mar 12	1989.15	19.74	1969.41	7.2	3.3	123.0	5.6	23.51	2.4	-38	800	NS	NS	NS
*	Jun 12	1988.69	19.25	1969.44	7.3	3.3	50.1	6.0	25.30	2.1	106	520	2.5	1.2	ND
	Sep 12	1988.69	18.25	1970.44	7.3	3.3	NM	5.3	26.25	2.2	129	340	2.2	0.95	ND
	Nov 12	1988.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1988.69	19.69	1969.00	7.1	3.6	NM	4.4	25.23	2.3	134	530	2.3	0.67	<0.50
	Jun 13	1988.69	20.00	1968.69	7.2	3.5	NM	4.7	27.60	2.3	126	600	2.9	0.95	<0.50
	Sep 13	1988.69	19.60	1969.09	7.0	3.4	NM	4.3	26.63	2.2	167	830	3.7	1.3	<0.50
	Nov 13	1988.69	19.52	1969.17	7.8	3.6	9.7	4.1	25.37	2.3	90	690	2.8	1.2	<0.50
	Mar 14	1988.69	19.37	1969.32	7.3	3.1	18.3	5.1	24.90	2.0	-85	440	2.2	<0.50	<0.50
	Jun 14	1988.69	19.68	1969.01	7.0	3.4	37.4	5.1	27.98	2.2	87	780	2.6	1.1	<0.50
	Sep 14	1988.69	19.08	1969.61	7.5	3.4	4.2	6.6	28.41	2.2	70	350	0.94	<0.50	<0.50
	Nov 14	1988.69	19.55	1969.14	7.1	3.6	4.5	4.2	25.89	2.3	59	740	3.9	1.5	<0.50
	Mar 15	1988.69	19.35	1969.34	6.4	3.5	12.2	2.8	24.02	2.2	205	790	3.7	1.2	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-6	Oct 00	1988.72	17.41	1971.31	NM	NM	NM	NM	NM	NM	NM	2,200	13.0	8.1	ND
	Sep 02	1989.01	18.26	1970.75	NM	NM	NM	NM	NM	nM	NM	1,000	41.0	14.0	ND
	May 03	1989.01	18.87	1970.14	NM	NM	NM	NM	NM	NM	NM	710	22.0	ND	ND
	Sep 03	1989.01	19.25	1969.76	NM	NM	NM	NM	NM	NM	NM	1,300	ND	ND	ND
	Jan 04	1989.01	19.74	1969.27	7.0	2.3	NM	1.2	22.40	NM	NM	2,400	ND	ND	ND
	May 05	1989.01	16.21	1972.8	6.9	2.4	NM	2.8	25.90	NM	123	2,090	13.0	11.0	ND
	Sep 05	1989.01	17.26	1971.75	7.0	4.0	34.0	6.2	26.90	2.3	-119	890	13.0	23.0	ND
	Dec 05	1989.01	17.88	1971.13	6.8	4.9	220.0	1.1	26.50	3.2	163	530	41.0	21.0	ND
	Mar 06	1989.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.01	18.80	1970.21	NM	4.0	707.0	6.3	26.70	2.4	172	1,100	ND	ND	ND
	Oct 06	1989.01	18.73	1970.28	6.3	3.6	7.0	4.1	26.50	2.3	61	1,300	ND	ND	ND
	Dec 06	1989.01	19.18	1969.83	6.7	4.2	96.0	4.4	26.20	2.7	239	810	9.9	8.9	ND
	Mar 07	1989.01	20.40	1968.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.01	20.28	1968.73	7.1	3.5	352.0	5.6	24.90	2.2	241	1,300	ND	ND	ND
	Sep 07	1989.01	19.00	1970.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.01	19.29	1969.72	6.2	3.8	4.3	5.4	24.80	2.4	277	1,500	ND	ND	ND
	Mar 08	1989.01	20.26	1968.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,900	ND	ND	ND
	Oct 08	1989.03	20.00	1969.03	6.8	3.5	46.3	3.3	26.30	2.3	117	2,000	13.0	3.9	ND
	Feb 09	1989.03	20.03	1969	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.03	20.20	1968.83	7.0	3.5	76.3	2.8	26.70	2.2	121	2,800	14.0	4.1	ND
	Sep 09	1989.03	20.27	1968.76	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.03	20.66	1968.37	5.9	3.1	87.0	2.5	26.30	1.9	132	2,100	14.0	6.4	ND
	Feb 10	1989.03	20.77	1968.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.03	20.38	1968.65	7.0	3.0	23.2	4.1	26.32	NM	NM	2,500	13.0	6.2	NS
	Oct 10	1989.03	19.94	1969.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.03	20.02	1969.01	6.9	3.3	7.0	3.5	25.26	NM	86	2,300	13.0	8.2	ND
	Mar 11	1989.03	20.49	1968.54	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.03	20.66	1968.37	7.0	3.3	8.2	3.7	26.52	NM	365	2,400	10.0	3.7	ND
	Sep 11	1989.03	20.30	1968.73	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.03	20.30	1968.73	7.0	3.2	NM	3.4	25.16	2.1	113	2,900	12	5.6	ND
	Mar 12	1989.03	20.84	1968.19	7.3	3.2	107.0	4.4	24.30	2.1	-44	3,500	NS	NS	NS
*	Jun 12	1988.12	19.71	1968.41	7.6	3.1	57.1	7.5	27.25	2.0	114	1,700	8.5	5.4	ND
	Sep 12	1988.12	19.23	1968.89	7.3	3.1	NM	3.7	26.27	2.0	122	3,000	17	8.1	ND
	Nov 12	1988.12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1988.12	20.23	1967.89	7.1	3.4	NM	3.3	24.83	2.2	100	2,600	10	2.2	<0.50
	Jun 13	1988.12	20.58	1967.54	7.3	3.4	NM	3.6	30.62	2.2	130	2,400	7.7	1.3	<0.50
	Sep 13	1988.12	20.25	1967.87	7.0	3.3	NM	3.0	29.86	2.2	90	2,500	11	11	<0.50
	Nov 13	1988.12	20.14	1967.98	7.8	3.5	16.2	3.1	25.27	2.3	97	3,100	12	3.5	<0.50
	Mar 14	1988.12	20.00	1968.12	7.2	2.9	152.0	4.8	24.30	1.9	-108	2,700	11	2.3	<0.50
	Jun 14	1988.12	20.30	1967.82	7.2	3.2	21.3	6.7	26.43	2.1	158	3,000	8.7	2.6	<0.50
	Sep 14	1988.12	19.27	1968.85	7.4	3.2	56.6	6.5	32.77	2.1	64	700	4.0	1.2	<0.50
	Nov 14	1988.12	20.09	1968.03	6.9	3.5	5.0	3.3	24.83	2.3	79	3,300	12.0	3.1	<0.50
	Mar 15	1988.12	19.96	1968.16	6.4	3.4	11.6	2.3	25.06	2.2	99	3,300	9.3	2.3	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-6D1	Mar 13	1988.72	16.29	1972.43	7.6	0.6	NM	5.7	23.48	0.4	86	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	20.20	1968.52	7.5	0.7	NM	5.2	25.82	0.4	280	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	21.40	1967.32	7.4	0.9	NM	4.4	27.20	0.6	61	58	<0.50	<0.50	<0.50
	Nov 13	1988.72	19.24	1969.48	6.9	0.6	49.3	5.0	23.81	0.4	84	3.2	<0.50	<0.50	<0.50
	Mar 14	1988.72	16.20	1972.52	7.4	0.5	62.4	4.3	26.16	0.3	87	1.2	<0.50	<0.50	<0.50
	Jun 14	1988.72	19.60	1969.12	7.3	0.6	47.4	5.8	26.70	0.4	200	0.67	<0.50	<0.50	<0.50
	Sep 14	1988.72	20.40	1968.32	7.2	0.8	51.3	4.2	25.75	0.5	120	120	<0.50	<0.50	<0.50
	Nov 14	1988.72	18.40	1970.32	7.4	0.7	6.7	6.1	23.50	0.4	40	21	<0.50	<0.50	<0.50
	Mar 15	1988.72	15.41	1973.31	6.8	0.6	19.3	3.4	26.20	0.4	102	3.0	<0.50	<0.50	<0.50
MW-6D2	Mar 13	1988.72	14.94	1973.78	7.6	0.6	NM	4.3	22.93	0.4	55	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	20.40	1968.32	7.5	0.7	NM	5.9	25.49	0.4	142	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	21.61	1967.11	7.4	0.7	NM	5.0	26.61	0.5	58	33	<0.50	<0.50	<0.50
	Nov 13	1988.72	18.94	1969.78	7.5	0.6	18.0	NM	23.22	0.4	24	3.3	<0.50	<0.50	<0.50
	Mar 14	1988.72	15.90	1972.82	7.3	0.5	52.3	4.4	24.76	0.3	88	1.6	<0.50	<0.50	<0.50
	Jun 14	1988.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1988.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1989.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1990.72	15.35	1975.37	6.8	0.6	58.6	3.7	24.31	0.4	113	3.2	<0.50	<0.50	<0.50
MW-6D3	Mar 13	1988.72	14.04	1974.68	7.6	0.5	NM	0.7	22.18	0.3	29	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	24.40	1964.32	7.7	0.5	NM	2.8	31.09	0.4	155	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	24.89	1963.83	7.2	0.6	NM	2.2	28.92	0.4	112	2.0	<0.50	<0.50	<0.50
	Nov 13	1988.72	22.16	1966.56	6.9	0.5	43.6	5.7	23.58	0.3	78	3.0	<0.50	<0.50	<0.50
	Mar 14	1988.72	16.70	1972.02	7.3	0.5	86.4	5.4	24.62	0.3	61	1.9	<0.50	<0.50	<0.50
	Jun 14	1988.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1988.72	26.93	1961.79	7.42	0.49	67.50	6.17	27.28	0.32	65.40	10	<0.50	<0.50	<0.50
	Nov 14	1988.72	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1989.72	15.47	1974.25	6.8	0.5	99.1	3.9	25.30	0.3	107	32	0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-7	Sep 02	1990.28	18.27	1972.01	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1990.28	16.60	1973.68	NM	NM	NM	NM	NM	NM	NM	1.7	ND	ND	ND
	Sep 03	1990.25	16.79	1973.46	NM	NM	NM	NM	NM	NM	NM	2.0	ND	ND	ND
	Jan 04	1990.25	17.32	1972.93	7.0	2.2	NM	0.9	22.40	NM	NM	11	ND	ND	ND
	May 05	1990.25	13.86	1976.39	7.1	1.8	NM	4.0	24.80	NM	129	ND	ND	ND	ND
	Sep 05	1990.25	14.97	1975.28	7.0	4.6	140.0	6.2	26.60	3.0	144	3.3	ND	ND	ND
	Dec 05	1990.25	15.45	1974.80	6.7	5.3	5.0	1.8	23.80	3.4	472	1.2	ND	ND	ND
	Mar 06	1990.25	16.41	1973.84	4.7	6.7	428.0	NM	22.40	4.2	634	1.5	ND	ND	ND
	Jun 06	1990.25	16.50	1973.75	NM	4.1	>999	6.6	26.20	2.6	-14	2.2	ND	ND	ND
	Oct 06	1990.25	16.50	1973.75	6.2	3.7	>999	4.4	25.00	2.3	92	2.9	ND	ND	ND
	Dec 06	1990.25	16.87	1973.38	6.9	4.8	>999	5.7	25.10	3.0	65	2.1	ND	ND	ND
	Mar 07	1990.25	18.19	1972.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1990.25	18.08	1972.17	7.1	3.6	450.0	6.3	25.10	2.2	129	1.1	ND	ND	ND
	Sep 07	1990.25	16.31	1973.94	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1990.25	16.60	1973.65	6.2	4.0	0.0	2.3	22.50	2.6	161	1.3	ND	ND	ND
	Mar 08	1990.25	17.93	1972.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1990.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1990.22	17.57	1972.65	6.6	3.8	204.0	3.5	26.70	2.4	134	2.5	ND	ND	ND
	Feb 09	1990.22	17.52	1972.70	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1990.22	17.92	1972.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1990.22	18.13	1972.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1990.22	18.50	1971.72	5.8	3.4	46.0	3.2	26.70	2.2	160	7.9	ND	ND	ND
	Feb 10	1990.22	18.36	1971.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1990.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1990.22	17.54	1972.68	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1990.22	17.65	1972.57	6.9	3.7	230.8	4.9	26.17	NM	98	2.0	ND	ND	ND
	Mar 11	1990.22	18.19	1972.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1990.22	18.40	1971.82	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1990.22	18.02	1972.20	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1990.22	17.86	1972.36	7.0	3.5	NM	3.7	25.20	2.2	302	8.9	ND	ND	ND
	Mar 12	1990.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1989.78	17.78	1972.00	7.3	3.5	8.0	4.8	27.56	2.3	-42	10	ND	ND	ND
	Sep 12	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1989.78	18.47	1971.31	7.0	3.8	NM	3.4	25.22	2.5	70	10	<0.50	<0.50	<0.50
	Jun 13	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1990.78	18.40	1972.38	6.1	3.4	53.0	1.64	26.34	2.17	165	8.4	<0.50	<0.50	<0.50
	Mar 14	1990.78	18.12	1972.66	7.3	3.3	39.0	4.18	24.49	2.11	90	1.3	<0.50	<0.50	<0.50
	Jun 14	1990.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1990.78	18.23	1972.55	7.42	3.48	59.40	6.32	28.59	2.25	108	4.7	<0.50	<0.50	<0.50
	Nov 14	1990.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1990.78	18.20	1972.58	6.5	3.6	11.5	2.3	26.60	2.4	206	17	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-8	Sep 02	1994.25	18.55	1975.70	NM	NM	NM	NM	NM	NM	NM	5.4	ND	ND	ND
	May 03	1994.25	19.50	1974.75	NM	NM	NM	NM	NM	NM	NM	3.2	ND	ND	ND
	Sep 03	1994.23	19.55	1974.68	NM	NM	NM	NM	NM	NM	NM	3.7	ND	ND	ND
	Jan 04	1994.23	19.91	1974.32	7.0	2.2	NM	1.0	22.00	NM	NM	4.7	ND	ND	ND
	May 05	1994.23	15.51	1978.72	7.0	1.8	NM	3.6	27.70	NM	107	5.6	5.6	ND	ND
	Dec 05	1994.23	18.48	1975.75	6.7	4.2	>999	2.1	24.10	2.7	483	3.6	ND	ND	ND
	Mar 06	1994.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1994.23	18.89	1975.34	NM	3.7	>999	6.9	27.40	2.3	185	2.6	ND	ND	ND
	Oct 06	1994.23	19.12	1975.11	6.2	3.4	>999	5.9	26.70	2.2	108	3.4	ND	ND	ND
	Dec 06	1994.23	19.60	1974.63	6.2	3.4	>999	5.9	26.70	2.2	108	4.3	ND	ND	ND
	Mar 07	1994.23	20.56	1973.67	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1994.23	20.31	1973.92	7.1	3.5	259.0	7.3	27.30	2.3	287	2.8	ND	ND	ND
	Sep 07	1994.23	19.14	1975.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1994.23	19.81	1974.42	6.5	3.7	0.0	3.5	25.50	2.4	158	2.8	ND	ND	ND
	Mar 08	1994.23	20.61	1973.62	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1994.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1994.22	20.79	1973.43	6.8	3.5	421.0	5.2	26.90	2.2	154	3.7	ND	ND	ND
	Feb 09	1994.22	20.29	1973.93	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1994.22	20.44	1973.78	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1994.22	20.41	1973.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1994.22	20.71	1973.51	6.7	3.2	450.0	5.0	26.80	2.0	133	2.8	ND	ND	ND
	Feb 10	1994.22	20.86	1973.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1994.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1994.22	19.68	1974.54	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1994.22	19.94	1974.28	7.0	3.5	39.5	5.3	26.65	NM	98	4	ND	ND	ND
	Mar 11	1994.22	20.41	1973.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1994.22	20.50	1973.72	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1994.22	20.27	1973.95	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 12	1994.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1991.71	19.32	1972.39	7.4	3.2	93.1	6.6	27.55	2.1	17	3.5	ND	ND	ND
	Sep 12	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1991.71	20.65	1971.06	7.0	3.5	NM	5.0	25.97	2.3	78	1.5	<0.50	<0.50	<0.50
	Jun 13	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1991.71	20.60	1971.11	6.1	3.2	95.0	2.3	26.12	2.1	194	2.2	<0.50	<0.50	<0.50
	Mar 14	1991.71	20.45	1971.26	7.3	3.1	92.9	5.4	24.07	2.0	89	1.6	<0.50	<0.50	<0.50
	Jun 14	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1991.71	20.55	1971.16	6.3	3.4	18.7	1.0	26.64	2.2	201	2.4	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-9	Sep 02	1992.26	18.46	1973.80	NM	NM	NM	NM	NM	NM	NM	670	ND	ND	ND
	May 03	1992.26	19.15	1973.11	NM	NM	NM	NM	NM	NM	NM	59	ND	ND	ND
	Sep 03	1992.26	19.02	1973.24	NM	NM	NM	NM	NM	NM	NM	9.2	ND	ND	ND
	Jan 04	1992.26	19.05	1973.21	7.0	2.5	NM	1.2	22.60	NM	NM	10	ND	ND	ND
	May 05	1992.26	15.36	1976.90	7.1	2.7	296.0	7.6	26.10	NM	130	353	ND	ND	ND
	Sep 05	1992.26	17.85	1974.41	7.2	1.8	4.0	6.6	27.10	1.2	111	64	ND	ND	ND
	Dec 05	1992.26	17.68	1974.58	6.9	2.5	33.0	2.5	26.60	1.6	123	190	ND	ND	ND
	Mar 06	1992.26	18.55	1973.71	5.1	2.1	>999	NM	25.90	1.3	496	ND	ND	ND	ND
	Jun 06	1992.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1992.26	18.40	1973.86	6.3	2.4	0.0	4.1	25.70	1.5	86	160	ND	ND	ND
	Dec 06	1992.26	19.00	1973.26	6.8	3.0	0.0	5.1	25.50	1.9	233	45	ND	ND	ND
	Mar 07	1992.26	20.19	1972.07	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1992.26	19.95	1972.31	7.1	2.5	0.0	5.6	26.10	1.6	428	170	ND	ND	ND
	Sep 07	1992.26	18.51	1973.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1992.26	19.20	1973.06	NM	NM	NM	NM	NM	NM	NM	110	ND	ND	ND
	Mar 08	1992.26	20.16	1972.10	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1992.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1992.25	19.87	1972.38	7.0	1.4	162.0	4.7	26.60	0.9	58	12	ND	ND	ND
	Feb 09	1992.25	19.76	1972.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1992.25	20.00	1972.25	7.5	1.4	>-5.0	4.0	26.50	0.8	-9	13	ND	ND	ND
	Sep 09	1992.25	20.20	1972.05	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1992.25	20.45	1971.80	7.0	1.1	-10.0	4.0	26.40	0.7	-157	5.5	ND	ND	ND
	Feb 10	1992.25	20.21	1972.04	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1992.25	20.10	1972.15	7.3	1.2	12.0	5.1	27.67	NM	NM	6.6	ND	ND	ND
	Oct 10	1992.25	19.44	1972.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1992.25	19.63	1972.62	7.1	1.2	7.0	3.5	27.31	NM	50	3.7	ND	ND	ND
	Mar 11	1992.25	20.13	1972.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1992.25	20.40	1971.85	7.1	1.2	0.4	0.5	31.96	NM	286	2.3	ND	ND	ND
	Sep 11	1992.25	19.99	1972.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1992.25	19.91	1972.34	7.3	1.2	NM	2.2	24.70	0.8	265	5.6	ND	ND	ND
	Mar 12	1992.25	20.50	1971.75	7.5	1.2	17.8	1.7	26.86	0.8	-79	5.2	NS	NS	NS
*	Jun 12	1992.25	19.45	1972.80	7.6	1.0	13.4	4.7	30.27	0.8	-8	5.7	ND	ND	ND
	Sep 12	1992.25	19.07	1973.18	7.7	1.2	NM	2.2	27.57	0.8	118	3.7	ND	ND	ND
	Nov 12	1992.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1992.25	20.56	1971.69	7.2	1.4	NM	0.6	25.53	0.9	-0.1	6.6	<0.50	<0.50	<0.50
	Jun 13	1992.25	20.91	1971.34	7.2	1.4	NM	2.3	25.44	0.9	110	9.8	<0.50	<0.50	<0.50
	Sep 13	1992.25	20.69	1971.56	7.3	1.4	NM	2.4	27.88	0.9	-81	6.6	<0.50	<0.50	<0.50
	Nov 13	1992.25	20.53	1971.72	6.4	1.3	35.3	0.6	25.32	0.8	56	11	<0.50	<0.50	<0.50
	Mar 14	1992.25	20.36	1971.89	7.3	1.4	13.8	4.1	24.73	0.9	75	11	<0.50	<0.50	<0.50
	Jun 14	1992.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1992.25	20.55	1971.70	7.25	1.31	17.60	3.98	29.12	0.86	58.50	7.9	<0.50	<0.50	<0.50
	Nov 14	1992.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1992.25	20.62	1971.63	6.73	1.59	13.33	2.37	25.95	1.04	90.80	9.7	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-10	Sep 02	1983.81	18.51	1965.30	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1983.81	18.65	1965.16	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	Sep 03	1983.81	19.45	1964.36	NM	NM	NM	NM	NM	NM	NM	15	ND	ND	ND
	Jan 04	1983.81	20.32	1963.49	7.0	3.1	NM	1.0	24.40	NM	NM	ND	ND	ND	ND
	May 05	1983.81	16.76	1967.05	6.8	3.2	25.0	1.5	28.10	NM	-253	ND	ND	ND	ND
	Sep 05	1983.81	16.95	1966.86	7.0	2.9	28.0	3.9	27.90	1.9	-239	ND	ND	ND	ND
	Dec 05	1983.81	17.64	1966.17	6.7	3.7	57.0	1.5	23.90	2.3	-140	ND	ND	ND	ND
	Mar 06	1983.81	19.25	1964.56	5.7	1.8	153.0	NM	21.30	1.2	-154	ND	ND	ND	ND
	Jun 06	1983.81	17.90	1965.91	NM	2.1	>999	3.5	28.10	1.5	-303	ND	ND	ND	ND
	Oct 06	1983.81	19.00	1964.81	6.2	1.4	86.0	1.6	27.10	0.9	-272	ND	ND	ND	ND
	Dec 06	1983.81	19.21	1964.60	6.8	3.9	144.0	3.9	26.60	2.5	-321	1	ND	ND	ND
	Mar 07	1983.81	20.84	1962.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.81	21.39	1962.42	7.0	3.5	>999	2.7	27.30	2.1	-179	ND	ND	ND	ND
	Sep 07	1983.81	20.38	1963.43	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.81	20.26	1963.55	6.9	3.6	0.0	0.6	24.50	2.3	-170	1	ND	ND	ND
	Mar 08	1983.81	21.06	1962.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1983.78	20.45	1963.33	6.8	2.9	100.0	0.0	27.70	1.9	-226	ND	ND	ND	ND
	Feb 09	1983.78	20.90	1962.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.78	21.42	1962.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1983.78	21.46	1962.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.78	21.67	1962.11	6.3	2.6	-10.0	0.2	27.40	1.6	-330	ND	ND	ND	ND
	Feb 10	1983.78	22.47	1961.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1983.78	21.23	1962.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.78	21.10	1962.68	7.1	1.0	1.0	0.1	28.00	NM	-274	ND	ND	ND	ND
	Mar 11	1983.78	21.76	1962.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.78	22.18	1961.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1983.78	21.75	1962.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.78	21.62	1962.16	6.9	1.3	NM	0.2	26.91	NM	-335	ND	ND	ND	ND
	Mar 12	1983.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1983.28	21.76	1961.52	7.4	3.0	11.0	1.0	27.50	2.0	-283	0.9	ND	ND	ND
	Sep 12	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1983.28	21.36	1961.92	7.1	2.7	NM	0.7	26.34	1.7	-238	<0.50	<0.50	<0.50	<0.50
	Jun 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1983.28	21.43	1961.85	7.3	3.0	76.1	4.7	27.18	1.9	-78	<0.50	<0.50	<0.50	<0.50
	Jun 14	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1983.28	21.60	1961.68	6.4	3.6	5.8	0.4	25.38	2.3	-181	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-11	Sep 02	1980.24	24.22	1956.02	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1980.24	24.25	1955.99	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	Sep 03	1980.24	25.62	1954.62	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jan 04	1980.24	26.22	1954.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	May 05	1980.24	22.55	1957.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1980.24	25.51	1954.73	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 07	1980.24	26.13	1954.11	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 10	1980.21	27.54	1952.67	6.7	3.3	3.0	5.0	24.30	2.1	-134	ND	ND	ND	ND
	Jun 10	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1980.21	26.69	1953.52	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 11	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1980.21	27.36	1952.85	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1980.21	27.45	1952.76	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1980.21	27.28	1952.93	6.9	3.3	NM	0.2	24.72	21.3	-94	1.4	ND	ND	ND
	Mar 12	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1979.87	27.37	1952.50	7.3	3.4	3.9	0.9	26.07	2.2	-194	1.4	ND	ND	ND
	Sep 12	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1979.87	25.81	1954.06	7.0	3.7	NM	1.2	24.43	2.4	-104	<0.50	<0.50	<0.50	<0.50
	Jun 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1979.87	26.32	1953.55	7.2	3.2	13.2	0.9	24.93	2.1	-19	<0.50	<0.50	<0.50	<0.50
	Jun 14	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1979.87	26.55	1953.32	6.8	3.5	3.7	1.0	23.66	2.3	-96	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-12	Sep 02	1996.59	14.90	1981.69	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1996.59	15.07	1981.52	NM	NM	NM	NM	NM	NM	NM	1.3	ND	ND	ND
	Sep 03	1996.59	15.30	1981.29	NM	NM	NM	NM	NM	NM	NM	14	ND	ND	ND
	Jan 04	1996.59	15.40	1981.19	7.0	2.2	NM	NM	22.40	NM	NM	6.1	ND	ND	ND
	May 05	1996.59	12.34	1984.25	6.8	2.6	NM	3.2	24.90	NM	219	ND	ND	ND	ND
	Sep 05	1996.59	13.45	1983.14	7.0	4.2	160.0	5.0	25.60	2.7	95	1.1	ND	ND	ND
	Dec 05	1996.59	14.20	1982.39	6.7	5.0	210.0	2.0	22.50	3.2	523	1.2	ND	ND	ND
	Mar 06	1996.59	15.00	1981.59	NM	6.7	91.0	NM	23.50	4.2	503	1.1	ND	ND	ND
	Jun 06	1996.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1996.59	14.71	1981.88	6.3	3.9	>999	3.9	26.10	2.5	112	ND	ND	ND	ND
	Dec 06	1996.59	15.05	1981.54	6.6	4.4	>999	6.2	25.30	2.8	206	1.4	ND	ND	ND
	Mar 07	1996.59	16.55	1980.04	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1996.59	16.31	1980.28	7.1	3.8	>999	3.5	25.50	2.4	-39	ND	ND	ND	ND
	Sep 07	1996.59	14.27	1982.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1996.59	15.04	1981.55	6.3	3.9	286.0	2.6	24.70	2.5	207	ND	ND	ND	ND
	Mar 08	1996.59	16.51	1980.08	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1996.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1996.48	15.73	1980.75	6.7	3.8	366.0	0.8	26.90	2.4	119	2	ND	ND	ND
	Feb 09	1996.48	15.61	1980.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1996.48	16.26	1980.22	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1996.48	16.29	1980.19	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1996.48	16.76	1979.72	6.0	3.5	370.0	1.5	27.60	2.2	54	1.2	ND	ND	ND
	Feb 10	1996.48	16.92	1979.56	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1996.48	15.58	1980.90	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1996.48	15.85	1980.63	6.8	3.6	20.4	1.6	26.18	NM	109	0.76	ND	ND	ND
	Mar 11	1996.48	16.49	1979.99	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1996.48	16.66	1979.82	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1996.48	15.93	1980.55	7.0	3.5	NM	2.0	24.82	2.3	315	0.95	ND	ND	ND
	Mar 12	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1995.95	15.37	1980.58	7.3	3.5	15.3	2.8	28.24	2.3	-18	1.2	ND	ND	ND
	Sep 12	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1995.95	16.76	1979.19	7.0	3.8	NM	2.4	25.55	2.5	46	0.65	<0.50	<0.50	<0.50
	Jun 13	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1995.95	16.66	1979.29	6.0	3.4	79.0	1.1	24.57	2.2	189	0.86	<0.50	<0.50	<0.50
	Mar 14	1995.95	16.26	1979.69	7.3	3.3	83.0	4.4	23.31	2.1	48	0.67	<0.50	<0.50	<0.50
	Jun 14	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1995.95	16.69	1979.26	6.52	3.58	101.00	1.76	25.65	2.32	221.40	0.77	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-13	May 03	1984.23	17.25	1966.98	NM	NM	NM	NM	NM	NM	NM	2,100	ND	ND	ND
	Sep 03	1984.23	17.60	1966.63	NM	NM	NM	NM	NM	NM	NM	2,800	ND	ND	ND
	Jan 04	1984.23	18.00	1966.23	6.6	3.3	NM	1.1	22.20	NM	NM	2,700	ND	ND	ND
	May 05	1984.23	14.76	1969.47	7.0	2.1	>999	4.2	24.50	NM	118	5,310	ND	ND	ND
	Sep 05	1984.23	15.60	1968.63	7.1	4.0	270.0	6.9	25.40	2.5	144	2,600	ND	ND	ND
	Dec 05	1984.23	16.05	1968.18	6.7	5.0	330.0	2.2	24.90	3.2	250	3,400	ND	ND	ND
	Mar 06	1984.23	17.24	1966.99	5.5	3.6	44.0	NM	22.80	2.3	68	3,700	ND	ND	ND
	Jun 06	1984.23	17.40	1966.83	NM	3.7	425.0	7.1	24.20	2.4	120	2,900	NS	NS	NS
	Oct 06	1984.23	17.15	1967.08	6.2	3.6	50.0	3.8	24.60	2.3	169	2,800	ND	ND	ND
	Dec 06	1984.23	17.47	1966.76	6.8	4.3	94.0	4.2	24.50	2.7	330	3,200	ND	ND	ND
	Mar 07	1984.23	18.58	1965.65	6.9	3.5	308.0	9.5	24.00	2.3	514	2,500	ND	ND	ND
	Jun 07	1984.23	18.66	1965.57	7.0	3.5	0.0	6.1	23.60	2.2	411	3,700	ND	ND	ND
	Sep 07	1984.23	17.41	1966.82	6.7	3.3	3.0	4.7	27.70	2.1	228	2,000	ND	ND	ND
	Dec 07	1984.23	17.50	1966.73	6.4	3.7	19.7	6.5	21.30	2.4	282	2,500	ND	ND	ND
	Mar 08	1984.23	18.31	1965.92	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1984.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND
	Oct 08	1984.18	18.25	1965.93	6.8	3.5	50.3	3.1	24.80	2.2	87	2,600	5.3	ND	ND
	Feb 09	1984.18	18.28	1965.90	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1984.18	18.41	1965.77	7.0	3.8	15.7	3.0	24.40	2.4	120	2,200	2.9	ND	ND
	Sep 09	1984.18	18.63	1965.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1984.18	19.05	1965.13	6.0	3.4	0.0	2.0	25.20	2.1	135	1,700	3.7	ND	ND
	Feb 10	1984.18	19.22	1964.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1984.18	18.72	1965.46	7.0	3.2	5.2	2.9	25.27	NM	NM	1,600	3.2	ND	ND
	Oct 10	1984.18	18.44	1965.74	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1984.18	18.45	1965.73	6.9	3.5	2.0	2.3	23.79	NM	90	1,900	3.9	ND	ND
	Mar 11	1984.18	18.75	1965.43	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1984.18	19.15	1965.03	7.1	3.5	4.0	2.7	24.74	NM	284	1,600	3.2	ND	ND
	Sep 11	1984.18	18.64	1965.54	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1984.18	18.67	1965.51	6.9	3.7	NM	1.6	23.97	2.4	113	1,700	2.4	ND	ND
	Mar 12	1984.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1983.31	18.45	1964.86	7.2	3.5	19.6	1.9	23.36	2.3	86	1,500	3.7	ND	ND
	Sep 12	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1983.31	18.53	1964.78	7.0	3.8	NM	1.6	22.69	2.5	159	1,300	2.8	<0.50	<0.50
	Jun 13	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1983.31	18.50	1964.81	7.5	3.9	19.7	0.9	23.77	2.5	104	1,800	3.5	<0.50	<0.50
	Mar 14	1983.31	18.37	1964.94	7.2	3.2	12.2	3.6	23.95	2.1	-158	1,500	3.7	<0.50	<0.50
	Jun 14	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1983.31	18.31	1965.00	7.39	3.52	7.97	5.92	29.88	2.31	133	640	2.8	<0.50	<0.50
	Nov 14	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1983.31	18.40	1964.91	6.34	3.61	12.03	1.12	23.24	2.35	216.80	1,700	4.6	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-14	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,900	ND	ND	ND
	Jan 04	1987.89	18.35	1969.54	7.0	2.3	NM	1.3	22.30	NM	NM	2,100	ND	ND	ND
	May 05	1987.89	15.02	1972.87	7.0	3.2	NM	NM	24.70	NM	140	2,920	5.5	ND	ND
	Dec 05	1987.89	16.50	1971.39	6.8	5.3	>999	2.1	26.10	3.3	206	3,400	ND	ND	ND
	Mar 06	1987.89	17.54	1970.35	5.2	6.8	898.0	NM	24.20	4.3	234	2,500	ND	ND	ND
	Jun 06	1987.89	17.61	1970.28	NM	3.9	>999	6.8	25.40	2.5	119	1,800	NS	NS	NS
	Oct 06	1987.89	17.42	1970.47	6.1	3.6	>999	7.0	24.80	2.3	297	1,900	ND	ND	ND
	Dec 06	1987.89	17.78	1970.11	6.8	4.5	350.0	4.2	25.70	2.9	226	3,500	ND	ND	ND
	Mar 07	1987.89	18.93	1968.96	6.8	3.7	455.0	8.1	25.10	2.4	501	1,900	ND	ND	ND
	Jun 07	1987.89	18.80	1969.09	7.0	3.7	259.0	6.4	24.80	2.4	299	1,700	ND	ND	ND
	Sep 07	1987.89	17.40	1970.49	6.8	3.5	103.0	4.2	32.20	2.2	220	650	ND	ND	ND
	Dec 07	1987.89	17.66	1970.23	6.4	4.0	9.7	5.7	23.30	2.6	147	1,500	ND	ND	ND
	Mar 08	1987.89	18.63	1969.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1987.89	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,500	ND	ND	ND
	Oct 08	1987.86	18.60	1969.26	6.8	3.7	249.0	3.1	25.70	2.4	116	1,500	2.9	ND	ND
	Feb 09	1987.86	18.47	1969.39	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1987.86	18.63	1969.23	7.0	4.0	>-5.0	2.9	25.60	2.5	118	1,900	4.4	ND	ND
	Sep 09	1987.86	18.88	1968.98	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1987.86	19.20	1968.66	5.6	3.6	300.0	1.8	26.20	2.3	132	1,200	2.1	ND	ND
	Feb 10	1987.86	19.26	1968.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1987.86	18.88	1968.98	7.0	3.3	84.2	3.6	25.49	NM	NM	1,500	2.4	ND	ND
	Oct 10	1987.86	18.50	1969.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1987.86	18.56	1969.30	6.9	3.6	25.8	2.9	25.07	NM	101	1,500	2.6	ND	ND
	Mar 11	1987.86	18.97	1968.89	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1987.86	19.15	1968.71	7.3	3.6	11.4	3.2	25.78	NM	259	1,700	2.0	ND	ND
	Sep 11	1987.86	18.74	1969.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1987.86	18.72	1969.14	7.0	3.5	NM	2.6	25.40	2.3	111	1,700	2.5	ND	ND
	Mar 12	1987.86	19.33	1968.53	7.2	3.6	87.5	4.3	23.33	2.3	-51	1,600	NS	NS	NS
*	Jun 12	1987.33	18.71	1968.62	7.3	3.5	122.0	3.9	25.77	2.3	104	1,400	2.5	ND	ND
	Sep 12	1987.33	18.28	1969.05	7.3	3.5	NM	3.2	25.71	2.3	144	1,300	2.8	ND	ND
	Nov 12	1987.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1987.33	19.12	1968.21	7.0	3.9	NM	2.6	24.10	2.5	112	1,900	2.9	<0.50	<0.50
	Jun 13	1987.33	19.44	1967.89	7.2	3.1	NM	3.5	28.28	2.5	130	1,300	2.1	<0.50	<0.50
	Sep 13	1987.33	19.16	1968.17	7.0	3.7	NM	2.8	26.13	2.4	91	1,400	2.5	<0.50	<0.50
	Nov 13	1987.33	18.96	1968.37	7.8	3.9	28.9	2.6	25.17	3.5	96	1,500	2.7	<0.50	<0.50
	Mar 14	1987.33	18.89	1968.44	7.3	3.0	165.0	6.0	24.70	2.1	-114	930	2.2	<0.50	<0.50
	Jun 14	1987.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1987.33	18.95	1968.38	7.34	3.60	67.60	3.53	27.45	2.34	122	330	1.0	<0.50	<0.50
	Nov 14	1987.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1987.33	18.85	1968.48	6.44	3.67	69.60	2.06	25.28	2.39	104.90	1,900	3.6	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-14I	Mar 13	NM	19.52	NM	7.4	1.3	NM	4.1	24.19	0.9	95	7,200	51	4.9	<0.50
	Jun 13	1987.54	19.95	1967.59	7.5	1.4	NM	4.2	30.76	0.9	101	5,500	27	3.8	<0.50
	Sep 13	1987.54	19.66	1967.88	7.4	1.4	NM	2.9	35.26	0.9	82	3,700	23	1.6	<0.50
	Nov 13	1987.54	19.53	1968.01	7.8	1.4	6.3	4.0	24.38	0.9	102	10,000	38	17	<0.50
	Mar 14	1987.54	19.53	1968.01	7.3	1.1	11.3	4.4	25.36	0.7	134	7,600	32	17	<0.50
	Jun 14	1987.54	19.69	1967.85	7.2	1.3	6.5	4.4	28.29	0.9	111	9,800	21	6.9	<0.50
	Sep 14	1987.54	19.41	1968.13	7.3	1.3	6.4	4.0	30.32	0.9	93	9,300	21	1.4	<0.50
	Nov 14	1987.54	19.44	1968.10	7.0	1.3	3.4	4.0	24.91	0.9	26	11,000	25	17	<1.0
	Mar 15	1987.54	19.41	1968.13	6.7	1.3	6.3	2.7	24.99	0.8	106	11,000	32	20	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-15	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	5.2	ND	ND	ND
	Jan 04	1983.28	15.60	1967.68	6.4	2.2	NM	1.0	22.40	NM	NM	2.7	ND	ND	ND
	May 05	1983.28	12.59	1970.69	7.0	2.3	NM	2.9	25.10	NM	164	ND	ND	ND	ND
	Sep 05	1983.28	13.45	1969.83	7.0	3.6	36.0	3.5	25.80	2.3	-24	3.6	ND	ND	ND
	Dec 05	1983.28	13.77	1969.51	6.6	4.5	140.0	1.0	25.90	2.8	-38	5	ND	ND	ND
	Mar 06	1983.28	15.00	1968.28	4.7	6.4	20.0	NM	23.90	4.0	613	4.5	ND	ND	ND
	Jun 06	1983.28	15.15	1968.13	NM	3.8	300.0	4.3	26.00	2.5	106	4.4	NS	NS	NS
	Oct 06	1983.28	14.91	1968.37	6.2	3.7	10.0	2.0	25.70	2.3	51	3.3	ND	ND	ND
	Dec 06	1983.28	15.17	1968.11	6.8	4.7	15.0	3.4	25.90	3.0	28	3.7	ND	ND	ND
	Mar 07	1983.28	16.31	1966.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.28	16.16	1967.12	7.0	3.6	37.0	3.1	25.30	2.3	362	3	ND	ND	ND
	Sep 07	1983.28	14.80	1968.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.28	14.71	1968.57	6.4	3.7	0.0	1.9	23.30	2.3	170	3	ND	ND	ND
	Mar 08	1983.28	16.62	1966.66	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1983.25	15.80	1967.45	6.8	3.6	132.0	2.1	27.00	2.3	112	7.8	ND	ND	ND
	Feb 09	1983.25	15.76	1967.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.25	15.89	1967.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1983.25	16.34	1966.91	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.25	16.68	1966.57	5.8	3.2	44.0	1.8	26.60	2.1	34	3	ND	ND	ND
	Feb 10	1983.25	16.81	1966.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1983.25	16.10	1967.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.25	16.08	1967.17	6.8	3.4	7.6	2.3	27.60	NM	154	2.5	ND	ND	ND
	Mar 11	1983.25	16.29	1966.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.25	16.64	1966.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1983.25	16.18	1967.07	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.25	16.17	1967.08	6.8	4.0	NM	2.1	26.75	NM	-42	3.5	ND	ND	ND
	Mar 12	1983.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1982.74	16.70	1966.04	7.3	3.1	25.4	4.1	27.82	2.1	-64	4.2	ND	ND	ND
	Sep 12	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1982.74	16.41	1966.33	7.0	3.6	NM	2.9	26.24	2.3	48	2.7	<0.50	<0.50	<0.50
	Jun 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1982.74	16.25	1966.49	7.2	3.1	62.6	2.9	26.32	2.0	66	2.8	<0.50	<0.50	<0.50
	Jun 14	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1982.74	16.70	1966.04	6.43	3.46	21.70	1.79	26.25	2.25	95.40	3.6	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-16	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	Jan 04	1980.63	26.22	1954.41	7.0	2.3	NM	0.7	22.40	NM	NM	ND	ND	ND	ND
	May 05	1980.63	23.41	1957.22	7.1	2.9	NM	1.1	25.20	NM	-4	ND	ND	ND	ND
	Sep 05	1980.63	24.12	1956.51	7.0	3.4	520.0	3.5	24.60	2.3	-31	ND	ND	ND	ND
	Dec 05	1980.63	24.21	1956.42	6.7	3.8	>999	1.3	25.30	2.4	48	ND	ND	ND	ND
	Mar 06	1980.63	25.06	1955.57	5.2	5.7	199.0	NM	23.80	3.6	162	ND	ND	ND	ND
	Jun 06	1980.63	26.05	1954.58	NM	3.4	>999	5.6	27.10	2.2	-64	ND	ND	ND	ND
	Oct 06	1980.63	25.67	1954.96	6.3	3.4	32.0	2.0	24.60	2.2	-145	ND	ND	ND	ND
	Dec 06	1980.63	25.56	1955.07	6.5	3.6	271.0	2.9	24.40	1.3	-52	ND	ND	ND	ND
	Mar 07	1980.63	26.33	1954.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1980.63	27.28	1953.35	6.7	3.3	282.0	2.2	25.00	2.1	94	ND	ND	ND	ND
	Sep 07	1980.63	27.03	1953.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1980.63	26.46	1954.17	6.5	3.4	0.0	1.9	24.90	2.2	82	ND	ND	ND	ND
	Mar 08	1980.63	26.33	1954.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1980.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1980.61	27.19	1953.42	6.9	3.2	68.0	0.0	24.90	2.1	38	ND	2.8	ND	ND
	Feb 09	1980.61	26.52	1954.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1980.61	27.30	1953.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1980.61	27.86	1952.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1980.61	27.99	1952.62	5.7	3.0	100.0	0.4	26.00	1.9	-96	1.9	ND	ND	ND
	Feb 09	1980.61	28.43	1952.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1980.61	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1980.61	27.95	1952.66	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1980.61	27.68	1952.93	6.6	3.1	2.5	0.2	26.52	NM	140	ND	ND	ND	ND
	Mar 11	1980.61	27.49	1953.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1980.61	28.22	1952.39	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1980.61	28.36	1952.25	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1980.61	28.17	1952.44	6.9	3.5	NM	0.2	24.40	NM	-74	ND	ND	ND	ND
	Mar 12	1980.61	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1980.53	28.51	1952.02	7.2	2.9	NM	1.2	25.13	1.9	-23	ND	ND	ND	ND
	Sep 12	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1980.53	26.86	1953.67	7.0	3.3	NM	1.7	25.33	2.2	-111	<0.50	<0.50	<0.50	<0.50
	Jun 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1980.53	27.39	1953.14	7.3	2.8	1.8	2.5	24.61	1.8	23	<0.50	<0.50	<0.50	<0.50
	Jun 14	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1980.53	27.55	1952.98	6.8	3.2	3.4	0.3	24.24	2.1	2	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-17	May 05	1990.92	15.07	1975.85	6.9	3.5	22.0	5.9	24.10	NM	181	520	ND	ND	ND
	Dec 05	1990.92	17.05	1973.87	6.9	4.7	6.0	2.3	26.80	3.0	240	470	ND	ND	ND
	Mar 06	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1990.92	17.91	1973.01	6.2	3.5	2.0	7.4	24.90	2.2	174	1,300	ND	ND	ND
	Dec 06	1990.92	18.41	1972.51	6.9	4.1	25.0	6.8	24.10	2.7	386	710	ND	ND	ND
	Mar 07	1990.92	19.63	1971.29	7.0	3.6	87.0	8.1	24.30	2.3	350	440	ND	ND	ND
	Jun 07	1990.92	19.48	1971.44	7.0	3.7	37.0	7.3	25.00	2.3	471	300	ND	ND	ND
	Sep 07	1990.92	17.91	1973.01	6.7	3.4	0.0	5.0	26.70	2.2	197	380	ND	ND	ND
	Dec 07	1990.92	18.45	1972.47	6.3	3.9	0.0	4.8	19.70	2.5	176	480	ND	ND	ND
	Mar 08	1990.92	19.51	1971.41	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	360	ND	ND	ND
	Oct 08	1990.89	18.84	1972.05	6.8	3.7	-3.1	4.1	25.00	2.4	136	290	ND	ND	ND
	Feb 09	1990.89	19.12	1971.77	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1990.89	19.44	1971.45	5.6	3.8	0.0	1.3	25.00	2.4	170	270	ND	ND	ND
	Sep 09	1990.89	19.58	1971.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1990.89	19.95	1970.94	6.6	3.5	-10.0	3.0	25.20	2.2	131	310	ND	ND	ND
	Feb 10	1990.89	19.71	1971.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1990.89	19.62	1971.27	7.0	2.9	-0.7	3.1	25.10	NM	NM	270	ND	ND	ND
	Oct 10	1990.89	19.10	1971.79	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1990.89	19.14	1971.75	6.6	3.7	1.3	1.8	26.48	NM	207	240	ND	ND	ND
	Mar 11	1990.89	19.65	1971.24	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1990.89	19.85	1971.04	6.7	3.7	0.5	1.7	25.89	NM	399	350	ND	ND	ND
	Sep 11	1990.89	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1990.89	19.45	1971.44	7.0	3.5	NM	2.7	24.09	2.6	274	350	ND	ND	ND
	Mar 12	1990.89	20.03	1970.86	7.2	3.6	4.1	1.3	24.72	2.3	-92	320	NS	NS	NS
*	Jun 12	1991.04	19.09	1971.95	7.2	3.5	4.5	1.6	24.31	2.3	101	260	ND	ND	ND
	Sep 12	1991.04	18.83	1972.21	7.5	3.5	NM	2.0	25.50	2.8	72	250	ND	ND	ND
	Nov 12	1991.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1991.04	19.94	1971.10	7.0	3.7	NM	1.0	23.75	2.4	54	190	<0.50	<0.50	<0.50
	Jun 13	1991.04	20.30	1970.74	7.0	3.8	NM	1.1	23.43	2.4	91	150	<0.50	<0.50	<0.50
	Sep 13	1991.04	20.18	1970.86	7.1	3.7	NM	1.4	25.61	2.4	-86	130	<0.50	<0.50	<0.50
	Nov 13	1991.04	19.90	1971.14	6.0	3.2	1.7	0.4	24.10	2.1	154	120	<0.50	<0.50	<0.50
	Mar 14	1991.04	19.67	1971.37	7.2	3.2	2.0	2.2	23.49	2.1	47	69	<0.50	<0.50	<0.50
	Jun 14	1991.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1991.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1991.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1991.04	19.80	1971.24	6.4	3.5	4.1	1.0	24.82	2.3	89	65	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-18	May 05	1962.87	8.71	1954.16	7.1	3.9	>999	5.6	24.30	NM	139	1,600	ND	ND	ND
	Sep 05	1962.87	9.69	1953.18	7.1	4.1	3.0	6.2	26.30	2.6	88	1,700	ND	ND	ND
	Dec 05	1962.87	9.70	1953.17	6.8	4.7	NM	2.0	25.20	3.0	420	2,400	ND	ND	ND
	Mar 06	1962.87	10.21	1952.66	5.2	6.2	3.0	NM	23.30	3.9	237	1,700	NS	NS	NS
	Jun 06	1962.87	11.64	1951.23	NM	3.6	304.0	6.2	25.40	2.3	166	1,600	NS	NS	NS
	Oct 06	1962.87	11.21	1951.66	6.3	3.5	0.0	4.1	25.50	2.2	127	2,100	ND	ND	ND
	Dec 06	1962.87	10.98	1951.89	6.8	4.2	0.0	4.3	24.70	2.7	297	1,400	ND	ND	ND
	Mar 07	1962.87	11.36	1951.51	7.0	3.4	23.0	7.5	22.80	2.2	286	1,400	ND	ND	ND
	Jun 07	1962.87	12.53	1950.34	7.0	3.5	24.0	5.5	23.90	2.2	394	1,300	ND	ND	ND
	Sep 07	1962.87	12.45	1950.42	6.8	3.3	22.0	5.4	29.30	2.1	210	930	ND	ND	ND
	Dec 07	1962.87	11.54	1951.33	6.3	3.6	0.0	5.8	21.60	2.3	232	1,400	ND	ND	ND
	Mar 08	1962.87	11.15	1951.72	6.9	3.5	0.2	4.3	21.20	2.2	212	1,800	ND	ND	ND
	Jun 08	1962.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	ND	ND	ND
	Oct 08	1962.86	11.96	1950.90	5.5	3.5	14.3	7.8	25.50	2.2	196	950	3.7	ND	ND
	Feb 09	1962.86	11.48	1951.38	6.7	3.3	0.0	3.8	22.70	2.1	90	1,500	5.2	ND	ND
	Jun 09	1962.86	12.36	1950.50	7.3	3.5	20.2	3.5	23.90	2.3	131	3,500	5.1	ND	ND
	Sep 09	1962.86	13.24	1949.62	6.6	3.9	18.9	4.3	28.00	2.5	136	1,200	ND	ND	ND
	Nov 09	1962.86	13.27	1949.59	5.9	3.3	40.0	3.6	25.80	2.1	132	1,400	4.1	ND	ND
	Feb 10	1962.86	13.37	1949.49	6.9	3.3	9.0	4.0	23.30	2.1	134	1,600	4.8	ND	ND
	Jun 10	1962.86	12.90	1949.96	7.1	3.1	-0.9	8.0	25.10	NM	NM	1,100	3.5	ND	ND
	Oct 10	1962.86	13.43	1949.43	6.7	3.3	-0.7	4.4	26.19	2.2	528	1,300	3.4	ND	ND
	Nov 10	1962.86	13.20	1949.66	6.8	3.3	0.2	4.0	25.79	NM	192	1,200	3.8	ND	ND
	Mar 11	1962.86	12.43	1950.43	7.5	3.4	25.7	7.8	22.14	NM	118	1,000	2.7	ND	ND
	Jun 11	1962.86	13.32	1949.54	7.4	3.4	0.7	4.4	24.99	NM	234	1,300	2.9	ND	ND
	Sep 11	1962.86	13.61	1949.25	7.0	3.4	39.0	6.2	26.60	2.2	276	1,300	3.2	ND	ND
	Nov 11	1962.86	13.39	1949.47	7.0	3.2	NM	4.0	24.97	2.1	178	1,100	3.3	ND	ND
	Mar 12	1962.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1962.9	13.80	1949.10	7.3	3.2	6.1	4.8	25.23	2.1	115	1,300	3.4	ND	ND
	Sep 12	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1962.9	12.06	1950.84	7.1	3.6	NM	2.6	23.54	2.3	83	1,200	2.5	<0.50	<0.50
	Jun 13	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1962.9	13.62	1949.28	6.8	3.6	8.3	3.6	25.49	2.4	152	780	<0.50	<0.50	<0.50
	Mar 14	1962.9	12.75	1950.15	7.3	3.2	58.1	4.6	19.23	2.1	247	230	<0.50	<0.50	<0.50
	Jun 14	1962.9	13.78	1949.12	7.1	3.4	4.8	4.9	27.63	2.2	71	1,100	1.2	<0.50	<0.50
	Sep 14	1962.9	13.97	1948.93	8.0	2.9	7.6	2.5	30.26	1.8	92	620	0.78	<0.50	<0.50
	Nov 14	1962.9	13.22	1949.68	7.0	3.5	2.9	3.9	24.09	2.3	71	1,100	1.7	<0.50	<0.50
	Mar 15	1962.9	12.50	1950.40	6.5	3.5	7.4	2.3	22.37	2.3	243	1,200	2.5	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-19	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,100	ND	ND	ND
	Jan 04	1980.26	25.65	1954.61	7.0	1.9	NM	1.0	22.40	NM	NM	1,200	ND	ND	ND
	May 05	1980.26	22.70	1957.56	7.1	1.9	NM	5.8	25.00	NM	130	873	ND	ND	ND
	Dec 05	1980.26	23.65	1956.61	6.6	4.7	NM	2.0	24.70	3.0	388	1,300	ND	ND	ND
	Mar 06	1980.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1980.26	25.55	1954.71	NM	3.7	>999	7.9	27.10	2.4	86	910	ND	ND	ND
	Oct 06	1980.26	25.23	1955.03	6.1	3.7	>999	4.6	23.90	2.4	175	840	ND	ND	ND
	Dec 06	1980.26	25.01	1955.25	6.8	4.4	>999	5.7	23.90	2.8	595	1,200	ND	ND	ND
	Mar 07	1980.26	25.77	1954.49	6.9	3.7	>999	9.1	24.30	2.3	284	890	ND	ND	ND
	Jun 07	1980.26	26.84	1953.42	7.1	3.5	>999	6.7	24.50	2.3	551	870	ND	ND	ND
	Sep 07	1980.26	26.41	1953.85	6.8	3.4	352.0	5.1	27.40	2.2	201	510	ND	ND	ND
	Dec 07	1980.26	25.52	1954.74	6.4	3.8	440.0	5.6	24.30	2.4	150	990	ND	ND	ND
	Mar 08	1980.26	25.35	1954.91	7.0	3.7	7.6	5.2	24.80	2.3	190	1,200	NS	NS	NS
	Jun 08	1980.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	930	ND	ND	ND
	Oct 08	1980.24	26.19	1954.05	6.9	3.5	18.0	4.1	24.40	2.2	135	1,300	5.7	ND	ND
	Feb 09	1980.24	25.76	1954.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1980.24	26.59	1953.65	7.0	3.6	178.0	4.5	25.80	2.3	125	1,400	6.1	ND	ND
	Sep 09	1980.24	27.34	1952.90	6.4	3.9	999.0	4.7	26.60	2.5	157	880	ND	ND	ND
	Nov 09	1980.24	27.42	1952.82	5.9	3.4	>990	2.7	25.50	2.2	131	580	3.7	ND	ND
	Feb 10	1980.24	27.78	1952.46	6.9	3.2	120.0	4.8	23.70	2.1	135	990	5.5	ND	ND
	Jun 10	1980.24	27.08	1953.16	7.0	3.0	2.7	5.0	25.41	NM	NM	930	4.2	ND	ND
	Oct 10	1980.24	27.50	1952.74	7.1	3.2	15.3	5.2	25.28	2.1	394	420	3.2	ND	ND
	Nov 10	1980.24	27.24	1953.00	7.1	3.3	15.5	5.0	25.25	NM	241	840	4.1	ND	ND
	Mar 11	1980.24	26.73	1953.51	6.9	3.4	71.3	5.4	24.59	NM	258	880	3.7	ND	ND
	Jun 11	1980.24	27.55	1952.69	7.4	3.3	20.5	5.0	26.19	NM	190	1,000	3.5	ND	ND
	Sep 11	1980.24	27.68	1952.56	7.0	3.4	570.0	6.5	26.90	2.2	250	950	3.6	ND	ND
	Nov 11	1980.24	27.50	1952.74	7.1	3.1	NM	4.6	23.94	2.0	131	1,100	4.2	ND	ND
	Mar 12	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1980.13	27.88	1952.25	7.5	3.1	27.1	5.3	25.86	2.0	102	1,000	3.5	ND	ND
	Sep 12	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	520	3.2	<0.50	<0.50
	Jun 13	1980.13	27.46	1952.67	7.2	3.4	NM	4.9	28.16	2.2	119	530	3.4	<0.50	<0.50
	Sep 13	1980.13	27.94	1952.19	7.2	3.2	NM	4.7	27.22	2.1	255	840	3.2	<0.50	<0.50
	Nov 13	1980.13	27.48	1952.65	6.3	3.1	65.8	3.2	26.49	2.0	228	440	3.2	<0.50	<0.50
	Mar 14	1980.13	26.66	1953.47	7.3	3.0	72.1	3.2	24.47	2.0	160	910	3.7	<0.50	<0.50
	Jun 14	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1980.13	26.60	1953.53	6.9	3.3	36.2	3.4	23.35	2.2	NM	930	4.0	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-19I	Sep 12	1967.55	26.60	1940.95	7.7	3.0	NM	3.9	26.53	2.0	131	690	4.0	0.8	ND
	Nov 12	1967.55	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1967.55	NM	NM	NM	NM	NM	NM	NM	NM	NM	710	5.2	0.74	<0.50
	Jun 13	1967.55	26.42	1941.13	7.3	3.4	NM	4.4	26.1	2.1	589	<0.50	<0.50	<0.50	<0.50
	Sep 13	1978.37	26.92	1951.45	7.0	3.9	NM	5.2	28.5	2.5	650	<0.50	<0.50	<0.50	<0.50
	Nov 13	1978.37	26.47	1951.90	4.3	4.2	20.8	4.3	25.6	2.7	579	<0.50	<0.50	<0.50	<0.50
	Mar 14	1978.37	25.62	1952.75	7.3	3.4	69.4	3.6	23.0	2.2	626	<0.50	<0.50	<0.50	<0.50
	Jun 14	1978.37	26.71	1951.66	6.9	3.5	15.7	5.6	28.5	2.2	650	<0.50	<0.50	<0.50	<0.50
	Sep 14	1978.37	26.81	1951.56	7.4	3.3	46.2	7.3	27.0	2.1	631	<0.50	<0.50	<0.50	<0.50
	Nov 14	1978.37	26.02	1952.35	7.1	3.4	6.3	5.1	22.5	2.2	643	<0.50	<0.50	<0.50	<0.50
	Mar 15	1978.37	25.52	1952.85	6.9	3.3	10.9	2.9	24.0	2.2	539	0.62	<0.50	<0.50	<0.50
MW-19D1	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	300	2.9	<0.50	<0.50
	Jun 13	1979.25	27.73	1951.52	7.3	3.0	NM	4.7	27.42	1.9	3	690	4.2	<0.50	<0.50
	Sep 13	1979.25	27.17	1952.08	7.0	3.2	NM	4.3	26.23	2.1	485	990	4.2	<0.50	<0.50
	Nov 13	1979.25	26.70	1952.55	7.3	2.4	28.1	4.7	24.24	1.7	385	620	3.5	<0.50	<0.50
	Jan 14	1979.25	25.81	1953.44	7.3	1.1	NM	4.8	23.10	0.7	274	490	2.4	<0.50	<0.50
	Feb 14	1979.25	25.83	1953.42	7.4	0.5	NM	3.7	23.68	0.4	230	210	1.1	<0.50	<0.50
	Mar 14	1979.25	25.91	1953.34	7.4	0.5	52.8	4.1	23.31	0.3	239	3.7	<0.50	<0.50	<0.50
	Jun 14	1979.25	26.97	1952.28	7.0	2.6	56.2	5.5	31.79	1.7	501	730	4.2	<0.50	<0.50
	Sep 14	1979.25	27.06	1952.19	7.8	2.9	61.4	6.4	29.97	2.1	333	240	1.5	<0.50	<0.50
	Nov 14	1979.25	26.30	1952.95	7.1	3.3	18.6	4.8	23.11	2.1	68	1,000	5.9	<0.50	<0.50
	Mar 15	1979.25	25.74	1953.51	6.8	0.9	44.4	3.9	25.94	0.6	159	210	1.3	<0.50	<0.50
MW-19D2	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	170	1.5	<0.50	<0.50
	Jun 13	1979.28	27.85	1951.43	7.4	2.7	NM	2.0	26.09	1.8	607	<0.50	<0.50	<0.50	<0.50
	Sep 13	1979.28	28.50	1950.78	7.2	2.4	NM	2.6	25.10	1.6	565	<0.50	<0.50	<0.50	<0.50
	Nov 13	1979.28	27.71	1951.57	7.5	2.6	18.0	3.3	24.83	1.7	485	<0.50	<0.50	<0.50	<0.50
	Jan 14	1979.28	26.66	1952.62	7.4	2.0	NM	3.5	22.53	1.3	531	<0.50	<0.50	<0.50	<0.50
	Feb 14	1979.28	26.85	1952.43	7.4	2.1	NM	2.1	23.04	1.3	502	<0.50	<0.50	<0.50	<0.50
	Mar 14	1979.28	26.97	1952.31	7.4	2.1	28.0	4.0	23.12	1.4	509	0.53	<0.50	<0.50	<0.50
	Jun 14	1979.28	27.88	1951.40	7.2	2.2	17.0	3.7	29.19	1.4	617	6.0	<0.50	<0.50	<0.50
	Sep 14	1979.28	27.67	1951.61	7.6	2.2	7.9	4.8	26.23	1.4	531	10	<0.50	<0.50	<0.50
	Nov 14	1979.28	27.01	1952.27	7.2	2.5	3.8	2.9	23.63	1.6	75	39	<0.50	<0.50	<0.50
	Mar 15	1979.28	26.88	1952.40	6.7	2.2	6.0	0.7	25.77	1.5	180	44	<0.50	<0.50	<0.50
MW-19D3	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.50	<0.50	<0.50	<0.50
	Jun 13	1979.32	25.53	1953.79	7.7	0.5	NM	4.0	28.15	0.3	68	0.68	<0.50	<0.50	<0.50
	Sep 13	1979.32	28.80	1950.52	6.9	3.2	NM	4.9	24.91	2.1	133	710	4.8	<0.50	<0.50
	Nov 13	1979.32	25.42	1953.90	7.6	1.0	10.3	4.1	24.27	0.7	424	160	0.75	<0.50	<0.50
	Jan 14	1979.32	24.87	1954.45	7.4	0.5	NM	4.8	22.46	0.3	368	32	<0.50	<0.50	<0.50
	Feb 14	1979.32	24.67	1954.65	7.4	0.5	NM	4.6	22.68	0.3	344	36	<0.50	<0.50	<0.50
	Mar 14	1979.32	24.72	1954.60	7.4	0.5	17.0	4.4	23.47	0.3	80	17	<0.50	<0.50	<0.50
	Jun 14	1979.32	26.99	1952.33	7.7	0.6	41.6	4.6	33.28	0.4	158	40	<0.50	<0.50	<0.50
	Sep 14	1979.32	29.00	1950.32	7.0	3.1	6.9	6.5	26.73	2.0	256	710	4.7	<0.50	<0.50
	Nov 14	1979.32	26.48	1952.84	7.1	3.2	50.6	6.7	23.14	2.1	135	190	3.2	<0.50	<0.50
	Mar 15	1979.32	24.12	1955.20	6.7	0.6	14.8	3.9	25.63	0.4	201	41	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-20	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,800	ND	ND	ND
	Jan 04	1979.99	25.50	1954.49	6.9	2.1	NM	1.1	22.60	NM	NM	290	2.8	ND	ND
	May 05	1979.99	22.58	1957.41	7.2	1.3	NM	5.0	23.60	NM	131	1,460	ND	ND	ND
	Dec 05	1979.99	23.55	1956.44	6.8	4.4	NM	0.8	20.50	2.8	272	1,800	ND	ND	ND
	Mar 06	1979.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1979.99	25.48	1954.51	NM	3.8	736.0	6.9	28.60	2.1	70	2,100	ND	ND	ND
	Oct 06	1979.99	25.04	1954.95	6.1	2.6	>999	4.1	23.70	1.8	234	2,000	ND	ND	ND
	Dec 06	1979.99	24.85	1955.14	6.8	4.1	284.0	4.3	23.90	2.6	245	2,500	ND	ND	ND
	Mar 07	1979.99	26.63	1953.36	6.9	3.3	999.0	9.8	23.80	2.2	530	1,500	ND	ND	ND
	Jun 07	1979.99	26.76	1953.23	7.0	3.5	>999	5.4	23.80	2.2	346	1,300	ND	ND	ND
	Sep 07	1979.99	26.30	1953.69	6.8	3.3	248.0	4.4	32.50	2.1	207	730	ND	ND	ND
	Dec 07	1979.99	25.38	1954.61	6.3	3.8	24.6	5.4	21.90	2.4	180	1,400	ND	ND	ND
	Mar 08	1979.99	25.12	1954.87	6.9	3.5	33.0	4.0	23.60	2.3	184	1,600	NS	NS	NS
	Jun 08	1979.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	ND	ND	ND
	Oct 08	1979.95	26.05	1953.90	7.3	3.5	-5.0	2.3	25.20	NM	181	1,000	3.5	ND	ND
	Feb 09	1979.95	25.57	1954.38	6.6	3.5	247.0	2.5	23.40	2.2	99	830	ND	ND	ND
	Jun 09	1979.95	26.45	1953.50	6.9	3.7	>-5.0	2.2	23.90	2.3	140	1,100	3.3	ND	ND
	Sep 09	1979.95	27.21	1952.74	6.5	4.1	386.0	2.5	25.70	2.6	146	940	ND	ND	ND
	Nov 09	1979.95	27.30	1952.65	5.8	3.4	380.0	1.9	25.30	2.2	142	640	2.2	ND	ND
	Feb 10	1979.95	27.54	1952.41	6.9	3.3	38.0	2.5	24.30	2.0	130	990	3.3	ND	ND
	Jun 10	1979.95	27.86	1952.09	7.0	3.2	1.4	3.5	24.59	NM	NM	780	2.4	ND	ND
	Oct 10	1979.95	27.35	1952.60	6.4	3.3	39.3	2.9	26.58	2.2	519	340	1.8	ND	ND
	Nov 10	1979.95	27.12	1952.83	6.6	3.4	0.9	3.0	25.50	NM	194	890	2.6	ND	ND
	Mar 11	1979.95	26.59	1953.36	6.9	3.5	49.7	3.4	25.69	NM	237	800	2.3	ND	ND
	Jun 11	1979.95	27.40	1952.55	6.8	3.5	3.1	3.5	31.92	NM	452	740	1.9	ND	ND
	Sep 11	1979.95	27.56	1952.39	6.9	3.6	20.0	3.4	26.50	2.2	182	680	1.8	ND	ND
	Nov 11	1979.95	27.35	1952.60	7.0	3.3	NM	2.8	24.35	2.2	131	800	1.9	ND	ND
	Mar 12	1979.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1979.82	27.62	1952.20	7.4	3.3	40.1	3.7	25.17	2.2	87	660	2.1	ND	ND
	Sep 12	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	290	1.8	<0.50	<0.50
	Jun 13	1979.82	27.20	1952.62	7.2	3.7	NM	4.7	26.67	2.4	192	660	2.1	<0.50	<0.50
	Sep 13	1979.82	27.70	1952.12	7.0	3.5	NM	4.5	26.41	2.3	428	570	1.8	<0.50	<0.50
	Nov 13	1979.82	27.28	1952.54	6.1	3.4	21.8	2.5	25.53	2.2	245	530	1.4	<0.50	<0.50
	Mar 14	1979.82	26.46	1953.36	7.3	3.1	22.0	3.9	25.92	2.0	345	170	0.66	<0.50	<0.50
	Jun 14	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1979.82	26.34	1953.48	6.4	3.6	25.0	2.1	23.14	2.4	210	680	2.3	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-20D1	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	69	2.8	3.6	<0.50
	Jun 13	1978.81	26.17	1952.64	7.3	3.0	NM	5.2	27.38	2.0	115	110	<0.50	<0.50	<0.50
	Sep 13	1978.81	27.01	1951.80	7.1	3.4	NM	4.8	27.83	2.2	113	100	0.56	<0.50	<0.50
	Nov 13	1978.81	26.60	1952.21	7.1	3.3	83.3	4.5	25.16	2.2	57	260	0.86	<0.50	<0.50
	Mar 14	1978.81	25.70	1953.11	7.4	0.9	70.4	4.9	25.09	0.6	76	76	<0.50	<0.50	<0.50
	Jun 14	1978.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1979.81	27.05	1952.76	7.6	3.1	29.1	4.0	27.20	2.0	213	160	0.62	<0.50	<0.50
	Nov 14	1979.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1979.81	25.56	1954.25	6.3	2.4	45.5	2.0	25.17	1.6	191	340	0.98	<0.50	<0.50
MW-20D2	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	25	<0.50	<0.50	<0.50
	Jun 13	1978.66	26.23	1952.43	7.4	0.8	NM	4.6	25.83	0.5	107	64	<0.50	<0.50	<0.50
	Sep 13	1978.66	26.90	1951.76	7.0	3.5	NM	4.2	27.95	2.3	114	210	0.77	<0.50	<0.50
	Nov 13	1978.66	26.92	1951.74	6.7	2.5	9.0	4.3	24.88	1.6	75	160	1.0	0.81	<0.50
	Mar 14	1978.66	26.05	1952.61	7.4	0.5	11.1	5.4	23.88	0.3	68	11	<0.50	<0.50	<0.50
	Jun 14	1978.66	26.55	1952.11	7.3	2.1	9.3	5.5	27.33	1.4	77	120	0.78	<0.50	<0.50
	Sep 14	1978.66	27.21	1951.45	7.4	3.4	7.5	3.9	25.21	2.2	229	140	0.84	<0.50	<0.50
	Nov 14	1978.66	26.28	1952.38	7.2	3.2	10.3	12.2	24.38	2.1	142	410	2.20	0.78	<0.50
	Mar 15	1978.66	25.95	1952.71	6.7	2.2	26.7	6.3	26.88	1.5	180	230	1.9	0.96	<0.50
MW-20D3	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.66	<0.50	<0.50	<0.50
	Jun 13	1978.69	26.17	1952.52	7.1	0.5	NM	3.9	24.81	0.3	119	<0.50	<0.50	<0.50	<0.50
	Sep 13	1978.69	27.28	1951.41	7.1	3.0	NM	4.9	33.54	1.9	100	25	<0.50	0.80	<0.50
	Nov 13	1978.69	26.57	1952.12	6.9	1.4	31.9	4.0	24.89	0.9	81	62	<0.50	<0.50	<0.50
	Mar 14	1978.69	22.92	1955.77	7.4	0.5	61.1	4.8	23.65	0.3	277	7.9	<0.50	<0.50	<0.50
	Jun 14	1978.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1978.69	31.52	1947.17	7.4	0.8	37.2	3.9	28.12	0.5	215	9.6	<0.50	<0.50	<0.50
	Nov 14	1978.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1978.69	20.10	1958.59	6.8	0.5	11.7	3.2	24.48	0.3	208	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-21	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	51	ND	ND	ND
	Jan 04	1979.56	24.72	1954.84	6.9	2.0	NM	1.1	22.30	NM	NM	55	ND	ND	ND
	May 05	1979.56	21.76	1957.80	7.1	2.8	NM	2.9	24.60	NM	131	30	ND	ND	ND
	Sep 05	1979.56	22.70	1956.86	7.1	4.7	39.0	4.1	25.80	2.6	109	19	2.4	1.5	ND
	Dec 05	1979.56	22.85	1956.71	6.6	4.6	>999	0.5	24.30	2.9	264	16	1.8	1.3	ND
	Mar 06	1979.56	23.46	1956.10	5.5	3.6	140.0	NM	23.00	2.3	309	43	ND	ND	ND
	Jun 06	1979.56	24.68	1954.88	NM	3.5	>999	4.7	28.50	2.3	112	32	ND	ND	ND
	Oct 06	1979.56	24.35	1955.21	6.2	3.5	>999	2.0	24.10	2.2	79	23	ND	ND	ND
	Dec 06	1979.56	24.15	1955.41	6.7	4.5	617.0	2.7	24.00	2.9	89	39	ND	ND	ND
	Mar 07	1979.56	24.87	1954.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1979.56	25.95	1953.61	7.0	3.4	>999	4.2	24.20	2.2	373	28	ND	ND	ND
	Sep 07	1979.56	25.44	1954.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1979.56	24.34	1955.22	6.2	3.7	>999	4.4	19.30	2.4	117	83	ND	ND	ND
	Mar 08	1979.56	24.19	1955.37	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1979.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1979.54	24.80	1954.74	7.2	3.4	545.0	0.0	24.50	NM	173	20	ND	ND	ND
	Feb 09	1979.54	24.73	1954.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1979.54	25.53	1954.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1979.54	26.39	1953.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1979.54	26.40	1953.14	6.0	3.4	90.0	0.9	24.90	2.2	119	11	ND	ND	ND
	Feb 10	1979.54	26.14	1953.40	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1979.54	26.32	1953.22	6.6	3.5	2.6	0.3	25.18	NM	202	13	ND	ND	ND
	Mar 11	1979.54	25.68	1953.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1979.54	26.57	1952.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1979.54	26.67	1952.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1979.54	26.47	1953.07	6.8	4.0	NM	0.2	24.75	NM	-38	13	ND	ND	ND
	Mar 12	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1979.25	26.77	1952.48	7.3	3.4	8.6	1.0	26.21	2.2	-127	9.4	ND	ND	ND
	Sep 12	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1979.25	25.03	1954.22	6.9	3.7	NM	0.2	24.49	2.4	107	8.4	<0.50	<0.50	<0.50
	Jun 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1979.25	25.58	1953.67	7.2	3.1	61.2	2.7	23.96	2.0	430	1.4	<0.50	<0.50	<0.50
	Jun 14	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1979.25	25.37	1953.88	6.7	3.5	17.3	0.4	25.03	2.3	46	11	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-22	May 05	1974.76	23.04	1951.72	6.8	3.9	474.0	1.7	24.10	NM	46	ND	ND	ND	ND
	Sep 05	1974.76	24.18	1950.58	6.9	4.3	10.0	7.2	23.90	2.7	46	ND	ND	ND	ND
	Dec 05	1974.76	24.30	1950.46	6.4	4.2	NM	1.3	24.60	2.7	213	1	ND	ND	ND
	Mar 06	1974.76	24.68	1950.08	4.8	6.1	30.0	NM	24.00	3.8	269	ND	ND	ND	ND
	Jun 06	1974.76	25.91	1948.85	NM	3.4	287.0	6.0	26.40	2.2	376	ND	ND	ND	ND
	Oct 06	1974.76	25.79	1948.97	6.0	3.7	11.0	2.4	23.80	2.4	141	ND	ND	ND	ND
	Dec 06	1974.76	25.49	1949.27	6.5	4.5	0.0	3.5	23.50	2.9	477	ND	ND	ND	ND
	Mar 07	1974.76	24.73	1950.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1974.76	26.91	1947.85	6.7	3.8	26.0	3.4	24.30	2.4	137	ND	ND	ND	ND
	Sep 07	1974.76	26.90	1947.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1974.76	25.88	1948.88	6.3	4.0	55.6	2.3	23.80	2.5	216	ND	ND	ND	ND
	Mar 08	1974.76	25.17	1949.59	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1974.76	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1974.75	25.60	1949.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1974.75	26.59	1948.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1974.75	27.58	1947.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1974.75	27.38	1947.37	6.0	3.6	31.0	1.4	24.50	2.3	131	1.4	ND	ND	ND
	Feb 10	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1974.75	27.82	1946.93	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1974.75	27.55	1947.20	6.7	3.7	0.1	1.6	24.30	NM	129	ND	ND	ND	ND
	Mar 11	1974.75	26.58	1948.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1974.75	27.45	1947.30	7.2	3.4	50.2	5.2	24.89	NM	266	NS	NS	NS	NS
	Sep 11	1974.75	27.87	1946.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1974.75	27.57	1947.18	6.9	3.6	NM	1.6	23.70	2.3	88	0.55	ND	ND	ND
	Mar 12	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1975.19	28.05	1947.14	6.8	4.1	250.0	4.0	26.20	2.6	102	0.58	ND	ND	ND
	Sep 12	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1975.19	26.27	1948.92	6.9	3.9	NM	1.7	23.49	2.5	140	<0.50	<0.50	<0.50	<0.50
	Jun 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1975.19	26.95	1948.24	7.3	3.3	120.0	5.0	24.37	2.2	17	0.58	<0.50	<0.50	<0.50
	Jun 14	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1975.19	26.47	1948.72	6.6	3.6	4.9	0.9	21.25	2.4	93	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-23	May 05	1962.32	13.06	1949.26	7.0	3.6	NM	2.6	24.50	NM	121	1,430	ND	ND	ND
	Dec 05	1962.32	14.05	1948.27	6.7	4.9	NM	2.1	24.90	3.1	320	1,900	ND	ND	ND
	Mar 06	1962.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1962.32	15.60	1946.72	NM	3.7	318.0	5.8	23.80	2.3	238	1,500	ND	ND	ND
	Oct 06	1962.32	15.48	1946.84	6.3	3.5	0.0	2.5	24.00	2.2	107	2,000	ND	ND	ND
	Dec 06	1962.32	15.16	1947.16	6.8	4.2	0.0	3.2	24.20	2.7	2	2,100	ND	ND	ND
	Mar 07	1962.32	15.12	1947.20	NM	NM	NM	NM	NM	NM	NM	2.1	ND	ND	ND
	Jun 07	1962.32	16.40	1945.92	7.0	3.5	31.0	4.2	23.50	2.2	301	1,300	ND	ND	ND
	Sep 07	1962.32	16.61	1945.71	6.8	3.3	1.0	3.8	25.80	2.1	204	750	ND	ND	ND
	Dec 07	1962.32	15.80	1946.52	6.3	3.7	0.0	5.5	22.10	2.4	250	1,200	ND	ND	ND
	Mar 08	1962.32	15.18	1947.14	7.0	6.3	0.4	2.2	24.00	4.1	188	1,400	ND	ND	ND
	Jun 08	1962.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,100	ND	ND	ND
	Oct 08	1962.29	16.34	1945.95	6.7	3.5	18.3	2.0	23.40	2.3	170	1,300	4.4	ND	ND
	Feb 09	1962.29	15.41	1946.88	6.7	3.4	0.0	1.1	23.00	2.2	82	1,100	ND	ND	ND
	Jun 09	1962.29	16.40	1945.89	7.2	3.6	7.1	0.6	23.80	2.3	124	1,400	4.6	ND	ND
	Sep 09	1962.29	17.30	1944.99	6.6	4.0	24.5	2.0	25.40	2.5	133	1,200	ND	ND	ND
	Nov 09	1962.29	17.31	1944.98	5.9	3.3	51.0	2.0	24.80	2.1	139	880	3.2	ND	ND
	Feb 10	1962.29	17.18	1945.11	6.8	3.4	9.0	1.8	23.70	2.2	135	1,000	3.8	ND	ND
	Jun 10	1962.29	16.93	1945.36	7.0	3.2	3.8	4.2	26.24	NM	NM	900	2.6	ND	ND
	Oct 10	1962.29	17.53	1944.76	5.7	3.4	-0.1	2.2	23.60	2.2	610	1,100	2.6	ND	ND
	Nov 10	1962.29	17.30	1944.99	7.0	3.4	0.1	2.5	22.72	NM	76	970	2.7	ND	ND
	Mar 11	1962.29	16.30	1945.99	6.9	3.6	2.9	1.9	23.42	NM	202	1,100	2.5	ND	ND
	Jun 11	1962.29	17.22	1945.07	NM	NM	NM	NM	NM	NM	NM	970	2.3	ND	ND
	Sep 11	1962.29	17.67	1944.62	6.9	3.5	8.0	3.0	24.50	2.2	229	1,000	2.4	ND	ND
	Nov 11	1962.29	17.41	1944.88	7.0	3.3	NM	2.3	23.58	2.1	170	1,100	2.4	ND	ND
	Mar 12	1962.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1962.45	17.83	1944.62	7.3	3.2	5.1	5.8	24.66	2.1	114	950	2.3	ND	ND
	Sep 12	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1962.45	15.95	1946.50	7.0	3.6	NM	1.4	23.52	2.4	107	960	2.2	<0.50	<0.50
	Jun 13	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1962.45	17.57	1944.88	6.7	3.7	5.1	2.1	24.32	2.4	152	900	1.8	<0.50	<0.50
	Mar 14	1962.45	16.63	1945.82	7.2	3.2	46.2	2.5	18.77	2.1	226	170	0.63	<0.50	<0.50
	Jun 14	1962.45	17.74	1944.71	6.9	3.4	6.0	2.4	27.06	2.2	151	850	1.4	<0.50	<0.50
	Sep 14	1962.45	17.89	1944.56	7.9	2.8	57.4	3.2	26.69	1.9	95	120	<0.50	<0.50	<0.50
	Nov 14	1962.45	17.19	1945.26	7.0	3.5	2.4	2.1	23.68	2.3	11	870	1.7	<0.50	<0.50
	Mar 15	1962.45	16.50	1945.95	6.7	3.4	5.4	2.0	21.66	2.2	58	740	1.5	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-24	May 05	1960.74	10.72	1950.02	7.0	3.6	>999	1.5	23.10	NM	76	ND	ND	ND	ND
	Sep 05	1960.74	11.75	1948.99	7.0	3.8	25.0	3.6	25.80	2.4	5	4.3	ND	ND	ND
	Dec 05	1960.74	11.65	1949.09	6.6	4.5	29.0	1.0	25.60	2.7	183	6.7	ND	ND	ND
	Mar 06	1960.74	12.10	1948.64	4.7	6.0	1.0	NM	22.60	3.8	503	6.5	ND	ND	ND
	Jun 06	1960.74	13.16	1947.58	NM	3.4	201.0	5.1	25.10	2.2	132	5.6	ND	ND	ND
	Oct 06	1960.74	13.06	1947.68	6.2	3.2	0.0	1.2	25.50	2.0	-23	2.6	ND	ND	ND
	Dec 06	1960.74	12.80	1947.94	6.9	4.1	0.0	2.6	25.10	2.6	62	2.6	ND	ND	ND
	Mar 07	1960.74	12.88	1947.86	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Jun 07	1960.74	13.94	1946.80	7.1	3.3	23.0	2.5	23.20	2.1	409	ND	ND	ND	ND
	Sep 07	1960.74	14.24	1946.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1960.74	13.58	1947.16	6.2	3.5	0.0	1.7	24.40	2.2	118	NS	NS	NS	NS
	Mar 08	1960.74	12.98	1947.76	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1960.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1960.73	14.03	1946.70	6.8	3.4	-2.3	1.1	25.20	2.1	152	6.1	ND	ND	ND
	Feb 09	1960.73	13.20	1947.53	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1960.73	14.10	1946.63	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1960.73	14.93	1945.80	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1960.73	14.99	1945.74	5.9	3.1	45.0	1.4	26.50	1.9	130	2.9	ND	ND	ND
	Feb 10	1960.73	14.23	1946.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1960.73	15.16	1945.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1960.73	14.90	1945.83	7.0	3.2	-0.8	1.4	25.24	NM	68	0.81	ND	ND	ND
	Mar 11	1960.73	14.06	1946.67	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1960.73	14.89	1945.84	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1960.73	15.31	1945.42	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1960.73	15.12	1945.61	7.0	3.1	NM	1.3	24.98	2.0	149	0.95	ND	ND	ND
	Mar 12	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1960.82	15.49	1945.33	6.9	3.4	110.0	1.8	25.00	2.2	94	1.3	ND	ND	ND
	Sep 12	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1960.82	13.62	1947.20	7.1	3.6	NM	1.8	22.77	2.3	62	1.3	<0.50	<0.50	<0.50
	Jun 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1960.82	14.34	1946.48	7.3	3.0	10.2	2.4	20.18	1.9	42	2.0	<0.50	<0.50	<0.50
	Jun 14	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1960.82	14.32	1946.50	6.7	3.3	3.6	1.3	22.86	2.1	79	0.58	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-25	May 05	1960.74	16.01	1944.73	7.0	4.0	>999	4.3	23.60	NM	141	993	ND	ND	ND
	Sep 05	1960.74	17.45	1943.29	7.0	4.2	30.0	5.1	26.20	2.7	57	920	ND	ND	ND
	Dec 05	1960.74	16.85	1943.89	6.6	5.3	0.0	1.4	24.70	3.3	417	1,000	ND	ND	ND
	Mar 06	1960.74	17.30	1943.44	5.2	6.7	94.0	NM	23.60	4.2	255	970	ND	ND	ND
	Jun 06	1960.74	18.64	1942.10	NM	3.9	228.0	5.7	23.50	2.5	376	960	ND	ND	ND
	Oct 06	1960.74	18.75	1941.99	6.2	3.7	0.0	3.1	23.60	2.4	106	1,300	ND	ND	ND
	Dec 06	1960.74	18.61	1942.13	6.7	4.5	0.0	3.8	23.90	2.8	429	1,200	ND	ND	ND
	Mar 07	1960.74	17.72	1943.02	7.0	3.7	>999	7.5	23.30	2.4	258	670	ND	ND	ND
	Jun 07	1960.74	19.31	1941.43	7.0	3.7	50.0	4.5	23.00	2.4	485	960	ND	ND	ND
	Sep 07	1960.74	19.96	1940.78	6.7	3.5	15.0	3.6	27.00	2.3	195	560	ND	ND	ND
	Dec 07	1960.74	18.92	1941.82	6.3	3.9	0.0	4.8	19.40	2.5	168	780	ND	ND	ND
	Mar 08	1960.74	17.87	1942.87	6.9	3.7	11.9	2.5	24.40	2.3	170	890	ND	ND	ND
	Jun 08	1960.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	630	ND	ND	ND
	Oct 08	1960.73	19.84	1940.89	6.8	3.7	30.2	2.3	23.50	2.4	-94	730	1.5	ND	ND
	Feb 09	1960.73	18.07	1942.66	6.7	3.5	0.0	2.1	23.70	2.3	66	770	ND	ND	ND
	Jun 09	1960.73	19.35	1941.38	7.2	3.7	6.9	1.2	24.10	2.4	127	880	2.0	ND	ND
	Sep 09	1960.73	18.60	1942.13	6.5	4.2	14.2	2.5	25.90	2.7	136	770	ND	ND	ND
	Nov 09	1960.73	20.65	1940.08	5.8	3.5	66.0	2.2	24.70	2.2	140	570	1.3	ND	ND
	Feb 10	1960.73	19.81	1940.92	6.8	3.5	9.0	2.2	22.50	2.2	122	460	2.3	ND	ND
	Jun 10	1960.73	19.85	1940.88	7.0	3.3	-0.1	5.5	26.26	NM	NM	550	0.9	ND	ND
	Oct 10	1960.73	20.85	1939.88	5.9	3.5	-0.7	2.4	24.21	2.3	603	760	0.9	ND	ND
	Nov 10	1960.73	20.62	1940.11	6.7	3.5	0.5	2.8	25.16	NM	182	550	0.9	ND	ND
	Mar 11	1960.73	18.97	1941.76	7.0	3.4	0.0	4.1	20.24	NM	115	420	0.6	ND	ND
	Jun 11	1960.73	19.83	1940.90	7.3	3.6	-1.2	2.4	24.31	NM	216	700	0.8	ND	ND
	Sep 11	1960.73	20.83	1939.90	6.9	3.7	4.0	2.9	24.00	2.3	257	680	0.8	ND	ND
	Nov 11	1960.73	20.62	1940.11	7.0	3.4	NM	2.3	23.26	2.2	166	740	0.82	ND	ND
	Mar 12	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1959.29	21.06	1938.23	6.8	3.9	56.0	2.9	25.20	2.5	89	640	0.88	ND	ND
	Sep 12	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1959.29	18.75	1940.54	7.0	3.8	NM	2.3	23.84	2.5	127	660	0.75	<0.50	<0.50
	Jun 13	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1959.29	20.87	1938.42	6.2	3.9	6.5	1.4	24.38	2.5	114	700	0.88	<0.50	<0.50
	Mar 14	1959.29	19.48	1939.81	5.9	3.3	28.3	2.7	15.90	2.1	229	340	0.61	<0.50	<0.50
	Jun 14	1959.29	20.94	1938.35	6.9	3.6	3.9	2.3	27.02	2.4	258	780	0.69	<0.50	<0.50
	Sep 14	1959.29	20.82	1938.47	7.5	3.5	47.8	NM	27.69	2.3	90	550	<0.50	<0.50	<0.50
	Nov 14	1959.29	20.32	1938.97	7.0	3.7	2.4	1.6	22.93	2.4	24	590	0.91	<0.50	<0.50
	Mar 15	1959.29	19.25	1940.04	6.7	3.6	4.5	1.2	22.82	2.4	53	640	0.71	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-26	Mar 06	1953.48	15.60	1937.88	6.8	3.8	0.0	2.6	23.80	2.4	158	730	ND	ND	ND
	Jun 06	1953.48	17.00	1936.48	NM	2.3	229.0	4.8	24.10	1.5	305	770	ND	ND	ND
	Oct 06	1953.48	17.17	1936.31	6.2	69.4	0.0	2.9	23.70	2.4	180	1,100	ND	ND	ND
	Dec 06	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1953.48	15.66	1937.82	7.0	3.8	>999	7.1	23.50	2.4	422	790	ND	ND	ND
	Jun 07	1953.48	17.50	1935.98	7.0	3.5	41.0	4.8	23.60	2.5	517	960	ND	ND	ND
	Sep 07	1953.48	18.12	1935.36	6.7	3.6	5.0	3.5	27.10	2.3	176	620	ND	ND	ND
	Dec 07	1953.48	17.01	1936.47	6.4	4.0	0.0	5.1	21.70	2.5	212	910	ND	ND	ND
	Mar 08	1953.48	15.91	1937.57	7.0	3.8	0.7	7.9	24.30	2.4	176	1,100	ND	ND	ND
	Jun 08	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	930	ND	ND	ND
	Oct 08	1953.48	18.34	1935.14	6.8	3.9	-7.2	2.7	24.00	2.5	86	900	1.4	ND	ND
	Feb 09	1953.48	16.04	1937.44	6.7	3.7	0.0	3.3	23.90	2.3	82	960	ND	ND	ND
	Jun 09	1953.48	17.57	1935.91	7.2	3.8	49.3	2.2	25.40	2.5	133	970	1.5	ND	ND
	Sep 09	1953.48	18.79	1934.69	6.6	4.3	10.5	2.8	26.40	2.8	137	910	ND	ND	ND
	Nov 09	1953.48	18.85	1934.63	5.8	3.6	210.0	2.8	24.30	2.3	139	690	ND	ND	ND
	Feb 10	1953.48	17.61	1935.87	6.9	3.6	7.0	2.5	22.60	2.3	143	790	1.8	ND	ND
	Jun 10	1953.48	17.95	1935.53	7.0	2.4	0.2	6.6	26.14	NM	NM	680	0.7	ND	ND
	Oct 10	1953.48	19.09	1934.39	6.8	3.7	-0.8	2.0	24.60	2.4	504	450	0.6	ND	ND
	Nov 10	1953.48	18.75	1934.73	6.9	3.7	0.6	2.6	24.91	NM	92	750	0.7	ND	ND
	Mar 11	1953.48	18.83	1934.65	6.9	3.8	0.0	2.7	23.78	NM	141	760	0.6	ND	ND
	Jun 11	1953.48	17.82	1935.66	6.7	3.7	-1.2	2.0	25.86	NM	475	860	0.67	ND	ND
	Sep 11	1953.48	19.04	1934.44	6.9	3.8	7.0	2.9	24.40	2.4	260	780	0.6	ND	ND
	Nov 11	1953.48	18.72	1934.76	7.0	3.6	NM	2.1	23.33	2.3	161	690	0.61	ND	ND
	Mar 12	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1953.45	19.24	1934.21	6.8	4.1	72.0	2.8	26.00	2.6	85	740	0.54	ND	ND
	Sep 12	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1953.45	16.81	1936.64	7.0	3.8	NM	2.7	24.35	2.6	118	740	0.51	<0.50	<0.50
	Jun 13	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1953.45	19.02	1934.43	6.4	4.0	7.0	2.4	24.59	2.6	138	770	0.62	<0.50	<0.50
	Mar 14	1953.45	17.44	1936.01	7.3	2.2	20.3	4.8	21.08	1.4	270	210	<0.50	<0.50	<0.50
	Jun 14	1953.45	19.10	1934.35	6.9	3.7	2.1	2.8	26.43	2.4	233	860	0.50	<0.50	<0.50
	Sep 14	1953.45	18.60	1934.85	7.3	3.6	32.7	NM	25.85	2.4	80	360	<0.50	<0.50	<0.50
	Nov 14	1953.45	18.31	1935.14	7.0	3.8	2.4	2.2	22.84	2.5	-44	890	0.66	<0.50	<0.50
	Mar 15	1953.45	17.09	1936.36	6.7	3.8	2.7	1.8	21.61	2.4	67	680	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-27	Mar 06	1944.23	13.48	1930.75	6.8	3.3	0.0	2.4	21.90	2.1	142	220	ND	ND	ND
	Jun 06	1944.23	18.50	1925.73	NM	3.7	626.0	4.6	26.10	2.3	69	350	ND	ND	ND
	Oct 06	1944.23	16.16	1928.07	6.2	3.3	0.0	2.8	22.20	2.1	155	380	ND	ND	ND
	Dec 06	1944.23	13.85	1930.38	6.8	4.0	507.0	4.5	22.20	2.6	444	380	ND	ND	ND
	Mar 07	1944.23	12.58	1931.65	7.0	3.3	83.0	7.0	21.90	2.1	181	160	ND	ND	ND
	Jun 07	1944.23	18.43	1925.80	7.0	3.3	238.0	4.1	22.20	2.1	392	340	ND	ND	ND
	Sep 07	1944.23	17.85	1926.38	6.8	3.4	22.0	3.4	24.20	2.2	198	320	ND	ND	ND
	Dec 07	1944.23	14.41	1929.82	6.4	3.8	0.0	3.5	20.60	2.5	153	430	ND	ND	ND
	Mar 08	1944.23	13.65	1930.58	7.0	3.4	1.4	2.5	22.60	2.2	174	580	ND	ND	ND
	Jun 08	1944.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	320	ND	ND	ND
	Oct 08	1944.23	18.33	1925.90	6.5	3.8	25.2	1.1	22.59	2.4	105	510	2.6	ND	ND
	Feb 09	1944.23	13.22	1931.01	6.6	3.6	0.0	0.7	21.90	2.3	108	510	ND	ND	ND
	Jun 09	1944.23	18.39	1925.84	7.1	3.9	0.0	0.5	24.10	2.5	128	570	3.3	ND	ND
	Sep 09	1944.23	19.73	1924.50	6.6	4.3	-6.7	0.9	24.20	2.7	131	640	ND	ND	ND
	Nov 09	1944.23	18.92	1925.31	NM	NM	NM	NM	NM	NM	NM	400	2.0	ND	ND
	Feb 10	1944.23	13.00	1931.23	NM	NM	NM	NM	NM	NM	NM	770	3.5	ND	ND
	Jun 10	1944.23	17.77	1926.46	7.1	3.4	10.2	6.8	24.66	NM	NM	330	1.4	ND	ND
	Oct 10	1944.23	18.87	1925.36	6.9	3.6	0.4	1.4	22.95	2.4	434	420	1.4	ND	ND
	Nov 10	1944.23	17.19	1927.04	6.8	3.7	2.9	1.5	23.57	NM	115	480	1.8	ND	ND
	Mar 11	1944.23	12.99	1931.24	7.0	3.7	259.3	6.7	21.37	NM	108	370	1.2	ND	ND
	Jun 11	1944.23	16.68	1927.55	7.3	3.7	-1.4	1.6	23.61	NM	180	440	1.3	ND	ND
	Sep 11	1944.23	20.23	1924.00	6.8	3.8	10.0	2.2	23.60	2.4	237	470	1.3	ND	ND
	Nov 11	1944.23	17.32	1926.91	7.0	3.5	NM	2.1	22.62	2.3	164	380	1.3	ND	ND
	Mar 12	1944.23	16.22	1928.01	7.2	3.6	5.9	2.5	23.10	2.4	-58	470	NS	NS	NS
*	Jun 12	1944.15	14.46	1929.69	6.8	3.9	230.0	2.9	23.80	2.4	108	440	0.97	ND	ND
	Sep 12	1944.15	18.54	1925.61	7.3	3.6	NM	2.1	23.06	2.3	152	430	1.2	ND	ND
	Nov 12	1944.15	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1944.15	15.33	1928.82	7.0	4.0	NM	1.8	23.16	2.6	100	450	1.0	<0.50	<0.50
	Jun 13	1944.15	20.37	1923.78	7.0	4.0	NM	2.1	25.31	2.6	95	300	1.1	<0.50	<0.50
	Sep 13	1944.15	19.67	1924.48	7.2	2.0	NM	2.4	27.75	1.3	88	350	0.79	<0.50	<0.50
	Nov 13	1944.15	17.49	1926.66	7.2	4.0	7.2	1.7	24.27	2.6	120	420	0.94	<0.50	<0.50
	Mar 14	1944.15	14.67	1929.48	7.2	3.4	29.3	4.3	23.18	2.2	15	220	0.59	<0.50	<0.50
	Jun 14	1944.15	18.96	1925.19	7.0	3.7	4.9	2.3	27.29	2.4	271	430	0.94	<0.50	<0.50
	Sep 14	1944.15	17.94	1926.21	7.3	3.4	24.2	NM	25.78	2.1	96	290	<0.50	<0.50	<0.50
	Nov 14	1944.15	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1944.15	13.33	1930.82	6.7	3.7	6.4	1.3	21.76	2.4	39	450	1.3	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-28	Nov 07	1942.97	14.02	1928.95	6.8	4.2	196.0	9.6	26.80	2.7	125	3	ND	ND	ND
	Dec 07	1942.97	12.80	1930.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1942.97	11.61	1931.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1942.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1942.96	14.60	1928.36	6.8	4.2	165.0	0.6	22.80	2.7	82	2.2	ND	ND	ND
	Feb 09	1942.96	11.66	1931.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1942.96	13.91	1929.05	7.2	4.2	63.8	0.0	23.50	2.7	119	3.3	ND	ND	ND
	Sep 09	1942.96	14.96	1928.00	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1942.96	14.83	1928.13	6.0	3.8	180.0	1.1	23.20	2.5	136	1.3	ND	ND	ND
	Feb 10	1942.96	12.78	1930.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1942.96	13.91	1929.05	7.0	3.7	3.7	3.3	23.89	NM	NM	0.94	ND	ND	ND
	Oct 10	1942.96	14.93	1928.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1942.96	14.31	1928.65	6.7	3.9	0.6	0.9	24.25	NM	162	0.66	ND	ND	ND
	Mar 11	1942.96	12.10	1930.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1942.96	13.50	1929.46	7.0	4.0	2.4	0.7	23.71	NM	185	ND	ND	ND	ND
	Sep 11	1942.96	14.93	1928.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1942.96	14.42	1928.54	7.0	3.7	NM	1.0	22.10	2.4	157	0.62	ND	ND	ND
	Mar 12	1942.96	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1943.07	15.30	1927.77	6.8	4.1	32.0	1.1	22.70	2.6	133	0.73	ND	ND	ND
	Sep 12	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1943.07	12.50	1930.57	7.0	4.1	NM	1.9	24.06	2.7	70	0.50	<0.50	<0.50	<0.50
	Jun 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1943.07	12.87	1930.20	7.3	3.5	20.8	1.8	22.59	2.3	66	0.69	<0.50	<0.50	<0.50
	Jun 14	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1943.07	12.36	1930.71	6.7	3.8	6.3	0.7	22.63	2.5	80	0.69	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-29	Nov 07	1932.27	14.20	1918.07	6.9	4.3	15.1	6.0	21.80	2.7	108	2.5	ND	ND	ND
	Dec 07	1932.27	14.01	1918.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1932.27	13.77	1918.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1932.27	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1932.25	14.44	1917.81	6.8	4.0	500.0	3.9	20.00	2.6	122	2.2	ND	ND	ND
	Feb 09	1932.25	13.81	1918.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1932.25	13.98	1918.27	7.2	4.0	212.0	3.3	20.50	2.6	133	1.3	ND	ND	ND
	Sep 09	1932.25	14.38	1917.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1932.25	14.37	1917.88	6.1	3.8	200.0	3.9	20.80	2.4	139	ND	ND	ND	ND
	Feb 10	1932.25	14.19	1918.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1932.25	13.92	1918.33	6.9	3.5	3.8	4.8	23.43	NM	NM	0.58	ND	ND	ND
	Oct 10	1932.25	14.19	1918.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1932.25	13.90	1918.35	6.8	3.9	1.5	4.0	21.09	NM	138	ND	ND	ND	ND
	Mar 11	1932.25	13.52	1918.73	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1932.25	13.65	1918.60	6.9	3.9	-1.4	4.1	20.62	NM	232	ND	ND	ND	ND
	Sep 11	1932.25	13.84	1918.41	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1932.25	13.85	1918.40	7.0	3.7	NM	4.0	19.77	2.4	183	ND	ND	ND	ND
	Mar 12	1932.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1932.35	13.99	1918.36	6.9	3.8	79.0	5.2	20.30	2.4	133	ND	ND	ND	ND
	Sep 12	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1932.35	13.30	1919.05	7.0	4.1	NM	4.4	19.43	2.7	85	<0.50	<0.50	<0.50	<0.50
	Jun 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 14	1932.35	13.55	1918.80	7.3	3.6	42.3	3.6	18.53	2.4	170	<0.50	<0.50	<0.50	<0.50
	Jun 14	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1932.35	13.85	1918.50	6.8	4.0	1.6	2.7	18.75	2.6	85	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-30	Nov 07	1940.56	20.11	1920.45	6.8	3.7	144.0	3.1	24.20	2.4	135	74	ND	ND	ND
	Dec 07	1940.56	17.12	1923.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1940.56	16.32	1924.24	6.9	3.3	7.2	3.7	18.80	2.1	204	86	ND	ND	ND
	Jun 08	1940.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	49	ND	ND	ND
	Oct 08	1940.56	20.91	1919.65	6.7	3.7	221.0	0.9	20.10	2.4	124	100	1.8	ND	ND
	Feb 09	1940.56	16.05	1924.51	6.6	3.3	7.2	3.2	19.60	2.1	97	71	ND	ND	ND
	Jun 09	1940.56	19.88	1920.68	7.1	3.7	34.3	1.2	21.40	2.3	141	110	2.0	ND	ND
	Sep 09	1940.56	21.57	1918.99	6.6	4.2	0.8	2.0	23.40	2.7	127	70	1.1	ND	ND
	Nov 09	1940.56	20.55	1920.01	5.9	3.3	-10.0	2.3	20.40	2.1	167	85	1.4	ND	ND
	Feb 10	1940.56	16.49	1924.07	6.7	3.2	12.0	3.9	19.60	2.1	162	60	ND	ND	ND
	Jun 10	1940.56	18.98	1921.58	6.9	2.9	1.0	5.3	25.04	NM	NM	41	ND	ND	ND
	Oct 10	1940.56	20.63	1919.93	6.0	3.1	0.1	4.2	21.95	2.0	595	62	ND	ND	ND
	Nov 10	1940.56	19.32	1921.24	6.6	3.1	0.7	4.4	22.09	NM	212	54	ND	ND	ND
	Mar 11	1940.56	15.85	1924.71	6.5	3.3	0.0	4.7	19.41	NM	142	50	ND	ND	ND
	Jun 11	1940.56	18.17	1922.39	6.3	3.1	-1.1	4.2	22.48	NM	446	50	ND	ND	ND
	Sep 11	1940.56	21.28	1919.28	7.1	2.9	16.0	7.9	22.20	1.9	237	25	ND	ND	ND
	Nov 11	1940.56	19.47	1921.09	7.0	2.8	NM	4.7	20.48	1.8	182	38	ND	ND	ND
	Mar 12	1940.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1940.59	21.42	1919.17	6.9	3.2	210.0	3.7	21.00	2.0	125	84	0.73	ND	ND
	Sep 12	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1940.59	17.38	1923.21	6.9	3.3	NM	4.2	19.45	2.1	144	62	<0.50	<0.50	<0.50
	Jun 13	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1940.59	19.89	1920.70	6.6	3.3	7.6	3.3	22.07	2.1	141	96	0.58	<0.50	<0.50
	Mar 14	1940.59	17.14	1923.45	7.2	2.9	3.8	3.5	21.39	1.9	166	42	<0.50	<0.50	<0.50
	Jun 14	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1940.59	15.90	1924.69	6.6	2.9	4.3	2.4	19.18	1.9	50	93	0.76	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-31	Mar 08	1937.93	15.23	1922.70	7.0	4.7	125.0	6.0	22.50	2.9	152	49	ND	ND	ND
	Jun 08	1937.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	31	ND	ND	ND
	Oct 08	1937.93	18.94	1918.99	6.7	4.2	265.0	3.6	22.40	2.7	123	39	ND	ND	ND
	Feb 09	1937.93	15.59	1922.34	6.5	4.0	11.0	3.4	21.90	2.6	99	44	ND	ND	ND
	Jun 09	1937.93	17.30	1920.63	7.0	4.3	77.9	4.6	21.10	2.8	137	45	ND	ND	ND
	Sep 09	1937.93	19.08	1918.85	6.6	4.8	45.2	4.9	23.60	3.0	124	38	ND	ND	ND
	Nov 09	1937.93	18.40	1919.53	6.0	4.0	230.0	4.0	22.90	2.5	141	24	ND	ND	ND
	Feb 10	1937.93	16.41	1921.52	6.7	4.0	18.0	3.9	21.10	2.5	148	34	1.2	ND	ND
	Jun 10	1937.93	16.94	1920.99	6.9	3.7	14.8	5.2	23.60	NM	NM	34	ND	ND	ND
	Oct 10	1937.93	18.80	1919.13	5.9	4.0	3.5	3.9	22.86	2.6	582	30	ND	ND	ND
	Nov 10	1937.93	18.33	1919.60	6.5	4.0	10.1	3.9	24.41	NM	225	27	ND	ND	ND
	Mar 11	1937.93	15.70	1922.23	6.9	4.1	22.7	5.0	22.63	NM	145	26	ND	ND	ND
	Jun 11	1937.93	16.76	1921.17	6.2	4.0	9.8	4.2	25.43	NM	480	64	ND	ND	ND
	Sep 11	1937.93	18.73	1919.20	6.8	4.1	9.5	4.8	24.90	2.6	256	57	ND	ND	ND
	Nov 11	1937.93	17.93	1920.00	6.9	3.8	NM	3.9	21.23	2.5	178	58	ND	ND	ND
	Mar 12	1937.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1937.66	18.37	1919.29	6.8	4.1	440.0	3.9	23.20	2.6	121	44	0.52	ND	ND
	Sep 12	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1937.66	16.27	1921.39	6.9	4.2	NM	2.9	21.34	2.7	139	61	<0.50	<0.50	<0.50
	Jun 13	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1937.66	18.55	1919.11	6.4	4.2	12.7	2.4	24.30	2.7	192	54	<0.50	<0.50	<0.50
	Mar 14	1937.66	16.45	1921.21	7.2	3.6	16.7	2.3	25.83	2.4	92	35	<0.50	<0.50	<0.50
	Jun 14	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1937.66	15.34	1922.32	6.7	4.0	5.6	2.7	21.20	2.6	57	73	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-32	Mar 08	1952.82	17.25	1935.57	7.4	3.6	5.4	2.4	23.30	2.3	136	720	ND	ND	ND
	Jun 08	1952.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	750	ND	ND	ND
	Oct 08	1952.82	19.95	1932.87	6.9	3.8	23.7	1.0	23.80	2.4	-101	990	6.1	ND	ND
	Feb 09	1952.82	17.22	1935.60	6.7	3.6	22.5	1.0	23.40	2.3	75	1,000	7.2	ND	ND
	Jun 09	1952.82	19.14	1933.68	7.1	3.7	32.7	2.7	23.40	2.4	120	1,000	5.3	ND	ND
	Sep 09	1952.82	20.47	1932.35	6.5	4.2	4.1	1.2	25.30	2.7	157	1,000	ND	ND	ND
	Nov 09	1952.82	20.44	1932.38	5.8	3.4	180.0	2.8	24.10	2.2	145	660	3.7	ND	ND
	Feb 10	1952.82	18.81	1934.01	6.8	3.5	16.0	1.6	22.70	2.2	158	830	5.4	ND	ND
	Jun 10	1952.82	19.46	1933.36	7.0	3.2	1.2	6.3	26.41	NM	NM	480	2.6	ND	ND
	Oct 10	1952.82	20.77	1932.05	6.5	3.5	8.2	2.7	24.89	2.3	585	660	2.7	ND	ND
	Nov 10	1952.82	20.40	1932.42	6.6	3.5	1.9	2.4	24.50	NM	244	740	3.3	ND	ND
	Mar 11	1952.82	18.21	1934.61	7.1	3.5	4.3	6.7	23.41	NM	111	610	2.3	ND	ND
	Jun 11	1952.82	19.40	1933.42	6.8	3.5	-1.3	3.4	24.82	NM	424	790	2.3	ND	ND
	Sep 11	1952.82	20.91	1931.91	6.9	3.6	10.0	5.1	24.40	2.3	274	610	1.9	ND	ND
	Nov 11	1952.82	20.24	1932.58	7.0	3.3	NM	3.3	23.32	2.2	161	700	2.7	ND	ND
	Mar 12	1952.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1952.90	20.94	1931.96	6.9	3.6	240.0	4.7	25.10	2.3	101	640	2.0	ND	ND
	Sep 12	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1952.90	18.43	1934.47	7.0	3.7	NM	3.4	23.98	2.4	114	720	1.8	<0.50	<0.50
	Jun 13	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1952.90	20.68	1932.22	6.6	3.7	8.3	2.5	24.57	2.4	124	610	2.0	<0.50	<0.50
	Mar 14	1952.90	18.83	1934.07	7.3	3.3	72.5	1.0	24.26	2.1	73	640	12	<0.50	<0.50
	Jun 14	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1952.90	20.15	1932.75	7.4	3.3	64.4	NM	27.43	2.2	78	360	1	<0.50	<0.50
	Nov 14	1952.90	19.37	1933.53	7.0	3.6	4.9	2.4	23.12	2.4	-163	850	3	<0.50	<0.50
	Mar 15	1952.90	18.32	1934.58	6.7	3.5	5.4	1.8	22.15	2.3	53	730	2	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-33	Mar 08	1950.92	16.02	1934.90	7.0	3.5	82.4	7.6	20.30	2.2	161	2.4	ND	ND	ND
	Jun 08	1950.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1950.92	18.00	1932.92	6.7	3.8	6.7	1.0	22.20	2.4	85	3.4	ND	ND	ND
	Feb 09	1950.92	16.11	1934.81	6.4	3.7	0.0	0.0	21.30	2.4	120	ND	ND	ND	ND
	Jun 09	1950.92	17.28	1933.64	7.0	4.0	0.0	0.0	21.40	2.5	138	ND	ND	ND	ND
	Sep 09	1950.92	18.93	1931.99	6.6	4.2	2.2	1.2	23.50	2.7	166	3.3	ND	ND	ND
	Nov 09	1950.92	18.78	1932.14	6.0	3.5	200.0	1.7	22.60	2.2	136	1.4	ND	ND	ND
	Feb 10	1950.92	17.28	1933.64	6.7	3.5	0.0	0.7	21.50	2.2	146	ND	ND	ND	ND
	Jun 10	1950.92	17.71	1933.21	6.9	3.4	1.1	2.1	28.96	NM	NM	ND	ND	ND	ND
	Oct 10	1950.92	19.42	1931.50	6.1	3.6	3.7	1.4	23.04	2.3	558	ND	ND	ND	ND
	Nov 10	1950.92	19.25	1931.67	6.6	3.6	1.7	1.6	23.34	NM	217	ND	ND	ND	ND
	Mar 11	1950.92	17.36	1933.56	6.5	3.8	2.8	1.7	21.27	NM	107	ND	ND	ND	ND
	Jun 11	1950.92	18.00	1932.92	7.3	3.8	-1.2	0.8	22.54	NM	74	ND	ND	ND	ND
	Sep 11	1950.92	19.31	1931.61	6.9	3.8	10.0	4.2	23.10	2.4	191	ND	ND	ND	ND
	Nov 11	1950.92	18.72	1932.20	7.0	3.6	NM	2.2	21.62	2.3	181	ND	ND	ND	ND
	Mar 12	1950.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1950.98	19.03	1931.95	6.8	4.0	130.0	1.3	22.90	2.5	136	ND	ND	ND	ND
	Sep 12	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1950.98	17.25	1933.73	6.9	4.2	NM	1.9	21.50	2.7	134	<0.50	<0.50	<0.50	<0.50
	Jun 13	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1950.98	19.40	1931.58	6.9	4.0	7.6	1.4	21.58	2.6	146	<0.50	<0.50	<0.50	<0.50
	Mar 14	1950.98	17.66	1933.32	7.2	3.4	68.8	4.9	18.82	2.2	45	<0.50	<0.50	<0.50	<0.50
	Jun 14	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1950.98	17.06	1933.92	6.6	4.1	8.9	0.7	21.50	2.7	68	<0.50	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-34	Dec 11	--		--								910	NS	NS	NS
	Jan 12	--		--								1000	NS	NS	NS
	Mar 12	--		--	7.2	3.7	27.4	2.0	22.63	2.4	-47	1000	NS	NS	NS
*	Jun 12	1993.88	17.74	1976.14	7.3	3.4	16.4	2.4	24.19	2.4	89	860	0.97	ND	ND
	Sep 12	1993.88	18.07	1975.81	7.3	3.6	NM	2.1	24.43	2.4	141	730	1.2	ND	ND
	Nov 12	1993.88	17.75	1976.13	8.0	3.7	NM	2.0	24.86	2.4	45	550	1.1	<0.50	<0.50
	Mar 13	1993.88	19.06	1974.82	7.1	4.0	NM	1.6	22.65	2.6	125	550	0.86	<0.50	<0.50
	Jun 13	1993.88	19.32	1974.56	7.3	4.0	NM	1.9	24.03	2.6	63	380	0.90	<0.50	<0.50
	Sep 13	1993.88	19.36	1974.52	7.0	3.8	NM	1.6	25.41	2.5	71	440	0.78	<0.50	<0.50
	Nov 13	1993.88	19.14	1974.74	6.1	3.4	20.0	0.9	23.56	2.3	184	500	0.86	<0.50	<0.50
	Mar 14	1993.88	18.75	1975.13	7.3	3.4	10.4	3.8	22.73	2.2	81	360	0.73	<0.50	<0.50
	Jun 14	1993.88	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1993.88	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1993.88	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1993.88	19.09	1974.79	6.5	3.8	6.6	1.6	24.17	2.4	91	370	0.91	<0.50	<0.50
MW-35	Dec 11	--		--								410	NS	NS	NS
	Jan 12	--		--								630	NS	NS	NS
	Mar 12	--	20.03	--	7.3	3.4	181.0	3.6	23.81	2.2	-21	580	NS	NS	NS
*	Jun 12	1991.37	18.90	1972.47	7.3	3.4	87.1	4.0	24.30	2.2	100	530	ND	ND	ND
	Sep 12	1991.37	18.77	1972.60	7.2	3.4	NM	3.5	23.19	2.2	150	520	ND	ND	ND
	Nov 12	1991.37	18.55	1972.82	8.0	3.4	NM	3.9	24.06	2.2	70	480	<0.50	<0.50	<0.50
	Mar 13	1991.37	19.99	1971.38	7.1	3.7	NM	3.2	23.20	2.4	129	340	<0.50	<0.50	<0.50
	Jun 13	1991.37	20.30	1971.07	7.2	3.8	NM	3.9	24.12	2.5	84	250	<0.50	<0.50	<0.50
	Sep 13	1991.37	20.21	1971.16	7.2	3.6	NM	3.3	25.54	2.3	50	250	<0.50	<0.50	<0.50
	Nov 13	1991.37	19.93	1971.44	6.1	3.8	45.8	1.8	23.47	2.2	184	310	<0.50	<0.50	<0.50
	Mar 14	1991.37	19.72	1971.65	7.3	3.3	323	5.4	23.24	2.1	89	92	<0.50	<0.50	<0.50
	Jun 14	1991.37	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1991.37	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1991.37	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1991.37	19.82	1971.55	6.5	3.7	23	2.4	25.22	2.3	87	180	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-36	Mar 12	1955.30	19.51	1935.79	7.1	3.5	15.8	2.3	23.44	2.3	-62	160	NS	NS	NS
*	Jun 12	1955.30	21.26	1934.04	6.8	3.8	110.0	2.2	25.30	2.5	74	130	ND	ND	ND
	Sep 12	1955.30	21.55	1933.75	7.5	3.4	NM	1.9	25.53	2.2	128	130	ND	ND	ND
	Nov 12	1955.30	20.62	1934.68	7.8	3.5	NM	2.1	22.87	2.7	71	150	<0.50	<0.50	<0.50
	Mar 13	1955.30	19.03	1936.27	6.9	3.8	NM	1.7	23.48	2.5	121	160	0.52	<0.50	<0.50
	Jun 13	1955.30	20.75	1934.55	7.0	3.8	NM	1.8	25.96	2.5	104	110	0.52	<0.50	<0.50
	Sep 13	1955.30	21.48	1933.82	7.0	3.6	NM	1.7	24.72	2.4	131	140	<0.50	<0.50	<0.50
	Nov 13	1955.30	21.22	1934.08	7.4	3.9	9.4	1.9	23.32	2.5	126	130	<0.50	<0.50	<0.50
	Mar 14	1955.30	19.50	1935.80	7.3	3.1	53.6	4.2	24.34	2.1	147	62	<0.50	<0.50	<0.50
	Jun 14	1955.30	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1955.30	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1955.30	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1955.30	19.09	1936.21	6.7	3.6	7.3	1.4	23.23	2.4	60	150	<0.50	<0.50	<0.50
MW-37	Mar 12	1930.06	18.89	1911.17	7.2	3.7	9.5	5.6	20.42	2.4	-27	36	NS	NS	NS
*	Jun 12	1929.98	19.10	1910.88	6.9	3.8	200.0	6.3	20.80	2.4	128	34	ND	ND	ND
	Sep 12	1929.98	20.05	1909.93	7.4	3.7	NM	5.5	21.79	2.4	144	32	ND	ND	ND
	Nov 12	1929.98	19.66	1910.32	7.9	3.8	NM	5.0	20.46	2.5	97	31	<0.50	<0.50	<0.50
	Mar 13	1929.98	18.83	1911.15	7.0	4.1	NM	4.3	19.76	2.7	139	34	<0.50	<0.50	<0.50
	Jun 13	1929.98	19.33	1910.65	7.0	4.1	NM	4.2	21.58	2.6	114	37	<0.50	<0.50	<0.50
	Sep 13	1929.98	19.80	1910.18	7.0	3.8	NM	4.6	21.66	2.5	215	40	<0.50	<0.50	<0.50
	Nov 13	1929.98	19.79	1910.19	6.5	4.0	7.2	4.2	21.71	2.6	335	33	<0.50	<0.50	<0.50
	Mar 14	1929.98	18.44	1911.54	7.4	3.5	33.9	4.6	23.10	2.3	113	30	<0.50	<0.50	<0.50
	Jun 14	1929.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1929.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1929.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1929.98	19.25	1910.73	6.7	3.6	3.6	3.0	20.22	2.5	64	35	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-38	Jun 12	1908.38	15.05	1893.33	6.8	3.9	550.0	5.0	22.00	2.5	124	5.8	ND	ND	ND
	Sep 12	1908.38	14.95	1893.43	7.6	3.8	NM	4.2	24.26	2.5	140	5.7	ND	ND	ND
	Nov 12	1908.38	14.69	1893.69	7.9	3.8	NM	3.6	22.20	2.5	89	5.9	<0.50	<0.50	<0.50
	Mar 13	1908.38	14.48	1893.90	7.0	4.2	NM	3.9	20.46	2.7	138	7.3	<0.50	<0.50	<0.50
	Jun 13	1908.38	15.05	1893.33	7.0	4.1	NM	3.9	23.24	2.7	117	7.8	<0.50	<0.50	<0.50
	Sep 13	1908.38	14.75	1893.63	6.8	3.9	NM	3.8	23.26	2.5	380	6.6	<0.50	<0.50	<0.50
	Nov 13	1908.38	14.97	1893.41	6.5	4.2	19.1	3.3	22.33	2.7	356	7.0	<0.50	<0.50	<0.50
	Mar 14	1908.38	14.65	1893.73	7.2	3.6	6.8	2.2	20.57	2.4	92	7.3	<0.50	<0.50	<0.50
	Jun 14	1908.38	15.16	1893.22	7.1	3.9	17.4	3.2	54.90	2.5	100	5.4	<0.50	<0.50	<0.50
	Sep 14	1908.38	15.12	1893.26	7.2	3.8	22.4	6.1	25.74	2.5	82	5.8	<0.50	<0.50	<0.50
	Nov 14	1908.38	15.23	1893.15	6.9	4.0	7.6	3.7	21.82	2.6	75	8.2	<0.50	<0.50	<0.50
	Mar 15	1908.38	14.75	1893.63	6.7	4.0	4.3	2.9	20.24	2.6	59	6.0	<0.50	<0.50	<0.50
MW-39	Jun 12	1967.55	26.15	1941.40	7.3	3.4	252.0	3.3	25.73	2.2	50	250	0.63	ND	ND
	Sep 12	1967.55	26.10	1941.45	7.4	3.5	NM	1.6	25.75	2.2	132	240	0.83	ND	ND
	Nov 12	1967.55	25.51	1942.04	7.7	3.5	NM	2.2	22.11	2.3	61	270	0.91	<0.50	<0.50
	Mar 13	1967.55	24.20	1943.35	7.0	3.8	NM	1.4	22.63	2.4	137	280	0.83	<0.50	<0.50
	Jun 13	1967.55	25.63	1941.92	7.0	3.8	NM	1.7	26.48	2.5	94	210	0.83	<0.50	<0.50
	Sep 13	1967.55	26.34	1941.21	6.9	3.7	NM	2.0	26.67	2.4	122	250	0.76	<0.50	<0.50
	Nov 13	1967.55	26.01	1941.54	6.7	3.9	133	1.4	26.36	2.5	157	260	0.81	<0.50	<0.50
	Mar 14	1967.55	24.87	1942.68	7.3	3.3	120	4.9	28.81	2.1	116	59	<0.50	<0.50	<0.50
	Jun 14	1967.55	26.07	1941.48	7.2	3.5	60	4.1	30.55	2.3	389	120	<0.50	<0.50	<0.50
	Sep 14	1967.55	26.15	1941.40	7.5	3.2	84	4.8	26.92	2.0	135	120	<0.50	<0.50	<0.50
	Nov 14	1967.55	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1967.55	24.67	1942.88	6.7	3.7	96.2	1.3	23.51	2.4	60	160	<0.50	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-40 CMT-30	Nov 12	NM	25.28	NM	7.9	3.6	NM	2.6	17.93	2.3	-68	340	1.1	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.7	<0.50	<0.50	<0.50
	Jun 13	1978.49	26.15	1952.34	7.6	3.3	NM	4.7	35.97	2.1	160	10	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.71	1951.78	7.9	2.2	NM	3.0	34.38	1.5	35	2.1	<0.50	<0.50	<0.50
	Nov 13	1978.49	26.35	1952.14	7.6	3.0	9.6	3.0	20.28	1.9	91	1.3	<0.50	<0.50	<0.50
	Mar 14	1978.49	26.52	1951.97	7.6	3.1	73.6	3.8	23.63	2.0	103	4.5	<0.50	<0.50	<0.50
	Jun 14	1978.49	26.44	1952.05	8.3	3.6	5.0	4.4	46.19	2.3	79	3.2	<0.50	<0.50	<0.50
	Sep 14	1978.49	26.65	1951.84	8.4	2.7	18.1	5.1	32.95	1.8	313	4.6	<0.50	<0.50	<0.50
	Nov 14	1978.49	25.74	1952.75	8.1	3.6	2.7	8.9	19.34	2.4	-49	35	<0.50	<0.50	<0.50
	Mar 15	1978.49	25.19	1953.30	8.0	3.6	4.1	4.2	18.74	2.3	287	14	<0.50	<0.50	<0.50
MW-40 CMT-35	Nov 12	NM	25.30	NM	8.1	4.1	NM	1.9	17.84	2.7	-163	260	6.6	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	48	3.1	<0.50	<0.50
	Jun 13	NM	26.15	NM	7.3	3.3	NM	5.0	36.39	2.2	127	3.6	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.71	1951.78	7.1	2.4	NM	3.0	33.82	1.3	55	7.9	0.93	<0.50	<0.50
	Nov 13	1978.49	26.20	1952.29	6.5	2.4	4.3	1.7	23.26	1.6	88	12	2.4	<0.50	<0.50
	Mar 14	1978.49	26.47	1952.02	7.6	2.6	58.7	3.6	23.75	1.7	128	2.6	<0.50	<0.50	<0.50
	Jun 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1978.49	25.36	1953.13	7.9	2.8	4.5	5.0	17.67	1.8	207	13	1.6	<0.50	<0.50
MW-40 CMT-40	Nov 12	NM	25.34	NM	8.1	3.1	NM	2.0	20.43	2.0	-132	320	1.7	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	270	1.6	<0.50	<0.50
	Jun 13	NM	26.18	NM	7.5	3.2	NM	3.5	37.72	2.1	135	53	0.73	<0.50	<0.50
	Sep 13	1978.49	26.69	1951.80	7.7	2.0	NM	4.0	37.45	1.3	-39	37	0.73	<0.50	<0.50
	Nov 13	1978.49	26.19	1952.30	6.4	2.3	238.0	3.5	26.72	1.5	38	51	0.64	<0.50	<0.50
	Mar 14	1978.49	26.50	1951.99	7.6	2.7	33.8	3.2	23.34	1.8	46	27	<0.50	<0.50	<0.50
	Jun 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1978.49	25.32	1953.17	7.3	3.0	92.3	3.5	21.84	1.9	340	100	1.5	<0.50	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-40 CMT-45	Nov 12	NM	25.28	NM	8.0	3.3	NM	2.1	20.47	2.1	-159	280	1.9	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	310	1.6	<0.50	<0.50
	Jun 13	NM	26.14	NM	7.7	3.1	NM	4.2	29.10	2.0	203	47	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.66	1951.83	7.2	2.2	NM	2.9	38.22	1.2	-90	110	1.3	<0.50	<0.50
	Nov 13	1978.49	26.16	1952.33	6.3	2.6	5.0	3.0	26.60	1.6	82	77	1.1	<0.50	<0.50
	Mar 14	1978.49	26.55	1951.94	7.6	2.7	67.9	4.7	26.76	1.8	57	24	<0.50	<0.50	<0.50
	Jun 14	1978.49	26.41	1952.08	7.0	3.0	7.1	4.7	36.07	2.0	-66	250	1.3	<0.50	<0.50
	Sep 14	1978.49	26.50	1951.99	7.3	2.0	25.4	3.3	33.31	1.3	-51	240	3.0	<0.50	<0.50
	Nov 14	1978.49	25.69	1952.80	7.5	3.1	5.2	6.6	20.28	2.0	-14	150	0.9	<0.50	<0.50
	Mar 15	1978.49	25.12	1953.37	6.4	0.8	12.2	4.2	23.38	0.5	361	120	3.2	<0.50	<0.50
MW-40 CMT-50	Nov 12	NM	25.28	NM	8.2	3.4	NM	2.0	19.27	2.2	-175	300	2.5	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	280	2.4	<0.50	<0.50
	Jun 13	NM	26.14	NM	7.7	3.2	NM	5.7	29.51	2.1	165	64	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.63	1951.86	7.2	3.4	NM	5.8	29.36	2.3	243	24	<0.50	<0.50	<0.50
	Nov 13	1978.49	26.15	1952.34	6.5	2.5	12.9	1.5	25.67	1.6	29	120	1.8	<0.50	<0.50
	Mar 14	1978.49	26.49	1952.00	7.5	2.6	81.0	3.3	20.48	1.7	41	72	0.89	<0.50	<0.50
	Jun 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1979.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1979.49	25.11	1954.38	6.7	0.5	5.0	3.2	23.78	0.3	315	160	6.8	<0.50	<0.50
MW-40 CMT-55	Nov 12	NM	25.33	NM	8.0	2.9	NM	3.6	20.60	1.9	-55	930	4.0	1.7	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	390	4.1	1.7	<0.50
	Jun 13	NM	26.12	NM	7.5	3.1	NM	4.3	28.93	2.0	178	200	0.57	<0.50	<0.50
	Sep 13	1978.49	26.61	1951.88	7.7	3.2	NM	4.5	31.25	2.4	168	38	1.0	<0.50	<0.50
	Nov 13	1978.49	26.15	1952.34	6.2	2.3	17.2	3.1	26.89	1.4	38	110	0.86	<0.50	<0.50
	Mar 14	1978.49	26.56	1951.93	7.4	2.5	90.3	3.9	31.25	1.6	-69	130	3.1	<0.50	<0.50
	Jun 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 14	1978.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 15	1978.49	25.11	1953.38	7.3	0.6	5.3	2.8	23.03	0.4	379	430	6.7	1.0	<0.50
MW-40 CMT-60	Nov 12	NM	25.38	NM	8.0	3.2	NM	2.6	18.85	2.1	-128	1,400	11	6.3	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	9.5	6.0	<0.50
	Jun 13	NM	26.16	NM	7.5	3.3	NM	4.9	29.49	2.1	220	1,000	5.9	3.6	<0.50
	Sep 13	1978.49	26.62	1951.87	7.6	3.4	NM	5.0	29.80	2.2	236	20	0.56	<0.50	<0.50
	Nov 13	1978.49	26.16	1952.33	5.9	1.0	619.0	1.7	22.22	0.7	-78	190	3.6	2.5	<0.50
	Mar 14	1978.49	26.54	1951.95	7.4	2.6	65.3	5.5	31.53	1.7	-84	360	6.5	2.2	<0.50
	Jun 14	1978.49	26.56	1951.93	7.1	3.0	5.7	5.4	35.94	1.9	-49	750	8.0	2.9	<0.50
	Sep 14	1978.49	26.52	1951.97	7.2	2.9	35.2	3.4	32.51	1.9	-114	700	10.0	2.8	<0.50
	Nov 14	1978.49	25.70	1952.79	7.2	3.0	2.3	18.4	22.40	2.0	28	1,000	6.8	2.6	<0.50
	Mar 15	1978.49	25.17	1953.32	6.7	2.9	5.9	3.1	23.42	1.9	253	190	8.9	1.8	<0.50

Table A-2: Historical Groundwater Gauging and Analytical Data
Maryland Square Shopping Center

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (ºC)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-41	Sep 13	1908.89	14.81	1894.08	6.9	3.7	NM	2.7	26.56	2.8	135	1.7	<0.50	<0.50	<0.50
	Nov 13	1908.89	15.05	1893.84	6.7	3.9	239.0	1.1	21.40	2.2	360	2.6	<0.50	<0.50	<0.50
	Mar 14	1908.89	14.55	1894.34	7.3	3.3	192.0	2.8	20.93	2.2	64	2.1	<0.50	<0.50	<0.50
	Jun 14	1908.89	15.34	1893.55	6.9	3.6	76.1	1.2	26.24	2.3	85	2.8	<0.50	<0.50	<0.50
	Sep 14	1908.89	15.50	1893.39	7.0	3.6	68.4	2.4	26.18	2.3	54	2.8	<0.50	<0.50	<0.50
	Nov 14	1908.89	15.47	1893.42	6.9	3.7	57.0	1.2	20.80	2.4	25	3.7	<0.50	<0.50	<0.50
	Mar 15	1908.89	14.85	1894.04	6.7	3.7	33.1	1.6	21.17	2.4	38	3.5	<0.50	<0.50	<0.50
MW-42	Sep 13	1910.31	16.16	1894.15	7.1	4.1	NM	3.0	24.55	2.7	66	0.53	<0.50	<0.50	<0.50
	Nov 13	1910.31	16.32	1893.99	7.0	4.3	29.4	2.1	21.41	2.8	326	0.60	<0.50	<0.50	<0.50
	Mar 14	1910.31	16.01	1894.30	7.3	3.7	73.8	1.5	20.05	2.4	41	<0.50	<0.50	<0.50	<0.50
	Jun 14	1910.31	16.51	1893.80	6.7	4.0	13.6	2.1	23.60	2.6	105	0.58	<0.50	<0.50	<0.50
	Sep 14	1910.31	16.45	1893.86	6.8	4.0	21.4	3.2	23.75	2.6	107	0.53	<0.50	<0.50	<0.50
	Nov 14	1910.31	16.57	1893.74	7.0	4.1	6.3	1.7	22.21	2.7	-5	0.71	<0.50	<0.50	<0.50
	Mar 15	1910.31	16.12	1894.19	6.7	4.1	6.5	2.3	20.16	2.7	23	0.62	<0.50	<0.50	<0.50
MW-43	Sep 13	1958.33	17.14	1941.19	7.1	3.5	NM	3.1	26.33	2.2	45	<0.50	<0.50	<0.50	<0.50
	Nov 13	1958.33	16.96	1941.37	7.0	3.6	163.0	2.2	22.87	2.3	138	<0.50	<0.50	<0.50	<0.50
	Mar 14	1958.33	16.11	1942.22	7.2	3.0	109.0	1.6	22.15	1.9	45	<0.50	<0.50	<0.50	<0.50
	Jun 14	1958.33	17.15	1941.18	6.7	3.2	61.3	2.3	25.50	2.1	128	<0.50	<0.50	<0.50	<0.50
	Sep 14	1958.33	17.33	1941.00	6.8	3.1	70.4	2.7	25.53	2.0	170	<0.50	<0.50	<0.50	<0.50
	Nov 14	1958.33	16.63	1941.70	7.0	3.2	23.5	2.9	23.23	2.1	98	<0.50	<0.50	<0.50	<0.50
	Mar 15	1958.33	15.60	1942.73	6.7	3.2	20.3	1.4	21.61	2.1	85	<0.50	<0.50	<0.50	<0.50

Notes:

NM = Not Measured
msl = mean sea level
ND = Non Detect
NS = Not Sampled
µg/L = micrograms per liter
°C = degrees Celsius
g/L = gallons per liter
mg/L = milligrams per liter
mS/cm = milli Siemens per centimeter
mV = milllivolts
NTU = Nephelometric Turbudity Units

*: All wells were resurveyed to determine top of casing elevation
Mar 2014: Wells monitored were determined to not be representative of site conditions.

Maryland Square PCE Site

FIGURES

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Shaping the Future

SITE LOCATION

1 inch = 1,000 feet

Note: Scale and location are approximate

N

SOURCE: Google Earth

SITE VICINITIY MAP

MARYLAND SQUARE SHOPPING CENTER
3661 S. MARYLAND PARKWAY
LAS VEGAS, NEVADA

PROJECT NUMBER: Z085000030	**DATE:** 12/12	**Figure 1**
APPROVED BY: ADS	**DRAWN BY:** ABK	

Cardno ATC Shaping the Future
2925 East Patrick Lane, Suite M
Las Vegas, Nevada 89120-2457
Ph: (702) 798-5750 *** Fax: (702) 798-5742

LEGEND

- MW-1 GROUNDWATER MONITOR WELL
- PW–1 PUMPING WELL
- 1962.16 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- 1950 GROUNDWATER ELEVATION CONTOUR (5 FT. INTERVALS)
- GROUNDWATER FLOW DIRECTION
- NM NOT MEASURED OR NO SURVEY DATA

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

0 500 1000
SCALE, FT

GROUNDWATER POTENTIOMETRIC MAP
MARCH 2 - MARCH 12, 2015
MARYLAND SQUARE SHOPPING CENTER
3661 S. MARYLAND PARKWAY
LAS VEGAS, NV

PROJECT NUMBER: Z085000030	DATE: 04/24/15	FIGURE
APPROVED BY: AS	DRAWN BY: DK	2

Cardno ATC
7115 Amigo Street, Suite 100
Las Vegas, Nevada 89119
Ph: (702) 990-9300 *** Fax: (702) 990-9305

115.135° 115.13° 115.125° 115.12° 115.115°

36.125° 36.12°

S. MARYLAND PARKWAY
BOULEVARD MALL
RUBY S. THOMAS ELEMENTARY SCHOOL
COMMANCHE DRIVE
ALGONQUIN DR.
MARICOPA WAY
SPENCER STREET
SPENCER STREET
GOLF COURSE
PUEBLO WAY
SOUTH EASTERN AVENUE
EMERSON AVENUE
PACIFIC STREET
CHEROKEE LN.
SENECA LN.
OTTAWA DRIVE
OTTAWA DRIVE
GERONIMO WAY
TIOGA WAY
E. TWAIN AVENUE
E. TWAIN AVENUE
ORR PARK
WILLIAM E. ORR MIDDLE SCHOOL
E. KATIE AVENUE
FLAMINGO WASH

MW-35 180
MW-14 1,900
MW-17 65
MW-7 17
MW-15 3.6
MW-6 3,300
MW-13 1,700
MW-12 0.77
MW-34 370
MW-1 210
MW-9 9.7
MW-8 2.4
MW-5 790
MW-14I 11,000
MW-20 680
MW-19 930
MW-19I 0.62
MW-3 13
MW-16 <0.50
MW-2 550
MW-11 <0.50
MW-10 <0.50
MW-40 CMT
MW-43 <0.50
MW-33 <0.50
MW-22 <0.50
MW-21 11
MW-39 160
MW-18 1,200
MW-23 740
MW-25 640
MW-26 680
MW-32 730
MW-36 150
MW-27 450
MW-21 0.58
MW-28 0.69
MW-29 <0.50
PW-1
PW-2
MW-31 73
MW-30 93
MW-37 35
MW-41 3.5
MW-38 6.0
MW-42 0.62

DEPTH	PCE
30	14
35	13
40	100
45	120
50	160
55	430
60	190

WELL	PCE
MW-20D1	340
MW-20D2	230
MW-20D3	<0.50

WELL	PCE
MW-6D1	3.0
MW-6D2	3.2
MW-6D3	32

WELL	PCE
MW-19D1	210
MW-19D2	44
MW-19D3	41

LEGEND

MW-1 GROUNDWATER MONITOR WELL
PW–1 PUMPING WELL
3000 ISOCONTOUR, µg/L
1000 ISOCONTOUR, µg/L
500 ISOCONTOUR, µg/L
100 ISOCONTOUR, µg/L
5 ISOCONTOUR, µg/L
540 PCE, µg/L
NS NOT SAMPLED
1,000 MARCH 2015 DATA

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

0 500 1000
SCALE, FT

PCE ISOCONCENTRATION MAP
MARCH 2 - 12, 2015
MARYLAND SQUARE SHOPPING CENTER
3661 S. MARYLAND PARKWAY
LAS VEGAS, NV

PROJECT NUMBER: Z085000030		DATE: 04/25/15	FIGURE 3
APPROVED BY: AS		DRAWN BY: DK	

Cardno ATC
7115 Amigo Street, Suite 100
Las Vegas, Nevada 89119
Ph: (702) 990-9300 *** Fax: (702) 990-9305

Maryland Square PCE Site

APPENDIX A
FIELD SHEETS

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GROUNDWATER LEVEL DATA

CARDNO ATC
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9305 (702) 990-9305 fax

PROJECT: Maryland Square LOCATION: 3661 S. Maryland Parkway PROJECT NUMBER: Z08500003.

RECORDED BY: _____ MEASURING DEVICE: WLI

WEATHER CONDITIONS:

WELL ID	DATE	TIME	DEPTH TO GROUNDWATER (feet bTOC)	TOTAL DEPTH (feet bTOC)	COMMENTS
MW-1	3/13	1217	20.15	25.92	
MW-2	3/11	1228	19.17	29.32	
MW-3	3/11	1045	20.02	29.30	
MW-5	3/11	1324	19.35	28.89	Soft bottom
MW-6	3/12	14:02 ~~28.55~~	19.96	28.55	
MW-7	3/9	1330	18.20	29.80	
MW-8	3/9	1210	20.55	30.42	
MW-9	3/11	1054	20.62	50.00	
MW-10	3/12	835	21.6	30.6	
MW-11	3/4	1104	~~26.55~~ BLANK	32.47	
MW-12	3/9	1125	16.69	33.23	
MW-13	3/11	1130	18.40	25.15	
MW-14	3/12	13:18	18.85	29.60	
MW-15	3/12	950	16.70	27.89	
MW-16	3/4	1155	27.55	34.26	
MW-17	3/13	1138	19.80	30.10	
MW-18	3/11	945	12.50	20.38	
MW-19	3/4	1443	~~26.60~~	~~30.01~~	
MW-20	3/11	835	26.34	30.64	
MW-21	3/4	1347	25.37	33.84	
MW-22	3/4	919	26.47	35.08	
MW-23	3/3	1512	16.50	25.30	
MW-24	3/4	1020	14.32	20.38	
MW-25	3/3	1302	19.25	25.96	
MW-26	3/3	1340	17.09	35.34	
MW-27	3/2	1535	~~13.33~~	35.28	
MW-28	3/3	930	12.36	34.49	
MW-29	3/3	834	13.25	34.62	
MW-30	3/2	1440	15.90	39.70	
MW-31	3/2	1355	15.34	33.36	
MW-32	3/3	1425	18.32	33.70	
MW-33	3/3	1022	17.06	33.54	
MW-34	3/11	1346	19.09	2909	
MW-35	3/12	1259	19.82	27.97	
MW-36	3/3	1200	~~19.09~~	37.81	
MW-37	3/2	1300	19.25	37.06	

Cardno ATC
Shaping the Future

GROUNDWATER LEVEL DATA

CARDNO ATC
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LAS VEGAS, NEVADA 89119
(702) 990-9305 (702) 990-9305 fax

PROJECT: Maryland Square LOCATION: 3661 S. Maryland Parkway PROJECT NUMBER: Z085000030

RECORDED BY: _____ MEASURING DEVICE: WLI

WEATHER CONDITIONS:

WELL ID	DATE	TIME	DEPTH TO GROUNDWATER (feet bTOC)	TOTAL DEPTH (feet bTOC)	COMMENTS
MW-38	3/2	1203	14.75	34.56	
MW-39	3/3	1101	24.67	37.60	
MW-40					
MW-41	3/2	1107	14.85	35.27	
MW-42	3/2	1005	16.12	35.20	soft bottom
MW-43	3/4	831	15.60	34.90	
MW-14I	3/12	1445	19.41	54.65	
MW-19I	3/4	1240	25.52	54.24	
MW-6D1	3/12	1215	15.41	59.75	
MW-6D2	3/12	1020	15.35	89	
MW-6D3	3/12	1125	15.47	100	
MW-19D1	3/10	1400	25.74	49.60	
MW-19D2	3/10	1216	26.88	70.25	
MW-19D3	3/10	1320	24.12	—	
MW-20D1	3/10	1023	25.56	44.95	
MW-20D2	3/10	1130	25.95	65.78	
MW-20D3	3/10	847	20.10	over 102	
MW40-CMT30	3/5	945	25.19	29.80	
MW40-CMT35	3/5	855	25.36	35.57	
MW40-CMT40	3/5	1046	25.32	40.03	
MW40-CMT45	3/5	1317	25.12	45.00	
MW40-CMT50	3/5	1233	25.11	49.96	
MW40-CMT55	3/5	1126	25.11	54.83	
MW40-CMT60	3/5	1415	25.17	59.93	

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Shaping the future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: _____

Well ID: MW-1
Sample ID: MW-1
Date: _____

Purging Equipment: _____ Low Flow Bladder Pump
Sampling Equipment: _____ Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 25.92 feet
Depth to Water: 20.15 feet
Constructed Screen Interval 10 feet to 30 feet
Approximate Pump Depth _____ Feet bgs 23 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: MW-1 DUP

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.29	1223	26.31	3.701	2.405	1.14	6.52	94.5	DTW - 20.38, clear, no odor tbi - 35.0
.58	1228	25.06	3.665	2.338	3.15	6.43	92.1	DTW 20.55, clear, no odor tbi - 23.3
.87	1233	25.93	3.628	2.379	1.29	6.46	89.4	DTW 20.15, clear, no odor tbi - 11.03
1.16	1239	25.93	3.669	2.395	1.25	6.43	86.8	DTW 20.32, clear, no odor tbi - 6.04
1.45	1243	25.94	3.665	2.382	1.34	6.43	85	DTW 20.53, clear, no odor tbi - 4.79

Total Water Volume Purged: _____ Gallons = N/A Well Volumes
Purged Dry (Y/N): _____
Comments: _____

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no
Bolts secured? X yes ____ no Replaced? ____ yes X no
Surface Seal? X yes ____ no Replaced? ____ yes X no

0.6 PID
____ Vacuum
1246 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-2
Sample ID: MW-2
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 29.32 feet
Depth to Water: 19.17 feet
Constructed Screen Interval 10 feet to 32 feet 42.3
Approximate Pump Depth Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	DTW/TWB
.26	1243	23.24	3.387	2.203	1.77	6.45	202.7	Clear, No odor, 19.20,	32.6
.52	1248	23.31	3.388	2.196	1.83	6.44	197.3	Clear, No odor, 19.21,	32.3
.78	1253	23.32	3.385	2.193	1.80	6.45	197.2	Clear, No odor, 19.21,	48.1
1.04	1258	23.34	3.383	2.194	1.77	6.44	197.0	Clear, No odor, 19.22,	13.08
1.30	1303	23.35	3.382	2.195	1.75	6.44	197.0	Clear, No odor, 19.21,	

Total Water Volume Purged: 1.30 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no — 0.0 PID
Bolts secured? X yes ___ no — Replaced? ___ yes X no — N/A Vacuum
Surface Seal? X yes ___ no — Replaced? ___ yes X no — 1305 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-3
Sample ID: MW-3
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 29.30 feet
Depth to Water: 20.02 feet
Constructed Screen Interval: 10 feet to 31 feet
Approximate Pump Depth: ____ Feet bgs 25 Feet btoc 2012

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
									107W/Turb
.41	1100	25.29	4.278	2.781	0.71	6.23	223.5	Sl. Turbid, No odor, 2012	44.8
.82	1105	25.48	4,280	2.782	0.71	6.20	218.8	Clear, No odor, 20.15	40.0
1.23	1110	25.50	4,279	2.781	0.67	6.19	218.6	Clear, No odor, 20.14	17.66
1.64	1115	25.52	4,277	2.778	0.65	6.18	218.5	Clear, NO odor, 2012	11.4

Total Water Volume Purged: 1.64 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1125 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-5
Sample ID: MW-5
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 28.89 feet
Depth to Water: 19.35 feet
Constructed Screen Interval 10 feet to 32 feet
Approximate Pump Depth ____ Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. PTW/TWD	
.26	1337	23.67	3.446	2.240	2.92	6.45	211.2	Clear, No odor, 19.47,	27.1
.52	1342	23.95	3.452	2.244	2.89	6.43	205.2	Clear, No odor, 19.37,	20.1
.78	1347	24.01	3.453	2.245	2.86	6.43	205.0	Clear, No odor, 19.39,	15.01
1.04	1352	24.02	3.453	2.245	2.85	6.42	204.9	Clear, No odor, 19.38,	9.84
1.30	1357	24.02	3.453	2.245	2.83	6.42	204.8	Clear, No odor, 19.38,	12.24

Total Water Volume Purged: 1.30 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no
Bolts secured? X yes ____ no Replaced? ____ yes X no
Surface Seal? X yes ____ no Replaced? ____ yes X no

0.1 PID
N/A Vacuum
1405 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-6
Sample ID: MW-6
Date: 3/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 28.55 feet 4Q13: 29.10
Depth to Water: 19.96 feet 3Q13: 20.14
Constructed Screen Interval 10 feet to 32 feet
Approximate Pump Depth Feet bgs 25 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.36	1410	25.18	3.253	2.11	3.17	6.75	97.5	DTW -20.0, pink, no odor tb 18.84
.72	1415	25.36	3.287	2.141	2.21	6.53	98.9	DTW -19.97, pink, no odor tb -
1.08	1420	25.46	3.298	2.207	2.25	6.47	96.8	DTW -20.01, pink, no odor tb 18.23
1.44	1425	25.22	3.432	2.230	2.24	6.45	97.4	DTW -19.98, ~~pink~~ clear, no odor tb 16-25.02
1.80	1430	25.06	3.446	2.240	2.31	6.42	99.1	DTW -20.00, clear tb -11.64

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no Replaced? ___ yes X no 0.5 PID
Bolts secured? X yes ___ no Replaced? ___ yes X no ___ Vacuum
Surface Seal? X yes ___ no Replaced? ___ yes X no 1432 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-6D1
Sample ID: MW-6D1
Date: 5/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 59.75 feet
Depth to Water: 15.41 feet
Constructed Screen Interval 50 feet to 60 feet
Approximate Pump Depth Feet bgs 55 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Previous inconsistent dtw readings

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.28	1240	27.45 ~~26.97~~	.616 ~~0.621~~	.401 ~~0.407~~	4.20 ~~4.16~~	~~6~~ 6.97	91.6	DTW-15.49, pink, muddy, hb - 121
.56	1245	26.20	.611	.397	3.60	6.82	105.1	DTW-15.81, pink, no odor, hb 77.9
.84	1250	26.17	.610	.397	3.54	6.82	105.7	DTW-15.99 hb - 48.7
1.12	1255	26.12	.610	.397	3.39	6.90	104.2	DTW-15.98 hb - 29.5
1.40	1300	26.20	.611	.397	3.44	6.81	102.2	DTW-16.02 hb - 19.31

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no — 0.0 PID
Bolts secured? X yes ___ no — Replaced? ___ yes X no — ___ Vacuum
Surface Seal? X yes ___ no — Replaced? ___ yes X no — 1305 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-6D2
Sample ID: MW-6D2
Date: 7/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 89 feet
Depth to Water: 15.35 feet
Constructed Screen Interval: 80 feet to 90 feet
Approximate Pump Depth: Feet bgs 85 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Previous inconsistent dtw readings

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.24	1036	23.79	0.614	.399	3.94	6.78	111.0	DTW 15.25, no odor, clear, tb 59.4
.48	1041	23.84	.602	.391	3.70	6.77	112.8	DTW - 15.27, no odor, clear, tb 48.0
.72	1046	23.75	.598	.389	3.64	6.81	111.0	DTW - 15.26, no odor, clear, tb 44.8
.96	1051	24.00	.595	.387	4.64	6.76	111.6	DTW - 15.19, no odor, clear, tb 44.4
1.20	1056	24.51	.594	.386	3.69	6.77	113.4	DTW - 15.15 tb 58.6

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ____ no
Bolts secured? X yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.0 PID
____ Vacuum
11:00 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-6D3
Sample ID: MW-6D3
Date:

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 120 feet
Depth to Water: 15.47 feet
Constructed Screen Interval 100 feet to 110 feet
Approximate Pump Depth Feet bgs 105 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Previous inconsistent dtw readings

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.29	1130	25.52	.549	.359	3.35	6.96	104.6	DTW - 13.40, clear, no odor tb 10.6
.58	1135	25.91	.534	.344	5.97	6.92	106.9	DTW 13.45, clear, no odor tb 52.8
.87	1140	25.98	.519	.338	4.54	6.93	105.2	DTW 14.17 tb - 42.6
1.16	1145	26.06	.514	.332	4.03	6.84	108.6	DTW 14.44 tb - 76.0
1.45	1150	25.30	.507	.329	3.96	6.84	106.9	DTW 14.51 tb 99.1

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no
Bolts secured? X yes ___ no
Surface Seal? X yes ___ no

Replaced? ___ yes X no
Replaced? ___ yes X no
Replaced? ___ yes X no

0.0 PID
___ Vacuum
11:55 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: Johanna Cook

Well ID: MW-7
Sample ID: MW-7
Date: 03/09/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 29.80 feet
Depth to Water: 18.20 feet
Constructed Screen Interval 10 feet to 30 feet
Approximate Pump Depth ____ Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.23	1335	26.76	3.613	2.348	2.56	6.48	231.4	DTW - 18.39, clear, no odor (tb - 53.7)
.46	1340	26.65	3.611	2.348	2.34	6.49	215.6	DTW - 18.39, clear, no odor (tb 13.58)
.69	1345	26.60	3.617	2.351	2.32	6.53	202.3	DTW - 18.37, clear, no odor, (tb 28.5)
.92	1350	26.44	3.616	2.351	2.32	6.50	204.1	DTW - 18.35, clear, no odor (tb 14.97)
1.15	1355	26.60	3.618	2.351	2.28	6.53	206.1	DTW - 18.34, clear, no odor (tb 11.51)

Total Water Volume Purged: 1.15 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ____ yes X no — Replaced? X yes ____ no — 0.9 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — ____ Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1400 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: JG

Well ID: MW-8
Sample ID: MW-8
Date: 03/09/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 30.42 feet
Depth to Water: 20.55 feet
Constructed Screen Interval: 10 feet to 30 feet
Approximate Pump Depth: Feet bgs 25 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Soft bottom, Sample time - 1237

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.5	1215	26.62	3.342	2.182	1.77	6.41	192.3	DTW - 20.98, pink tb-102
1.0	1220	26.42	3.320	2.100	1.38	6.39	197.7	DTW - 21.20, pink, no odor tb-95.9
1.5	1225	26.64	3.392	2.206	1.00	6.35	199.7	DTW - 21.09, pink, no odor tb-89.5
2.0	1230	26.64	3.391	2.204	1.03	6.33	201.1	DTW - 21.02, pink, no odor tb-78.72

Total Water Volume Purged: 2.0 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no
Bolts secured? X yes ___ no — Replaced? ___ yes X no
Surface Seal? X yes ___ no — Replaced? ___ yes X no

0.0 PID
___ Vacuum
1237 Sample Collection Time

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Shaping the Future

GROUNDWATER COLLECTION LOG

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7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-9
Sample ID: MW-9
Date: 8/13/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 50.00 feet
Depth to Water: 20.62 feet
Constructed Screen Interval 48.5 feet to 50 feet
Approximate Pump Depth Feet bgs 49 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.33	1103	25.77	1.435	.930	1.75	6.79	90.1	DTW - 20.64, clear, no odor (tb - 65.8)
.66	1108	25.71	1.503	.979	2.36	6.79	92.0	DTW: 20.58 (Tb: 208) clear, no odor
.99	1113	25.79	1.552	1.008	2.47	6.76	90.4	DTW 20.55, clear, no odor (tb 11.05)
1.32	1118	25.80	1.552	1.041	2.35	6.73	91.2	DTW 20.58, clear, no odor (tb - 11.15)
1.65	1123	25.95	1.592	1.036	2.37	6.73	90.3	DTW 20.61, clear, no odor (tb 13.33)

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no — 0.0 PID
Bolts secured? X yes ___ no — Replaced? ___ yes X no — ___ Vacuum
Surface Seal? X yes ___ no — Replaced? ___ yes X no — 1126 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-10
Sample ID: MW-10
Date: 03/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 30.6 feet
Depth to Water: 21.6 feet
Constructed Screen Interval 10 feet to 30 feet
Approximate Pump Depth ____ Feet bgs 26 Feet btoc 2012

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.23	837	24.52	3.547	2.290	0.63	6.20	-160.6	DTW 22.18, no odor, tb 14.26
.46	842	24.99	3.547	2.305	0.58	6.32	-172.6	DTW 22.45, no odor tb 9.78
.69	847	25.09	3.540	2.301	.58	6.54	-171.6	DTW 22.56 tb 8.7
.92	852	25.38	3.552	2.305	.54	6.38	-179.1	DTW 22.59 tb 7.09
1.15	857	25.38	3.552	2.309	.44	6.40	-181.3	DTW 22.56 tb 5.77

Total Water Volume Purged: ____ Gallons = ____ N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no
Bolts secured? X yes ____ no Replaced? ____ yes X no
Surface Seal? X yes ____ no Replaced? ____ yes X no

0.0 PID
____ Vacuum
900 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-11
Sample ID: MW-11
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 32.47 feet
Depth to Water: 26.55 feet
Constructed Screen Interval 13.5 feet to 33.5 feet
Approximate Pump Depth ____ Feet bgs 29 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/Turb
.25	1120	23.33	3.420	2.222	1.95	6.78	-84.5	Clear, No odor, 26.60, 5.99
.50	1125	23.63	3,452	2.244	1.05	6.78	-95.1	Clear, No odor, 26.59, 5.95
.75	1130	23.65	3.457	2,247	1.02	6.77	-95.3	Clear, No odor, 26.59, 4.29
1.0	1135	23.66	3,461	2.249	1.01	6.77	-95.5	Clear, No odor, 26.59, 3.46
1.25	1140	23.66	3,463	2.250	1.01	6.76	-95.5	Clear, No odor, 26.59, 3.65

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: Initial strong odor immediately after removing well cap, odor dissipates after well vented

Well Security:
Locking cap? K yes ____ no — Replaced? ____ yes K no
Bolts secured? I yes ____ no — Replaced? ____ yes K no
Surface Seal? K yes ____ no — Replaced? ____ yes K no

160 PID
N/A Vacuum
1145 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: Johanna Garcia

Well ID: MW-12
Sample ID: MW-12
Date: 02/09/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 33.23 feet
Depth to Water: 16.69 feet
Constructed Screen Interval 13.5 feet to 33.5 feet
Approximate Pump Depth ____ Feet bgs 24 Feet btoc (33.2)

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Sample Time 1143

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.52	1125	25.40	3.645	2.361	1.68	6.49	248.8	clear, no odor DTW-17.11 Turbidity 93.9
1.0	1130	25.46	3.558	2.221	2.00	6.53	238.8	clear, no odor Hb-114 DTW-17.11 ft
1.5	1135	25.58	3.609	2.300	1.71	6.50	229.5	clear, no odor, DTW-17.11, Hb-128
2.0	1140	25.65	3.577	2.316	1.76	6.52	221.4	clear, no oda, DTW-17.13 Hb 101

Total Water Volume Purged: 2.0 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no 0.0 PID
Bolts secured? X yes ____ no Replaced? ____ yes X no ____ Vacuum
Surface Seal? X yes ____ no Replaced? ____ yes X no 1143 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-13
Sample ID: MW-13
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 25.15 feet
Depth to Water: 18.40 feet
Constructed Screen Interval 9 feet to 29 feet
Approximate Pump Depth ____ Feet bgs 22 Feet btoc 4213

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TWS
.25	1143	22.78	3.613	2.351	2.21	6.39	225.4	Clear, No odor, 18.42 · 61.5
.50	1148	23.17	3.615	2.351	1.20	6.35	217.1	Clear, No odor, 18.43, 32.2
.75	1153	23.20	3.613	2.350	1.17	6.35	217.0	Clear, No odor, 18.44, 33.0
1.0	1158	23.22	3.613	2.348	1.14	6.34	216.9	Clear, No odor, 18.42, 29.5
1.25	1203	23.24	3.608	2.345	1.12	6.34	216.8	Clear, No odor, 18.45 12.03

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no 0.0 PID
Bolts secured? X yes ____ no Replaced? ____ yes X no N/A Vacuum
Surface Seal? X yes ____ no Replaced? ____ yes X no 1205 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-14
Sample ID: MW-14
Date: 03/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 29.60 feet
Depth to Water: 18.85 feet
Constructed Screen Interval 15 feet to 40 feet
Approximate Pump Depth Feet bgs 24.5 Feet btoc 3/12/15

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.28	13:28	25.51	3.644	2.367	2.37	6.63	109.4	DTW-19.03, clear, no odor hb 30.4
.56	1333	25.30	3.673	2.389	1.97	6.48	106.6	DTW-19.04, clear, no odor hb 13.4
.84	1338	25.21	3.675	2.389	2.17	6.49	105.0	DTW-19.15 hb 7.0
1.12	1343	25.20	3.675	2.389	1.95	6.48	105.1	DTW-19.99 hb 45.8
1.40	1348	25.29	3.675	2.387	2.06	6.44	104.9	DTW-19.05 hb 69.6

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no Replaced? ___ yes X no 0.4 PID
Bolts secured? X yes ___ no Replaced? ___ yes X no ___ Vacuum
Surface Seal? X yes ___ no Replaced? ___ yes X no 1350 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-14I
Sample ID: MW-14I
Date: 3/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 54.65 feet
Depth to Water: 19.41 feet
Constructed Screen Interval 40 feet to 55 feet
Approximate Pump Depth ____ Feet bgs 47.5 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.36	1455	26.36	1.323	.860	4.02	6.75	102.5	DTW-19.43 tb-14.64 no odor, clear
.72	1500	25.39	1.289	.838	2.66	6.70	105.2	DTW-19.43 tb-9.28
1.08	1505	25.32	1.283	.834	2.64	6.70	102.8	DTW-19.43 tb-8.20 no odor
1.44	1510	25.10	1.283	.834	2.58	6.69	104.1	DTW-19.43 tb-6.54 no odor
1.80	1515	24.99	1.285	.835	2.65	6.67	106.0	DTW-19.44 tb-6.34 no odor

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ____ no Replaced? ____ yes X no 105 PID
Bolts secured? X yes ____ no Replaced? ____ yes X no ____ Vacuum
Surface Seal? X yes ____ no Replaced? ____ yes X no 1518 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-15
Sample ID: MW-15
Date: 3/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 27.89 feet
Depth to Water: 16.70 feet
Constructed Screen Interval 15 feet to 32 feet
Approximate Pump Depth Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.22	935	25.82	7.460	2.248	1.98	6.56	89.9	DTW-16.19, no odor, light, tb-57.9
.44	940	26.00	3.460	2.249	1.86	6.50	91.4	DTW-16.19, clear, no odor, tb-46.8
.66	945	26.06	3.459	2.248	1.85	6.45	91.1	DTW-16.18, no odor, light, tb-40.6
.88	950	26.23	3.450	2.248	1.81	6.43	93.8	DTW-16.19, tb-40.6
1.10	955	26.25	3.458	2.248	1.79	6.43	95.4	DTW-16.19 tb-21.7

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no Replaced? ___ yes X no 0.1 PID
Bolts secured? X yes ___ no Replaced? ___ yes X no ___ Vacuum
Surface Seal? X yes ___ no Replaced? ___ yes X no 10:00 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-16
Sample ID: MW-16
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 34.26 feet
Depth to Water: 27.55 feet
Constructed Screen Interval: 19 feet to 32 feet
Approximate Pump Depth: ____ Feet bgs 31 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.45	1209	24.17	3.176	2.063	0.29	6.74	1.7	Clear, No odor, 27.64, 6.36
.90	1214	24.25	3.175	2.064	0.22	6.76	1.5	Clear, No odor, 27.62, 5.40
1.35	1219	24.23	3.176	2.064	0.23	6.74	1.4	Clear, No odor, 27.62, 5.50
1.80	1224	24.24	3.174	2.061	0.27	6.75	1.5	Clear, No odor 27.59, 3.43

Total Water Volume Purged: 1.8 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1230 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-17
Sample ID: MW-17
Date:

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 30.10 feet
Depth to Water: 19.80 feet
Constructed Screen Interval 15 feet to 30 feet
Approximate Pump Depth ______ Feet bgs 25 Feet btoc B2R2

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.36	1146	25.23	3.436	2.260	3.16	6.54	102.1	DTW 20.07, clear, no odor; tbi - 6.19
.72	1151	24.80	3.480	2.217	0.96	6.43	99.0	DTW 20.36, clear, no od; tbi - 4.61
1.08	1156	24.79	3.506	2.212	0.96	6.44	93.4	DTW 20.52, clear, no odor; tbi - 3.99
1.44	1201	24.72	3.389	2.218	1.03	6.43	90.1	DTW 20.65, clear, no od; tbi - 3.07
1.80	1206	24.82	3.454	2.274	1.01	6.43	88.6	DTW 20.68, clear, no od; tbi - 4.05

Total Water Volume Purged: ______ Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ____no Replaced? ____yes X no
Bolts secured? ✓ yes ____no Replaced? ____yes ✓ no
Surface Seal? X yes ____no Replaced? ____yes X no

0.3 PID
____ Vacuum
1208 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-18
Sample ID: MW-18
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: ~~Missing~~ feet 20.30
Depth to Water: ~~Missing~~ feet 12.50
Constructed Screen Interval 5 feet to 26 feet
Approximate Pump Depth ____ Feet bgs 17 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Well bottom is above screen interval

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	Turb
.36	957	22.05	3.470	2.255	3.41	6.45	243.6	clear, No odor, 12.61,	20.6
.72	1002	22.31	3.471	2.256	3.41	6.45	243.7	Clear, No odor, 12.62,	11.18
1.08	1007	22.34	3.469	2.255	2.37	6.44	243.5	Clear, No odor, 12.64,	9.65
1.44	1012	22.35	3.467	2.254	2.34	6.45	243.3	Clear, No odor, 12.62,	7.07
1.80	1017	22.37	3.466	2.252	2.32	6.46	243.1	Clear, No odor, 1263,	7.43

Total Water Volume Purged: 1.80 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security: Locking cap? X yes ____ no; Replaced? ____ yes X no
Bolts secured? X yes ____ no; Replaced? ____ yes X no
Surface Seal? X yes ____ no; Replaced? ____ yes X no

0.1 PID
N/A Vacuum
1025 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-19
Sample ID: MW-19
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: ~~29.00~~ feet
Depth to Water: ~~20.60~~ feet
Constructed Screen Interval: 19 feet to 35 feet
Approximate Pump Depth: _____ Feet bgs 29 Feet btoc 2012

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments: Well bottom above screen interval

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	DTW/Turb
.41	1456	23.19	3.303	2.147	4.50	7.04		Sl. turbid, no odor, 26.73	199
.82	1501	23.31	3.312	2.149	3.45	6.98		Sl turbid, no odor, 26.82,	60.1
1.23	1506	23.34	3.316	2.155	3.42	6.97		Sl. turbid, no odor, 26.90	37.6
1.64	1511	23.35	3.319	2.153	3.40	6.97		Sl turbid no odor, 26.99	30.2

Total Water Volume Purged: 1.64 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no
Bolts secured? X yes ___ no — Replaced? ___ yes X no
Surface Seal? X yes ___ no — Replaced? ___ yes X no

0.0 PID
N/A Vacuum
1520 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-19I
Sample ID: MW-19I
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 54.24 feet
Depth to Water: 25.52 feet
Constructed Screen Interval 34 feet to 54 feet
Approximate Pump Depth ____ Feet bgs 40 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TWD	
.4	1251	24.31	3.314	2.154	4.20	6.94	505.6	pink, No odor, 25.58,	13.78
.8	1256	23.96	3.322	2.158	2.92	6.88	538.3	pink, No odor, 25.58	13.44
1.2	1301	24.01	3.324	2.157	2.95	6.85	538.5	pink, No odor, 25.58	19.5
1.6	1306	24.00	3.325	2.160	2.93	6.85	538.6	pink, No odor, 25.58	10.66

Total Water Volume Purged: 1.6 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: Permanganate: 3.0

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.2 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1312 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-19D1
Sample ID: MW-19D1
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 49.68 feet
Depth to Water: 25.74 feet
Constructed Screen Interval: 31 feet to 51 feet
Approximate Pump Depth: _____ Feet bgs 41 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.330	1430	26.94	0.845	0.540	4.16	6.93	146.0	Sl. turbid, no odor, 188
.66	1435	25.96	0.861	0.560	3.90	6.80	159.1	Sl. turbid, no odor, 222
.99	1440	25.93	0.865	0.557	3.91	6.80	159.4	Sl. turbid, no odor, 327
1.32	1445	25.94	0.869	0.560	3.92	6.80	159.4	Sl. turbid, no odor 444

Total Water Volume Purged: 1.32 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ___ no — Replaced? ___ yes N no — 0.2 PID
Bolts secured? Y yes ___ no — Replaced? ___ yes N no — N/A Vacuum
Surface Seal? Y yes ___ no — Replaced? ___ yes N no — 1455 Sample Collection Time

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Shaping the Future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-19D2
Sample ID: MW-19D2
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 70.25 feet (01: 25.71, 03: 21.96)
Depth to Water: 26.88 feet
Constructed Screen Interval: 60 feet to 70 feet
Approximate Pump Depth: ____ Feet bgs 65 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.34	1230	26.08	2.238	1.454	1.27	6.85	189.4	Clear, No odor, 27.02
.68	1235	25.82	2.235	1.454	0.77	6.78	179.9	Clear, No odor, 27.64
1.02	1240	25.80	2.235	1.454	0.72	6.75	179.7	Clear, No odor 27.89
1.36	1245	25.77	2.236	1.453	0.70	6.73	179.5	Clear, No odor 28.01

Total Water Volume Purged: 1.36 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: SOFT BOTTOM

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.2 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1255 Sample Collection Time

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-19D3
Sample ID: MW-19D3
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: ______ feet
Depth to Water: 24.12 feet
Constructed Screen Interval 92 feet to 102 feet
Approximate Pump Depth ______ Feet bgs 97 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

DTW	Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW, Turb
01/02									
5.79/26.31									
5.77/25.99	.23	1326	26.58	0.682	0.434	3.75	6.99	219.8	Clear, No odor, 20.30, 10.73
5.78/25.97	.46	1331	26.80	0.619	0.402	3.73	6.82	214.5	Clear, No odor, 20.98, 14.67
5.78/25.96	.69	1336	26.77	0.603	0.392	3.75	6.81	214.3	Clear, No odor, 21.49, 14.19
5.79/25.95	.92	1341	25.61	0.597	0.387	3.86	6.73	200.5	clear, no odor, 21.78, 12.82
5.79/25.95	1.15	1346	25.63	0.591	0.384	3.87	6.73	201.4	Clear, No odor 22.21, 14.03

Total Water Volume Purged: 1.15 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Security:
Locking cap? Y yes ____ no — Replaced? ____ yes N no — 0.1 PID
Bolts secured? Y yes ____ no — Replaced? ____ yes N no — N/A Vacuum
Surface Seal? ✓ yes ____ no — Replaced? ____ yes ✓ no — 1355 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-20
Sample ID: MW-20
Date: 3/11

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 30.64 feet
Depth to Water: 26.34 feet
Constructed Screen Interval: 19 feet to 35 feet
Approximate Pump Depth: ____ Feet bgs 30 Feet btoc 2013

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	DTW, Turb
.31	856	22.90	3.660	2.379	2.45	6.36	213.6	Sl. Turbid, no odor, 26.35	136
.62	901	23.09	3.641	2.367	2.20	6.38	210.2	Sl. Turbid, no odor, 26.35,	93.8
.93	906	23.12	3.639	2.364	2.17	6.39	210.0	Clear, no odor, 26.36,	65.4
1.24	911	23.12	3.636	2.361	2.12	6.38	209.8	Clear, no odor, 26.36,	91.1
1.55	916	23.14	3.634	2.359	2.09	6.39	209.7	Clear, no odor, 26.35,	25.0

Total Water Volume Purged: 1.55 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: Permanganate: 0.0

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 920 Sample Collection Time

GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-20D1
Sample ID: MW-20D1
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 44.95 feet
Depth to Water: 25.56 feet
Constructed Screen Interval: 25 feet to 45 feet
Approximate Pump Depth: ____ Feet bgs 36 Feet btoc 4Q13

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc, DTW, TDW
.56	1046	25.05	2.387	1.550	3.05	6.51	178.4	Clear, No odor, 25.62, 241
1.12	1051	25.00	2.359	1.533	2.20	6.64	179.2	Clear, No odor, 25.62, 183
1.68	1056	25.11	2.349	1.527	2.05	6.50	184.8	clear, no odor, 25.62, 194
2.24	1101	25.17	2.422	1.576	2.00	6.31	190.8	clear, no odor, 25.61, 45.5

Total Water Volume Purged: 2.24 Gallons = N/A Well Volumes
Purged Dry (Y/N): N

Comments:

Well Security:
Locking cap? ____ yes X no Screw
Bolts secured? X yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.1 PID
N/M Vacuum
1165 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-20D2
Sample ID: MW-20D2
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 65.78 feet
Depth to Water: 25.45 feet
Constructed Screen Interval: 55 feet to 65 feet
Approximate Pump Depth: ____ Feet bgs 60 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW, turb	
.29	1134	26.97	1.928	1.253	5.52	6.83	174.5	Clear, No odor, 25.90,	60.8
.58	1139	26.82	2.214	1.439	6.28	6.71	179.5	Clear, No odor, 25.92,	133
.87	1144	26.85	2.219	1.447	6.27	6.72	179.7	Clear, No odor, 25.90,	42.6
1.13	1149	26.87	2.224	1.453	6.28	6.72	179.6	Clear, No odor 25.88,	36.7
1.44	1154	26.88	2.223	1.451	6.27	6.71	179.6	Clear, No odor 25.86,	26.7

Total Water Volume Purged: 1.44 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no
Bolts secured? X yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.3 PID
N/A Vacuum
1200 Sample Collection Time

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CARDNO
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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-20D3
Sample ID: MW-20D3
Date: 3/10

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: over 102 feet
Depth to Water: 20.10 feet
Constructed Screen Interval 90 feet to 100 feet
Approximate Pump Depth _____ Feet bgs 95 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc., DTW, TWV
.22	937	23.97	0.508	0.330	3.60	6.75	220.1	Clear, No odor, 19.52, 11.63
.44	942	24.11	0.508	0.330	3.35	6.79	208.3	Clear, No odor, 20.10, 7.40
.66	947	24.12	0.507	0.330	3.31	6.82	208.1	Clear, No odor, 20.52, 2[illegible]3
.88	952	24.45	0.507	0.330	3.32	6.82	208.0	Clear, No odor, 20.71, 3[illegible].8
1.10	957	24.48	0.507	0.331	3.28	6.82	207.9	Clear, No odor, 20.75, 28.5
1.32	1002	24.48	0.508	0.330	3.24	6.83	207.7	Clear, No odor, 20.74, 11.70

Total Water Volume Purged: 1.32 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1010 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-21
Sample ID: MW-21
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 33.80 feet
Depth to Water: 25.37 feet
Constructed Screen Interval: 19 feet to 36 feet
Approximate Pump Depth: _____ Feet bgs 30 Feet btoc 2012

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/Turb
0.25	1404	25.15	3.496	2.273	0.44	6.70	44.9	Sl.Turbid, Water, 25.46, 37.6
0.5	1409	25.07	3.495	2.271	0.37	6.70	46.0	sl.Turbid, No odor, 25.46, 27.6
.75	1414	25.04	3.491	2.270	0.39	6.70	46.2	sl.Turbid, no odor, 25.46, 20.7
1.0	1419	25.03	3.491	2.266	0.42	6.70	46.0	Sl.Turbid, Noodor, 25.47, 19.89
1.25	1424	25.03	3.490	2.264	0.41	6.71	46.1	Sl.turbid, Noodor, 25.46, 17.26

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? K yes ____ no
Bolts secured? K yes ____ no
Surface Seal? K yes ____ no

Replaced? ____ yes K no
Replaced? ____ yes K no
Replaced? ____ yes K no

0.2 PID
N/A Vacuum
1430 Sample Collection T

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: NK

Well ID: MW-22
Sample ID: MW-22
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 35.08 feet
Depth to Water: 26.47 feet
Constructed Screen Interval: 15 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 31 Feet btoc 2012

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW / Turb.
.36	930	20.68	3.622	2.359	1.75	6.64	94.3	Clear, No odor, 26.59, 8.71
.72	935	21.22	3.633	2.361	1.08	6.54	93.7	Clear, No odor, 26.59 5.92
1.08	940	21.23	3.636	2.360	0.92	6.54	93.6	Clear, No odor, 26.59 5.66
1.44	945	21.25	3.635	2.359	0.89	6.55	93.4	Clear, No odor, 26.59 5.05
1.8	950	21.25	3.635	2.357	0.97	6.55	93.3	Clear, No odor, 26.59 4.94

Total Water Volume Purged: 1.8 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: Change 40' of hose

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 957 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-23
Sample ID: MW-23
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 25.30 feet
Depth to Water: 16.50 feet
Constructed Screen Interval: 5 feet to 26 feet
Approximate Pump Depth: _____ Feet bgs 21 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1521	20.82	3.421	2.224	2.06	6.72	45.1	Clear, No odor, 16.51, 4.17
0.50	1526	21.60	3.420	2.220	2.12	6.69	58.5	Clear, No odor, 16.52, 4.92
0.75	1531	21.67	3.426	2.227	2.09	6.70	58.4	Clear, No odor 16.52, 4.40
1.0	1536	21.67	3.422	2.224	2.07	6.71	58.3	Clear, no odor, 16.52, 4.40
1.25	1541	21.66	3.419	2.223	2.04	6.71	58.2	Clear, No odor, 16.52, 5.35

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ___ no — Replaced? ___ yes Y no — 0.5 PID
Bolts secured? Y yes ___ no — Replaced? ___ yes Y no — N/A Vacuum
Surface Seal? Y yes ___ no — Replaced? ___ yes Y no — 1547 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-24
Sample ID: MW-24
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 20.38 feet
Depth to Water: 14.32 feet
Constructed Screen Interval 5 feet to 26 feet
Approximate Pump Depth ____ Feet bgs 17 Feet btoc 1213

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW, turb
.5	1030	22.57	3.286	2.140	1.43	6.77	81.6	Clear, No odor, 14.35, 4.29
1.0	1035	22.84	3.289	2.140	1.37	6.75	79.5	Clear, No odor, 14.37, 3.96
1.5	1040	22.86	3.292	2.138	1.34	6.75	79.3	Clear, No odor, 14.37, 3.78
2.0	1045	22.86	3.299	2.136	1.31	6.74	79.1	Clear, No odor, 14.38, 3.56

Total Water Volume Purged: 2.0 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: TOB 20.32, hard bottom

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no — 0.0 PID
Bolts secured? X yes ___ no — Replaced? ___ yes X no — N/A Vacuum
Surface Seal? X yes ___ no — Replaced? ___ yes X no — 1050 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-25
Sample ID: MW-25
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 25.96 feet
Depth to Water: 19.25 feet
Constructed Screen Interval: 5 feet to 26 feet
Approximate Pump Depth: ____ Feet bgs 23 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. (DTW/TWD)
.66	1312	22.94	3.647	2.306	2.30	6.72	48.4	Clear, No odor, 19.31, 3.88
1.32	1317	22.85	3.649	2.372	1.19	6.71	52.6	Clear, No odor, 19.31, 4.08
1.94	1322	22.83	3.644	2.368	1.17	6.69	52.9	Clear, No odor, 19.31, 3.47
2.66	1327	22.82	3.641	2.369	1.15	6.69	52.9	Clear, No odor 19.39 4.50

Total Water Volume Purged: 2.66 Gallons = N/A Well Volumes.
Purged Dry (Y/N): ____
Comments:

Well Security:
Locking cap? ✓ yes ____ no — Replaced? ____ yes ✗ no — 0.3 PID
Bolts secured? ✓ yes ____ no — Replaced? ____ yes ✓ no — N/A Vacuum
Surface Seal? ✓ yes ____ no — Replaced? ____ yes ✓ no — 1330 Sample Collection Time

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GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-26
Sample ID: MW-26
Date: 5/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 35.34 feet
Depth to Water: 17.09 feet
Constructed Screen Interval: 10 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 27 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.2	1345	20.95	3.749	2.437	2.03	6.76	62.4	Clear, No odor, 17.10, 3.28
.4	1350	21.54	3.757	2.440	1.93	6.71	66.5	Clear, No odor, 17.10, 3.43
.6	1355	21.57	3.755	2.441	1.87	6.71	66.6	Clear, No odor, 17.10, 2.43
.8	1400	21.60	3.756	2.441	1.86	6.70	66.7	Clear, No odor, 17.10, 2.17
1.0	1405	21.61	3.756	2.441	1.83	6.69	66.7	Clear, No odor, 17.10, 4.13
1.2	1410	21.61	3.755	2.441	1.80	6.69	66.5	Clear, No odor, 17.10, 2.68

Total Water Volume Purged: 1.2 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.4 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1412 Sample Collection Time

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Shaping the future

GROUNDWATER COLLECTION LOG

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LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-27
Sample ID: MW-27
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 35.28 feet
Depth to Water: 13.33 feet
Constructed Screen Interval: 10 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 26 Feet btoc 12.12

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TWD
0.25	1544	21.47	3.685	2.395	1.45	6.63	44.1	Clear, No odor, 13.37, 6.14
0.50	1549	21.72	3.687	2.396	1.37	6.71	39.8	Clear, No odor, 13.37, 6.96
0.75	1554	21.74	3.684	2.396	1.39	6.73	39.7	Clear, No odor 13.38, 7.06
1.0	1559	21.75	3.687	2.396	1.35	6.72	39.6	Clear, No odor, 13.38, 5.04
1.25	1604	21.76	3.686	2.395	1.34	6.71	39.4	Clear, No odor 13.40, 5.72
1.5	1609	21.76	3.684	2.396	1.32	6.71	39.1	Clear, No odor, 13.40, 6.38

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ____ no — Replaced? ____ yes ____ no — 0.3 PID
Bolts secured? Y yes ____ no — Replaced? ____ yes ____ no — N/A Vacuum
Surface Seal? Y yes ____ no — Replaced? ____ yes ____ no — 1614 Sample Collection Time

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Shaping the future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-28
Sample ID: MW-28
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 34.44 feet
Depth to Water: 12.36 feet
Constructed Screen Interval: 15 feet to 36 feet (1814)
Approximate Pump Depth: _____ Feet bgs 1815 (25) Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.6	950	22.36	3.926	2.50	1.35	6.73	88.0	Clear, No odor, 12.41, 5.48
1.2	955	22.66	3.853	2.504	0.60	6.73	80.2	Clear, No odor, 12.41, 6.33
1.8	1000	22.64	3.851	2.504	0.74	6.74	79.9	Clear, No odor 12.41, 4.93
2.4	1005	22.63	3.846	2.502	0.74	6.73	79.8	Clear, No odor, 12.41, 6.31

Total Water Volume Purged: 2.4 Gallons = N/A Well Volumes
Purged Dry (Y/N): 1007
Comments: Change 35' of hose

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.3 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — ____ Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-29
Sample ID: MW-29
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 34.62 feet
Depth to Water: 13.85 feet
Constructed Screen Interval: 15 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	DTW (ft bTOC)
	904	18.62	4.041	2.627	2.96	6.70	90.6	Clear, No odor, 13.87	4.20
	909	18.75	4.049	2.636	2.62	6.76	95.6	Clear, No odor, 13.87	2.64
	914	18.72	4.046	2.624	2.72	6.74	95.4	Clear, No odor 13.86	2.04
	919	18.74	4.038	2.623	2.70	6.75	95.1	Clear, No odor 13.85,	2.86
	924	18.75	4.039	2.628	2.68	6.76	95.0	Clear, No odor, 13.87,	1.64

Total Water Volume Purged: 6 Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments: Cleaned 35' of hose

Well Security:
Locking cap? X yes ____ no
Bolts secured? X yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.7 PID
N/A Vacuum
927 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-30
Sample ID: MW-30
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 39.70 feet
Depth to Water: 15.90 feet
Constructed Screen Interval 20 feet to 41 feet
Approximate Pump Depth ____ Feet bgs 30 Feet btoc (+2.3)

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TWD
0.25	1451	19.26	2.960	1.924	3.06	6.73	48.7	Clear, No odor, 15.92, 5.93
0.50	1456	19.13	2.950	1.917	2.27	6.65	51.6	Clear, No odor, 15.94, 5.05
0.75	1501	19.17	2.941	1.910	2.33	6.63	51.5	Clear, No odor, 15.91, 5.73
1.0	1506	19.19	2.934	1.907	2.37	6.65	48.9	Clear, No odor, 15.92 6.10
1.25	1511	19.18	2.928	1.898	2.40	6.63	49.7	Clear, No odor, 15.92 3.74
1.5	1516	19.18	2.925	1.896	2.39	6.62	49.6	Clear, No odor, 15.95, 4.27

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes
Purged Dry (Y/N): ____
Comments:

Well Security:
Locking cap? Y yes ____ no — Replaced? ____ yes N no — 0.2 PID
Bolts secured? Y yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? Y yes ____ no — Replaced? ____ yes ____ no — 1520 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-31
Sample ID: MW-31
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 33.36 feet
Depth to Water: 15.34 feet 15.34
Constructed Screen Interval 13.5 feet to 33.6 feet
Approximate Pump Depth ____ Feet bgs 25 Feet btoc 12.7

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TOWD
0.21	1409	21.11	3.994	2.594	3.30	6.82	54.5	Clear, No odor, 15.34, 5.98
0.42	1412	21.12	3.990	2.592	2.79	6.75	57.2	Clear, No odor, 15.36, 7.01
0.63	1417	21.16	3.985	2.592	2.75	6.73	57.0	Clear, No odor, 15.35, 7.37
0.84	1422	21.18	3.987	2.597	2.74	6.72	57.0	Clear, No odor, 15.36, 7.35
1.05	1427	21.20	3.990	2.595	2.71	6.71	56.9	Clear, No odor, 15.36, 5.57

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): ____
Comments: Appx. 1' rise recovered to 15.14 mbs

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 2.1 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 14:30 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-32
Sample ID: MW-32
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 33.70 feet
Depth to Water: 18.32 feet
Constructed Screen Interval: 13.5 feet to 33.7 feet
Approximate Pump Depth: Feet bgs 27 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/TD	
.4	1438	21.85	3.550	2.308	2.93	6.75	49.8	Clear, No odor, 18.38	6.01
.8	1443	22.12	3.596	2.305	1.79	6.76	52.8	Clear, No odor, 18.39	7.58
1.20	1448	22.14	3.541	2.305	1.79	6.73	52.9	Clear, No odor, 18.38	6.21
1.60	1453	22.15	3.542	2.306	1.83	6.72	53.0	Clear, No odor, 18.38	5.43

Total Water Volume Purged: 1.6 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ___ no
Bolts secured? Y yes ___ no
Surface Seal? Y yes ___ no

Replaced? ___ yes N no
Replaced? ___ yes N no
Replaced? ___ yes N no

0.5 PID
N/A Vacuum
1457 Sample Collection Time

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GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-33
Sample ID: MW-33
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 33.54 feet
Depth to Water: 17.06 feet
Constructed Screen Interval 13.5 feet to 33.8 feet
Approximate Pump Depth ____ Feet bgs 25 Feet btoc (-8.4)

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.5	1028	21.22	4.115	2.675	1.25	6.64	66.2	Clear, No odor, 17.10, 5.42
1.0	1033	21.54	4.120	2.677	0.70	6.59	67.6	Clear, No odor, 17.10 4.42
1.5	1038	21.50	4.114	2.676	0.64	6.60	67.4	Clear, No odor, 17.10, 4.71
2.0	1043	21.50	4.114	2.676	0.69	6.58	67.5	Clear, No odor, 17.10, 8.92

Total Water Volume Purged: 2.0 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? A yes ____ no — Replaced? ____ yes A no — 0.0 PID
Bolts secured? A yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? A yes ____ no — Replaced? ____ yes X no — 1047 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-34
Sample ID: MW-34
Date: 3/13/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 2909 feet
Depth to Water: 1909 feet
Constructed Screen Interval feet to feet
Approximate Pump Depth Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.32	1354	24.72	3.650	2.259	1.25	6.61	92.1	DTW-1936, clear, no odor 4hi - 27.6
.64	1359	24.35	3.675	2.418	1.68	6.54	91.1	DTW-1969, clear, no odor 4hi - 13.0
.98	1404	24.18	3.638	2.340	1.80	6.52	90.1	DTW-1997, clear, no odor 4hi - 7.67
1.30	1409	24.10	3.753	2.438	1.71	6.49	90.1	DTW-20.22 4hi - 6.02
1.62	1414	24.17	3.770	2.422	1.56	6.47	90.7	DTW 20.37 4hi 6.63

Total Water Volume Purged: Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ___ no — Replaced? ___ yes X no — 0.4 PID
Bolts secured? X yes ___ no — Replaced? ___ yes X no — ___ Vacuum
Surface Seal? X yes ___ no — Replaced? ___ yes X no — 14:16 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name:

Well ID: MW-35
Sample ID: MW-35
Date: 3/12/15

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 27.97 feet
Depth to Water: 19.82 feet
Constructed Screen Interval [redacted] feet to ____ feet
Approximate Pump Depth ____ Feet bgs 24 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.38	1306	25.96	3.657	2.376	2.99	6.62	91.1	tbi - 9D DTW - 19.95, pink, no odor
.76	1311	25.39	3.651	2.377	2.64	6.51	90.9	tbi - 66.5 DTW 20.10, pink, no odor
1.04	1316	25.17	3.364	2.363	2.51	6.50	83.6	tbi - 58.3 DTW 20.12, pink, no odor
1.42	1321	25.19	3.609	2.344	2.35	6.46	88.6	DTW 20.15 tbi - 27.7
1.80	1326	25.22	3.694	2.337	2.36	6.49	87.5	DTW 20.17 tbi - 22.9

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N):
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.6 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — ____ Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1327 Sample Collection Time

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Shaping the future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-36
Sample ID: MW-36
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 37.01 feet
Depth to Water: 19.09 feet
Constructed Screen Interval: 17 feet to 38 feet
Approximate Pump Depth: Feet bgs 28.5 Feet btoc 19.13

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc., DTW, Turb
.45	1207	23.03	3.627	2.357	2.40	6.77	56.5	Clear, No odor, 19.19, 21.4
.90	1212	23.19	3.629	2.355	1.37	6.72	59.1	Clear, No odor, 19.19, 10.26
1.35	1217	23.21	3.629	2.353	1.35	6.71	59.3	Clear, No odor, 19.19, 7.84
1.80	1222	23.23	3.627	2.351	1.34	6.66	59.5	Clear, No odor, 19.19, 7.90
2.25	1227	23.23	3.625	2.354	1.36	6.69	59.6	Clear, No odor, 19.19, 7.32

Total Water Volume Purged: 2.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): NO N

Comments:

Well Security:
Locking cap? X yes ___ no
Bolts secured? X yes ___ no
Surface Seal? X yes ___ no

Replaced? ___ yes X no
Replaced? ___ yes X no
Replaced? ___ yes ___ no

0.0 PID
N/A Vacuum
1230 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-37
Sample ID: MW-37
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 4 inch
Depth to Well Bottom: 37.06 feet
Depth to Water: 19.25 feet
Constructed Screen Interval: 17 feet to 38 feet
Approximate Pump Depth: ____ Feet bgs 29 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
1.3	1322	20.22	3.817	2.486	3.14	6.67	62.0	Clear, No odor, 19.30, 4.59
1.43	1327	20.15	3.810	2.479	3.12	6.66	63.9	Clear, No odor, 19.35, 6.10
1.56	1332	20.18	3.814	2.479	3.04	6.66	63.9	Clear, No odor, 19.25, 3.76
1.69	1337	20.22	3.812	2.476	3.03	6.67	63.7	Clear, No odor, 19.26, 3.63

Total Water Volume Purged: 1.69 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no — 0.1 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? X yes ____ no — Replaced? ____ yes X no — 1340 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-38
Sample ID: MW-38
Date: 5/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 34.56 feet
Depth to Water: 14.75 feet
Constructed Screen Interval: 15 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 25 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.2	1214	20.25	3.944	2.564	3.22	6.70	59.3	Clear, No oder, 14.76, 10.78
0.4	1219	20.26	3.953	2.569	3.05	6.70	59.2	Clear, No oder, 14.76, 2.60
0.6	1224	20.27	3.955	2.572	3.01	6.72	59.0	Clear, No oder, 14.77, 6.81
0.8	1229	20.27	3.958	2.574	2.98	6.71	59.0	Clear, No oder, 14.77, 5.38
1.0	1234	20.25	3.961	2.581	2.95	6.71	59.1	Clear, No oder, 14.77, 4.59
1.20	1239	20.24	3.964	2.585	2.93	6.72	59.2	Clear, No oder, 14.77, 4.32

Total Water Volume Purged: 1.20 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments: needs bolts (8 in lid)

Well Security:
Locking cap? X yes ____ no — Replaced? ____ yes X no
Bolts secured? NA yes ____ no — Replaced? ____ yes X no
Surface Seal? X yes ____ no — Replaced? ____ yes X no

0.0 PID
N/A Vacuum
1243 Sample Collection Time

Cardno ATC
Shaping the Future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-39
Sample ID: MW-39
Date: 3/3

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 37.60 feet
Depth to Water: 24.67 feet
Constructed Screen Interval: 15 feet to 36 feet
Approximate Pump Depth: ____ Feet bgs 31 Feet btoc 12.13

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW, Turb
.15	1118	23.35	3.606	2.354	1.44	6.79	61.1	Sl. Turbid, No odor, 24.89, 242
.30	1123	23.66	3.630	2.361	1.28	6.73	60.4	Sl. Turbid, No odor, 24.89, 104
.45	1128	23.45	3.641	2.369	1.15	6.72	59.5	Sl. Turbid, No odor, 24.90, 162
.60	1133	23.48	3.654	2.370	1.17	6.70	59.7	Sl. Turbid, No odor, 24.89, 96.5
.75	1138	23.51	3.659	2.373	1.24	6.70	59.8	Sl. Turbid, No odor, 24.89, 142
1.0	1143	23.51	3.654	2.375	1.25	6.70	59.8	Sl. Turbid, No odor 24.89, 96.2

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes
Purged Dry (Y/N): ____
Comments: Change 45° of hose

Well Security:
Locking cap? 5 yes ____ no
Bolts secured? 5 yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.0 PID
N/A Vacuum
1147 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-40 CMT 30
Sample ID: MW-40 CMT 30
Date: 3/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 29.80 feet
Depth to Water: 25.19 feet
Constructed Screen Interval: 30 feet to 30.6 feet
Approximate Pump Depth: ____ Feet bgs 25.0 Feet btoc 29.5

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. Tmb
	1001	18.14	3.579	2.327	5.47	8.00	290.4	Clear, No odor, 2.35
	1006	18.51	3.582	2.323	4.96	8.02	288.2	Clear, No odor 1.85
	1011	18.72	3.583	2.329	4.88	8.02	287.3	Clear, No odor 2.07
	1016	18.74	3.571	2.322	4.20	8.00	287.6	Clear No odor 6.02
	1038	19.	3.569	2.315	4.17	8.00	287.3	Clear No odor 4.09

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ____ yes X no Replaced? ____ yes X no
Bolts secured? X yes ____ no Replaced? ____ yes X no
Surface Seal? X yes ____ no Replaced? ____ yes X no

0.0 PID
N/A Vacuum
1038 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-40 CMT 35
Sample ID: MW-40 CMT 35
Date: 3/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: _____ inch
Depth to Well Bottom: 35.57 feet
Depth to Water: 25.36 feet
Constructed Screen Interval 35 feet to 35.6 feet
Approximate Pump Depth _____ Feet bgs 35 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc: Turb
	910	18.57	2.641	1.652	5.09	7.43	346.5	Clear, No odor, 7.69
	915	17.93	2.907	1.890	4.96	7.76	222.7	Clear, No odor, 4.29
	920	17.97	2.897	1.863	5.30	7.81	312.3	Clear, No odor, 4.37
	925	17.64	2.841	1.846	4.95	7.87	306.9	Clear, No odor, 4.43
	930	17.67	2.847	1.849	4.97	7.85	206.7	Clear, No odor, 4.51

Total Water Volume Purged: _____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security: Locking cap? ____ yes X no Replaced? ____ yes X no 0.0 PID
Bolts secured? X yes ____ no Replaced? ____ yes X no N/A Vacuum
Surface Seal? X yes ____ no Replaced? ____ yes X no 930 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: MK

Well ID: MW-40 CMT 40
Sample ID: MW-40 CMT 40
Date: 5/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 40.03 feet
Depth to Water: 25.32 feet
Constructed Screen Interval: 40 feet to 40.6 feet
Approximate Pump Depth: ____ Feet bgs 40 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc: Turbid
	1107	21.73	2.927	1.902	4.31	7.38	328.1	Clear, No odor, 1958
	1112	21.78	2.941	1.912	3.60	7.34	339.8	Clear, No odor, 154
	1117	21.80	2.944	1.913	3.58	7.32	339.9	Clear, No odor, 100
	1122	21.82	2.947	1.915	3.56	7.33	339.8	Clear, No odor, 90.1
	1127	21.84	2.951	1.918	3.54	7.33	339.9	Clear, No odor, 92.3

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ____ yes X no
Bolts secured? Y yes ____ no
Surface Seal? Y yes ____ no

Replaced? ____ yes Y no
Replaced? ____ yes Y no
Replaced? ____ yes Y no

0.0 PID
N/A Vacuum
1127 Sample Collection Time

Cardno ATC
Shaping the Future

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: VK

Well ID: MW-40 CMT 45
Sample ID: MW-40 CMT 45
Date: 3/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 45.00 feet
Depth to Water: 25.12 feet
Constructed Screen Interval: 45 feet to 45.6 feet 44.5
Approximate Pump Depth: ____ Feet bgs 45 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. Tur/b
	1326	23.28	0.809	0.526	4.30	6.50	361.2	Clear, No odor 61.7
	1331	23.34	0.819	0.532	4.27	6.47	361.0	Clear, No odor 48.5
	1336	23.35	0.825	0.537	4.24	6.46	361.0	Clear, No odor 22.8
	1341	23.37	0.829	0.539	4.21	6.46	361.1	Clear, No odor 17.29
	1346	23.39	0.835	0.543	4.21	6.43	361.0	Clear, no odor 12.20

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ____ yes X no — Replaced? ____ yes X no — 0.1 PID
Bolts secured? X yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? ____ yes ____ no — Replaced? ____ yes X no — 1400 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-40 CMT 50
Sample ID: MW-40 CMT 50
Date: 9/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 49.96 feet
Depth to Water: 25.11 feet
Constructed Screen Interval: 50 feet to 50.6 feet (49.5)
Approximate Pump Depth: ____ Feet bgs 50 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. Turb
	1248	23.66	0.454	0.295	3.27	6.72	315.1	Clear, No odor, 30.8
	1253	23.71	0.460	0.299	3.26	6.68	314.8	Clear, No odor, 7.27
	1258	23.74	0.463	0.303	3.25	6.68	314.7	Clear, No odor 5.45
	1303	23.76	0.464	0.300	3.22	6.67	314.5	Clear, No odor 4.35
	1308	23.78	0.462	0.302	3.21	6.67	314.5	Clear, No odor 5.04

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ____ yes X no
Bolts secured? X yes ____ no
Surface Seal? X yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.2 PID
N/A Vacuum
1308 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-40 CMT 55
Sample ID: MW-40 CMT 55
Date: 3/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 54.83 feet
Depth to Water: 25.11 feet
Constructed Screen Interval 55 feet to 55.6 feet
Approximate Pump Depth ____ Feet bgs 55 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. Turb.
	1144	22.96	0.623	0.405	2.56	7.38	334.0	Clear, No odor, 16.9
	1149	22.99	0.632	0.411	2.71	7.31	378.1	Clear, no odor, 7.66
	1154	23.02	0.629	0.409	2.80	7.30	378.3	Clear, no odor, 7.29
	1159	23.03	0.627	0.410	2.82	7.30	378.5	Clear, No odor, 5.89
	1204	23.03	0.624	0.408	2.84	7.29	378.6	Clear, No odor, 5.29

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes N no — Replaced? ____ yes X no — 0.0 PID
Bolts secured? Y yes ____ no — Replaced? ____ yes X no — N/A Vacuum
Surface Seal? Y yes ____ no — Replaced? ____ yes X no — 1204 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-40 CMT 60
Sample ID: MW-40 CMT 60
Date: 3/5

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: ____ inch
Depth to Well Bottom: 59.93 feet
Depth to Water: 25.17 feet
Constructed Screen Interval 60 feet to 60.6 feet
Approximate Pump Depth ____ Feet bgs 60 Feet btoc 59.5

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc: Turb
	1440	23.28	2.879	1.872	4.03	7.06	226.2	Clear, No odor, 10.29
	1445	23.37	2.921	1.899	3.33	6.76	253.1	Clear No odor, 8.05
	1450	23.39	2.930	1.904	3.18	6.73	253.4	Clear, no odor 8.24
	1455	23.40	2.933	1.907	3.15	6.71	253.4	Clear No odor, 6.97
	1500	23.42	2.934	1.909	3.14	6.70	253.3	Clear No odor, 5.86

Total Water Volume Purged: ____ Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? ___ yes A no — Replaced? ___ yes S no — 0.2 PID
Bolts secured? S yes ___ no — Replaced? ___ yes S no — N/A Vacuum
Surface Seal? S ___ yes ___ no — Replaced? ___ yes N no — 1517 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-41
Sample ID: MW-41
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 35.27 feet
Depth to Water: 14.85 feet
Constructed Screen Interval 10 feet to 35 feet
Approximate Pump Depth ____ Feet bgs 25 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW, Turb
.42	1127	21.74	3.676	2.388	1.81	6.73	37.8	Clear, No odor, 14.84, 61.9
.84	1132	21.27	3.671	2.389	1.66	6.70	37.8	Clear, No odor 14.87, 53.3
1.06	1137	21.15	3.672	2.388	1.64	6.69	37.9	Clear, No odor, 14.86, 38.2
1.48	1142	21.17	3.673	2.387	1.63	6.68	37.9	Clear, No odor, 14.88, 23.1

Total Water Volume Purged: 1.48 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ____ no Replaced? ____ yes N no 0.2 PID
Bolts secured? ____ yes ____ no Replaced? ____ yes N no N/A Vacuum
Surface Seal? Y yes ____ no Replaced? ____ yes N no 1145 Sample Collection Time

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DK

Well ID: MW-42
Sample ID: MW-42
Date: 3/2

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 35.20 feet
Depth to Water: 16.12 feet
Constructed Screen Interval: 10 feet to 35 feet
Approximate Pump Depth: ____ Feet bgs 26 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1019	19.68	4.084	2.655	4.39	6.66	20.2	Clear, no odor, 16.13, 76.2
0.50	1024	20.01	4.084	2.655	3.08	6.68	21.3	Clear, no odor, 16.12, 19.11
0.75	1029	20.21	4.084	2.655	~~3.08~~ 2.85	6.70	22.3	Clear, No odor, 16.12, 9.65
1.0	1034	20.14	4,092	2.659	2.32	6.72	22.5	Clear, no odor 16.14, 7.91
1.25	1039	20.16	4.085	2.656	2.30	6.71	22.6	Clear, NO odor 16.14, 6.49

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security:
Locking cap? Y yes ____ no
Bolts secured? Y yes ____ no
Surface Seal? Y yes ____ no

Replaced? ____ yes X no
Replaced? ____ yes X no
Replaced? ____ yes X no

0.2 PID
N/A Vacuum
1041 Sample Collection Time

Cardno ATC

GROUNDWATER COLLECTION LOG

CARDNO
7115 AMIGO STREET, SUITE 100
LAS VEGAS, NEVADA 89119
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square
Project Number: Z085000030
Sampler's Name: DF

Well ID: MW-43
Sample ID: MW-43
Date: 3/4

Purging Equipment: Low Flow Bladder Pump
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC
Casing Diameter: 2 inch
Depth to Well Bottom: 34.90 feet
Depth to Water: 15.60 feet
Constructed Screen Interval 10 feet to 35 feet
Approximate Pump Depth ____ Feet bgs 26 Feet btoc

2" = 0.16 gal/lin ft.
3" = 0.37 gal/lin ft.
4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc. DTW/Turb
.36	942	21.00	3.225	2.096	1.54	6.60	88.5	Sl. Turbid, No odor, 15.78, 38.5
.72	947	21.57	3.220	2.094	1.48	6.66	85.5	Sl. Turbid, No odor, 15.79, 52.0
1.08	952	21.60	3.217	2.095	1.46	6.67	85.4	Sl. Turbid, No odor, 15.82, 73.2
1.44	957	21.61	3.214	2.094	1.43	6.68	85.2	Sl. Turbid, No odor, 15.79, 26.9
1.80	902	21.61	3.212	2.094	1.41	6.69	85.0	Sl. Turbid, No odor, 15.76, 22.3

Total Water Volume Purged: 1.80 Gallons = N/A Well Volumes
Purged Dry (Y/N): N
Comments:

Well Security: Locking cap? Y yes ___ no Replaced? ___ yes N no 0.2 PID
Bolts secured? Y yes ___ no Replaced? ___ yes N no N/A Vacuum
Surface Seal? Y yes ___ no Replaced? ___ yes N no 910 Sample Collection Time

Maryland Square PCE Site

APPENDIX B
LABORATORY ANALYTICAL REPORTS

Cardno ATC
Shaping the Future

March 16, 2015

Andrew Stuart
Cardno ATC
7115 Amigo Street Suite 100
Las Vegas, NV 89119

TEL: (702) 990-9300
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014893

RE: Maryland Square, Z085000030

Attention: Andrew Stuart

Enclosed are the results for sample(s) received on March 06, 2015 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Litucas for

Glen Gesmundo
QA Manager

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014893

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Sample N0114893-004 (MW-19I) was not analyzed for hexavalend chromium due to color of sample that might interfere with the analysis. Hexavalent Chromium analysis involves colorimetric procedure that might produce false positive results when colored samples were analyzed.

ASSET Laboratories

Date: *16-Mar-15*

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014893
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014893-001A	MW-11	Groundwater	3/4/2015 11:45:00 AM	3/6/2015	3/16/2015
N014893-002A	MW-16	Groundwater	3/4/2015 12:30:00 PM	3/6/2015	3/16/2015
N014893-003A	MW-19	Groundwater	3/4/2015 3:20:00 PM	3/6/2015	3/16/2015
N014893-003B	MW-19	Groundwater	3/4/2015 3:20:00 PM	3/6/2015	3/16/2015
N014893-003C	MW-19	Groundwater	3/4/2015 3:20:00 PM	3/6/2015	3/16/2015
N014893-004A	MW-19I	Groundwater	3/4/2015 1:12:00 PM	3/6/2015	3/16/2015
N014893-004B	MW-19I	Groundwater	3/4/2015 1:12:00 PM	3/6/2015	3/16/2015
N014893-004C	MW-19I	Groundwater	3/4/2015 1:12:00 PM	3/6/2015	3/16/2015
N014893-005A	MW-21	Groundwater	3/4/2015 2:30:00 PM	3/6/2015	3/16/2015
N014893-006A	MW-22	Groundwater	3/4/2015 9:57:00 AM	3/6/2015	3/16/2015
N014893-007A	MW-23	Groundwater	3/3/2015 3:47:00 PM	3/6/2015	3/16/2015
N014893-008A	MW-24	Groundwater	3/4/2015 10:50:00 AM	3/6/2015	3/16/2015
N014893-009A	MW-25	Groundwater	3/3/2015 1:30:00 PM	3/6/2015	3/16/2015
N014893-010A	MW-26	Groundwater	3/3/2015 2:12:00 PM	3/6/2015	3/16/2015
N014893-011A	MW-27	Groundwater	3/2/2015 4:14:00 PM	3/6/2015	3/16/2015
N014893-012A	MW-28	Groundwater	3/3/2015 10:07:00 AM	3/6/2015	3/16/2015
N014893-013A	MW-29	Groundwater	3/3/2015 9:27:00 AM	3/6/2015	3/16/2015
N014893-014A	MW-30	Groundwater	3/2/2015 3:20:00 PM	3/6/2015	3/16/2015
N014893-015A	MW-31	Groundwater	3/2/2015 2:30:00 PM	3/6/2015	3/16/2015
N014893-016A	MW-32	Groundwater	3/3/2015 2:57:00 PM	3/6/2015	3/16/2015
N014893-017A	MW-33	Groundwater	3/3/2015 10:47:00 AM	3/6/2015	3/16/2015
N014893-018A	MW-36	Groundwater	3/3/2015 12:30:00 PM	3/6/2015	3/16/2015
N014893-019A	MW-37	Groundwater	3/2/2015 1:40:00 PM	3/6/2015	3/16/2015
N014893-020A	MW-38	Groundwater	3/2/2015 12:43:00 PM	3/6/2015	3/16/2015
N014893-021A	MW-39	Groundwater	3/3/2015 11:47:00 AM	3/6/2015	3/16/2015
N014893-022A	MW-41	Groundwater	3/2/2015 11:45:00 AM	3/6/2015	3/16/2015
N014893-023A	MW-42	Groundwater	3/2/2015 10:41:00 AM	3/6/2015	3/16/2015
N014893-024A	MW-43	Groundwater	3/4/2015 9:10:00 AM	3/6/2015	3/16/2015
N014893-025A	MW-40 CMT30	Groundwater	3/5/2015 10:38:00 AM	3/6/2015	3/16/2015

ASSET LABORATORIES
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NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014893
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014893-025B	MW-40 CMT30	Groundwater	3/5/2015 10:38:00 AM	3/6/2015	3/16/2015
N014893-025C	MW-40 CMT30	Groundwater	3/5/2015 10:38:00 AM	3/6/2015	3/16/2015
N014893-026A	MW-40 CMT35	Groundwater	3/5/2015 9:30:00 AM	3/6/2015	3/16/2015
N014893-026B	MW-40 CMT35	Groundwater	3/5/2015 9:30:00 AM	3/6/2015	3/16/2015
N014893-026C	MW-40 CMT35	Groundwater	3/5/2015 9:30:00 AM	3/6/2015	3/16/2015
N014893-027A	MW-40 CMT40	Groundwater	3/5/2015 11:27:00 AM	3/6/2015	3/16/2015
N014893-027B	MW-40 CMT40	Groundwater	3/5/2015 11:27:00 AM	3/6/2015	3/16/2015
N014893-027C	MW-40 CMT40	Groundwater	3/5/2015 11:27:00 AM	3/6/2015	3/16/2015
N014893-028A	MW-40 CMT45	Groundwater	3/5/2015 2:00:00 PM	3/6/2015	3/16/2015
N014893-028B	MW-40 CMT45	Groundwater	3/5/2015 2:00:00 PM	3/6/2015	3/16/2015
N014893-028C	MW-40 CMT45	Groundwater	3/5/2015 2:00:00 PM	3/6/2015	3/16/2015
N014893-029A	MW-40 CMT50	Groundwater	3/5/2015 1:08:00 PM	3/6/2015	3/16/2015
N014893-029B	MW-40 CMT50	Groundwater	3/5/2015 1:08:00 PM	3/6/2015	3/16/2015
N014893-029C	MW-40 CMT50	Groundwater	3/5/2015 1:08:00 PM	3/6/2015	3/16/2015
N014893-030A	MW-40 CMT55	Groundwater	3/5/2015 12:04:00 PM	3/6/2015	3/16/2015
N014893-030B	MW-40 CMT55	Groundwater	3/5/2015 12:04:00 PM	3/6/2015	3/16/2015
N014893-030C	MW-40 CMT55	Groundwater	3/5/2015 12:04:00 PM	3/6/2015	3/16/2015
N014893-031A	MW-40 CMT60	Groundwater	3/5/2015 3:17:00 PM	3/6/2015	3/16/2015
N014893-031B	MW-40 CMT60	Groundwater	3/5/2015 3:17:00 PM	3/6/2015	3/16/2015
N014893-031C	MW-40 CMT60	Groundwater	3/5/2015 3:17:00 PM	3/6/2015	3/16/2015

ASSET LABORATORIES
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NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-001

Client Sample ID: MW-11
Collection Date: 3/4/2015 11:45:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150310B**	QC Batch: **P15VW038**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 12:13 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 12:13 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/11/2015 12:13 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:13 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:13 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 12:13 AM
Surr: 1,2-Dichloroethane-d4	98.3	0	78-125		%REC	1	3/11/2015 12:13 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/11/2015 12:13 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/11/2015 12:13 AM
Surr: Toluene-d8	98.7	0	80-120		%REC	1	3/11/2015 12:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-002

Client Sample ID: MW-16
Collection Date: 3/4/2015 12:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150310B**	QC Batch: **P15VW038**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/10/2015 11:48 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/10/2015 11:48 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/10/2015 11:48 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/10/2015 11:48 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/10/2015 11:48 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/10/2015 11:48 PM
Surr: 1,2-Dichloroethane-d4	97.8	0	78-125		%REC	1	3/10/2015 11:48 PM
Surr: 4-Bromofluorobenzene	102	0	80-120		%REC	1	3/10/2015 11:48 PM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/10/2015 11:48 PM
Surr: Toluene-d8	98.4	0	80-120		%REC	1	3/10/2015 11:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-003

Client Sample ID: MW-19
Collection Date: 3/4/2015 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150310B**	QC Batch: **P15VW038**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 07:42 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 07:42 AM
Tetrachloroethene	930	2.3	10		µg/L	20	3/12/2015 12:31 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 07:42 AM
Trichloroethene	4.0	0.074	0.50		µg/L	1	3/11/2015 07:42 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 07:42 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 07:42 AM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	20	3/12/2015 12:31 AM
Surr: 4-Bromofluorobenzene	99.7	0	80-120		%REC	20	3/12/2015 12:31 AM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/11/2015 07:42 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	20	3/12/2015 12:31 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 07:42 AM
Surr: Toluene-d8	99.7	0	80-120		%REC	20	3/12/2015 12:31 AM
Surr: Toluene-d8	99.6	0	80-120		%REC	1	3/11/2015 07:42 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**				PrepDate		Analyst: **RB**
Hexavalent Chromium	1.7	0.015	0.20		µg/L	1	3/9/2015 01:39 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**				PrepDate	**3/10/2015**	Analyst: **CEI**
Arsenic	3.8	0.027	0.10		µg/L	1	3/11/2015 01:05 PM
Chromium	1.4	0.030	1.0		µg/L	1	3/11/2015 01:05 PM
Manganese	ND	0.026	0.50		µg/L	1	3/11/2015 01:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-004

Client Sample ID: MW-19I
Collection Date: 3/4/2015 1:12:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150310B**	QC Batch: **P15VW038**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 12:38 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 12:38 AM
Tetrachloroethene	0.62	0.12	0.50		µg/L	1	3/11/2015 12:38 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:38 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:38 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 12:38 AM
Surr: 1,2-Dichloroethane-d4	99.5	0	78-125		%REC	1	3/11/2015 12:38 AM
Surr: 4-Bromofluorobenzene	99.9	0	80-120		%REC	1	3/11/2015 12:38 AM
Surr: Dibromofluoromethane	100	0	80-122		%REC	1	3/11/2015 12:38 AM
Surr: Toluene-d8	92.8	0	80-120		%REC	1	3/11/2015 12:38 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**			PrepDate	**3/10/2015**		Analyst: **CEI**
Arsenic	1.0	0.13	0.50		µg/L	5	3/11/2015 12:00 PM
Chromium	160	0.15	5.0		µg/L	5	3/11/2015 12:00 PM
Manganese	54000	13	250		µg/L	500	3/11/2015 01:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-005

Client Sample ID: MW-21
Collection Date: 3/4/2015 2:30:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 02:44 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 02:44 AM
Tetrachloroethene	11	0.12	0.50		µg/L	1	3/11/2015 02:44 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 02:44 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 02:44 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 02:44 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	1	3/11/2015 02:44 AM
Surr: 4-Bromofluorobenzene	98.2	0	80-120		%REC	1	3/11/2015 02:44 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 02:44 AM
Surr: Toluene-d8	98.2	0	80-120		%REC	1	3/11/2015 02:44 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-006

Client Sample ID: MW-22
Collection Date: 3/4/2015 9:57:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 02:18 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 02:18 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/11/2015 02:18 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 02:18 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 02:18 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 02:18 AM
Surr: 1,2-Dichloroethane-d4	99.7	0	78-125		%REC	1	3/11/2015 02:18 AM
Surr: 4-Bromofluorobenzene	99.8	0	80-120		%REC	1	3/11/2015 02:18 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/11/2015 02:18 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 02:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-007

Client Sample ID: MW-23
Collection Date: 3/3/2015 3:47:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 06:53 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 06:53 AM
Tetrachloroethene	740	2.3	10		µg/L	20	3/12/2015 12:56 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 06:53 AM
Trichloroethene	1.5	0.074	0.50		µg/L	1	3/11/2015 06:53 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 06:53 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	20	3/12/2015 12:56 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 06:53 AM
Surr: 4-Bromofluorobenzene	97.1	0	80-120		%REC	20	3/12/2015 12:56 AM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	1	3/11/2015 06:53 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	20	3/12/2015 12:56 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 06:53 AM
Surr: Toluene-d8	100	0	80-120		%REC	20	3/12/2015 12:56 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 06:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-008

Client Sample ID: MW-24
Collection Date: 3/4/2015 10:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150310B**	QC Batch: **P15VW038**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 03:08 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 03:08 AM
Tetrachloroethene	0.58	0.12	0.50		µg/L	1	3/11/2015 03:08 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:08 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:08 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 03:08 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 03:08 AM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/11/2015 03:08 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/11/2015 03:08 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 03:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-009

Client Sample ID: MW-25
Collection Date: 3/3/2015 1:30:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 06:03 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 06:03 AM
Tetrachloroethene	640	2.3	10		µg/L	20	3/12/2015 01:21 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 06:03 AM
Trichloroethene	0.71	0.074	0.50		µg/L	1	3/11/2015 06:03 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 06:03 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	20	3/12/2015 01:21 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/11/2015 06:03 AM
Surr: 4-Bromofluorobenzene	99.3	0	80-120		%REC	20	3/12/2015 01:21 AM
Surr: 4-Bromofluorobenzene	99.2	0	80-120		%REC	1	3/11/2015 06:03 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	20	3/12/2015 01:21 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/11/2015 06:03 AM
Surr: Toluene-d8	101	0	80-120		%REC	20	3/12/2015 01:21 AM
Surr: Toluene-d8	99.7	0	80-120		%REC	1	3/11/2015 06:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-010

Client Sample ID: MW-26
Collection Date: 3/3/2015 2:12:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 07:18 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 07:18 AM
Tetrachloroethene	680	2.3	10		µg/L	20	3/12/2015 01:46 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 07:18 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 07:18 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 07:18 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	20	3/12/2015 01:46 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 07:18 AM
Surr: 4-Bromofluorobenzene	94.7	0	80-120		%REC	20	3/12/2015 01:46 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/11/2015 07:18 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	20	3/12/2015 01:46 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/11/2015 07:18 AM
Surr: Toluene-d8	99.8	0	80-120		%REC	20	3/12/2015 01:46 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 07:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-011

Client Sample ID: MW-27
Collection Date: 3/2/2015 4:14:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 05:38 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 05:38 AM
Tetrachloroethene	450	1.2	5.0		µg/L	10	3/12/2015 02:12 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:38 AM
Trichloroethene	1.3	0.074	0.50		µg/L	1	3/11/2015 05:38 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 05:38 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	10	3/12/2015 02:12 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	1	3/11/2015 05:38 AM
Surr: 4-Bromofluorobenzene	98.6	0	80-120		%REC	10	3/12/2015 02:12 AM
Surr: 4-Bromofluorobenzene	98.3	0	80-120		%REC	1	3/11/2015 05:38 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	10	3/12/2015 02:12 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/11/2015 05:38 AM
Surr: Toluene-d8	99.1	0	80-120		%REC	10	3/12/2015 02:12 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 05:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-012

Client Sample ID: MW-28
Collection Date: 3/3/2015 10:07:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 01:03 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 01:03 AM
Tetrachloroethene	0.69	0.12	0.50		µg/L	1	3/11/2015 01:03 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:03 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:03 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 01:03 AM
Surr: 1,2-Dichloroethane-d4	97.8	0	78-125		%REC	1	3/11/2015 01:03 AM
Surr: 4-Bromofluorobenzene	99.3	0	80-120		%REC	1	3/11/2015 01:03 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/11/2015 01:03 AM
Surr: Toluene-d8	99.5	0	80-120		%REC	1	3/11/2015 01:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-013

Client Sample ID: MW-29
Collection Date: 3/3/2015 9:27:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 01:28 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 01:28 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/11/2015 01:28 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:28 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:28 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 01:28 AM
Surr: 1,2-Dichloroethane-d4	97.9	0	78-125		%REC	1	3/11/2015 01:28 AM
Surr: 4-Bromofluorobenzene	98.2	0	80-120		%REC	1	3/11/2015 01:28 AM
Surr: Dibromofluoromethane	100	0	80-122		%REC	1	3/11/2015 01:28 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 01:28 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-014

Client Sample ID: MW-30
Collection Date: 3/2/2015 3:20:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 04:49 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 04:49 AM
Tetrachloroethene	93	0.59	2.5		µg/L	5	3/12/2015 02:37 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:49 AM
Trichloroethene	0.76	0.074	0.50		µg/L	1	3/11/2015 04:49 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 04:49 AM
Surr: 1,2-Dichloroethane-d4	99.7	0	78-125		%REC	5	3/12/2015 02:37 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 04:49 AM
Surr: 4-Bromofluorobenzene	96.7	0	80-120		%REC	5	3/12/2015 02:37 AM
Surr: 4-Bromofluorobenzene	98.8	0	80-120		%REC	1	3/11/2015 04:49 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	5	3/12/2015 02:37 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 04:49 AM
Surr: Toluene-d8	99.9	0	80-120		%REC	5	3/12/2015 02:37 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 04:49 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-015

Client Sample ID: MW-31
Collection Date: 3/2/2015 2:30:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 04:24 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 04:24 AM
Tetrachloroethene	73	0.12	0.50		µg/L	1	3/11/2015 04:24 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:24 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:24 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 04:24 AM
Surr: 1,2-Dichloroethane-d4	99.8	0	78-125		%REC	1	3/11/2015 04:24 AM
Surr: 4-Bromofluorobenzene	96.3	0	80-120		%REC	1	3/11/2015 04:24 AM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/11/2015 04:24 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 04:24 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-016

Client Sample ID: MW-32
Collection Date: 3/3/2015 2:57:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 06:28 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 06:28 AM
Tetrachloroethene	730	2.3	10		µg/L	20	3/12/2015 03:02 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 06:28 AM
Trichloroethene	2.0	0.074	0.50		µg/L	1	3/11/2015 06:28 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 06:28 AM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	20	3/12/2015 03:02 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 06:28 AM
Surr: 4-Bromofluorobenzene	97.2	0	80-120		%REC	20	3/12/2015 03:02 AM
Surr: 4-Bromofluorobenzene	99.8	0	80-120		%REC	1	3/11/2015 06:28 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	20	3/12/2015 03:02 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 06:28 AM
Surr: Toluene-d8	99.2	0	80-120		%REC	20	3/12/2015 03:02 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 06:28 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-017

Client Sample ID: MW-33
Collection Date: 3/3/2015 10:47:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 01:53 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 01:53 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/11/2015 01:53 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:53 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 01:53 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 01:53 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/11/2015 01:53 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/11/2015 01:53 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/11/2015 01:53 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 01:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-018

Client Sample ID: MW-36
Collection Date: 3/3/2015 12:30:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 05:13 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 05:13 AM
Tetrachloroethene	150	0.59	2.5		µg/L	5	3/12/2015 03:27 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:13 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:13 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 05:13 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	5	3/12/2015 03:27 AM
Surr: 1,2-Dichloroethane-d4	99.3	0	78-125		%REC	1	3/11/2015 05:13 AM
Surr: 4-Bromofluorobenzene	99.1	0	80-120		%REC	5	3/12/2015 03:27 AM
Surr: 4-Bromofluorobenzene	98.3	0	80-120		%REC	1	3/11/2015 05:13 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	5	3/12/2015 03:27 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/11/2015 05:13 AM
Surr: Toluene-d8	102	0	80-120		%REC	5	3/12/2015 03:27 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 05:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-019

Client Sample ID: MW-37
Collection Date: 3/2/2015 1:40:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 03:58 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 03:58 AM
Tetrachloroethene	35	0.12	0.50		µg/L	1	3/11/2015 03:58 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:58 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:58 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 03:58 AM
Surr: 1,2-Dichloroethane-d4	99.4	0	78-125		%REC	1	3/11/2015 03:58 AM
Surr: 4-Bromofluorobenzene	99.1	0	80-120		%REC	1	3/11/2015 03:58 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/11/2015 03:58 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 03:58 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-020

Client Sample ID: MW-38
Collection Date: 3/2/2015 12:43:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**			
RunID: **MS5_150310B**	QC Batch: **P15VW038**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 03:34 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 03:34 AM
Tetrachloroethene	6.0	0.12	0.50		µg/L	1	3/11/2015 03:34 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:34 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:34 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 03:34 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	1	3/11/2015 03:34 AM
Surr: 4-Bromofluorobenzene	97.6	0	80-120		%REC	1	3/11/2015 03:34 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 03:34 AM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/11/2015 03:34 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-021

Client Sample ID: MW-39
Collection Date: 3/3/2015 11:47:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 05:25 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 05:25 PM
Tetrachloroethene	160	0.59	2.5		µg/L	5	3/12/2015 03:52 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:25 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:25 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 05:25 PM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	5	3/12/2015 03:52 AM
Surr: 1,2-Dichloroethane-d4	106	0	78-125		%REC	1	3/11/2015 05:25 PM
Surr: 4-Bromofluorobenzene	96.8	0	80-120		%REC	5	3/12/2015 03:52 AM
Surr: 4-Bromofluorobenzene	97.8	0	80-120		%REC	1	3/11/2015 05:25 PM
Surr: Dibromofluoromethane	104	0	80-122		%REC	5	3/12/2015 03:52 AM
Surr: Dibromofluoromethane	106	0	80-122		%REC	1	3/11/2015 05:25 PM
Surr: Toluene-d8	101	0	80-120		%REC	5	3/12/2015 03:52 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 05:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-022

Client Sample ID: MW-41
Collection Date: 3/2/2015 11:45:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150311A** QC Batch: **P15VW039** PrepDate Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 04:11 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 04:11 PM
Tetrachloroethene	3.5	0.12	0.50		µg/L	1	3/11/2015 04:11 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:11 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:11 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 04:11 PM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/11/2015 04:11 PM
Surr: 4-Bromofluorobenzene	99.5	0	80-120		%REC	1	3/11/2015 04:11 PM
Surr: Dibromofluoromethane	106	0	80-122		%REC	1	3/11/2015 04:11 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 04:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-023

Client Sample ID: MW-42
Collection Date: 3/2/2015 10:41:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**			
RunID: **MS5_150311A**	QC Batch: **P15VW039**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 03:22 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 03:22 PM
Tetrachloroethene	0.62	0.12	0.50		µg/L	1	3/11/2015 03:22 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:22 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:22 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 03:22 PM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	1	3/11/2015 03:22 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/11/2015 03:22 PM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/11/2015 03:22 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/11/2015 03:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-024

Client Sample ID: MW-43
Collection Date: 3/4/2015 9:10:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 12:29 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 12:29 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/11/2015 12:29 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:29 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 12:29 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 12:29 PM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	1	3/11/2015 12:29 PM
Surr: 4-Bromofluorobenzene	98.8	0	80-120		%REC	1	3/11/2015 12:29 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 12:29 PM
Surr: Toluene-d8	103	0	80-120		%REC	1	3/11/2015 12:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-025

Client Sample ID: MW-40 CMT30
Collection Date: 3/5/2015 10:38:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 05:01 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 05:01 PM
Tetrachloroethene	14	0.12	0.50		µg/L	1	3/11/2015 05:01 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:01 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:01 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 05:01 PM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	1	3/11/2015 05:01 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/11/2015 05:01 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 05:01 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 05:01 PM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**				PrepDate		Analyst: **RB**
Hexavalent Chromium	0.88	0.015	0.20		µg/L	1	3/9/2015 01:59 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**				PrepDate	**3/10/2015**	Analyst: **CEI**
Arsenic	3.6	0.027	0.10		µg/L	1	3/11/2015 01:16 PM
Chromium	ND	0.030	1.0		µg/L	1	3/11/2015 01:16 PM
Manganese	28	0.026	0.50		µg/L	1	3/11/2015 01:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-026

Client Sample ID: MW-40 CMT35
Collection Date: 3/5/2015 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 03:47 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 03:47 PM
Tetrachloroethene	13	0.12	0.50		µg/L	1	3/11/2015 03:47 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 03:47 PM
Trichloroethene	1.6	0.074	0.50		µg/L	1	3/11/2015 03:47 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 03:47 PM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 03:47 PM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	1	3/11/2015 03:47 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 03:47 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/11/2015 03:47 PM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**				PrepDate		Analyst: **RB**
Hexavalent Chromium	0.25	0.015	0.20		µg/L	1	3/9/2015 02:09 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**				PrepDate	**3/10/2015**	Analyst: **CEI**
Arsenic	3.3	0.027	0.10		µg/L	1	3/11/2015 01:21 PM
Chromium	ND	0.030	1.0		µg/L	1	3/11/2015 01:21 PM
Manganese	370	0.13	2.5		µg/L	5	3/11/2015 12:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-027

Client Sample ID: MW-40 CMT40
Collection Date: 3/5/2015 11:27:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 04:36 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 04:36 PM
Tetrachloroethene	100	0.59	2.5		µg/L	5	3/12/2015 04:18 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 04:36 PM
Trichloroethene	1.5	0.074	0.50		µg/L	1	3/11/2015 04:36 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 04:36 PM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	1	3/11/2015 04:36 PM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	5	3/12/2015 04:18 AM
Surr: 4-Bromofluorobenzene	96.0	0	80-120		%REC	5	3/12/2015 04:18 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/11/2015 04:36 PM
Surr: Dibromofluoromethane	101	0	80-122		%REC	5	3/12/2015 04:18 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/11/2015 04:36 PM
Surr: Toluene-d8	99.2	0	80-120		%REC	5	3/12/2015 04:18 AM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/11/2015 04:36 PM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**			PrepDate			Analyst: **RB**
Hexavalent Chromium	0.71	0.015	0.20		µg/L	1	3/9/2015 02:19 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**			PrepDate	**3/10/2015**		Analyst: **CEI**
Arsenic	1.9	0.027	0.10		µg/L	1	3/11/2015 01:27 PM
Chromium	ND	0.030	1.0		µg/L	1	3/11/2015 01:27 PM
Manganese	33	0.026	0.50		µg/L	1	3/11/2015 01:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-028

Client Sample ID: MW-40 CMT45
Collection Date: 3/5/2015 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311B**	QC Batch: **P15VW040**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/12/2015 08:04 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/12/2015 08:04 AM
Tetrachloroethene	120	0.59	2.5		µg/L	5	3/13/2015 07:38 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/12/2015 08:04 AM
Trichloroethene	3.2	0.074	0.50		µg/L	1	3/12/2015 08:04 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/12/2015 08:04 AM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	1	3/12/2015 08:04 AM
Surr: 1,2-Dichloroethane-d4	98.0	0	78-125		%REC	5	3/13/2015 07:38 AM
Surr: 4-Bromofluorobenzene	97.2	0	80-120		%REC	5	3/13/2015 07:38 AM
Surr: 4-Bromofluorobenzene	96.3	0	80-120		%REC	1	3/12/2015 08:04 AM
Surr: Dibromofluoromethane	99.1	0	80-122		%REC	5	3/13/2015 07:38 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/12/2015 08:04 AM
Surr: Toluene-d8	99.2	0	80-120		%REC	5	3/13/2015 07:38 AM
Surr: Toluene-d8	99.4	0	80-120		%REC	1	3/12/2015 08:04 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**			PrepDate			Analyst: **RB**
Hexavalent Chromium	0.53	0.015	0.20		µg/L	1	3/9/2015 02:29 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**			PrepDate	**3/10/2015**		Analyst: **CEI**
Arsenic	1.9	0.027	0.10		µg/L	1	3/11/2015 01:32 PM
Chromium	ND	0.030	1.0		µg/L	1	3/11/2015 01:32 PM
Manganese	15	0.026	0.50		µg/L	1	3/11/2015 01:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-029

Client Sample ID: MW-40 CMT50
Collection Date: 3/5/2015 1:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311A**	QC Batch: **P15VW039**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 05:50 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 05:50 PM
Tetrachloroethene	160	0.59	2.5		µg/L	5	3/12/2015 04:43 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 05:50 PM
Trichloroethene	6.8	0.074	0.50		µg/L	1	3/11/2015 05:50 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 05:50 PM
Surr: 1,2-Dichloroethane-d4	106	0	78-125		%REC	1	3/11/2015 05:50 PM
Surr: 1,2-Dichloroethane-d4	104	0	78-125		%REC	5	3/12/2015 04:43 AM
Surr: 4-Bromofluorobenzene	98.4	0	80-120		%REC	5	3/12/2015 04:43 AM
Surr: 4-Bromofluorobenzene	103	0	80-120		%REC	1	3/11/2015 05:50 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	5	3/12/2015 04:43 AM
Surr: Dibromofluoromethane	106	0	80-122		%REC	1	3/11/2015 05:50 PM
Surr: Toluene-d8	101	0	80-120		%REC	5	3/12/2015 04:43 AM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/11/2015 05:50 PM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**			PrepDate			Analyst: **RB**
Hexavalent Chromium	0.40	0.015	0.20		µg/L	1	3/9/2015 03:25 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**			PrepDate	**3/10/2015**		Analyst: **CEI**
Arsenic	2.5	0.027	0.10		µg/L	1	3/11/2015 01:38 PM
Chromium	ND	0.030	1.0		µg/L	1	3/11/2015 01:38 PM
Manganese	15	0.026	0.50		µg/L	1	3/11/2015 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-030

Client Sample ID: MW-40 CMT55
Collection Date: 3/5/2015 12:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311B**	QC Batch: **P15VW040**				PrepDate		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/12/2015 07:39 AM
cis-1,2-Dichloroethene	1.0	0.057	0.50		µg/L	1	3/12/2015 07:39 AM
Tetrachloroethene	430	1.2	5.0		µg/L	10	3/13/2015 08:03 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/12/2015 07:39 AM
Trichloroethene	6.7	0.074	0.50		µg/L	1	3/12/2015 07:39 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/12/2015 07:39 AM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	10	3/13/2015 08:03 AM
Surr: 1,2-Dichloroethane-d4	105	0	78-125		%REC	1	3/12/2015 07:39 AM
Surr: 4-Bromofluorobenzene	99.4	0	80-120		%REC	10	3/13/2015 08:03 AM
Surr: 4-Bromofluorobenzene	99.2	0	80-120		%REC	1	3/12/2015 07:39 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	10	3/13/2015 08:03 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/12/2015 07:39 AM
Surr: Toluene-d8	100	0	80-120		%REC	10	3/13/2015 08:03 AM
Surr: Toluene-d8	99.8	0	80-120		%REC	1	3/12/2015 07:39 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**				PrepDate		Analyst: **RB**
Hexavalent Chromium	22	0.075	1.0		µg/L	5	3/9/2015 06:18 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**				PrepDate	**3/10/2015**	Analyst: **CEI**
Arsenic	1.8	0.027	0.10		µg/L	1	3/11/2015 01:43 PM
Chromium	21	0.030	1.0		µg/L	1	3/11/2015 01:43 PM
Manganese	12	0.026	0.50		µg/L	1	3/11/2015 01:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-031

Client Sample ID: MW-40 CMT60
Collection Date: 3/5/2015 3:17:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150311B**	QC Batch: **P15VW040**			PrepDate			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/12/2015 08:29 AM
cis-1,2-Dichloroethene	1.8	0.057	0.50		µg/L	1	3/12/2015 08:29 AM
Tetrachloroethene	190	1.2	5.0		µg/L	10	3/13/2015 08:27 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/12/2015 08:29 AM
Trichloroethene	8.9	0.074	0.50		µg/L	1	3/12/2015 08:29 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/12/2015 08:29 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/12/2015 08:29 AM
Surr: 1,2-Dichloroethane-d4	98.0	0	78-125		%REC	10	3/13/2015 08:27 AM
Surr: 4-Bromofluorobenzene	99.0	0	80-120		%REC	10	3/13/2015 08:27 AM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	1	3/12/2015 08:29 AM
Surr: Dibromofluoromethane	99.4	0	80-122		%REC	10	3/13/2015 08:27 AM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/12/2015 08:29 AM
Surr: Toluene-d8	98.4	0	80-120		%REC	10	3/13/2015 08:27 AM
Surr: Toluene-d8	99.4	0	80-120		%REC	1	3/12/2015 08:29 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150309A**	QC Batch: **R99366**			PrepDate			Analyst: **RB**
Hexavalent Chromium	56	0.15	2.0		µg/L	10	3/9/2015 03:45 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150311A**	QC Batch: **49876**			PrepDate	**3/10/2015**		Analyst: **CEI**
Arsenic	1.3	0.027	0.10		µg/L	1	3/11/2015 01:49 PM
Chromium	61	0.030	1.0		µg/L	1	3/11/2015 01:49 PM
Manganese	23	0.026	0.50		µg/L	1	3/11/2015 01:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_W

Sample ID **MB-R99366**	SampType: **MBLK**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99366**
Client ID: **PBW**	Batch ID: **R99366**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2015**	SeqNo: **1948690**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID **LCS-R99366**	SampType: **LCS**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99366**
Client ID: **LCSW**	Batch ID: **R99366**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2015**	SeqNo: **1948691**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.968	0.20	5.000	0	99.4	90	110				

Sample ID **N014893-003C-DUP**	SampType: **DUP**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99366**
Client ID: **ZZZZZZ**	Batch ID: **R99366**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2015**	SeqNo: **1948693**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.674	0.20						1.692	1.08	20	

Sample ID **N014893-003C-MS**	SampType: **MS**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99366**
Client ID: **ZZZZZZ**	Batch ID: **R99366**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2015**	SeqNo: **1948700**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.895	0.20	5.000	1.692	104	90	110				

Sample ID **N014893-003C-MSD**	SampType: **MSD**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99366**
Client ID: **ZZZZZZ**	Batch ID: **R99366**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2015**	SeqNo: **1948701**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.896	0.20	5.000	1.692	104	90	110	6.895	0.0174	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS

Sample ID	MB-49876	SampType:	MBLK	TestCode:	6020_DIS	Units:	µg/L	Prep Date:	3/10/2015	RunNo:	99382
Client ID:	PBW	Batch ID:	49876	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/11/2015	SeqNo:	1950159

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Chromium	0.044	1.0									
Manganese	ND	0.50									

Sample ID	LCS-49876	SampType:	LCS	TestCode:	6020_DIS	Units:	µg/L	Prep Date:	3/10/2015	RunNo:	99382
Client ID:	LCSW	Batch ID:	49876	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/11/2015	SeqNo:	1950160

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.191	0.10	10.00	0	102	85	115				
Chromium	10.184	1.0	10.00	0	102	85	115				
Manganese	103.716	0.50	100.0	0	104	85	115				

Sample ID	N014926-001B-MS	SampType:	MS	TestCode:	6020_DIS	Units:	µg/L	Prep Date:	3/10/2015	RunNo:	99382
Client ID:	ZZZZZZ	Batch ID:	49876	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/11/2015	SeqNo:	1950164

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	12.672	0.10	10.00	0.9895	117	75	125				
Chromium	12.642	1.0	10.00	1.422	112	75	125				
Manganese	110.161	0.50	100.0	0	110	75	125				

Sample ID	N014926-001B-MSD	SampType:	MSD	TestCode:	6020_DIS	Units:	µg/L	Prep Date:	3/10/2015	RunNo:	99382
Client ID:	ZZZZZZ	Batch ID:	49876	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/11/2015	SeqNo:	1950165

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	12.736	0.10	10.00	0.9895	117	75	125	12.67	0.507	20	
Chromium	12.589	1.0	10.00	1.422	112	75	125	12.64	0.424	20	
Manganese	110.433	0.50	100.0	0	110	75	125	110.2	0.246	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150310LCS2** SampType: **LCS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **LCSW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.760	0.50	20.00	0	104	71	127				
cis-1,2-Dichloroethene	19.410	0.50	20.00	0	97.0	80	120				
Tetrachloroethene	21.480	0.50	20.00	0	107	80	120				
trans-1,2-Dichloroethene	19.160	0.50	20.00	0	95.8	78	126				
Trichloroethene	21.130	0.50	20.00	0	106	80	120				
Vinyl chloride	18.000	0.50	20.00	0	90.0	70	135				
Surr: 1,2-Dichloroethane-d4	23.190		25.00		92.8	78	125				
Surr: 4-Bromofluorobenzene	25.770		25.00		103	80	120				
Surr: Dibromofluoromethane	23.770		25.00		95.1	80	122				
Surr: Toluene-d8	24.960		25.00		99.8	80	120				

Sample ID **N014893-002AMS** SampType: **MS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.290	0.50	20.00	0	101	62	135				
cis-1,2-Dichloroethene	19.000	0.50	20.00	0	95.0	73	125				
Tetrachloroethene	20.980	0.50	20.00	0	105	71	123				
trans-1,2-Dichloroethene	19.090	0.50	20.00	0	95.4	64	132				
Trichloroethene	20.980	0.50	20.00	0	105	79	121				
Vinyl chloride	17.760	0.50	20.00	0	88.8	64	134				
Surr: 1,2-Dichloroethane-d4	23.520		25.00		94.1	78	125				
Surr: 4-Bromofluorobenzene	25.820		25.00		103	80	120				
Surr: Dibromofluoromethane	24.390		25.00		97.6	80	122				
Surr: Toluene-d8	25.330		25.00		101	80	120				

Sample ID **N014893-002AMSD** SampType: **MSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **N014893-002AMSD** SampType: **MSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.840	0.50	20.00	0	104	62	135	20.29	2.67	20	
cis-1,2-Dichloroethene	19.210	0.50	20.00	0	96.0	73	125	19.00	1.10	20	
Tetrachloroethene	21.580	0.50	20.00	0	108	71	123	20.98	2.82	20	
trans-1,2-Dichloroethene	18.840	0.50	20.00	0	94.2	64	132	19.09	1.32	20	
Trichloroethene	20.810	0.50	20.00	0	104	79	121	20.98	0.814	20	
Vinyl chloride	17.900	0.50	20.00	0	89.5	64	134	17.76	0.785	20	
Surr: 1,2-Dichloroethane-d4	23.650		25.00		94.6	78	125		0		
Surr: 4-Bromofluorobenzene	26.070		25.00		104	80	120		0		
Surr: Dibromofluoromethane	24.730		25.00		98.9	80	122		0		
Surr: Toluene-d8	24.900		25.00		99.6	80	120		0		

Sample ID **P150310MB6** SampType: **MBLK** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **PBW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.460		25.00		97.8	78	125				
Surr: 4-Bromofluorobenzene	24.360		25.00		97.4	80	120				
Surr: Dibromofluoromethane	25.240		25.00		101	80	122				
Surr: Toluene-d8	24.960		25.00		99.8	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150311LCS** SampType: **LCS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99393**
Client ID: **LCSW** Batch ID: **P15VW039** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.770	0.50	20.00	0	109	71	127				
cis-1,2-Dichloroethene	19.150	0.50	20.00	0	95.8	80	120				
Tetrachloroethene	21.970	0.50	20.00	0	110	80	120				
trans-1,2-Dichloroethene	19.100	0.50	20.00	0	95.5	78	126				
Trichloroethene	21.610	0.50	20.00	0	108	80	120				
Vinyl chloride	19.310	0.50	20.00	0	96.6	70	135				
Surr: 1,2-Dichloroethane-d4	24.700		25.00		98.8	78	125				
Surr: 4-Bromofluorobenzene	25.910		25.00		104	80	120				
Surr: Dibromofluoromethane	24.380		25.00		97.5	80	122				
Surr: Toluene-d8	25.520		25.00		102	80	120				

Sample ID **N014893-024AMS** SampType: **MS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99393**
Client ID: **ZZZZZZ** Batch ID: **P15VW039** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950543**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.320	0.50	20.00	0	107	62	135				
cis-1,2-Dichloroethene	19.090	0.50	20.00	0	95.4	73	125				
Tetrachloroethene	21.770	0.50	20.00	0.2800	107	71	123				
trans-1,2-Dichloroethene	19.300	0.50	20.00	0	96.5	64	132				
Trichloroethene	21.180	0.50	20.00	0	106	79	121				
Vinyl chloride	18.810	0.50	20.00	0	94.1	64	134				
Surr: 1,2-Dichloroethane-d4	24.190		25.00		96.8	78	125				
Surr: 4-Bromofluorobenzene	25.910		25.00		104	80	120				
Surr: Dibromofluoromethane	24.640		25.00		98.6	80	122				
Surr: Toluene-d8	25.250		25.00		101	80	120				

Sample ID **N014893-024AMSD** SampType: **MSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99393**
Client ID: **ZZZZZZ** Batch ID: **P15VW039** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950544**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **N014893-024AMSD** SampType: **MSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99393**
Client ID: **ZZZZZZ** Batch ID: **P15VW039** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950544**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.390	0.50	20.00	0	107	62	135	21.32	0.328	20	
cis-1,2-Dichloroethene	19.360	0.50	20.00	0	96.8	73	125	19.09	1.40	20	
Tetrachloroethene	22.260	0.50	20.00	0.2800	110	71	123	21.77	2.23	20	
trans-1,2-Dichloroethene	19.320	0.50	20.00	0	96.6	64	132	19.30	0.104	20	
Trichloroethene	22.050	0.50	20.00	0	110	79	121	21.18	4.02	20	
Vinyl chloride	19.520	0.50	20.00	0	97.6	64	134	18.81	3.70	20	
Surr: 1,2-Dichloroethane-d4	24.480		25.00		97.9	78	125		0		
Surr: 4-Bromofluorobenzene	25.350		25.00		101	80	120		0		
Surr: Dibromofluoromethane	24.390		25.00		97.6	80	122		0		
Surr: Toluene-d8	25.090		25.00		100	80	120		0		

Sample ID **P150311MB3** SampType: **MBLK** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99393**
Client ID: **PBW** Batch ID: **P15VW039** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950545**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	0.240	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.270		25.00		101	78	125				
Surr: 4-Bromofluorobenzene	24.910		25.00		99.6	80	120				
Surr: Dibromofluoromethane	25.140		25.00		101	80	122				
Surr: Toluene-d8	25.280		25.00		101	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150311LCS2** SampType: **LCS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.880	0.50	20.00	0	109	71	127				
cis-1,2-Dichloroethene	18.940	0.50	20.00	0	94.7	80	120				
Tetrachloroethene	21.130	0.50	20.00	0	106	80	120				
trans-1,2-Dichloroethene	18.300	0.50	20.00	0	91.5	78	126				
Trichloroethene	20.740	0.50	20.00	0	104	80	120				
Vinyl chloride	18.840	0.50	20.00	0	94.2	70	135				
Surr: 1,2-Dichloroethane-d4	24.120		25.00		96.5	78	125				
Surr: 4-Bromofluorobenzene	25.970		25.00		104	80	120				
Surr: Dibromofluoromethane	24.810		25.00		99.2	80	122				
Surr: Toluene-d8	25.130		25.00		101	80	120				

Sample ID **P150311LCSD** SampType: **LCSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSS02** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.690	0.50	20.00	0	108	71	127	21.88	0.872	20	
cis-1,2-Dichloroethene	18.750	0.50	20.00	0	93.8	80	120	18.94	1.01	20	
Tetrachloroethene	21.470	0.50	20.00	0	107	80	120	21.13	1.60	20	
trans-1,2-Dichloroethene	18.630	0.50	20.00	0	93.2	78	126	18.30	1.79	20	
Trichloroethene	21.050	0.50	20.00	0	105	80	120	20.74	1.48	20	
Vinyl chloride	18.930	0.50	20.00	0	94.6	70	135	18.84	0.477	20	
Surr: 1,2-Dichloroethane-d4	23.740		25.00		95.0	78	125		0		
Surr: 4-Bromofluorobenzene	25.720		25.00		103	80	120		0		
Surr: Dibromofluoromethane	24.210		25.00		96.8	80	122		0		
Surr: Toluene-d8	24.970		25.00		99.9	80	120		0		

Sample ID **P150311MB6** SampType: **MBLK** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **PBW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1950653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150311MB6**	SampType: **MBLK**	TestCode: **8260WATER**	Units: **µg/L**	Prep Date:		RunNo: **99397**	
Client ID: **PBW**	Batch ID: **P15VW040**	TestNo: **EPA 8260B**		Analysis Date: **3/12/2015**		SeqNo: **1950653**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.340		25.00		101	78	125				
Surr: 4-Bromofluorobenzene	24.850		25.00		99.4	80	120				
Surr: Dibromofluoromethane	25.670		25.00		103	80	122				
Surr: Toluene-d8	25.360		25.00		101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150312LCS2** SampType: **LCS** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99413**
Client ID: **LCSW** Batch ID: **P15VW041** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1952491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.240	0.50	20.00	0	101	71	127				
cis-1,2-Dichloroethene	18.490	0.50	20.00	0	92.5	80	120				
Tetrachloroethene	20.670	0.50	20.00	0	103	80	120				
trans-1,2-Dichloroethene	17.980	0.50	20.00	0	89.9	78	126				
Trichloroethene	20.820	0.50	20.00	0	104	80	120				
Vinyl chloride	18.690	0.50	20.00	0	93.5	70	135				
Surr: 1,2-Dichloroethane-d4	23.110		25.00		92.4	78	125				
Surr: 4-Bromofluorobenzene	26.360		25.00		105	80	120				
Surr: Dibromofluoromethane	23.780		25.00		95.1	80	122				
Surr: Toluene-d8	25.260		25.00		101	80	120				

Sample ID **P150312LCSD** SampType: **LCSD** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99413**
Client ID: **LCSS02** Batch ID: **P15VW041** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1952492**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.860	0.50	20.00	0	104	71	127	20.24	3.02	20	
cis-1,2-Dichloroethene	18.950	0.50	20.00	0	94.8	80	120	18.49	2.46	20	
Tetrachloroethene	21.230	0.50	20.00	0	106	80	120	20.67	2.67	20	
trans-1,2-Dichloroethene	18.320	0.50	20.00	0	91.6	78	126	17.98	1.87	20	
Trichloroethene	21.380	0.50	20.00	0	107	80	120	20.82	2.65	20	
Vinyl chloride	18.660	0.50	20.00	0	93.3	70	135	18.69	0.161	20	
Surr: 1,2-Dichloroethane-d4	23.420		25.00		93.7	78	125		0		
Surr: 4-Bromofluorobenzene	26.100		25.00		104	80	120		0		
Surr: Dibromofluoromethane	24.240		25.00		97.0	80	122		0		
Surr: Toluene-d8	25.200		25.00		101	80	120		0		

Sample ID **P150312MB7** SampType: **MBLK** TestCode: **8260WATER** Units: **µg/L** Prep Date: RunNo: **99413**
Client ID: **PBW** Batch ID: **P15VW041** TestNo: **EPA 8260B** Analysis Date: **3/13/2015** SeqNo: **1952493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID **P150312MB7**	SampType: **MBLK**	TestCode: **8260WATER**	Units: **µg/L**	Prep Date:		RunNo: **99413**	
Client ID: **PBW**	Batch ID: **P15VW041**	TestNo: **EPA 8260B**		Analysis Date: **3/13/2015**		SeqNo: **1952493**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	23.750		25.00		95.0	78	125				
Surr: 4-Bromofluorobenzene	24.620		25.00		98.5	80	120				
Surr: Dibromofluoromethane	24.120		25.00		96.5	80	122				
Surr: Toluene-d8	25.180		25.00		101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt
1. CHILLED 1-6oc ice# Y ☐ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.* (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/6/15	705		3/6/15	1050
	3/6/15	1100		3/6/15	1100

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: 3/6
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	N0148931	MW-11	3/4	1145			X						X		E	3	V	H	
	-2	MW-16	3/4	1230			X						X		E	3	V	H	
	-3	MW-19	3/4	1520			X	X	X				X		E	3	V	H	
	-4	MW-19I	3/4	1312			X	X	X				X		E	3	V	H	
	-5	MW-21	3/4	1430			X						X		E	3	V	H	
	-6	MW-22	3/4	957			X						X		E	3	V	H	
	-7	MW-23	3/3	1547			X						X		E	3	V	H	
	-8	MW-24	3/4	1050			X						X		E	3	V	H	
	-9	MW-25	3/3	1330			X						X		E	3	V	H	
	-10	MW-26	3/3	1412			X						X		E	3	V	H	

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode_____ OTHER _____

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=HCl N=HNO_3 S=H_2SO_4 C=4°C
Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt
1. CHILLED 1.6°C IR#2 Y ☑ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.* (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/6/15	705		3/6/15	1050
	3/6/15	1120	HECTOR VIZA	3/6/15	1100

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: 3/6
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

QA / QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode_____ OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	N0148493-11	MW-27	3/2	1614			X					X			E	3	V	H	
	-12	MW-28	3/3	1007			X					X			E	3	V	H	
	-13	MW-29	3/3	927			X					X			E	3	V	H	
	-14	MW-30	3/2	1520			X					X			E	3	V	H	
	-15	MW-31	3/2	1430			X					X			E	3	V	H	
	-16	MW-32	3/3	1457			X					X			E	3	V	H	
	-17	MW-33	3/3	1047			X					X			E	3	V	H	
	-18	MW-36	3/3	1230			X					X			E	3	V	H	
	-19	MW-37	3/2	1340			X					X			E	3	V	H	
	-20	MW-38	3/2	1243			X					X			E	3	V	H	

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=HCl N=HNO_3 S=H_2SO_4 C=4°C
Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: ______
Logged By: ______ Date: ______

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: ______

Sample Condition Upon Receipt:
1. CHILLED 1.6°C Y ☑ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐
4. SEALED Y ☐ N ☐
5. # OF SPLS MATCH COC Y ☐ N ☐
6. PRESERVED Y ☐ N ☐

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030

Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*
(Printed Name)
(Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
[signature]	3/6/15	705	[signature]	3/6/15	1050
[signature]	3/6/15	1100	[signature] HGLODOVIZA	3/6/15	1150

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: ______ 3/6
Print Name / Date
Signature [signature]

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

ITEM	Lab No.	Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	#	Type	PRESERVATION	REMARKS
	N014893-21	MW-39	3/3	1147				X					X		E	3	V	H	
	-22	MW-41	3/2	1145				X					X		E	3	V	H	
	-23	MW-42	3/2	1041				X					X		E	3	V	H	
	-24	MW-43	3/4	910				X					X		E	3	V	H	
	-25	MW-40 CMT30	3/5	1038				X	X	X			X		E	5	V/P	H	
	-26	MW-40 CMT35	3/5	930				X	X	X			X		E	5	V/P	H	
	-27	MW-40 CMT40	3/5	1127				X	X	X			X		E	5	V/P	H	
	-28	MW-40 CMT45	3/5	1400				X	X	X			X		E	5	V/P	H	
	-29	MW-40 CMT50	3/5	1308				X	X	X			X		E	3	V	H	
	-30	MW-40 CMT55	3/5	1204				X	X	X			X		E	5	V/P	H	

TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=Zn(AC)$_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: ______
Logged By: ______ Date: ______

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: ______

Sample Condition Upon Receipt:
1. CHILLED 1.6°C (R4 Y ☑ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐
4. SEALED Y ☐ N ☐
5. # OF SPLS MATCH COC Y ☐ N ☐
6. PRESERVED Y ☐ N ☐

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*
(Printed Name)
(Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
[signature]	3/6/15	705	[signature]	3/6/15	1050
[signature]	3/6/15	1101	[signature] HGLODOUZA	3/6/15	1101

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name ______ Date 3/6
Signature [signature]

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode______ OTHER ______

ITEM	LAB USE ONLY: Lab No.	Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium								SOIL	WATER	GROUND WATER	WASTEWATER			TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	N014693-31	MW-40 CMT60	3/5	1517				X	X	X									X					E	3	V/P	H	

■ TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/6/2015	Workorder:	N014893
Rep sample Temp (Deg C):	1.6	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ATL		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☑	No ☐	NA ☐
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: HG 3/10/2015

Reviewed By: 03/13/15

April 22, 2015

Andrew Stuart
Cardno ATC
7115 Amigo Street Suite 100
Las Vegas, NV 89119

TEL: (702) 990-9300
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014893

RE: Maryland Square, Z085000030

Attention: Andrew Stuart

Enclosed are the results for sample(s) received on March 06, 2015 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an amended report. Please disregard all previous documentation that corresponds to the page(s) enclosed.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Glen Gesmundo
QA Manager

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-003

Client Sample ID: MW-19
Collection Date: 3/4/2015 3:20:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150310B** QC Batch: **P15VW038** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.068	0.50		µg/L	1	3/11/2015 07:42 AM
1,1,1-Trichloroethane	ND	0.072	0.50		µg/L	1	3/11/2015 07:42 AM
1,1,2,2-Tetrachloroethane	ND	0.10	0.50		µg/L	1	3/11/2015 07:42 AM
1,1,2-Trichloroethane	ND	0.042	0.50		µg/L	1	3/11/2015 07:42 AM
1,1-Dichloroethane	ND	0.054	0.50		µg/L	1	3/11/2015 07:42 AM
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/11/2015 07:42 AM
1,1-Dichloropropene	ND	0.073	0.50		µg/L	1	3/11/2015 07:42 AM
1,2,3-Trichlorobenzene	ND	0.077	0.50		µg/L	1	3/11/2015 07:42 AM
1,2,3-Trichloropropane	ND	0.071	0.50		µg/L	1	3/11/2015 07:42 AM
1,2,4-Trichlorobenzene	ND	0.10	0.50		µg/L	1	3/11/2015 07:42 AM
1,2,4-Trimethylbenzene	ND	0.036	0.50		µg/L	1	3/11/2015 07:42 AM
1,2-Dibromo-3-chloropropane	ND	0.23	1.0		µg/L	1	3/11/2015 07:42 AM
1,2-Dibromoethane	ND	0.036	0.50		µg/L	1	3/11/2015 07:42 AM
1,2-Dichlorobenzene	ND	0.048	0.50		µg/L	1	3/11/2015 07:42 AM
1,2-Dichloroethane	ND	0.044	0.50		µg/L	1	3/11/2015 07:42 AM
1,2-Dichloropropane	ND	0.094	0.50		µg/L	1	3/11/2015 07:42 AM
1,3,5-Trimethylbenzene	ND	0.054	0.50		µg/L	1	3/11/2015 07:42 AM
1,3-Dichlorobenzene	ND	0.061	0.50		µg/L	1	3/11/2015 07:42 AM
1,3-Dichloropropane	ND	0.077	0.50		µg/L	1	3/11/2015 07:42 AM
1,4-Dichlorobenzene	ND	0.078	0.50		µg/L	1	3/11/2015 07:42 AM
2,2-Dichloropropane	ND	0.061	0.50		µg/L	1	3/11/2015 07:42 AM
2-Butanone	ND	0.70	5.0		µg/L	1	3/11/2015 07:42 AM
2-Chlorotoluene	ND	0.054	0.50		µg/L	1	3/11/2015 07:42 AM
4-Chlorotoluene	ND	0.039	0.50		µg/L	1	3/11/2015 07:42 AM
4-Isopropyltoluene	ND	0.044	0.50		µg/L	1	3/11/2015 07:42 AM
Benzene	ND	0.048	0.50		µg/L	1	3/11/2015 07:42 AM
Bromobenzene	ND	0.054	0.50		µg/L	1	3/11/2015 07:42 AM
Bromodichloromethane	ND	0.048	0.50		µg/L	1	3/11/2015 07:42 AM
Bromoform	ND	0.061	0.50		µg/L	1	3/11/2015 07:42 AM
Bromomethane	ND	0.073	1.0		µg/L	1	3/11/2015 07:42 AM
Carbon tetrachloride	ND	0.057	0.50		µg/L	1	3/11/2015 07:42 AM
Chlorobenzene	ND	0.028	0.50		µg/L	1	3/11/2015 07:42 AM
Chloroethane	ND	0.099	1.0		µg/L	1	3/11/2015 07:42 AM
Chloroform	1.9	0.048	0.50		µg/L	1	3/11/2015 07:42 AM
Chloromethane	ND	0.043	0.50		µg/L	1	3/11/2015 07:42 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/11/2015 07:42 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014893
Project: Maryland Square, Z085000030
Lab ID: N014893-003

Client Sample ID: MW-19
Collection Date: 3/4/2015 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150310B**	QC Batch: **P15VW038**				PrepDate:		Analyst: **QBM**
cis-1,3-Dichloropropene	ND	0.043	0.50		µg/L	1	3/11/2015 07:42 AM
Dibromochloromethane	ND	0.057	0.50		µg/L	1	3/11/2015 07:42 AM
Dibromomethane	ND	0.11	0.50		µg/L	1	3/11/2015 07:42 AM
Dichlorodifluoromethane	ND	0.054	0.50		µg/L	1	3/11/2015 07:42 AM
Ethylbenzene	ND	0.036	0.50		µg/L	1	3/11/2015 07:42 AM
Hexachlorobutadiene	ND	0.070	0.50		µg/L	1	3/11/2015 07:42 AM
Isopropylbenzene	ND	0.041	0.50		µg/L	1	3/11/2015 07:42 AM
m,p-Xylene	ND	0.14	1.0		µg/L	1	3/11/2015 07:42 AM
Methylene chloride	ND	0.28	2.0		µg/L	1	3/11/2015 07:42 AM
MTBE	ND	0.098	0.50		µg/L	1	3/11/2015 07:42 AM
n-Butylbenzene	ND	0.076	0.50		µg/L	1	3/11/2015 07:42 AM
n-Propylbenzene	ND	0.049	0.50		µg/L	1	3/11/2015 07:42 AM
Naphthalene	ND	0.062	0.50		µg/L	1	3/11/2015 07:42 AM
o-Xylene	ND	0.042	0.50		µg/L	1	3/11/2015 07:42 AM
sec-Butylbenzene	ND	0.036	0.50		µg/L	1	3/11/2015 07:42 AM
Styrene	ND	0.040	0.50		µg/L	1	3/11/2015 07:42 AM
tert-Butylbenzene	ND	0.040	0.50		µg/L	1	3/11/2015 07:42 AM
Tetrachloroethene	930	2.3	10		µg/L	20	3/12/2015 12:31 AM
Toluene	ND	0.025	0.50		µg/L	1	3/11/2015 07:42 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/11/2015 07:42 AM
Trichloroethene	4.0	0.074	0.50		µg/L	1	3/11/2015 07:42 AM
Trichlorofluoromethane	ND	0.034	0.50		µg/L	1	3/11/2015 07:42 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/11/2015 07:42 AM
Xylenes, Total	ND	1.5	1.5		µg/L	1	3/11/2015 07:42 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/11/2015 07:42 AM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	20	3/12/2015 12:31 AM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/11/2015 07:42 AM
Surr: 4-Bromofluorobenzene	99.7	0	80-120		%REC	20	3/12/2015 12:31 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	20	3/12/2015 12:31 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/11/2015 07:42 AM
Surr: Toluene-d8	99.7	0	80-120		%REC	20	3/12/2015 12:31 AM
Surr: Toluene-d8	99.6	0	80-120		%REC	1	3/11/2015 07:42 AM
HEXAVALENT CHROMIUM BY IC							
EPA 218.6							
RunID: **IC6_150309A**	QC Batch: **R99366**				PrepDate:		Analyst: **RB**

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **LCSW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.490	0.50	20.00	0	107	80	121				
1,1,1-Trichloroethane	20.290	0.50	20.00	0	101	77	122				
1,1,2,2-Tetrachloroethane	18.760	0.50	20.00	0	93.8	77	123				
1,1,2-Trichloroethane	20.420	0.50	20.00	0	102	87	120				
1,1-Dichloroethane	18.750	0.50	20.00	0	93.8	72	127				
1,1-Dichloroethene	20.760	0.50	20.00	0	104	71	127				
1,1-Dichloropropene	20.590	0.50	20.00	0	103	87	120				
1,2,3-Trichlorobenzene	21.320	0.50	20.00	0	107	77	124				
1,2,3-Trichloropropane	18.120	0.50	20.00	0	90.6	77	120				
1,2,4-Trichlorobenzene	21.340	0.50	20.00	0	107	76	122				
1,2,4-Trimethylbenzene	20.150	0.50	20.00	0	101	85	120				
1,2-Dibromo-3-chloropropane	20.730	1.0	20.00	0	104	67	125				
1,2-Dibromoethane	21.010	0.50	20.00	0	105	80	120				
1,2-Dichlorobenzene	19.700	0.50	20.00	0	98.5	80	120				
1,2-Dichloroethane	19.930	0.50	20.00	0	99.7	80	120				
1,2-Dichloropropane	19.120	0.50	20.00	0	95.6	80	120				
1,3,5-Trimethylbenzene	20.090	0.50	20.00	0	100	80	120				
1,3-Dichlorobenzene	19.660	0.50	20.00	0	98.3	80	120				
1,3-Dichloropropane	20.020	0.50	20.00	0	100	80	120				
1,4-Dichlorobenzene	19.630	0.50	20.00	0	98.2	80	120				
2,2-Dichloropropane	19.930	0.50	20.00	0	99.7	53	142				
2-Butanone	171.160	5.0	200.0	0	85.6	23	175				
2-Chlorotoluene	19.030	0.50	20.00	0	95.2	80	120				
4-Chlorotoluene	19.260	0.50	20.00	0	96.3	80	120				
4-Isopropyltoluene	20.430	0.50	20.00	0	102	80	120				
Benzene	19.860	0.50	20.00	0	99.3	80	120				
Bromobenzene	20.720	0.50	20.00	0	104	80	120				
Bromodichloromethane	20.240	0.50	20.00	0	101	80	120				
Bromoform	21.290	0.50	20.00	0	106	72	133				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **LCSW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	3.790	1.0	20.00	0	19.0	19	178				S
Carbon tetrachloride	23.530	0.50	20.00	0	118	72	131				
Chlorobenzene	19.610	0.50	20.00	0	98.0	80	120				
Chloroethane	26.100	1.0	20.00	0	131	66	140				
Chloroform	18.710	0.50	20.00	0	93.6	77	120				
Chloromethane	10.710	0.50	20.00	0	53.6	47	154				
cis-1,2-Dichloroethene	19.410	0.50	20.00	0	97.0	80	120				
cis-1,3-Dichloropropene	20.340	0.50	20.00	0	102	80	120				
Dibromochloromethane	22.170	0.50	20.00	0	111	80	122				
Dibromomethane	19.880	0.50	20.00	0	99.4	80	120				
Dichlorodifluoromethane	23.660	0.50	20.00	0	118	53	166				
Ethylbenzene	19.550	0.50	20.00	0	97.8	80	120				
Hexachlorobutadiene	22.050	0.50	20.00	0	110	79	123				
Isopropylbenzene	20.260	0.50	20.00	0	101	80	120				
m,p-Xylene	40.370	1.0	40.00	0	101	80	120				
Methylene chloride	16.830	2.0	20.00	0	84.2	71	124				
MTBE	19.170	0.50	20.00	0	95.9	77	120				
n-Butylbenzene	19.390	0.50	20.00	0	97.0	80	127				
n-Propylbenzene	19.370	0.50	20.00	0	96.9	80	122				
Naphthalene	18.050	0.50	20.00	0	90.3	63	131				
o-Xylene	20.620	0.50	20.00	0	103	80	120				
sec-Butylbenzene	19.470	0.50	20.00	0	97.4	80	120				
Styrene	20.840	0.50	20.00	0	104	80	120				
tert-Butylbenzene	20.560	0.50	20.00	0	103	80	120				
Tetrachloroethene	21.480	0.50	20.00	0	107	80	120				
Toluene	19.980	0.50	20.00	0	99.9	80	120				
trans-1,2-Dichloroethene	19.160	0.50	20.00	0	95.8	78	126				
Trichloroethene	21.130	0.50	20.00	0	106	80	120				
Trichlorofluoromethane	21.990	0.50	20.00	0	110	67	149				
Vinyl chloride	18.000	0.50	20.00	0	90.0	70	135				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **LCSW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949746**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	60.990	1.5	60.00	0	102	70	130				
Surr: 1,2-Dichloroethane-d4	23.190		25.00		92.8	78	125				
Surr: 4-Bromofluorobenzene	25.770		25.00		103	80	120				
Surr: Dibromofluoromethane	23.770		25.00		95.1	80	122				
Surr: Toluene-d8	24.960		25.00		99.8	80	120				

Sample ID: **N014893-002AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.960	0.50	20.00	0	105	76	127				
1,1,1-Trichloroethane	19.780	0.50	20.00	0	98.9	72	125				
1,1,2,2-Tetrachloroethane	19.410	0.50	20.00	0	97.0	75	126				
1,1,2-Trichloroethane	20.360	0.50	20.00	0	102	80	120				
1,1-Dichloroethane	18.550	0.50	20.00	0	92.8	69	128				
1,1-Dichloroethene	20.290	0.50	20.00	0	101	62	135				
1,1-Dichloropropene	20.340	0.50	20.00	0	102	75	123				
1,2,3-Trichlorobenzene	21.000	0.50	20.00	0	105	66	129				
1,2,3-Trichloropropane	18.320	0.50	20.00	0	91.6	73	124				
1,2,4-Trichlorobenzene	20.830	0.50	20.00	0	104	63	131				
1,2,4-Trimethylbenzene	19.540	0.50	20.00	0	97.7	62	131				
1,2-Dibromo-3-chloropropane	21.640	1.0	20.00	0	108	66	126				
1,2-Dibromoethane	20.960	0.50	20.00	0	105	80	126				
1,2-Dichlorobenzene	19.580	0.50	20.00	0	97.9	80	120				
1,2-Dichloroethane	20.140	0.50	20.00	0	101	80	121				
1,2-Dichloropropane	19.120	0.50	20.00	0	95.6	79	120				
1,3,5-Trimethylbenzene	19.810	0.50	20.00	0	99.0	69	128				
1,3-Dichlorobenzene	19.730	0.50	20.00	0	98.6	80	120				
1,3-Dichloropropane	19.670	0.50	20.00	0	98.4	80	120				
1,4-Dichlorobenzene	19.340	0.50	20.00	0	96.7	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014893-002AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	19.860	0.50	20.00	0	99.3	56	144				
2-Butanone	172.430	5.0	200.0	0	86.2	4	163				
2-Chlorotoluene	18.800	0.50	20.00	0	94.0	79	120				
4-Chlorotoluene	19.040	0.50	20.00	0	95.2	79	120				
4-Isopropyltoluene	19.950	0.50	20.00	0	99.8	70	128				
Benzene	19.770	0.50	20.00	0	98.8	80	120				
Bromobenzene	20.170	0.50	20.00	0	101	80	120				
Bromodichloromethane	20.620	0.50	20.00	0	103	80	124				
Bromoform	21.430	0.50	20.00	0	107	66	139				
Bromomethane	4.290	1.0	20.00	0	21.4	18	174				
Carbon tetrachloride	23.560	0.50	20.00	0	118	59	144				
Chlorobenzene	19.440	0.50	20.00	0	97.2	80	120				
Chloroethane	21.030	1.0	20.00	0	105	62	145				
Chloroform	18.530	0.50	20.00	0	92.6	74	120				
Chloromethane	11.230	0.50	20.00	0	56.2	37	157				
cis-1,2-Dichloroethene	19.000	0.50	20.00	0	95.0	73	125				
cis-1,3-Dichloropropene	20.070	0.50	20.00	0	100	80	123				
Dibromochloromethane	22.210	0.50	20.00	0	111	77	130				
Dibromomethane	20.350	0.50	20.00	0	102	70	132				
Dichlorodifluoromethane	22.510	0.50	20.00	0	113	47	159				
Ethylbenzene	19.330	0.50	20.00	0	96.7	79	120				
Hexachlorobutadiene	21.340	0.50	20.00	0	107	66	128				
Isopropylbenzene	19.650	0.50	20.00	0	98.2	78	120				
m,p-Xylene	39.910	1.0	40.00	0	99.8	80	120				
Methylene chloride	16.150	2.0	20.00	0	80.8	65	122				
MTBE	19.020	0.50	20.00	0	95.1	71	125				
n-Butylbenzene	18.970	0.50	20.00	0	94.8	65	134				
n-Propylbenzene	19.090	0.50	20.00	0	95.4	78	121				
Naphthalene	18.210	0.50	20.00	0	91.1	52	137				
o-Xylene	20.370	0.50	20.00	0	102	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014893-002AMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	19.160	0.50	20.00	0	95.8	76	122				
Styrene	20.150	0.50	20.00	0	101	43	145				
tert-Butylbenzene	20.160	0.50	20.00	0	101	78	120				
Tetrachloroethene	20.980	0.50	20.00	0	105	71	123				
Toluene	19.790	0.50	20.00	0	99.0	80	120				
trans-1,2-Dichloroethene	19.090	0.50	20.00	0	95.4	64	132				
Trichloroethene	20.980	0.50	20.00	0	105	79	121				
Trichlorofluoromethane	21.420	0.50	20.00	0	107	65	144				
Vinyl chloride	17.760	0.50	20.00	0	88.8	64	134				
Xylenes, Total	60.280	1.5	60.00	0	100	70	130				
Surr: 1,2-Dichloroethane-d4	23.520		25.00		94.1	78	125				
Surr: 4-Bromofluorobenzene	25.820		25.00		103	80	120				
Surr: Dibromofluoromethane	24.390		25.00		97.6	80	122				
Surr: Toluene-d8	25.330		25.00		101	80	120				

Sample ID: **N014893-002AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.420	0.50	20.00	0	107	76	127	20.96	2.17	20	
1,1,1-Trichloroethane	20.340	0.50	20.00	0	102	72	125	19.78	2.79	20	
1,1,2,2-Tetrachloroethane	19.130	0.50	20.00	0	95.7	75	126	19.41	1.45	20	
1,1,2-Trichloroethane	19.920	0.50	20.00	0	99.6	80	120	20.36	2.18	20	
1,1-Dichloroethane	18.370	0.50	20.00	0	91.9	69	128	18.55	0.975	20	
1,1-Dichloroethene	20.840	0.50	20.00	0	104	62	135	20.29	2.67	20	
1,1-Dichloropropene	20.290	0.50	20.00	0	101	75	123	20.34	0.246	20	
1,2,3-Trichlorobenzene	20.710	0.50	20.00	0	104	66	129	21.00	1.39	20	
1,2,3-Trichloropropane	18.520	0.50	20.00	0	92.6	73	124	18.32	1.09	20	
1,2,4-Trichlorobenzene	20.900	0.50	20.00	0	104	63	131	20.83	0.335	20	
1,2,4-Trimethylbenzene	19.570	0.50	20.00	0	97.9	62	131	19.54	0.153	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014893-002AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	20.880	1.0	20.00	0	104	66	126	21.64	3.57	20	
1,2-Dibromoethane	21.470	0.50	20.00	0	107	80	126	20.96	2.40	20	
1,2-Dichlorobenzene	19.150	0.50	20.00	0	95.8	80	120	19.58	2.22	20	
1,2-Dichloroethane	19.850	0.50	20.00	0	99.2	80	121	20.14	1.45	20	
1,2-Dichloropropane	18.630	0.50	20.00	0	93.2	79	120	19.12	2.60	20	
1,3,5-Trimethylbenzene	19.860	0.50	20.00	0	99.3	69	128	19.81	0.252	20	
1,3-Dichlorobenzene	19.720	0.50	20.00	0	98.6	80	120	19.73	0.0507	20	
1,3-Dichloropropane	20.140	0.50	20.00	0	101	80	120	19.67	2.36	20	
1,4-Dichlorobenzene	19.330	0.50	20.00	0	96.7	80	120	19.34	0.0517	20	
2,2-Dichloropropane	19.490	0.50	20.00	0	97.5	56	144	19.86	1.88	20	
2-Butanone	174.920	5.0	200.0	0	87.5	4	163	172.4	1.43	20	
2-Chlorotoluene	19.200	0.50	20.00	0	96.0	79	120	18.80	2.11	20	
4-Chlorotoluene	19.020	0.50	20.00	0	95.1	79	120	19.04	0.105	20	
4-Isopropyltoluene	20.250	0.50	20.00	0	101	70	128	19.95	1.49	20	
Benzene	19.390	0.50	20.00	0	97.0	80	120	19.77	1.94	20	
Bromobenzene	20.220	0.50	20.00	0	101	80	120	20.17	0.248	20	
Bromodichloromethane	20.330	0.50	20.00	0	102	80	124	20.62	1.42	20	
Bromoform	21.740	0.50	20.00	0	109	66	139	21.43	1.44	20	
Bromomethane	4.600	1.0	20.00	0	23.0	18	174	4.290	6.97	20	
Carbon tetrachloride	23.560	0.50	20.00	0	118	59	144	23.56	0	20	
Chlorobenzene	19.600	0.50	20.00	0	98.0	80	120	19.44	0.820	20	
Chloroethane	28.120	1.0	20.00	0	141	62	145	21.03	28.9	20	R
Chloroform	19.080	0.50	20.00	0	95.4	74	120	18.53	2.92	20	
Chloromethane	11.340	0.50	20.00	0	56.7	37	157	11.23	0.975	20	
cis-1,2-Dichloroethene	19.210	0.50	20.00	0	96.0	73	125	19.00	1.10	20	
cis-1,3-Dichloropropene	20.040	0.50	20.00	0	100	80	123	20.07	0.150	20	
Dibromochloromethane	22.900	0.50	20.00	0	114	77	130	22.21	3.06	20	
Dibromomethane	20.010	0.50	20.00	0	100	70	132	20.35	1.68	20	
Dichlorodifluoromethane	22.900	0.50	20.00	0	114	47	159	22.51	1.72	20	
Ethylbenzene	19.440	0.50	20.00	0	97.2	79	120	19.33	0.567	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N014893-002AMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **ZZZZZZ** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	20.870	0.50	20.00	0	104	66	128	21.34	2.23	20	
Isopropylbenzene	19.650	0.50	20.00	0	98.2	78	120	19.65	0	20	
m,p-Xylene	41.020	1.0	40.00	0	103	80	120	39.91	2.74	20	
Methylene chloride	16.390	2.0	20.00	0	82.0	65	122	16.15	1.48	20	
MTBE	19.300	0.50	20.00	0	96.5	71	125	19.02	1.46	20	
n-Butylbenzene	19.020	0.50	20.00	0	95.1	65	134	18.97	0.263	20	
n-Propylbenzene	19.010	0.50	20.00	0	95.1	78	121	19.09	0.420	20	
Naphthalene	18.490	0.50	20.00	0	92.5	52	137	18.21	1.53	20	
o-Xylene	20.870	0.50	20.00	0	104	80	120	20.37	2.42	20	
sec-Butylbenzene	19.190	0.50	20.00	0	96.0	76	122	19.16	0.156	20	
Styrene	20.700	0.50	20.00	0	104	43	145	20.15	2.69	20	
tert-Butylbenzene	20.090	0.50	20.00	0	100	78	120	20.16	0.348	20	
Tetrachloroethene	21.580	0.50	20.00	0	108	71	123	20.98	2.82	20	
Toluene	19.520	0.50	20.00	0	97.6	80	120	19.79	1.37	20	
trans-1,2-Dichloroethene	18.840	0.50	20.00	0	94.2	64	132	19.09	1.32	20	
Trichloroethene	20.810	0.50	20.00	0	104	79	121	20.98	0.814	20	
Trichlorofluoromethane	21.520	0.50	20.00	0	108	65	144	21.42	0.466	20	
Vinyl chloride	17.900	0.50	20.00	0	89.5	64	134	17.76	0.785	20	
Xylenes, Total	61.890	1.5	60.00	0	103	70	130	60.28	2.64	20	
Surr: 1,2-Dichloroethane-d4	23.650		25.00		94.6	78	125		0		
Surr: 4-Bromofluorobenzene	26.070		25.00		104	80	120		0		
Surr: Dibromofluoromethane	24.730		25.00		98.9	80	122		0		
Surr: Toluene-d8	24.900		25.00		99.6	80	120		0		

Sample ID: **P150310MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **PBW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **PBW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Butanone	ND	5.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **PBW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	ND	1.0									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	0.490	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	24.460		25.00		97.8	78	125				
Surr: 4-Bromofluorobenzene	24.360		25.00		97.4	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150310MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99373**
Client ID: **PBW** Batch ID: **P15VW038** TestNo: **EPA 8260B** Analysis Date: **3/10/2015** SeqNo: **1949749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	25.240		25.00		101	80	122				
Surr: Toluene-d8	24.960		25.00		99.8	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.670	0.50	20.00	0	108	80	121				
1,1,1-Trichloroethane	20.590	0.50	20.00	0	103	77	122				
1,1,2,2-Tetrachloroethane	18.540	0.50	20.00	0	92.7	77	123				
1,1,2-Trichloroethane	20.180	0.50	20.00	0	101	87	120				
1,1-Dichloroethane	17.890	0.50	20.00	0	89.4	72	127				
1,1-Dichloroethene	21.880	0.50	20.00	0	109	71	127				
1,1-Dichloropropene	20.720	0.50	20.00	0	104	87	120				
1,2,3-Trichlorobenzene	20.600	0.50	20.00	0	103	77	124				
1,2,3-Trichloropropane	18.350	0.50	20.00	0	91.8	77	120				
1,2,4-Trichlorobenzene	20.440	0.50	20.00	0	102	76	122				
1,2,4-Trimethylbenzene	19.260	0.50	20.00	0	96.3	85	120				
1,2-Dibromo-3-chloropropane	21.980	1.0	20.00	0	110	67	125				
1,2-Dibromoethane	21.400	0.50	20.00	0	107	80	120				
1,2-Dichlorobenzene	19.250	0.50	20.00	0	96.2	80	120				
1,2-Dichloroethane	20.590	0.50	20.00	0	103	80	120				
1,2-Dichloropropane	18.830	0.50	20.00	0	94.2	80	120				
1,3,5-Trimethylbenzene	19.450	0.50	20.00	0	97.3	80	120				
1,3-Dichlorobenzene	19.450	0.50	20.00	0	97.3	80	120				
1,3-Dichloropropane	19.090	0.50	20.00	0	95.4	80	120				
1,4-Dichlorobenzene	19.210	0.50	20.00	0	96.0	80	120				
2,2-Dichloropropane	20.420	0.50	20.00	0	102	53	142				
2-Butanone	186.550	5.0	200.0	0	93.3	23	175				
2-Chlorotoluene	18.470	0.50	20.00	0	92.4	80	120				
4-Chlorotoluene	18.510	0.50	20.00	0	92.6	80	120				
4-Isopropyltoluene	19.700	0.50	20.00	0	98.5	80	120				
Benzene	19.540	0.50	20.00	0	97.7	80	120				
Bromobenzene	19.810	0.50	20.00	0	99.0	80	120				
Bromodichloromethane	21.020	0.50	20.00	0	105	80	120				
Bromoform	22.690	0.50	20.00	0	113	72	133				
Bromomethane	8.190	1.0	20.00	0	41.0	19	178				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	24.960	0.50	20.00	0	125	72	131				
Chlorobenzene	19.430	0.50	20.00	0	97.2	80	120				
Chloroethane	26.310	1.0	20.00	0	132	66	140				
Chloroform	18.980	0.50	20.00	0	94.9	77	120				
Chloromethane	15.110	0.50	20.00	0	75.6	47	154				
cis-1,2-Dichloroethene	18.940	0.50	20.00	0	94.7	80	120				
cis-1,3-Dichloropropene	19.980	0.50	20.00	0	99.9	80	120				
Dibromochloromethane	23.020	0.50	20.00	0	115	80	122				
Dibromomethane	21.080	0.50	20.00	0	105	80	120				
Dichlorodifluoromethane	23.300	0.50	20.00	0	116	53	166				
Ethylbenzene	19.330	0.50	20.00	0	96.7	80	120				
Hexachlorobutadiene	21.690	0.50	20.00	0	108	79	123				
Isopropylbenzene	19.060	0.50	20.00	0	95.3	80	120				
m,p-Xylene	40.450	1.0	40.00	0	101	80	120				
Methylene chloride	17.550	2.0	20.00	0	87.8	71	124				
MTBE	18.670	0.50	20.00	0	93.4	77	120				
n-Butylbenzene	18.690	0.50	20.00	0	93.5	80	127				
n-Propylbenzene	18.490	0.50	20.00	0	92.5	80	122				
Naphthalene	17.310	0.50	20.00	0	86.6	63	131				
o-Xylene	20.460	0.50	20.00	0	102	80	120				
sec-Butylbenzene	19.200	0.50	20.00	0	96.0	80	120				
Styrene	20.690	0.50	20.00	0	103	80	120				
tert-Butylbenzene	19.620	0.50	20.00	0	98.1	80	120				
Tetrachloroethene	21.130	0.50	20.00	0	106	80	120				
Toluene	19.700	0.50	20.00	0	98.5	80	120				
trans-1,2-Dichloroethene	18.300	0.50	20.00	0	91.5	78	126				
Trichloroethene	20.740	0.50	20.00	0	104	80	120				
Trichlorofluoromethane	23.010	0.50	20.00	0	115	67	149				
Vinyl chloride	18.840	0.50	20.00	0	94.2	70	135				
Xylenes, Total	60.910	1.5	60.00	0	102	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	24.120		25.00		96.5	78	125				
Surr: 4-Bromofluorobenzene	25.970		25.00		104	80	120				
Surr: Dibromofluoromethane	24.810		25.00		99.2	80	122				
Surr: Toluene-d8	25.130		25.00		101	80	120				

Sample ID: **P150311LCSD** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSS02** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.390	0.50	20.00	0	107	80	121	21.67	1.30	20	
1,1,1-Trichloroethane	20.960	0.50	20.00	0	105	77	122	20.59	1.78	20	
1,1,2,2-Tetrachloroethane	19.180	0.50	20.00	0	95.9	77	123	18.54	3.39	20	
1,1,2-Trichloroethane	20.510	0.50	20.00	0	103	87	120	20.18	1.62	20	
1,1-Dichloroethane	18.060	0.50	20.00	0	90.3	72	127	17.89	0.946	20	
1,1-Dichloroethene	21.690	0.50	20.00	0	108	71	127	21.88	0.872	20	
1,1-Dichloropropene	20.440	0.50	20.00	0	102	87	120	20.72	1.36	20	
1,2,3-Trichlorobenzene	21.100	0.50	20.00	0	106	77	124	20.60	2.40	20	
1,2,3-Trichloropropane	18.520	0.50	20.00	0	92.6	77	120	18.35	0.922	20	
1,2,4-Trichlorobenzene	20.570	0.50	20.00	0	103	76	122	20.44	0.634	20	
1,2,4-Trimethylbenzene	19.460	0.50	20.00	0	97.3	85	120	19.26	1.03	20	
1,2-Dibromo-3-chloropropane	22.270	1.0	20.00	0	111	67	125	21.98	1.31	20	
1,2-Dibromoethane	21.510	0.50	20.00	0	108	80	120	21.40	0.513	20	
1,2-Dichlorobenzene	19.840	0.50	20.00	0	99.2	80	120	19.25	3.02	20	
1,2-Dichloroethane	20.610	0.50	20.00	0	103	80	120	20.59	0.0971	20	
1,2-Dichloropropane	18.570	0.50	20.00	0	92.8	80	120	18.83	1.39	20	
1,3,5-Trimethylbenzene	19.520	0.50	20.00	0	97.6	80	120	19.45	0.359	20	
1,3-Dichlorobenzene	19.870	0.50	20.00	0	99.4	80	120	19.45	2.14	20	
1,3-Dichloropropane	19.270	0.50	20.00	0	96.4	80	120	19.09	0.938	20	
1,4-Dichlorobenzene	19.660	0.50	20.00	0	98.3	80	120	19.21	2.32	20	
2,2-Dichloropropane	19.670	0.50	20.00	0	98.4	53	142	20.42	3.74	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311LCSD** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSS02** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Butanone	176.670	5.0	200.0	0	88.3	23	175	186.6	5.44	20	
2-Chlorotoluene	18.810	0.50	20.00	0	94.1	80	120	18.47	1.82	20	
4-Chlorotoluene	18.720	0.50	20.00	0	93.6	80	120	18.51	1.13	20	
4-Isopropyltoluene	19.750	0.50	20.00	0	98.8	80	120	19.70	0.253	20	
Benzene	19.390	0.50	20.00	0	97.0	80	120	19.54	0.771	20	
Bromobenzene	20.400	0.50	20.00	0	102	80	120	19.81	2.93	20	
Bromodichloromethane	20.720	0.50	20.00	0	104	80	120	21.02	1.44	20	
Bromoform	23.140	0.50	20.00	0	116	72	133	22.69	1.96	20	
Bromomethane	8.140	1.0	20.00	0	40.7	19	178	8.190	0.612	20	
Carbon tetrachloride	25.120	0.50	20.00	0	126	72	131	24.96	0.639	20	
Chlorobenzene	19.420	0.50	20.00	0	97.1	80	120	19.43	0.0515	20	
Chloroethane	25.110	1.0	20.00	0	126	66	140	26.31	4.67	20	
Chloroform	18.840	0.50	20.00	0	94.2	77	120	18.98	0.740	20	
Chloromethane	15.790	0.50	20.00	0	79.0	47	154	15.11	4.40	20	
cis-1,2-Dichloroethene	18.750	0.50	20.00	0	93.8	80	120	18.94	1.01	20	
cis-1,3-Dichloropropene	20.040	0.50	20.00	0	100	80	120	19.98	0.300	20	
Dibromochloromethane	22.770	0.50	20.00	0	114	80	122	23.02	1.09	20	
Dibromomethane	20.550	0.50	20.00	0	103	80	120	21.08	2.55	20	
Dichlorodifluoromethane	23.340	0.50	20.00	0	117	53	166	23.30	0.172	20	
Ethylbenzene	19.130	0.50	20.00	0	95.7	80	120	19.33	1.04	20	
Hexachlorobutadiene	21.640	0.50	20.00	0	108	79	123	21.69	0.231	20	
Isopropylbenzene	19.420	0.50	20.00	0	97.1	80	120	19.06	1.87	20	
m,p-Xylene	40.020	1.0	40.00	0	100	80	120	40.45	1.07	20	
Methylene chloride	17.710	2.0	20.00	0	88.6	71	124	17.55	0.908	20	
MTBE	18.730	0.50	20.00	0	93.6	77	120	18.67	0.321	20	
n-Butylbenzene	19.170	0.50	20.00	0	95.9	80	127	18.69	2.54	20	
n-Propylbenzene	18.830	0.50	20.00	0	94.2	80	122	18.49	1.82	20	
Naphthalene	17.610	0.50	20.00	0	88.0	63	131	17.31	1.72	20	
o-Xylene	20.320	0.50	20.00	0	102	80	120	20.46	0.687	20	
sec-Butylbenzene	19.330	0.50	20.00	0	96.7	80	120	19.20	0.675	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311LCSD** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **LCSS02** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/11/2015** SeqNo: **1950652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	20.630	0.50	20.00	0	103	80	120	20.69	0.290	20	
tert-Butylbenzene	19.960	0.50	20.00	0	99.8	80	120	19.62	1.72	20	
Tetrachloroethene	21.470	0.50	20.00	0	107	80	120	21.13	1.60	20	
Toluene	19.990	0.50	20.00	0	100	80	120	19.70	1.46	20	
trans-1,2-Dichloroethene	18.630	0.50	20.00	0	93.2	78	126	18.30	1.79	20	
Trichloroethene	21.050	0.50	20.00	0	105	80	120	20.74	1.48	20	
Trichlorofluoromethane	22.910	0.50	20.00	0	115	67	149	23.01	0.436	20	
Vinyl chloride	18.930	0.50	20.00	0	94.6	70	135	18.84	0.477	20	
Xylenes, Total	60.340	1.5	60.00	0	101	70	130	60.91	0.940	20	
Surr: 1,2-Dichloroethane-d4	23.740		25.00		95.0	78	125		0		
Surr: 4-Bromofluorobenzene	25.720		25.00		103	80	120		0		
Surr: Dibromofluoromethane	24.210		25.00		96.8	80	122		0		
Surr: Toluene-d8	24.970		25.00		99.9	80	120		0		

Sample ID: **P150311MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **PBW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1950653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	1.0									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **PBW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1950653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Butanone	ND	5.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	1.0									
Chloroform	ND	0.50									
Chloromethane	0.350	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014893
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150311MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99397**
Client ID: **PBW** Batch ID: **P15VW040** TestNo: **EPA 8260B** Analysis Date: **3/12/2015** SeqNo: **1950653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	25.340		25.00		101	78	125				
Surr: 4-Bromofluorobenzene	24.850		25.00		99.4	80	120				
Surr: Dibromofluoromethane	25.670		25.00		103	80	122				
Surr: Toluene-d8	25.360		25.00		101	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

March 25, 2015

Andrew Stuart
Cardno ATC
7115 Amigo Street Suite 100
Las Vegas, NV 89119

TEL: (702) 990-9300
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014984

RE: Maryland Square, Z085000030

Attention: Andrew Stuart

Enclosed are the results for sample(s) received on March 13, 2015 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

I hereby certify that all laboratory analysis requested were performed by Nevada Division of Environmental Protection-certified laboratory for the parameters and matrices reported herein.

Thank you for the opportunity to service the needs of your company.Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Glen Gesmundo
QA Manager

ASSET Laboratories **Date:** *25-Mar-15*

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014984

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Analytical Comments for EPA 8260B:

Dilution was necessary on samples N014984-005 and N014984-016 due to high concentration of Tetrachloroethene.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery for Arsenic and Chromium on QC samples N014985-001B-MS and N014985-001B-MSD criteria possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Hexavalent Chromium was repoted at 1.5 ug/L while Chromium was ND on sample N014984-023. Chromium was detected at concentration of 0.5 ug/L (J-flag value) which is less than the PQL of 1 ug/L.

ASSET Laboratories

Date: *25-Mar-15*

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014984
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014984-001A	MW-1	Groundwater	3/13/2015 12:46:00 PM	3/13/2015	3/25/2015
N014984-002A	MW-2	Groundwater	3/11/2015 1:05:00 PM	3/13/2015	3/25/2015
N014984-003A	MW-3	Groundwater	3/11/2015 11:25:00 AM	3/13/2015	3/25/2015
N014984-004A	MW-5	Groundwater	3/11/2015 2:05:00 PM	3/13/2015	3/25/2015
N014984-005A	MW-6	Groundwater	3/12/2015 2:32:00 PM	3/13/2015	3/25/2015
N014984-006A	MW-6D1	Groundwater	3/12/2015 1:05:00 PM	3/13/2015	3/25/2015
N014984-007A	MW-6D2	Groundwater	3/12/2015 11:00:00 AM	3/13/2015	3/25/2015
N014984-008A	MW-6D3	Groundwater	3/12/2015 11:55:00 AM	3/13/2015	3/25/2015
N014984-009A	MW-7	Groundwater	3/9/2015 2:00:00 PM	3/13/2015	3/25/2015
N014984-010A	MW-8	Groundwater	3/9/2015 12:37:00 PM	3/13/2015	3/25/2015
N014984-011A	MW-9	Groundwater	3/13/2015 11:26:00 AM	3/13/2015	3/25/2015
N014984-012A	MW-10	Groundwater	3/12/2015 9:00:00 AM	3/13/2015	3/25/2015
N014984-013A	MW-12	Groundwater	3/9/2015 11:43:00 AM	3/13/2015	3/25/2015
N014984-014A	MW-13	Groundwater	3/11/2015 12:05:00 PM	3/13/2015	3/25/2015
N014984-015A	MW-14	Groundwater	3/12/2015 1:50:00 PM	3/13/2015	3/25/2015
N014984-016A	MW-14I	Groundwater	3/12/2015 3:18:00 PM	3/13/2015	3/25/2015
N014984-017A	MW-15	Groundwater	3/12/2015 10:00:00 AM	3/13/2015	3/25/2015
N014984-018A	MW-17	Groundwater	3/13/2015 12:08:00 PM	3/13/2015	3/25/2015
N014984-019A	MW-18	Groundwater	3/11/2015 10:25:00 AM	3/13/2015	3/25/2015
N014984-020A	MW-19D1	Groundwater	3/10/2015 2:55:00 PM	3/13/2015	3/25/2015
N014984-021A	MW-19D2	Groundwater	3/10/2015 12:55:00 PM	3/13/2015	3/25/2015
N014984-022A	MW-19D3	Groundwater	3/10/2015 1:55:00 PM	3/13/2015	3/25/2015
N014984-023A	MW-20	Groundwater	3/11/2015 9:20:00 AM	3/13/2015	3/25/2015
N014984-023B	MW-20	Groundwater	3/11/2015 9:20:00 AM	3/13/2015	3/25/2015
N014984-023C	MW-20	Groundwater	3/11/2015 9:20:00 AM	3/13/2015	3/25/2015
N014984-024A	MW-20D1	Groundwater	3/10/2015 11:05:00 AM	3/13/2015	3/25/2015
N014984-025A	MW-20D2	Groundwater	3/10/2015 12:00:00 PM	3/13/2015	3/25/2015
N014984-026A	MW-20D3	Groundwater	3/10/2015 10:10:00 AM	3/13/2015	3/25/2015
N014984-027A	MW-34	Groundwater	3/13/2015 2:16:00 PM	3/13/2015	3/25/2015

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES
CALIFORNIA
11060 Artesia Blvd., Ste C, Cerritos, CA 90703
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NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

CLIENT: Cardno ATC
Project: Maryland Square, Z085000030
Lab Order: N014984
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014984-028A	MW-35	Groundwater	3/13/2015 1:29:00 PM	3/13/2015	3/25/2015
N014984-029A	MW-1DUP	Groundwater	3/13/2015 12:40:00 PM	3/13/2015	3/25/2015
N014984-030A	TRIP BLANK 03/13/15	Groundwater	3/13/2015 10:00:00 AM	3/13/2015	3/25/2015
N014984-031A	FIELD BLANK 03/13/15	Groundwater	3/13/2015 12:25:00 PM	3/13/2015	3/25/2015
N014984-032A	EQUIPMENT RINSE 03/13/15	Groundwater	3/13/2015 1:35:00 PM	3/13/2015	3/25/2015

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-001

Client Sample ID: MW-1
Collection Date: 3/13/2015 12:46:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 06:03 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 06:03 AM
Tetrachloroethene	210	1.2	5.0		µg/L	10	3/18/2015 09:54 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 06:03 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 06:03 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 06:03 AM
Surr: 1,2-Dichloroethane-d4	91.0	0	78-125		%REC	10	3/18/2015 09:54 PM
Surr: 1,2-Dichloroethane-d4	103	0	78-125		%REC	1	3/17/2015 06:03 AM
Surr: 4-Bromofluorobenzene	102	0	80-120		%REC	10	3/18/2015 09:54 PM
Surr: 4-Bromofluorobenzene	99.2	0	80-120		%REC	1	3/17/2015 06:03 AM
Surr: Dibromofluoromethane	95.6	0	80-122		%REC	10	3/18/2015 09:54 PM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/17/2015 06:03 AM
Surr: Toluene-d8	103	0	80-120		%REC	10	3/18/2015 09:54 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 06:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-002

Client Sample ID: MW-2
Collection Date: 3/11/2015 1:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 07:18 AM
cis-1,2-Dichloroethene	0.61	0.057	0.50		µg/L	1	3/17/2015 07:18 AM
Tetrachloroethene	550	1.2	5.0		µg/L	10	3/18/2015 10:43 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 07:18 AM
Trichloroethene	2.3	0.074	0.50		µg/L	1	3/17/2015 07:18 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 07:18 AM
Surr: 1,2-Dichloroethane-d4	92.8	0	78-125		%REC	10	3/18/2015 10:43 PM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 07:18 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	10	3/18/2015 10:43 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/17/2015 07:18 AM
Surr: Dibromofluoromethane	98.1	0	80-122		%REC	10	3/18/2015 10:43 PM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/17/2015 07:18 AM
Surr: Toluene-d8	101	0	80-120		%REC	10	3/18/2015 10:43 PM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/17/2015 07:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-003

Client Sample ID: MW-3
Collection Date: 3/11/2015 11:25:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 03:55 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 03:55 AM
Tetrachloroethene	13	0.12	0.50		µg/L	1	3/17/2015 03:55 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:55 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:55 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 03:55 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 03:55 AM
Surr: 4-Bromofluorobenzene	99.0	0	80-120		%REC	1	3/17/2015 03:55 AM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/17/2015 03:55 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 03:55 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-004

Client Sample ID: MW-5
Collection Date: 3/11/2015 2:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 07:43 AM
cis-1,2-Dichloroethene	1.2	0.057	0.50		µg/L	1	3/17/2015 07:43 AM
Tetrachloroethene	790	2.3	10		µg/L	20	3/18/2015 11:08 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 07:43 AM
Trichloroethene	3.7	0.074	0.50		µg/L	1	3/17/2015 07:43 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 07:43 AM
Surr: 1,2-Dichloroethane-d4	92.6	0	78-125		%REC	20	3/18/2015 11:08 PM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 07:43 AM
Surr: 4-Bromofluorobenzene	98.9	0	80-120		%REC	20	3/18/2015 11:08 PM
Surr: 4-Bromofluorobenzene	99.0	0	80-120		%REC	1	3/17/2015 07:43 AM
Surr: Dibromofluoromethane	98.5	0	80-122		%REC	20	3/18/2015 11:08 PM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/17/2015 07:43 AM
Surr: Toluene-d8	99.9	0	80-120		%REC	20	3/18/2015 11:08 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 07:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-005

Client Sample ID: MW-6
Collection Date: 3/12/2015 2:32:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.33	1.0		µg/L	2	3/19/2015 09:20 PM
cis-1,2-Dichloroethene	2.3	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
Tetrachloroethene	3300	12	50		µg/L	100	3/18/2015 11:33 PM
trans-1,2-Dichloroethene	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
Trichloroethene	9.3	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
Vinyl chloride	ND	0.088	1.0		µg/L	2	3/19/2015 09:20 PM
Surr: 1,2-Dichloroethane-d4	99.9	0	78-125		%REC	2	3/19/2015 09:20 PM
Surr: 1,2-Dichloroethane-d4	94.2	0	78-125		%REC	100	3/18/2015 11:33 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	2	3/19/2015 09:20 PM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	100	3/18/2015 11:33 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	2	3/19/2015 09:20 PM
Surr: Dibromofluoromethane	97.8	0	80-122		%REC	100	3/18/2015 11:33 PM
Surr: Toluene-d8	101	0	80-120		%REC	2	3/19/2015 09:20 PM
Surr: Toluene-d8	99.8	0	80-120		%REC	100	3/18/2015 11:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-006

Client Sample ID: MW-6D1
Collection Date: 3/12/2015 1:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 03:30 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 03:30 AM
Tetrachloroethene	3.0	0.12	0.50		µg/L	1	3/17/2015 03:30 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:30 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:30 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 03:30 AM
Surr: 1,2-Dichloroethane-d4	99.4	0	78-125		%REC	1	3/17/2015 03:30 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/17/2015 03:30 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/17/2015 03:30 AM
Surr: Toluene-d8	99.6	0	80-120		%REC	1	3/17/2015 03:30 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-007

Client Sample ID: MW-6D2
Collection Date: 3/12/2015 11:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 01:00 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 01:00 AM
Tetrachloroethene	3.2	0.12	0.50		µg/L	1	3/17/2015 01:00 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 01:00 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 01:00 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 01:00 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 01:00 AM
Surr: 4-Bromofluorobenzene	98.4	0	80-120		%REC	1	3/17/2015 01:00 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/17/2015 01:00 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 01:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-008

Client Sample ID: MW-6D3
Collection Date: 3/12/2015 11:55:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 01:25 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 01:25 AM
Tetrachloroethene	32	0.12	0.50		µg/L	1	3/17/2015 01:25 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 01:25 AM
Trichloroethene	0.50	0.074	0.50		µg/L	1	3/17/2015 01:25 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 01:25 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/17/2015 01:25 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/17/2015 01:25 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/17/2015 01:25 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 01:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-009

Client Sample ID: MW-7
Collection Date: 3/9/2015 2:00:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 01:50 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 01:50 AM
Tetrachloroethene	17	0.12	0.50		µg/L	1	3/17/2015 01:50 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 01:50 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 01:50 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 01:50 AM
Surr: 1,2-Dichloroethane-d4	99.0	0	78-125		%REC	1	3/17/2015 01:50 AM
Surr: 4-Bromofluorobenzene	98.1	0	80-120		%REC	1	3/17/2015 01:50 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/17/2015 01:50 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 01:50 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-010

Client Sample ID: MW-8
Collection Date: 3/9/2015 12:37:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 02:15 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 02:15 AM
Tetrachloroethene	2.4	0.12	0.50		µg/L	1	3/17/2015 02:15 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 02:15 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 02:15 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 02:15 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/17/2015 02:15 AM
Surr: 4-Bromofluorobenzene	98.3	0	80-120		%REC	1	3/17/2015 02:15 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/17/2015 02:15 AM
Surr: Toluene-d8	98.9	0	80-120		%REC	1	3/17/2015 02:15 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-011

Client Sample ID: MW-9
Collection Date: 3/13/2015 11:26:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 03:05 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 03:05 AM
Tetrachloroethene	9.7	0.12	0.50		µg/L	1	3/17/2015 03:05 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:05 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 03:05 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 03:05 AM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	1	3/17/2015 03:05 AM
Surr: 4-Bromofluorobenzene	99.4	0	80-120		%REC	1	3/17/2015 03:05 AM
Surr: Dibromofluoromethane	106	0	80-122		%REC	1	3/17/2015 03:05 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 03:05 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-012

Client Sample ID: MW-10
Collection Date: 3/12/2015 9:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 12:10 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 12:10 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/17/2015 12:10 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 12:10 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 12:10 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 12:10 AM
Surr: 1,2-Dichloroethane-d4	98.7	0	78-125		%REC	1	3/17/2015 12:10 AM
Surr: 4-Bromofluorobenzene	99.0	0	80-120		%REC	1	3/17/2015 12:10 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/17/2015 12:10 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 12:10 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-013

Client Sample ID: MW-12
Collection Date: 3/9/2015 11:43:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 12:35 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 12:35 AM
Tetrachloroethene	0.77	0.12	0.50		µg/L	1	3/17/2015 12:35 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 12:35 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 12:35 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 12:35 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 12:35 AM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	1	3/17/2015 12:35 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/17/2015 12:35 AM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/17/2015 12:35 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-014

Client Sample ID: MW-13
Collection Date: 3/11/2015 12:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 09:45 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 09:45 PM
Tetrachloroethene	1700	5.9	25		µg/L	50	3/18/2015 11:58 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 09:45 PM
Trichloroethene	4.6	0.074	0.50		µg/L	1	3/19/2015 09:45 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 09:45 PM
Surr: 1,2-Dichloroethane-d4	99.9	0	78-125		%REC	1	3/19/2015 09:45 PM
Surr: 1,2-Dichloroethane-d4	92.2	0	78-125		%REC	50	3/18/2015 11:58 PM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/19/2015 09:45 PM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	50	3/18/2015 11:58 PM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/19/2015 09:45 PM
Surr: Dibromofluoromethane	98.1	0	80-122		%REC	50	3/18/2015 11:58 PM
Surr: Toluene-d8	103	0	80-120		%REC	1	3/19/2015 09:45 PM
Surr: Toluene-d8	98.5	0	80-120		%REC	50	3/18/2015 11:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-015

Client Sample ID: MW-14
Collection Date: 3/12/2015 1:50:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 08:08 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 08:08 AM
Tetrachloroethene	1900	5.9	25		µg/L	50	3/19/2015 12:48 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 08:08 AM
Trichloroethene	3.6	0.074	0.50		µg/L	1	3/17/2015 08:08 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 08:08 AM
Surr: 1,2-Dichloroethane-d4	97.4	0	78-125		%REC	50	3/19/2015 12:48 AM
Surr: 1,2-Dichloroethane-d4	105	0	78-125		%REC	1	3/17/2015 08:08 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	50	3/19/2015 12:48 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/17/2015 08:08 AM
Surr: Dibromofluoromethane	98.8	0	80-122		%REC	50	3/19/2015 12:48 AM
Surr: Dibromofluoromethane	106	0	80-122		%REC	1	3/17/2015 08:08 AM
Surr: Toluene-d8	101	0	80-120		%REC	50	3/19/2015 12:48 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 08:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-016

Client Sample ID: MW-14I
Collection Date: 3/12/2015 3:18:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.82	2.5		µg/L	5	3/19/2015 10:10 PM
cis-1,2-Dichloroethene	20	0.29	2.5		µg/L	5	3/19/2015 10:10 PM
Tetrachloroethene	11000	23	100		µg/L	200	3/19/2015 07:17 PM
trans-1,2-Dichloroethene	ND	0.37	2.5		µg/L	5	3/19/2015 10:10 PM
Trichloroethene	32	0.37	2.5		µg/L	5	3/19/2015 10:10 PM
Vinyl chloride	ND	0.22	2.5		µg/L	5	3/19/2015 10:10 PM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	5	3/19/2015 10:10 PM
Surr: 1,2-Dichloroethane-d4	101	0	78-125		%REC	200	3/19/2015 07:17 PM
Surr: 4-Bromofluorobenzene	98.4	0	80-120		%REC	5	3/19/2015 10:10 PM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	200	3/19/2015 07:17 PM
Surr: Dibromofluoromethane	107	0	80-122		%REC	5	3/19/2015 10:10 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	200	3/19/2015 07:17 PM
Surr: Toluene-d8	101	0	80-120		%REC	5	3/19/2015 10:10 PM
Surr: Toluene-d8	100	0	80-120		%REC	200	3/19/2015 07:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-017

Client Sample ID: MW-15
Collection Date: 3/12/2015 10:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 02:40 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 02:40 AM
Tetrachloroethene	3.6	0.12	0.50		µg/L	1	3/17/2015 02:40 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 02:40 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 02:40 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 02:40 AM
Surr: 1,2-Dichloroethane-d4	104	0	78-125		%REC	1	3/17/2015 02:40 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/17/2015 02:40 AM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/17/2015 02:40 AM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/17/2015 02:40 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-018

Client Sample ID: MW-17
Collection Date: 3/13/2015 12:08:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 05:38 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 05:38 AM
Tetrachloroethene	65	0.12	0.50		µg/L	1	3/17/2015 05:38 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 05:38 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 05:38 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 05:38 AM
Surr: 1,2-Dichloroethane-d4	105	0	78-125		%REC	1	3/17/2015 05:38 AM
Surr: 4-Bromofluorobenzene	99.8	0	80-120		%REC	1	3/17/2015 05:38 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	1	3/17/2015 05:38 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 05:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-019

Client Sample ID: MW-18
Collection Date: 3/11/2015 10:25:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 06:53 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 06:53 AM
Tetrachloroethene	1200	5.9	25		µg/L	50	3/19/2015 04:49 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 06:53 AM
Trichloroethene	2.5	0.074	0.50		µg/L	1	3/17/2015 06:53 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 06:53 AM
Surr: 1,2-Dichloroethane-d4	97.5	0	78-125		%REC	50	3/19/2015 04:49 PM
Surr: 1,2-Dichloroethane-d4	99.8	0	78-125		%REC	1	3/17/2015 06:53 AM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	50	3/19/2015 04:49 PM
Surr: 4-Bromofluorobenzene	97.8	0	80-120		%REC	1	3/17/2015 06:53 AM
Surr: Dibromofluoromethane	99.2	0	80-122		%REC	50	3/19/2015 04:49 PM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/17/2015 06:53 AM
Surr: Toluene-d8	101	0	80-120		%REC	50	3/19/2015 04:49 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 06:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-020

Client Sample ID: MW-19D1
Collection Date: 3/10/2015 2:55:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150318B** QC Batch: **P15VW046** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 02:02 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 02:02 AM
Tetrachloroethene	210	1.2	5.0		µg/L	10	3/19/2015 05:14 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 02:02 AM
Trichloroethene	1.3	0.074	0.50		µg/L	1	3/19/2015 02:02 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 02:02 AM
Surr: 1,2-Dichloroethane-d4	97.2	0	78-125		%REC	10	3/19/2015 05:14 PM
Surr: 1,2-Dichloroethane-d4	93.0	0	78-125		%REC	1	3/19/2015 02:02 AM
Surr: 4-Bromofluorobenzene	98.1	0	80-120		%REC	10	3/19/2015 05:14 PM
Surr: 4-Bromofluorobenzene	102	0	80-120		%REC	1	3/19/2015 02:02 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	10	3/19/2015 05:14 PM
Surr: Dibromofluoromethane	97.0	0	80-122		%REC	1	3/19/2015 02:02 AM
Surr: Toluene-d8	100	0	80-120		%REC	10	3/19/2015 05:14 PM
Surr: Toluene-d8	99.0	0	80-120		%REC	1	3/19/2015 02:02 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-021

Client Sample ID: MW-19D2
Collection Date: 3/10/2015 12:55:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150318B**	QC Batch: **P15VW046**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 01:37 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 01:37 AM
Tetrachloroethene	44	0.12	0.50		µg/L	1	3/19/2015 01:37 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 01:37 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 01:37 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 01:37 AM
Surr: 1,2-Dichloroethane-d4	95.0	0	78-125		%REC	1	3/19/2015 01:37 AM
Surr: 4-Bromofluorobenzene	97.7	0	80-120		%REC	1	3/19/2015 01:37 AM
Surr: Dibromofluoromethane	100	0	80-122		%REC	1	3/19/2015 01:37 AM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/19/2015 01:37 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-022

Client Sample ID: MW-19D3
Collection Date: 3/10/2015 1:55:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150318B**	QC Batch: **P15VW046**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 03:17 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 03:17 AM
Tetrachloroethene	41	0.12	0.50		µg/L	1	3/19/2015 03:17 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 03:17 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 03:17 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 03:17 AM
Surr: 1,2-Dichloroethane-d4	97.4	0	78-125		%REC	1	3/19/2015 03:17 AM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	1	3/19/2015 03:17 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/19/2015 03:17 AM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/19/2015 03:17 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-023

Client Sample ID: MW-20
Collection Date: 3/11/2015 9:20:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150318B**	QC Batch: **P15VW046**			PrepDate:			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 04:32 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 04:32 AM
Tetrachloroethene	680	2.3	10		µg/L	20	3/19/2015 05:38 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 04:32 AM
Trichloroethene	2.3	0.074	0.50		µg/L	1	3/19/2015 04:32 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 04:32 AM
Surr: 1,2-Dichloroethane-d4	96.7	0	78-125		%REC	20	3/19/2015 05:38 PM
Surr: 1,2-Dichloroethane-d4	98.2	0	78-125		%REC	1	3/19/2015 04:32 AM
Surr: 4-Bromofluorobenzene	97.6	0	80-120		%REC	1	3/19/2015 04:32 AM
Surr: 4-Bromofluorobenzene	98.6	0	80-120		%REC	20	3/19/2015 05:38 PM
Surr: Dibromofluoromethane	99.3	0	80-122		%REC	1	3/19/2015 04:32 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	20	3/19/2015 05:38 PM
Surr: Toluene-d8	102	0	80-120		%REC	20	3/19/2015 05:38 PM
Surr: Toluene-d8	99.0	0	80-120		%REC	1	3/19/2015 04:32 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **IC6_150314A**	QC Batch: **R99458**			PrepDate:			Analyst: **RB**
Hexavalent Chromium	1.5	0.015	0.20		µg/L	1	3/14/2015 02:48 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **ICP7_150322A**	QC Batch: **49923**			PrepDate:	**3/14/2015**		Analyst: **CEI**
Arsenic	1.3	0.027	0.10		µg/L	1	3/23/2015 12:28 AM
Chromium	ND	0.030	1.0		µg/L	1	3/23/2015 12:28 AM
Manganese	ND	0.026	0.50		µg/L	1	3/23/2015 12:28 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-024

Client Sample ID: MW-20D1
Collection Date: 3/10/2015 11:05:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150318B**	QC Batch: **P15VW046**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 03:42 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 03:42 AM
Tetrachloroethene	340	1.2	5.0		µg/L	10	3/19/2015 07:41 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 03:42 AM
Trichloroethene	0.98	0.074	0.50		µg/L	1	3/19/2015 03:42 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 03:42 AM
Surr: 1,2-Dichloroethane-d4	98.5	0	78-125		%REC	10	3/19/2015 07:41 PM
Surr: 1,2-Dichloroethane-d4	94.7	0	78-125		%REC	1	3/19/2015 03:42 AM
Surr: 4-Bromofluorobenzene	96.1	0	80-120		%REC	10	3/19/2015 07:41 PM
Surr: 4-Bromofluorobenzene	97.6	0	80-120		%REC	1	3/19/2015 03:42 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	10	3/19/2015 07:41 PM
Surr: Dibromofluoromethane	98.6	0	80-122		%REC	1	3/19/2015 03:42 AM
Surr: Toluene-d8	101	0	80-120		%REC	10	3/19/2015 07:41 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/19/2015 03:42 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-025

Client Sample ID: MW-20D2
Collection Date: 3/10/2015 12:00:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150318B** QC Batch: **P15VW046** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 02:52 AM
cis-1,2-Dichloroethene	0.96	0.057	0.50		µg/L	1	3/19/2015 02:52 AM
Tetrachloroethene	230	1.2	5.0		µg/L	10	3/19/2015 06:03 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 02:52 AM
Trichloroethene	1.9	0.074	0.50		µg/L	1	3/19/2015 02:52 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 02:52 AM
Surr: 1,2-Dichloroethane-d4	98.2	0	78-125		%REC	10	3/19/2015 06:03 PM
Surr: 1,2-Dichloroethane-d4	97.1	0	78-125		%REC	1	3/19/2015 02:52 AM
Surr: 4-Bromofluorobenzene	97.4	0	80-120		%REC	10	3/19/2015 06:03 PM
Surr: 4-Bromofluorobenzene	102	0	80-120		%REC	1	3/19/2015 02:52 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	10	3/19/2015 06:03 PM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/19/2015 02:52 AM
Surr: Toluene-d8	102	0	80-120		%REC	10	3/19/2015 06:03 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/19/2015 02:52 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-026

Client Sample ID: MW-20D3
Collection Date: 3/10/2015 10:10:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 02:22 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 02:22 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/19/2015 02:22 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 02:22 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 02:22 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 02:22 PM
Surr: 1,2-Dichloroethane-d4	97.3	0	78-125		%REC	1	3/19/2015 02:22 PM
Surr: 4-Bromofluorobenzene	98.0	0	80-120		%REC	1	3/19/2015 02:22 PM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/19/2015 02:22 PM
Surr: Toluene-d8	98.6	0	80-120		%REC	1	3/19/2015 02:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-027

Client Sample ID: MW-34
Collection Date: 3/13/2015 2:16:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150318B**	QC Batch: **P15VW046**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 04:58 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 04:58 AM
Tetrachloroethene	370	1.2	5.0		µg/L	10	3/19/2015 08:06 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 04:58 AM
Trichloroethene	0.91	0.074	0.50		µg/L	1	3/19/2015 04:58 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 04:58 AM
Surr: 1,2-Dichloroethane-d4	99.5	0	78-125		%REC	10	3/19/2015 08:06 PM
Surr: 1,2-Dichloroethane-d4	99.1	0	78-125		%REC	1	3/19/2015 04:58 AM
Surr: 4-Bromofluorobenzene	98.9	0	80-120		%REC	10	3/19/2015 08:06 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	1	3/19/2015 04:58 AM
Surr: Dibromofluoromethane	102	0	80-122		%REC	10	3/19/2015 08:06 PM
Surr: Dibromofluoromethane	100	0	80-122		%REC	1	3/19/2015 04:58 AM
Surr: Toluene-d8	102	0	80-120		%REC	10	3/19/2015 08:06 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/19/2015 04:58 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-028

Client Sample ID: MW-35
Collection Date: 3/13/2015 1:29:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150318B** QC Batch: **P15VW046** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 04:07 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 04:07 AM
Tetrachloroethene	180	0.59	2.5		µg/L	5	3/19/2015 08:31 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 04:07 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 04:07 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 04:07 AM
Surr: 1,2-Dichloroethane-d4	98.4	0	78-125		%REC	5	3/19/2015 08:31 PM
Surr: 1,2-Dichloroethane-d4	98.6	0	78-125		%REC	1	3/19/2015 04:07 AM
Surr: 4-Bromofluorobenzene	97.7	0	80-120		%REC	5	3/19/2015 08:31 PM
Surr: 4-Bromofluorobenzene	98.5	0	80-120		%REC	1	3/19/2015 04:07 AM
Surr: Dibromofluoromethane	104	0	80-122		%REC	5	3/19/2015 08:31 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/19/2015 04:07 AM
Surr: Toluene-d8	103	0	80-120		%REC	5	3/19/2015 08:31 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/19/2015 04:07 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-029

Client Sample ID: MW-1DUP
Collection Date: 3/13/2015 12:40:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150316B**	QC Batch: **P15VW045**				PrepDate:		Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 06:28 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/17/2015 06:28 AM
Tetrachloroethene	210	1.2	5.0		µg/L	10	3/18/2015 10:18 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 06:28 AM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 06:28 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 06:28 AM
Surr: 1,2-Dichloroethane-d4	92.0	0	78-125		%REC	10	3/18/2015 10:18 PM
Surr: 1,2-Dichloroethane-d4	100	0	78-125		%REC	1	3/17/2015 06:28 AM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	10	3/18/2015 10:18 PM
Surr: 4-Bromofluorobenzene	97.1	0	80-120		%REC	1	3/17/2015 06:28 AM
Surr: Dibromofluoromethane	98.4	0	80-122		%REC	10	3/18/2015 10:18 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	1	3/17/2015 06:28 AM
Surr: Toluene-d8	101	0	80-120		%REC	10	3/18/2015 10:18 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/17/2015 06:28 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-030

Client Sample ID: TRIP BLANK 03/13/15
Collection Date: 3/13/2015 10:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150316B**	QC Batch: **P15VW045**			PrepDate:			Analyst: **QBM**
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/16/2015 11:21 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/16/2015 11:21 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/16/2015 11:21 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/16/2015 11:21 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/16/2015 11:21 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/16/2015 11:21 PM
Surr: 1,2-Dichloroethane-d4	97.1	0	78-125		%REC	1	3/16/2015 11:21 PM
Surr: 4-Bromofluorobenzene	97.8	0	80-120		%REC	1	3/16/2015 11:21 PM
Surr: Dibromofluoromethane	101	0	80-122		%REC	1	3/16/2015 11:21 PM
Surr: Toluene-d8	101	0	80-120		%REC	1	3/16/2015 11:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-031

Client Sample ID: FIELD BLANK 03/13/15
Collection Date: 3/13/2015 12:25:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/16/2015 11:46 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/16/2015 11:46 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/16/2015 11:46 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/16/2015 11:46 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/16/2015 11:46 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/16/2015 11:46 PM
Surr: 1,2-Dichloroethane-d4	99.2	0	78-125		%REC	1	3/16/2015 11:46 PM
Surr: 4-Bromofluorobenzene	99.8	0	80-120		%REC	1	3/16/2015 11:46 PM
Surr: Dibromofluoromethane	102	0	80-122		%REC	1	3/16/2015 11:46 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/16/2015 11:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-032

Client Sample ID: EQUIPMENT RINSE 03/13/15
Collection Date: 3/13/2015 1:35:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150318B** QC Batch: **P15VW046** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/18/2015 08:40 PM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/18/2015 08:40 PM
Tetrachloroethene	ND	0.12	0.50		µg/L	1	3/18/2015 08:40 PM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/18/2015 08:40 PM
Trichloroethene	ND	0.074	0.50		µg/L	1	3/18/2015 08:40 PM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/18/2015 08:40 PM
Surr: 1,2-Dichloroethane-d4	93.2	0	78-125		%REC	1	3/18/2015 08:40 PM
Surr: 4-Bromofluorobenzene	99.6	0	80-120		%REC	1	3/18/2015 08:40 PM
Surr: Dibromofluoromethane	97.6	0	80-122		%REC	1	3/18/2015 08:40 PM
Surr: Toluene-d8	102	0	80-120		%REC	1	3/18/2015 08:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_W

Sample ID: **MB-R99458**	SampType: **MBLK**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99458**
Client ID: **PBW**	Batch ID: **R99458**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2015**	SeqNo: **1953549**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R99458**	SampType: **LCS**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99458**
Client ID: **LCSW**	Batch ID: **R99458**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2015**	SeqNo: **1953550**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.048	0.20	5.000	0	101	90	110				

Sample ID: **N014970-001A-DUP**	SampType: **DUP**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99458**
Client ID: **ZZZZZZ**	Batch ID: **R99458**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2015**	SeqNo: **1953552**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	11.240	0.20						11.48	2.13	20	

Sample ID: **N014970-001A-MS**	SampType: **MS**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99458**
Client ID: **ZZZZZZ**	Batch ID: **R99458**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2015**	SeqNo: **1953553**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	16.484	0.20	5.000	11.48	100	90	110				

Sample ID: **N014970-001A-MSD**	SampType: **MSD**	TestCode: **218.6_W**	Units: **µg/L**	Prep Date:	RunNo: **99458**
Client ID: **ZZZZZZ**	Batch ID: **R99458**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2015**	SeqNo: **1953554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	16.538	0.20	5.000	11.48	101	90	110	16.48	0.331	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_W

Sample ID: **N014984-023A-MS** SampType: **MS** TestCode: **218.6_W** Units: **µg/L** Prep Date: RunNo: **99458**
Client ID: **ZZZZZZ** Batch ID: **R99458** TestNo: **EPA 218.6** Analysis Date: **3/14/2015** SeqNo: **1953572**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.429	0.20	5.000	1.537	97.8	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS

Sample ID: **MB-49923** SampType: **MBLK** TestCode: **6020_DIS** Units: **µg/L** Prep Date: **3/14/2015** RunNo: **99489**
Client ID: **PBW** Batch ID: **49923** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/16/2015** SeqNo: **1955258**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Chromium	0.050	1.0									
Manganese	ND	0.50									

Sample ID: **LCS-49923** SampType: **LCS** TestCode: **6020_DIS** Units: **µg/L** Prep Date: **3/14/2015** RunNo: **99489**
Client ID: **LCSW** Batch ID: **49923** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/16/2015** SeqNo: **1955259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.352	0.10	10.00	0	104	85	115				
Chromium	10.283	1.0	10.00	0	103	85	115				
Manganese	101.797	0.50	100.0	0	102	85	115				

Sample ID: **N014985-001B-MS** SampType: **MS** TestCode: **6020_DIS** Units: **µg/L** Prep Date: **3/14/2015** RunNo: **99489**
Client ID: **ZZZZZZ** Batch ID: **49923** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/16/2015** SeqNo: **1955265**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.921	0.10	10.00	56.40	-455	75	125				S
Chromium	11.193	1.0	10.00	9.609	15.8	75	125				S
Manganese	89.651	0.50	100.0	0	89.7	75	125				

Sample ID: **N014985-001B-MSD** SampType: **MSD** TestCode: **6020_DIS** Units: **µg/L** Prep Date: **3/14/2015** RunNo: **99489**
Client ID: **ZZZZZZ** Batch ID: **49923** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/16/2015** SeqNo: **1955266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.733	0.10	10.00	56.40	-457	75	125	10.92	1.73	20	S
Chromium	10.930	1.0	10.00	9.609	13.2	75	125	11.19	2.37	20	S
Manganese	89.854	0.50	100.0	0	89.9	75	125	89.65	0.226	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.660	0.50	20.00	0	108	71	127				
cis-1,2-Dichloroethene	19.200	0.50	20.00	0	96.0	80	120				
Tetrachloroethene	21.680	0.50	20.00	0	108	80	120				
trans-1,2-Dichloroethene	18.920	0.50	20.00	0	94.6	78	126				
Trichloroethene	21.450	0.50	20.00	0	107	80	120				
Vinyl chloride	18.900	0.50	20.00	0	94.5	70	135				
Surr: 1,2-Dichloroethane-d4	23.250		25.00		93.0	78	125				
Surr: 4-Bromofluorobenzene	25.730		25.00		103	80	120				
Surr: Dibromofluoromethane	24.590		25.00		98.4	80	122				
Surr: Toluene-d8	25.440		25.00		102	80	120				

Sample ID: **P150316LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSS02** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.760	0.50	20.00	0	109	71	127	21.66	0.461	20	
cis-1,2-Dichloroethene	18.660	0.50	20.00	0	93.3	80	120	19.20	2.85	20	
Tetrachloroethene	21.430	0.50	20.00	0	107	80	120	21.68	1.16	20	
trans-1,2-Dichloroethene	19.450	0.50	20.00	0	97.3	78	126	18.92	2.76	20	
Trichloroethene	22.090	0.50	20.00	0	110	80	120	21.45	2.94	20	
Vinyl chloride	18.340	0.50	20.00	0	91.7	70	135	18.90	3.01	20	
Surr: 1,2-Dichloroethane-d4	23.170		25.00		92.7	78	125		0		
Surr: 4-Bromofluorobenzene	25.510		25.00		102	80	120		0		
Surr: Dibromofluoromethane	24.400		25.00		97.6	80	122		0		
Surr: Toluene-d8	25.220		25.00		101	80	120		0		

Sample ID: **P150316MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **PBW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **PBW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.080		25.00		96.3	78	125				
Surr: 4-Bromofluorobenzene	24.490		25.00		98.0	80	120				
Surr: Dibromofluoromethane	24.900		25.00		99.6	80	122				
Surr: Toluene-d8	24.910		25.00		99.6	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.730	0.50	20.00	0	109	71	127				
cis-1,2-Dichloroethene	19.160	0.50	20.00	0	95.8	80	120				
Tetrachloroethene	22.060	0.50	20.00	0	110	80	120				
trans-1,2-Dichloroethene	19.430	0.50	20.00	0	97.2	78	126				
Trichloroethene	22.490	0.50	20.00	0	112	80	120				
Vinyl chloride	19.040	0.50	20.00	0	95.2	70	135				
Surr: 1,2-Dichloroethane-d4	22.060		25.00		88.2	78	125				
Surr: 4-Bromofluorobenzene	25.760		25.00		103	80	120				
Surr: Dibromofluoromethane	23.830		25.00		95.3	80	122				
Surr: Toluene-d8	25.820		25.00		103	80	120				

Sample ID: **P150318LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSS02** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.340	0.50	20.00	0	107	71	127	21.73	1.81	20	
cis-1,2-Dichloroethene	19.240	0.50	20.00	0	96.2	80	120	19.16	0.417	20	
Tetrachloroethene	21.400	0.50	20.00	0	107	80	120	22.06	3.04	20	
trans-1,2-Dichloroethene	19.270	0.50	20.00	0	96.4	78	126	19.43	0.827	20	
Trichloroethene	22.470	0.50	20.00	0	112	80	120	22.49	0.0890	20	
Vinyl chloride	19.130	0.50	20.00	0	95.7	70	135	19.04	0.472	20	
Surr: 1,2-Dichloroethane-d4	22.010		25.00		88.0	78	125		0		
Surr: 4-Bromofluorobenzene	26.250		25.00		105	80	120		0		
Surr: Dibromofluoromethane	24.180		25.00		96.7	80	122		0		
Surr: Toluene-d8	25.390		25.00		102	80	120		0		

Sample ID: **P150318MB7** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **PBW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318MB7** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **PBW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	22.510		25.00		90.0	78	125				
Surr: 4-Bromofluorobenzene	25.230		25.00		101	80	120				
Surr: Dibromofluoromethane	23.780		25.00		95.1	80	122				
Surr: Toluene-d8	25.260		25.00		101	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **LCSW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957481**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.610	0.50	20.00	0	108	71	127				
cis-1,2-Dichloroethene	18.970	0.50	20.00	0	94.8	80	120				
Tetrachloroethene	21.720	0.50	20.00	0	109	80	120				
trans-1,2-Dichloroethene	18.610	0.50	20.00	0	93.0	78	126				
Trichloroethene	22.220	0.50	20.00	0	111	80	120				
Vinyl chloride	18.070	0.50	20.00	0	90.4	70	135				
Surr: 1,2-Dichloroethane-d4	23.180		25.00		92.7	78	125				
Surr: 4-Bromofluorobenzene	25.680		25.00		103	80	120				
Surr: Dibromofluoromethane	23.810		25.00		95.2	80	122				
Surr: Toluene-d8	25.590		25.00		102	80	120				

Sample ID: **N015021-001DMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957482**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22.350	0.50	20.00	0	112	62	135				
cis-1,2-Dichloroethene	19.140	0.50	20.00	0	95.7	73	125				
Tetrachloroethene	21.530	0.50	20.00	0	108	71	123				
trans-1,2-Dichloroethene	19.230	0.50	20.00	0	96.2	64	132				
Trichloroethene	22.750	0.50	20.00	0	114	79	121				
Vinyl chloride	18.990	0.50	20.00	0	95.0	64	134				
Surr: 1,2-Dichloroethane-d4	23.000		25.00		92.0	78	125				
Surr: 4-Bromofluorobenzene	25.920		25.00		104	80	120				
Surr: Dibromofluoromethane	23.690		25.00		94.8	80	122				
Surr: Toluene-d8	25.580		25.00		102	80	120				

Sample ID: **N015021-001DMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N015021-001DMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22.100	0.50	20.00	0	110	62	135	22.35	1.12	20	
cis-1,2-Dichloroethene	17.730	0.50	20.00	0	88.6	73	125	19.14	7.65	20	
Tetrachloroethene	21.180	0.50	20.00	0	106	71	123	21.53	1.64	20	
trans-1,2-Dichloroethene	18.070	0.50	20.00	0	90.4	64	132	19.23	6.22	20	
Trichloroethene	22.380	0.50	20.00	0	112	79	121	22.75	1.64	20	
Vinyl chloride	17.870	0.50	20.00	0	89.4	64	134	18.99	6.08	20	
Surr: 1,2-Dichloroethane-d4	23.170		25.00		92.7	78	125		0		
Surr: 4-Bromofluorobenzene	26.220		25.00		105	80	120		0		
Surr: Dibromofluoromethane	24.040		25.00		96.2	80	122		0		
Surr: Toluene-d8	25.690		25.00		103	80	120		0		

Sample ID: **P150319MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **PBW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.180		25.00		96.7	78	125				
Surr: 4-Bromofluorobenzene	24.880		25.00		99.5	80	120				
Surr: Dibromofluoromethane	24.920		25.00		99.7	80	122				
Surr: Toluene-d8	25.220		25.00		101	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: ____________

Logged By: ____________ Date: ____________

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: ______

Sample Condition Upon Receipt:
1. CHILLED 2.1°C IR#2 Y ☑ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☑ N ☐
4. SEALED Y ☐ N ☑
5. # OF SPLS MATCH COC Y ☑ N ☐
6. PRESERVED Y ☐ N ☑

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*
(Printed Name)
(Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	3/13	1545	[signature]	3/13/15	1615
[signature]	3/13/15	1631	[signature]	3/13/15	1631

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: [signature] 3/13/15
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested: 8260B (Volatiles); 8015M - GRO; 8015B - DRO/ORO; PCE/TCE/DCE/VC 8260; 6020 (metals); 218.6 Hexavalent Chromium

SPECIFY APPROPRIATE MATRIX: SOIL; WATER; GROUND WATER; WASTEWATER

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode______ OTHER ______

ITEM	Lab No.	Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Type	PRESERVATION	REMARKS
	N014984-1	MW-1	3/13	1246				X					X		E	3	V	H	
	-2	MW-2	3/11	1005				⎮					X		E	3	V	H	
	-3	MW-3	3/11	1125				⎮					X		E	3	V	H	
	-4	MW-5	3/11	1405				⎮					X		E	3	V	H	
	-5	MW-6	3/12	1432				⎮					X		E	3	V	H	
	-6	MW6D1	3/12	1305				⎮					X		E	3	V	H	
	-7	MW-6D2	3/12	1100				⎮					X		E	3	V	H	
	-8	MW-6D3	3/12	1155				⎮					X		E	3	V	H	
	-9	MW-7	3/9	1400				⎮					X		E	3	V	H	
	-10	MW-8	3/9	1237				⎮					X		E	3	V	H	

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES

11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____

Logged By: _____ Date: _____

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt
1. CHILLED 2.1°C Y ☑ N ☐ IR#2
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☑ N ☐
4. SEALED Y ☐ N ☑
5. # OF SPLS MATCH COC Y ☑ N ☐
6. PRESERVED Y ☐ N ☑

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.* (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/13	1545	Andy Hatton	3/13/15	1615
Andy Hatton	3/13/15	1631	Andy Hatton	3/13/15	1681

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: _____ 3/13
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested: 8260B (Volatiles); 8015M - GRO; 8015B - DRO/ORO; PCE/TCE/DCE/VC 8260; 6020 (metals); 218.6 Hexavalent Chromium

SPECIFY APPROPRIATE MATRIX: SOIL; WATER; GROUND WATER; WASTEWATER

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode____ OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	N0149864-11	MW-9	3/13	1126	E	3	V	H	
	-12	MW-10	3/12	900	E	3	V	H	
	-13	MW-12	3/9	1143	E	3	V	H	
	-14	MW-13	3/11	1205	E	3	V	H	
	-15	MW-14	3/12	1350	E	3	V	H	
	-16	MW-14I	3/12	1518	E	3	V	H	
	-17	MW-15	3/12	1000	E	3	V	H	
	-18	MW-17	3/13	1208	E	3	V	H	
	-19	MW-18	3/11	1025	E	3	V	H	
	-20	MW-19D1	3/10	1455	E	3	V	H	

■ TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt:
1. CHILLED 2.1°C IR#2 Y ☑ N ☐ 4. SEALED Y ☐ N ☑
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☑ N ☐
3. CONTAINER INTACT Y ☑ N ☐ 6. PRESERVED Y ☐ N ☑

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.* (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/13	1545	Andy Hatton	3/13/15	1615
Andy Hatton	3/13/15	1631	Andy Hatton	3/13/15	1631
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: _____ 3/13
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ASSET workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

PRESERVATION

QA/QC
RTNE ☐
CT ☐
SWRCB ☐ Logcode_____
OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8260B (Volatiles)	8015M - GRO	8015B - DRO/ORO	PCE/TCE/DCE/VC 8260	6020 (metals)	218.6 Hexavalent Chromium	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	NOI4984-21	MW-1902	3/10	1255				L				X			E	3	V	H	
	-22	MW-1903	3/10	1355				L				X			E	3	V	H	
	-23	MW-20	3/11	920				L	X	X		X			E	3	V	H	
	-24	MW-2001	3/10	1105				X				X			E	3	V	H	
	-25	MW-2002	3/10	1200				X				X			E	3	V	H	
	-26	MW-2003	3/10	1010				X				X			E	3	V	H	
	-27	MW-34	3/13	1416				X				X			E	3	V	H	
	-28	MW-35	3/13	1329				X				X			E	3	V	H	
	-29	MW-1 DUP	3/13	1246				X				X			E	3	V	H	
	-30	Trip Blank 03/13/15	3/13	1000				X				X			E	3	V	H	

TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

ASSET LABORATORIES
11060 Artesia Blvd., Suite C
Cerritos, CA 90703
Tel: (562) 219-7435 • Fax: (562) 219-7436

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ASSET ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt
1. CHILLED 2.1°C Y ☑ N ☐ IR# 2 — 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ — 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ — 6. PRESERVED Y ☐ N ☐

Client: Cardno
Attention: Andrew Stuart
Address: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip Code: 89119
Tel: 702-990-9300
Fax: 702-990-9305

Project Name: Maryland Square
Project #: Z085000030
Sampler: *I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.* (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/13	1545		3/13/15	1615
	3/13/15	1631		3/13/15	1631

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: _____ 3/13/15
Print Name Date
Signature

Send Report To:
Attn: Andrew Stuart
Co: Cardno ATC
Addr: 7115 Amigo Street, Suite 100
City: Las Vegas State: NV Zip: 89119

Bill To:
Attn: (same)
Co:
Addr:
City: State: Zip:

Special Instructions/Comments:

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Circle or Add Analysis(es) Requested: 8260B (Volatiles) | 8015M - GRO | 8015B - DRO/ORO | PCE/TCE/DCE/VC 8260 | 6020 (metals) | 218.6 Hexavalent Chromium

SPECIFY APPROPRIATE MATRIX: SOIL | WATER | GROUND WATER | WASTEWATER

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode_____ OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8260B	8015M	8015B	PCE/TCE/DCE/VC	6020	218.6	SOIL	WATER	GW	WW	TAT	Container(s) #	Type	PRESERVATION	REMARKS
	N0140984-31	Field Blank 03/13/15	3/13	1235				X				X			E	3	V	H	
	1 -32	Equipment Rinse 03/13/15	3/13	1335				X				X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	
												X			E	3	V	H	

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☑ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/13/2015	Workorder:	N014984
Rep sample Temp (Deg C):	2.1	IR Gun ID:	2

Temp Blank: ☑ Yes ☐ No

Carrier name: ATL

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☑	No ☐	NA ☐
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: HG 3/17/2015

Reviewed By: 03/18/15

April 22, 2015

Andrew Stuart
Cardno ATC
7115 Amigo Street Suite 100
Las Vegas, NV 89119

TEL: (702) 990-9300
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014984

RE: Maryland Square, Z085000030

Attention: Andrew Stuart

Enclosed are the results for sample(s) received on March 13, 2015 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an amended report. Please disregard all previous documentation that corresponds to the page(s) enclosed.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Glen Gesmundo
QA Manager

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-004

Client Sample ID: MW-5
Collection Date: 3/11/2015 2:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.068	0.50		µg/L	1	3/17/2015 07:43 AM
1,1,1-Trichloroethane	ND	0.072	0.50		µg/L	1	3/17/2015 07:43 AM
1,1,2,2-Tetrachloroethane	ND	0.10	0.50		µg/L	1	3/17/2015 07:43 AM
1,1,2-Trichloroethane	ND	0.042	0.50		µg/L	1	3/17/2015 07:43 AM
1,1-Dichloroethane	ND	0.054	0.50		µg/L	1	3/17/2015 07:43 AM
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/17/2015 07:43 AM
1,1-Dichloropropene	ND	0.073	0.50		µg/L	1	3/17/2015 07:43 AM
1,2,3-Trichlorobenzene	ND	0.077	0.50		µg/L	1	3/17/2015 07:43 AM
1,2,3-Trichloropropane	ND	0.071	0.50		µg/L	1	3/17/2015 07:43 AM
1,2,4-Trichlorobenzene	ND	0.10	0.50		µg/L	1	3/17/2015 07:43 AM
1,2,4-Trimethylbenzene	ND	0.036	0.50		µg/L	1	3/17/2015 07:43 AM
1,2-Dibromo-3-chloropropane	ND	0.23	1.0		µg/L	1	3/17/2015 07:43 AM
1,2-Dibromoethane	ND	0.036	0.50		µg/L	1	3/17/2015 07:43 AM
1,2-Dichlorobenzene	ND	0.048	0.50		µg/L	1	3/17/2015 07:43 AM
1,2-Dichloroethane	ND	0.044	0.50		µg/L	1	3/17/2015 07:43 AM
1,2-Dichloropropane	ND	0.094	0.50		µg/L	1	3/17/2015 07:43 AM
1,3,5-Trimethylbenzene	ND	0.054	0.50		µg/L	1	3/17/2015 07:43 AM
1,3-Dichlorobenzene	ND	0.061	0.50		µg/L	1	3/17/2015 07:43 AM
1,3-Dichloropropane	ND	0.077	0.50		µg/L	1	3/17/2015 07:43 AM
1,4-Dichlorobenzene	ND	0.078	0.50		µg/L	1	3/17/2015 07:43 AM
2,2-Dichloropropane	ND	0.061	0.50		µg/L	1	3/17/2015 07:43 AM
2-Butanone	ND	0.70	5.0		µg/L	1	3/17/2015 07:43 AM
2-Chlorotoluene	ND	0.054	0.50		µg/L	1	3/17/2015 07:43 AM
4-Chlorotoluene	ND	0.039	0.50		µg/L	1	3/17/2015 07:43 AM
4-Isopropyltoluene	ND	0.044	0.50		µg/L	1	3/17/2015 07:43 AM
Benzene	ND	0.048	0.50		µg/L	1	3/17/2015 07:43 AM
Bromobenzene	ND	0.054	0.50		µg/L	1	3/17/2015 07:43 AM
Bromodichloromethane	ND	0.048	0.50		µg/L	1	3/17/2015 07:43 AM
Bromoform	ND	0.061	0.50		µg/L	1	3/17/2015 07:43 AM
Bromomethane	ND	0.073	1.0		µg/L	1	3/17/2015 07:43 AM
Carbon tetrachloride	ND	0.057	0.50		µg/L	1	3/17/2015 07:43 AM
Chlorobenzene	ND	0.028	0.50		µg/L	1	3/17/2015 07:43 AM
Chloroethane	ND	0.099	1.0		µg/L	1	3/17/2015 07:43 AM
Chloroform	6.5	0.048	0.50		µg/L	1	3/17/2015 07:43 AM
Chloromethane	ND	0.043	0.50		µg/L	1	3/17/2015 07:43 AM
cis-1,2-Dichloroethene	1.2	0.057	0.50		µg/L	1	3/17/2015 07:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-004

Client Sample ID: MW-5
Collection Date: 3/11/2015 2:05:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150316B** QC Batch: **P15VW045** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	0.057	0.50		µg/L	1	3/17/2015 07:43 AM
Dibromomethane	ND	0.11	0.50		µg/L	1	3/17/2015 07:43 AM
Dichlorodifluoromethane	ND	0.054	0.50		µg/L	1	3/17/2015 07:43 AM
Ethylbenzene	ND	0.036	0.50		µg/L	1	3/17/2015 07:43 AM
Freon-113	ND	0.15	0.50		µg/L	1	3/17/2015 07:43 AM
Hexachlorobutadiene	ND	0.070	0.50		µg/L	1	3/17/2015 07:43 AM
Isopropylbenzene	ND	0.041	0.50		µg/L	1	3/17/2015 07:43 AM
m,p-Xylene	ND	0.14	1.0		µg/L	1	3/17/2015 07:43 AM
Methylene chloride	ND	0.28	2.0		µg/L	1	3/17/2015 07:43 AM
MTBE	ND	0.098	0.50		µg/L	1	3/17/2015 07:43 AM
n-Butylbenzene	ND	0.076	0.50		µg/L	1	3/17/2015 07:43 AM
n-Propylbenzene	ND	0.049	0.50		µg/L	1	3/17/2015 07:43 AM
Naphthalene	ND	0.062	0.50		µg/L	1	3/17/2015 07:43 AM
o-Xylene	ND	0.042	0.50		µg/L	1	3/17/2015 07:43 AM
sec-Butylbenzene	ND	0.036	0.50		µg/L	1	3/17/2015 07:43 AM
Styrene	ND	0.040	0.50		µg/L	1	3/17/2015 07:43 AM
tert-Butylbenzene	ND	0.040	0.50		µg/L	1	3/17/2015 07:43 AM
Tetrachloroethene	790	2.3	10		µg/L	20	3/18/2015 11:08 PM
Toluene	ND	0.025	0.50		µg/L	1	3/17/2015 07:43 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/17/2015 07:43 AM
Trichloroethene	3.7	0.074	0.50		µg/L	1	3/17/2015 07:43 AM
Trichlorofluoromethane	ND	0.034	0.50		µg/L	1	3/17/2015 07:43 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/17/2015 07:43 AM
Xylenes, Total	ND	1.5	1.5		µg/L	1	3/17/2015 07:43 AM
Surr: 1,2-Dichloroethane-d4	102	0	78-125		%REC	1	3/17/2015 07:43 AM
Surr: 1,2-Dichloroethane-d4	92.6	0	78-125		%REC	20	3/18/2015 11:08 PM
Surr: 4-Bromofluorobenzene	99.0	0	80-120		%REC	1	3/17/2015 07:43 AM
Surr: 4-Bromofluorobenzene	98.9	0	80-120		%REC	20	3/18/2015 11:08 PM
Surr: Dibromofluoromethane	98.5	0	80-122		%REC	20	3/18/2015 11:08 PM
Surr: Dibromofluoromethane	105	0	80-122		%REC	1	3/17/2015 07:43 AM
Surr: Toluene-d8	99.9	0	80-120		%REC	20	3/18/2015 11:08 PM
Surr: Toluene-d8	100	0	80-120		%REC	1	3/17/2015 07:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-005

Client Sample ID: MW-6
Collection Date: 3/12/2015 2:32:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.14	1.0		µg/L	2	3/19/2015 09:20 PM
1,1,1-Trichloroethane	ND	0.14	1.0		µg/L	2	3/19/2015 09:20 PM
1,1,2,2-Tetrachloroethane	ND	0.20	1.0		µg/L	2	3/19/2015 09:20 PM
1,1,2-Trichloroethane	ND	0.084	1.0		µg/L	2	3/19/2015 09:20 PM
1,1-Dichloroethane	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
1,1-Dichloroethene	ND	0.33	1.0		µg/L	2	3/19/2015 09:20 PM
1,1-Dichloropropene	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
1,2,3-Trichlorobenzene	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
1,2,3-Trichloropropane	ND	0.14	1.0		µg/L	2	3/19/2015 09:20 PM
1,2,4-Trichlorobenzene	ND	0.21	1.0		µg/L	2	3/19/2015 09:20 PM
1,2,4-Trimethylbenzene	ND	0.072	1.0		µg/L	2	3/19/2015 09:20 PM
1,2-Dibromo-3-chloropropane	ND	0.47	2.0		µg/L	2	3/19/2015 09:20 PM
1,2-Dibromoethane	ND	0.072	1.0		µg/L	2	3/19/2015 09:20 PM
1,2-Dichlorobenzene	ND	0.096	1.0		µg/L	2	3/19/2015 09:20 PM
1,2-Dichloroethane	ND	0.088	1.0		µg/L	2	3/19/2015 09:20 PM
1,2-Dichloropropane	ND	0.19	1.0		µg/L	2	3/19/2015 09:20 PM
1,3,5-Trimethylbenzene	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
1,3-Dichlorobenzene	ND	0.12	1.0		µg/L	2	3/19/2015 09:20 PM
1,3-Dichloropropane	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
1,4-Dichlorobenzene	ND	0.16	1.0		µg/L	2	3/19/2015 09:20 PM
2,2-Dichloropropane	ND	0.12	1.0		µg/L	2	3/19/2015 09:20 PM
2-Butanone	ND	1.4	10		µg/L	2	3/19/2015 09:20 PM
2-Chlorotoluene	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
4-Chlorotoluene	ND	0.078	1.0		µg/L	2	3/19/2015 09:20 PM
4-Isopropyltoluene	ND	0.088	1.0		µg/L	2	3/19/2015 09:20 PM
Benzene	ND	0.096	1.0		µg/L	2	3/19/2015 09:20 PM
Bromobenzene	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
Bromodichloromethane	ND	0.096	1.0		µg/L	2	3/19/2015 09:20 PM
Bromoform	ND	0.12	1.0		µg/L	2	3/19/2015 09:20 PM
Bromomethane	ND	0.15	2.0		µg/L	2	3/19/2015 09:20 PM
Carbon tetrachloride	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
Chlorobenzene	ND	0.056	1.0		µg/L	2	3/19/2015 09:20 PM
Chloroethane	ND	0.20	2.0		µg/L	2	3/19/2015 09:20 PM
Chloroform	4.3	0.096	1.0		µg/L	2	3/19/2015 09:20 PM
Chloromethane	ND	0.086	1.0		µg/L	2	3/19/2015 09:20 PM
cis-1,2-Dichloroethene	2.3	0.11	1.0		µg/L	2	3/19/2015 09:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-005

Client Sample ID: MW-6
Collection Date: 3/12/2015 2:32:00 PM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150319A** QC Batch: **P15VW047** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
Dibromomethane	ND	0.22	1.0		µg/L	2	3/19/2015 09:20 PM
Dichlorodifluoromethane	ND	0.11	1.0		µg/L	2	3/19/2015 09:20 PM
Ethylbenzene	ND	0.072	1.0		µg/L	2	3/19/2015 09:20 PM
Freon-113	ND	0.31	1.0		µg/L	2	3/19/2015 09:20 PM
Hexachlorobutadiene	ND	0.14	1.0		µg/L	2	3/19/2015 09:20 PM
Isopropylbenzene	ND	0.082	1.0		µg/L	2	3/19/2015 09:20 PM
m,p-Xylene	ND	0.27	2.0		µg/L	2	3/19/2015 09:20 PM
Methylene chloride	ND	0.56	4.0		µg/L	2	3/19/2015 09:20 PM
MTBE	ND	0.20	1.0		µg/L	2	3/19/2015 09:20 PM
n-Butylbenzene	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
n-Propylbenzene	ND	0.098	1.0		µg/L	2	3/19/2015 09:20 PM
Naphthalene	ND	0.12	1.0		µg/L	2	3/19/2015 09:20 PM
o-Xylene	ND	0.084	1.0		µg/L	2	3/19/2015 09:20 PM
sec-Butylbenzene	ND	0.072	1.0		µg/L	2	3/19/2015 09:20 PM
Styrene	ND	0.080	1.0		µg/L	2	3/19/2015 09:20 PM
tert-Butylbenzene	ND	0.080	1.0		µg/L	2	3/19/2015 09:20 PM
Tetrachloroethene	3300	12	50		µg/L	100	3/18/2015 11:33 PM
Toluene	ND	0.050	1.0		µg/L	2	3/19/2015 09:20 PM
trans-1,2-Dichloroethene	ND	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
Trichloroethene	9.3	0.15	1.0		µg/L	2	3/19/2015 09:20 PM
Trichlorofluoromethane	ND	0.068	1.0		µg/L	2	3/19/2015 09:20 PM
Vinyl chloride	ND	0.088	1.0		µg/L	2	3/19/2015 09:20 PM
Xylenes, Total	ND	3.0	3.0		µg/L	2	3/19/2015 09:20 PM
Surr: 1,2-Dichloroethane-d4	94.2	0	78-125		%REC	100	3/18/2015 11:33 PM
Surr: 1,2-Dichloroethane-d4	99.9	0	78-125		%REC	2	3/19/2015 09:20 PM
Surr: 4-Bromofluorobenzene	100	0	80-120		%REC	2	3/19/2015 09:20 PM
Surr: 4-Bromofluorobenzene	101	0	80-120		%REC	100	3/18/2015 11:33 PM
Surr: Dibromofluoromethane	103	0	80-122		%REC	2	3/19/2015 09:20 PM
Surr: Dibromofluoromethane	97.8	0	80-122		%REC	100	3/18/2015 11:33 PM
Surr: Toluene-d8	101	0	80-120		%REC	2	3/19/2015 09:20 PM
Surr: Toluene-d8	99.8	0	80-120		%REC	100	3/18/2015 11:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-023

Client Sample ID: MW-20
Collection Date: 3/11/2015 9:20:00 AM
Matrix: GROUNDWATER

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: **MS5_150318B** QC Batch: **P15VW046** PrepDate: Analyst: **QBM**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	0.068	0.50		µg/L	1	3/19/2015 04:32 AM
1,1,1-Trichloroethane	ND	0.072	0.50		µg/L	1	3/19/2015 04:32 AM
1,1,2,2-Tetrachloroethane	ND	0.10	0.50		µg/L	1	3/19/2015 04:32 AM
1,1,2-Trichloroethane	ND	0.042	0.50		µg/L	1	3/19/2015 04:32 AM
1,1-Dichloroethane	ND	0.054	0.50		µg/L	1	3/19/2015 04:32 AM
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1	3/19/2015 04:32 AM
1,1-Dichloropropene	ND	0.073	0.50		µg/L	1	3/19/2015 04:32 AM
1,2,3-Trichlorobenzene	ND	0.077	0.50		µg/L	1	3/19/2015 04:32 AM
1,2,3-Trichloropropane	ND	0.071	0.50		µg/L	1	3/19/2015 04:32 AM
1,2,4-Trichlorobenzene	ND	0.10	0.50		µg/L	1	3/19/2015 04:32 AM
1,2,4-Trimethylbenzene	ND	0.036	0.50		µg/L	1	3/19/2015 04:32 AM
1,2-Dibromo-3-chloropropane	ND	0.23	1.0		µg/L	1	3/19/2015 04:32 AM
1,2-Dibromoethane	ND	0.036	0.50		µg/L	1	3/19/2015 04:32 AM
1,2-Dichlorobenzene	ND	0.048	0.50		µg/L	1	3/19/2015 04:32 AM
1,2-Dichloroethane	ND	0.044	0.50		µg/L	1	3/19/2015 04:32 AM
1,2-Dichloropropane	ND	0.094	0.50		µg/L	1	3/19/2015 04:32 AM
1,3,5-Trimethylbenzene	ND	0.054	0.50		µg/L	1	3/19/2015 04:32 AM
1,3-Dichlorobenzene	ND	0.061	0.50		µg/L	1	3/19/2015 04:32 AM
1,3-Dichloropropane	ND	0.077	0.50		µg/L	1	3/19/2015 04:32 AM
1,4-Dichlorobenzene	ND	0.078	0.50		µg/L	1	3/19/2015 04:32 AM
2,2-Dichloropropane	ND	0.061	0.50		µg/L	1	3/19/2015 04:32 AM
2-Butanone	ND	0.70	5.0		µg/L	1	3/19/2015 04:32 AM
2-Chlorotoluene	ND	0.054	0.50		µg/L	1	3/19/2015 04:32 AM
4-Chlorotoluene	ND	0.039	0.50		µg/L	1	3/19/2015 04:32 AM
4-Isopropyltoluene	ND	0.044	0.50		µg/L	1	3/19/2015 04:32 AM
Benzene	ND	0.048	0.50		µg/L	1	3/19/2015 04:32 AM
Bromobenzene	ND	0.054	0.50		µg/L	1	3/19/2015 04:32 AM
Bromodichloromethane	ND	0.048	0.50		µg/L	1	3/19/2015 04:32 AM
Bromoform	ND	0.061	0.50		µg/L	1	3/19/2015 04:32 AM
Bromomethane	ND	0.073	1.0		µg/L	1	3/19/2015 04:32 AM
Carbon tetrachloride	ND	0.057	0.50		µg/L	1	3/19/2015 04:32 AM
Chlorobenzene	ND	0.028	0.50		µg/L	1	3/19/2015 04:32 AM
Chloroethane	ND	0.099	1.0		µg/L	1	3/19/2015 04:32 AM
Chloroform	1.1	0.048	0.50		µg/L	1	3/19/2015 04:32 AM
Chloromethane	ND	0.043	0.50		µg/L	1	3/19/2015 04:32 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1	3/19/2015 04:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *22-Apr-15*

CLIENT: Cardno ATC
Lab Order: N014984
Project: Maryland Square, Z085000030
Lab ID: N014984-023

Client Sample ID: MW-20
Collection Date: 3/11/2015 9:20:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150318B**	QC Batch: **P15VW046**			PrepDate:			Analyst: **QBM**
Dibromochloromethane	ND	0.057	0.50		µg/L	1	3/19/2015 04:32 AM
Dibromomethane	ND	0.11	0.50		µg/L	1	3/19/2015 04:32 AM
Dichlorodifluoromethane	ND	0.054	0.50		µg/L	1	3/19/2015 04:32 AM
Ethylbenzene	ND	0.036	0.50		µg/L	1	3/19/2015 04:32 AM
Freon-113	ND	0.15	0.50		µg/L	1	3/19/2015 04:32 AM
Hexachlorobutadiene	ND	0.070	0.50		µg/L	1	3/19/2015 04:32 AM
Isopropylbenzene	ND	0.041	0.50		µg/L	1	3/19/2015 04:32 AM
m,p-Xylene	ND	0.14	1.0		µg/L	1	3/19/2015 04:32 AM
Methylene chloride	ND	0.28	2.0		µg/L	1	3/19/2015 04:32 AM
MTBE	ND	0.098	0.50		µg/L	1	3/19/2015 04:32 AM
n-Butylbenzene	ND	0.076	0.50		µg/L	1	3/19/2015 04:32 AM
n-Propylbenzene	ND	0.049	0.50		µg/L	1	3/19/2015 04:32 AM
Naphthalene	ND	0.062	0.50		µg/L	1	3/19/2015 04:32 AM
o-Xylene	ND	0.042	0.50		µg/L	1	3/19/2015 04:32 AM
sec-Butylbenzene	ND	0.036	0.50		µg/L	1	3/19/2015 04:32 AM
Styrene	ND	0.040	0.50		µg/L	1	3/19/2015 04:32 AM
tert-Butylbenzene	ND	0.040	0.50		µg/L	1	3/19/2015 04:32 AM
Tetrachloroethene	680	2.3	10		µg/L	20	3/19/2015 05:38 PM
Toluene	ND	0.025	0.50		µg/L	1	3/19/2015 04:32 AM
trans-1,2-Dichloroethene	ND	0.074	0.50		µg/L	1	3/19/2015 04:32 AM
Trichloroethene	2.3	0.074	0.50		µg/L	1	3/19/2015 04:32 AM
Trichlorofluoromethane	ND	0.034	0.50		µg/L	1	3/19/2015 04:32 AM
Vinyl chloride	ND	0.044	0.50		µg/L	1	3/19/2015 04:32 AM
Xylenes, Total	ND	1.5	1.5		µg/L	1	3/19/2015 04:32 AM
Surr: 1,2-Dichloroethane-d4	98.2	0	78-125		%REC	1	3/19/2015 04:32 AM
Surr: 1,2-Dichloroethane-d4	96.7	0	78-125		%REC	20	3/19/2015 05:38 PM
Surr: 4-Bromofluorobenzene	98.6	0	80-120		%REC	20	3/19/2015 05:38 PM
Surr: 4-Bromofluorobenzene	97.6	0	80-120		%REC	1	3/19/2015 04:32 AM
Surr: Dibromofluoromethane	99.3	0	80-122		%REC	1	3/19/2015 04:32 AM
Surr: Dibromofluoromethane	101	0	80-122		%REC	20	3/19/2015 05:38 PM
Surr: Toluene-d8	99.0	0	80-120		%REC	1	3/19/2015 04:32 AM
Surr: Toluene-d8	102	0	80-120		%REC	20	3/19/2015 05:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.800	0.50	20.00	0	109	80	121				
1,1,1-Trichloroethane	21.450	0.50	20.00	0	107	77	122				
1,1,2,2-Tetrachloroethane	16.870	0.50	20.00	0	84.4	77	123				
1,1,2-Trichloroethane	19.630	0.50	20.00	0	98.2	87	120				
1,1-Dichloroethane	18.090	0.50	20.00	0	90.4	72	127				
1,1-Dichloroethene	21.660	0.50	20.00	0	108	71	127				
1,1-Dichloropropene	20.710	0.50	20.00	0	104	87	120				
1,2,3-Trichlorobenzene	20.820	0.50	20.00	0	104	77	124				
1,2,3-Trichloropropane	16.930	0.50	20.00	0	84.6	77	120				
1,2,4-Trichlorobenzene	20.600	0.50	20.00	0	103	76	122				
1,2,4-Trimethylbenzene	19.200	0.50	20.00	0	96.0	85	120				
1,2-Dibromo-3-chloropropane	20.350	1.0	20.00	0	102	67	125				
1,2-Dibromoethane	21.290	0.50	20.00	0	106	80	120				
1,2-Dichlorobenzene	19.420	0.50	20.00	0	97.1	80	120				
1,2-Dichloroethane	20.300	0.50	20.00	0	102	80	120				
1,2-Dichloropropane	18.130	0.50	20.00	0	90.7	80	120				
1,3,5-Trimethylbenzene	19.450	0.50	20.00	0	97.3	80	120				
1,3-Dichlorobenzene	19.660	0.50	20.00	0	98.3	80	120				
1,3-Dichloropropane	18.350	0.50	20.00	0	91.8	80	120				
1,4-Dichlorobenzene	19.470	0.50	20.00	0	97.4	80	120				
2,2-Dichloropropane	20.060	0.50	20.00	0	100	53	142				
2-Butanone	153.410	5.0	200.0	0	76.7	23	175				
2-Chlorotoluene	18.300	0.50	20.00	0	91.5	80	120				
4-Chlorotoluene	18.560	0.50	20.00	0	92.8	80	120				
4-Isopropyltoluene	19.790	0.50	20.00	0	99.0	80	120				
Benzene	19.520	0.50	20.00	0	97.6	80	120				
Bromobenzene	19.730	0.50	20.00	0	98.6	80	120				
Bromodichloromethane	20.730	0.50	20.00	0	104	80	120				
Bromoform	22.410	0.50	20.00	0	112	72	133				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	9.800	1.0	20.00	0	49.0	19	178				
Carbon tetrachloride	25.900	0.50	20.00	0	130	72	131				
Chlorobenzene	19.360	0.50	20.00	0	96.8	80	120				
Chloroethane	27.300	1.0	20.00	0	136	66	140				
Chloroform	18.960	0.50	20.00	0	94.8	77	120				
Chloromethane	14.160	0.50	20.00	0	70.8	47	154				
cis-1,2-Dichloroethene	19.200	0.50	20.00	0	96.0	80	120				
Dibromochloromethane	22.190	0.50	20.00	0	111	80	122				
Dibromomethane	20.290	0.50	20.00	0	101	80	120				
Dichlorodifluoromethane	22.740	0.50	20.00	0	114	53	166				
Ethylbenzene	18.900	0.50	20.00	0	94.5	80	120				
Freon-113	22.540	0.50	20.00	0	113	71	129				
Hexachlorobutadiene	22.390	0.50	20.00	0	112	79	123				
Isopropylbenzene	19.020	0.50	20.00	0	95.1	80	120				
m,p-Xylene	39.800	1.0	40.00	0	99.5	80	120				
Methylene chloride	17.090	2.0	20.00	0	85.4	71	124				
MTBE	18.810	0.50	20.00	0	94.1	77	120				
n-Butylbenzene	18.310	0.50	20.00	0	91.6	80	127				
n-Propylbenzene	18.390	0.50	20.00	0	92.0	80	122				
Naphthalene	16.720	0.50	20.00	0	83.6	63	131				
o-Xylene	20.020	0.50	20.00	0	100	80	120				
sec-Butylbenzene	18.950	0.50	20.00	0	94.8	80	120				
Styrene	20.300	0.50	20.00	0	102	80	120				
tert-Butylbenzene	19.860	0.50	20.00	0	99.3	80	120				
Tetrachloroethene	21.680	0.50	20.00	0	108	80	120				
Toluene	20.200	0.50	20.00	0	101	80	120				
trans-1,2-Dichloroethene	18.920	0.50	20.00	0	94.6	78	126				
Trichloroethene	21.450	0.50	20.00	0	107	80	120				
Trichlorofluoromethane	24.640	0.50	20.00	0	123	67	149				
Vinyl chloride	18.900	0.50	20.00	0	94.5	70	135				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	59.820	1.5	60.00	0	99.7	70	130				
Surr: 1,2-Dichloroethane-d4	23.250		25.00		93.0	78	125				
Surr: 4-Bromofluorobenzene	25.730		25.00		103	80	120				
Surr: Dibromofluoromethane	24.590		25.00		98.4	80	122				
Surr: Toluene-d8	25.440		25.00		102	80	120				

Sample ID: **P150316LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSS02** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	22.330	0.50	20.00	0	112	80	121	21.80	2.40	20	
1,1,1-Trichloroethane	21.150	0.50	20.00	0	106	77	122	21.45	1.41	20	
1,1,2,2-Tetrachloroethane	17.090	0.50	20.00	0	85.4	77	123	16.87	1.30	20	
1,1,2-Trichloroethane	19.940	0.50	20.00	0	99.7	87	120	19.63	1.57	20	
1,1-Dichloroethane	18.400	0.50	20.00	0	92.0	72	127	18.09	1.70	20	
1,1-Dichloroethene	21.760	0.50	20.00	0	109	71	127	21.66	0.461	20	
1,1-Dichloropropene	20.540	0.50	20.00	0	103	87	120	20.71	0.824	20	
1,2,3-Trichlorobenzene	20.470	0.50	20.00	0	102	77	124	20.82	1.70	20	
1,2,3-Trichloropropane	16.490	0.50	20.00	0	82.5	77	120	16.93	2.63	20	
1,2,4-Trichlorobenzene	20.740	0.50	20.00	0	104	76	122	20.60	0.677	20	
1,2,4-Trimethylbenzene	19.210	0.50	20.00	0	96.0	85	120	19.20	0.0521	20	
1,2-Dibromo-3-chloropropane	20.440	1.0	20.00	0	102	67	125	20.35	0.441	20	
1,2-Dibromoethane	21.830	0.50	20.00	0	109	80	120	21.29	2.50	20	
1,2-Dichlorobenzene	19.080	0.50	20.00	0	95.4	80	120	19.42	1.77	20	
1,2-Dichloroethane	20.720	0.50	20.00	0	104	80	120	20.30	2.05	20	
1,2-Dichloropropane	18.420	0.50	20.00	0	92.1	80	120	18.13	1.59	20	
1,3,5-Trimethylbenzene	19.040	0.50	20.00	0	95.2	80	120	19.45	2.13	20	
1,3-Dichlorobenzene	19.310	0.50	20.00	0	96.6	80	120	19.66	1.80	20	
1,3-Dichloropropane	18.510	0.50	20.00	0	92.6	80	120	18.35	0.868	20	
1,4-Dichlorobenzene	19.260	0.50	20.00	0	96.3	80	120	19.47	1.08	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSS02** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	19.510	0.50	20.00	0	97.6	53	142	20.06	2.78	20	
2-Butanone	164.790	5.0	200.0	0	82.4	23	175	153.4	7.15	20	
2-Chlorotoluene	18.300	0.50	20.00	0	91.5	80	120	18.30	0	20	
4-Chlorotoluene	18.080	0.50	20.00	0	90.4	80	120	18.56	2.62	20	
4-Isopropyltoluene	19.720	0.50	20.00	0	98.6	80	120	19.79	0.354	20	
Benzene	19.680	0.50	20.00	0	98.4	80	120	19.52	0.816	20	
Bromobenzene	19.840	0.50	20.00	0	99.2	80	120	19.73	0.556	20	
Bromodichloromethane	21.550	0.50	20.00	0	108	80	120	20.73	3.88	20	
Bromoform	23.450	0.50	20.00	0	117	72	133	22.41	4.54	20	
Bromomethane	10.890	1.0	20.00	0	54.4	19	178	9.800	10.5	20	
Carbon tetrachloride	26.100	0.50	20.00	0	131	72	131	25.90	0.769	20	
Chlorobenzene	19.560	0.50	20.00	0	97.8	80	120	19.36	1.03	20	
Chloroethane	26.360	1.0	20.00	0	132	66	140	27.30	3.50	20	
Chloroform	19.060	0.50	20.00	0	95.3	77	120	18.96	0.526	20	
Chloromethane	14.230	0.50	20.00	0	71.2	47	154	14.16	0.493	20	
cis-1,2-Dichloroethene	18.660	0.50	20.00	0	93.3	80	120	19.20	2.85	20	
Dibromochloromethane	22.740	0.50	20.00	0	114	80	122	22.19	2.45	20	
Dibromomethane	20.800	0.50	20.00	0	104	80	120	20.29	2.48	20	
Dichlorodifluoromethane	22.830	0.50	20.00	0	114	53	166	22.74	0.395	20	
Ethylbenzene	19.220	0.50	20.00	0	96.1	80	120	18.90	1.68	20	
Freon-113	22.790	0.50	20.00	0	114	71	129	22.54	1.10	20	
Hexachlorobutadiene	21.870	0.50	20.00	0	109	79	123	22.39	2.35	20	
Isopropylbenzene	19.040	0.50	20.00	0	95.2	80	120	19.02	0.105	20	
m,p-Xylene	40.400	1.0	40.00	0	101	80	120	39.80	1.50	20	
Methylene chloride	17.180	2.0	20.00	0	85.9	71	124	17.09	0.525	20	
MTBE	18.840	0.50	20.00	0	94.2	77	120	18.81	0.159	20	
n-Butylbenzene	18.200	0.50	20.00	0	91.0	80	127	18.31	0.603	20	
n-Propylbenzene	18.070	0.50	20.00	0	90.4	80	122	18.39	1.76	20	
Naphthalene	16.970	0.50	20.00	0	84.8	63	131	16.72	1.48	20	
o-Xylene	20.130	0.50	20.00	0	101	80	120	20.02	0.548	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **LCSS02** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	18.830	0.50	20.00	0	94.2	80	120	18.95	0.635	20	
Styrene	20.650	0.50	20.00	0	103	80	120	20.30	1.71	20	
tert-Butylbenzene	19.710	0.50	20.00	0	98.6	80	120	19.86	0.758	20	
Tetrachloroethene	21.430	0.50	20.00	0	107	80	120	21.68	1.16	20	
Toluene	20.400	0.50	20.00	0	102	80	120	20.20	0.985	20	
trans-1,2-Dichloroethene	19.450	0.50	20.00	0	97.3	78	126	18.92	2.76	20	
Trichloroethene	22.090	0.50	20.00	0	110	80	120	21.45	2.94	20	
Trichlorofluoromethane	24.620	0.50	20.00	0	123	67	149	24.64	0.0812	20	
Vinyl chloride	18.340	0.50	20.00	0	91.7	70	135	18.90	3.01	20	
Xylenes, Total	60.530	1.5	60.00	0	101	70	130	59.82	1.18	20	
Surr: 1,2-Dichloroethane-d4	23.170		25.00		92.7	78	125		0		
Surr: 4-Bromofluorobenzene	25.510		25.00		102	80	120		0		
Surr: Dibromofluoromethane	24.400		25.00		97.6	80	122		0		
Surr: Toluene-d8	25.220		25.00		101	80	120		0		

Sample ID: **P150316MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **PBW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **PBW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Butanone	ND	5.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	1.0									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Freon-113	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150316MB6** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99470**
Client ID: **PBW** Batch ID: **P15VW045** TestNo: **EPA 8260B** Analysis Date: **3/16/2015** SeqNo: **1954338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	0.310	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	24.080		25.00		96.3	78	125				
Surr: 4-Bromofluorobenzene	24.490		25.00		98.0	80	120				
Surr: Dibromofluoromethane	24.900		25.00		99.6	80	122				
Surr: Toluene-d8	24.910		25.00		99.6	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.950	0.50	20.00	0	110	80	121				
1,1,1-Trichloroethane	20.470	0.50	20.00	0	102	77	122				
1,1,2,2-Tetrachloroethane	16.310	0.50	20.00	0	81.6	77	123				
1,1,2-Trichloroethane	20.090	0.50	20.00	0	100	87	120				
1,1-Dichloroethane	17.990	0.50	20.00	0	90.0	72	127				
1,1-Dichloroethene	21.730	0.50	20.00	0	109	71	127				
1,1-Dichloropropene	20.760	0.50	20.00	0	104	87	120				
1,2,3-Trichlorobenzene	20.180	0.50	20.00	0	101	77	124				
1,2,3-Trichloropropane	16.110	0.50	20.00	0	80.6	77	120				
1,2,4-Trichlorobenzene	20.870	0.50	20.00	0	104	76	122				
1,2,4-Trimethylbenzene	19.500	0.50	20.00	0	97.5	85	120				
1,2-Dibromo-3-chloropropane	19.550	1.0	20.00	0	97.8	67	125				
1,2-Dibromoethane	21.600	0.50	20.00	0	108	80	120				
1,2-Dichlorobenzene	19.160	0.50	20.00	0	95.8	80	120				
1,2-Dichloroethane	20.010	0.50	20.00	0	100	80	120				
1,2-Dichloropropane	18.520	0.50	20.00	0	92.6	80	120				
1,3,5-Trimethylbenzene	19.570	0.50	20.00	0	97.9	80	120				
1,3-Dichlorobenzene	19.780	0.50	20.00	0	98.9	80	120				
1,3-Dichloropropane	18.510	0.50	20.00	0	92.6	80	120				
1,4-Dichlorobenzene	19.150	0.50	20.00	0	95.8	80	120				
2,2-Dichloropropane	21.420	0.50	20.00	0	107	53	142				
2-Butanone	176.630	5.0	200.0	0	88.3	23	175				
2-Chlorotoluene	18.400	0.50	20.00	0	92.0	80	120				
4-Chlorotoluene	18.430	0.50	20.00	0	92.2	80	120				
4-Isopropyltoluene	20.440	0.50	20.00	0	102	80	120				
Benzene	19.990	0.50	20.00	0	100	80	120				
Bromobenzene	19.580	0.50	20.00	0	97.9	80	120				
Bromodichloromethane	20.620	0.50	20.00	0	103	80	120				
Bromoform	22.130	0.50	20.00	0	111	72	133				
Bromomethane	14.700	1.0	20.00	0	73.5	19	178				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	25.340	0.50	20.00	0	127	72	131				
Chlorobenzene	19.470	0.50	20.00	0	97.4	80	120				
Chloroethane	25.750	1.0	20.00	0	129	66	140				
Chloroform	18.840	0.50	20.00	0	94.2	77	120				
Chloromethane	19.080	0.50	20.00	0	95.4	47	154				
cis-1,2-Dichloroethene	19.160	0.50	20.00	0	95.8	80	120				
Dibromochloromethane	22.070	0.50	20.00	0	110	80	122				
Dibromomethane	20.020	0.50	20.00	0	100	80	120				
Dichlorodifluoromethane	21.550	0.50	20.00	0	108	53	166				
Ethylbenzene	19.250	0.50	20.00	0	96.2	80	120				
Freon-113	21.900	0.50	20.00	0	110	71	129				
Hexachlorobutadiene	22.120	0.50	20.00	0	111	79	123				
Isopropylbenzene	19.720	0.50	20.00	0	98.6	80	120				
m,p-Xylene	40.820	1.0	40.00	0	102	80	120				
Methylene chloride	17.330	2.0	20.00	0	86.7	71	124				
MTBE	18.600	0.50	20.00	0	93.0	77	120				
n-Butylbenzene	18.990	0.50	20.00	0	95.0	80	127				
n-Propylbenzene	18.540	0.50	20.00	0	92.7	80	122				
Naphthalene	16.360	0.50	20.00	0	81.8	63	131				
o-Xylene	20.490	0.50	20.00	0	102	80	120				
sec-Butylbenzene	19.310	0.50	20.00	0	96.6	80	120				
Styrene	20.710	0.50	20.00	0	104	80	120				
tert-Butylbenzene	20.240	0.50	20.00	0	101	80	120				
Tetrachloroethene	22.060	0.50	20.00	0	110	80	120				
Toluene	20.860	0.50	20.00	0	104	80	120				
trans-1,2-Dichloroethene	19.430	0.50	20.00	0	97.2	78	126				
Trichloroethene	22.490	0.50	20.00	0	112	80	120				
Trichlorofluoromethane	23.610	0.50	20.00	0	118	67	149				
Vinyl chloride	19.040	0.50	20.00	0	95.2	70	135				
Xylenes, Total	61.310	1.5	60.00	0	102	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCS2** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	22.060		25.00		88.2	78	125				
Surr: 4-Bromofluorobenzene	25.760		25.00		103	80	120				
Surr: Dibromofluoromethane	23.830		25.00		95.3	80	122				
Surr: Toluene-d8	25.820		25.00		103	80	120				

Sample ID: **P150318LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSS02** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.950	0.50	20.00	0	110	80	121	21.95	0	20	
1,1,1-Trichloroethane	21.290	0.50	20.00	0	106	77	122	20.47	3.93	20	
1,1,2,2-Tetrachloroethane	16.760	0.50	20.00	0	83.8	77	123	16.31	2.72	20	
1,1,2-Trichloroethane	19.430	0.50	20.00	0	97.2	87	120	20.09	3.34	20	
1,1-Dichloroethane	18.090	0.50	20.00	0	90.4	72	127	17.99	0.554	20	
1,1-Dichloroethene	21.340	0.50	20.00	0	107	71	127	21.73	1.81	20	
1,1-Dichloropropene	21.020	0.50	20.00	0	105	87	120	20.76	1.24	20	
1,2,3-Trichlorobenzene	20.530	0.50	20.00	0	103	77	124	20.18	1.72	20	
1,2,3-Trichloropropane	16.290	0.50	20.00	0	81.4	77	120	16.11	1.11	20	
1,2,4-Trichlorobenzene	21.130	0.50	20.00	0	106	76	122	20.87	1.24	20	
1,2,4-Trimethylbenzene	19.670	0.50	20.00	0	98.4	85	120	19.50	0.868	20	
1,2-Dibromo-3-chloropropane	20.010	1.0	20.00	0	100	67	125	19.55	2.33	20	
1,2-Dibromoethane	22.090	0.50	20.00	0	110	80	120	21.60	2.24	20	
1,2-Dichlorobenzene	19.530	0.50	20.00	0	97.6	80	120	19.16	1.91	20	
1,2-Dichloroethane	19.900	0.50	20.00	0	99.5	80	120	20.01	0.551	20	
1,2-Dichloropropane	18.950	0.50	20.00	0	94.8	80	120	18.52	2.30	20	
1,3,5-Trimethylbenzene	19.500	0.50	20.00	0	97.5	80	120	19.57	0.358	20	
1,3-Dichlorobenzene	19.880	0.50	20.00	0	99.4	80	120	19.78	0.504	20	
1,3-Dichloropropane	18.590	0.50	20.00	0	93.0	80	120	18.51	0.431	20	
1,4-Dichlorobenzene	19.530	0.50	20.00	0	97.6	80	120	19.15	1.96	20	
2,2-Dichloropropane	21.340	0.50	20.00	0	107	53	142	21.42	0.374	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSS02** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Butanone	146.180	5.0	200.0	0	73.1	23	175	176.6	18.9	20	
2-Chlorotoluene	18.530	0.50	20.00	0	92.6	80	120	18.40	0.704	20	
4-Chlorotoluene	18.490	0.50	20.00	0	92.5	80	120	18.43	0.325	20	
4-Isopropyltoluene	20.240	0.50	20.00	0	101	80	120	20.44	0.983	20	
Benzene	19.690	0.50	20.00	0	98.4	80	120	19.99	1.51	20	
Bromobenzene	20.160	0.50	20.00	0	101	80	120	19.58	2.92	20	
Bromodichloromethane	21.010	0.50	20.00	0	105	80	120	20.62	1.87	20	
Bromoform	22.290	0.50	20.00	0	111	72	133	22.13	0.720	20	
Bromomethane	15.240	1.0	20.00	0	76.2	19	178	14.70	3.61	20	
Carbon tetrachloride	25.480	0.50	20.00	0	127	72	131	25.34	0.551	20	
Chlorobenzene	19.580	0.50	20.00	0	97.9	80	120	19.47	0.563	20	
Chloroethane	25.850	1.0	20.00	0	129	66	140	25.75	0.388	20	
Chloroform	18.660	0.50	20.00	0	93.3	77	120	18.84	0.960	20	
Chloromethane	18.510	0.50	20.00	0	92.6	47	154	19.08	3.03	20	
cis-1,2-Dichloroethene	19.240	0.50	20.00	0	96.2	80	120	19.16	0.417	20	
Dibromochloromethane	21.670	0.50	20.00	0	108	80	122	22.07	1.83	20	
Dibromomethane	19.560	0.50	20.00	0	97.8	80	120	20.02	2.32	20	
Dichlorodifluoromethane	20.940	0.50	20.00	0	105	53	166	21.55	2.87	20	
Ethylbenzene	19.430	0.50	20.00	0	97.2	80	120	19.25	0.931	20	
Freon-113	22.500	0.50	20.00	0	112	71	129	21.90	2.70	20	
Hexachlorobutadiene	22.330	0.50	20.00	0	112	79	123	22.12	0.945	20	
Isopropylbenzene	19.640	0.50	20.00	0	98.2	80	120	19.72	0.407	20	
m,p-Xylene	40.190	1.0	40.00	0	100	80	120	40.82	1.56	20	
Methylene chloride	17.170	2.0	20.00	0	85.9	71	124	17.33	0.928	20	
MTBE	18.590	0.50	20.00	0	93.0	77	120	18.60	0.0538	20	
n-Butylbenzene	18.720	0.50	20.00	0	93.6	80	127	18.99	1.43	20	
n-Propylbenzene	18.680	0.50	20.00	0	93.4	80	122	18.54	0.752	20	
Naphthalene	16.260	0.50	20.00	0	81.3	63	131	16.36	0.613	20	
o-Xylene	20.690	0.50	20.00	0	103	80	120	20.49	0.971	20	
sec-Butylbenzene	19.370	0.50	20.00	0	96.9	80	120	19.31	0.310	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318LCSD2** SampType: **LCSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **LCSS02** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	20.890	0.50	20.00	0	104	80	120	20.71	0.865	20	
tert-Butylbenzene	20.020	0.50	20.00	0	100	80	120	20.24	1.09	20	
Tetrachloroethene	21.400	0.50	20.00	0	107	80	120	22.06	3.04	20	
Toluene	20.480	0.50	20.00	0	102	80	120	20.86	1.84	20	
trans-1,2-Dichloroethene	19.270	0.50	20.00	0	96.4	78	126	19.43	0.827	20	
Trichloroethene	22.470	0.50	20.00	0	112	80	120	22.49	0.0890	20	
Trichlorofluoromethane	23.320	0.50	20.00	0	117	67	149	23.61	1.24	20	
Vinyl chloride	19.130	0.50	20.00	0	95.7	70	135	19.04	0.472	20	
Xylenes, Total	60.880	1.5	60.00	0	101	70	130	61.31	0.704	20	
Surr: 1,2-Dichloroethane-d4	22.010		25.00		88.0	78	125		0		
Surr: 4-Bromofluorobenzene	26.250		25.00		105	80	120		0		
Surr: Dibromofluoromethane	24.180		25.00		96.7	80	122		0		
Surr: Toluene-d8	25.390		25.00		102	80	120		0		

Sample ID: **P150318MB7** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **PBW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	1.0									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318MB7** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **PBW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Butanone	ND	5.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	1.0									
Chloroform	0.050	0.50									
Chloromethane	0.170	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Freon-113	ND	0.50									
Hexachlorobutadiene	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150318MB7** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99514**
Client ID: **PBW** Batch ID: **P15VW046** TestNo: **EPA 8260B** Analysis Date: **3/18/2015** SeqNo: **1957107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	0.490	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	0.030	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	22.510		25.00		90.0	78	125				
Surr: 4-Bromofluorobenzene	25.230		25.00		101	80	120				
Surr: Dibromofluoromethane	23.780		25.00		95.1	80	122				
Surr: Toluene-d8	25.260		25.00		101	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **LCSW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957481**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	21.750	0.50	20.00	0	109	80	121				
1,1,1-Trichloroethane	21.080	0.50	20.00	0	105	77	122				
1,1,2,2-Tetrachloroethane	16.170	0.50	20.00	0	80.9	77	123				
1,1,2-Trichloroethane	19.860	0.50	20.00	0	99.3	87	120				
1,1-Dichloroethane	17.660	0.50	20.00	0	88.3	72	127				
1,1-Dichloroethene	21.610	0.50	20.00	0	108	71	127				
1,1-Dichloropropene	20.820	0.50	20.00	0	104	87	120				
1,2,3-Trichlorobenzene	20.250	0.50	20.00	0	101	77	124				
1,2,3-Trichloropropane	16.100	0.50	20.00	0	80.5	77	120				
1,2,4-Trichlorobenzene	20.290	0.50	20.00	0	101	76	122				
1,2,4-Trimethylbenzene	19.020	0.50	20.00	0	95.1	85	120				
1,2-Dibromo-3-chloropropane	20.330	1.0	20.00	0	102	67	125				
1,2-Dibromoethane	21.690	0.50	20.00	0	108	80	120				
1,2-Dichlorobenzene	19.600	0.50	20.00	0	98.0	80	120				
1,2-Dichloroethane	21.450	0.50	20.00	0	107	80	120				
1,2-Dichloropropane	18.140	0.50	20.00	0	90.7	80	120				
1,3,5-Trimethylbenzene	19.230	0.50	20.00	0	96.2	80	120				
1,3-Dichlorobenzene	19.690	0.50	20.00	0	98.4	80	120				
1,3-Dichloropropane	17.900	0.50	20.00	0	89.5	80	120				
1,4-Dichlorobenzene	19.230	0.50	20.00	0	96.2	80	120				
2,2-Dichloropropane	21.030	0.50	20.00	0	105	53	142				
2-Butanone	154.530	5.0	200.0	0	77.3	23	175				
2-Chlorotoluene	18.100	0.50	20.00	0	90.5	80	120				
4-Chlorotoluene	18.240	0.50	20.00	0	91.2	80	120				
4-Isopropyltoluene	19.880	0.50	20.00	0	99.4	80	120				
Benzene	19.580	0.50	20.00	0	97.9	80	120				
Bromobenzene	19.940	0.50	20.00	0	99.7	80	120				
Bromodichloromethane	21.680	0.50	20.00	0	108	80	120				
Bromoform	23.120	0.50	20.00	0	116	72	133				
Bromomethane	15.030	1.0	20.00	0	75.2	19	178				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **LCSW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957481**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	26.930	0.50	20.00	0	135	72	131				S
Chlorobenzene	19.150	0.50	20.00	0	95.8	80	120				
Chloroethane	25.250	1.0	20.00	0	126	66	140				
Chloroform	19.090	0.50	20.00	0	95.4	77	120				
Chloromethane	17.940	0.50	20.00	0	89.7	47	154				
cis-1,2-Dichloroethene	18.970	0.50	20.00	0	94.8	80	120				
Dibromochloromethane	22.730	0.50	20.00	0	114	80	122				
Dibromomethane	20.490	0.50	20.00	0	102	80	120				
Dichlorodifluoromethane	22.630	0.50	20.00	0	113	53	166				
Ethylbenzene	18.850	0.50	20.00	0	94.3	80	120				
Freon-113	22.560	0.50	20.00	0	113	71	129				
Hexachlorobutadiene	22.310	0.50	20.00	0	112	79	123				
Isopropylbenzene	18.920	0.50	20.00	0	94.6	80	120				
m,p-Xylene	39.350	1.0	40.00	0	98.4	80	120				
Methylene chloride	16.890	2.0	20.00	0	84.4	71	124				
MTBE	18.130	0.50	20.00	0	90.7	77	120				
n-Butylbenzene	18.260	0.50	20.00	0	91.3	80	127				
n-Propylbenzene	18.110	0.50	20.00	0	90.6	80	122				
Naphthalene	15.900	0.50	20.00	0	79.5	63	131				
o-Xylene	19.840	0.50	20.00	0	99.2	80	120				
sec-Butylbenzene	18.970	0.50	20.00	0	94.8	80	120				
Styrene	20.280	0.50	20.00	0	101	80	120				
tert-Butylbenzene	19.760	0.50	20.00	0	98.8	80	120				
Tetrachloroethene	21.720	0.50	20.00	0	109	80	120				
Toluene	20.390	0.50	20.00	0	102	80	120				
trans-1,2-Dichloroethene	18.610	0.50	20.00	0	93.0	78	126				
Trichloroethene	22.220	0.50	20.00	0	111	80	120				
Trichlorofluoromethane	24.950	0.50	20.00	0	125	67	149				
Vinyl chloride	18.070	0.50	20.00	0	90.4	70	135				
Xylenes, Total	59.190	1.5	60.00	0	98.7	70	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319LCS** SampType: **LCS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **LCSW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957481**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	23.180		25.00		92.7	78	125				
Surr: 4-Bromofluorobenzene	25.680		25.00		103	80	120				
Surr: Dibromofluoromethane	23.810		25.00		95.2	80	122				
Surr: Toluene-d8	25.590		25.00		102	80	120				

Sample ID: **N015021-001DMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957482**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	22.920	0.50	20.00	0	115	76	127				
1,1,1-Trichloroethane	21.670	0.50	20.00	0	108	72	125				
1,1,2,2-Tetrachloroethane	16.640	0.50	20.00	0	83.2	75	126				
1,1,2-Trichloroethane	20.630	0.50	20.00	0	103	80	120				
1,1-Dichloroethane	17.900	0.50	20.00	0	89.5	69	128				
1,1-Dichloroethene	22.350	0.50	20.00	0	112	62	135				
1,1-Dichloropropene	21.080	0.50	20.00	0	105	75	123				
1,2,3-Trichlorobenzene	20.900	0.50	20.00	0	104	66	129				
1,2,3-Trichloropropane	16.860	0.50	20.00	0	84.3	73	124				
1,2,4-Trichlorobenzene	21.160	0.50	20.00	0	106	63	131				
1,2,4-Trimethylbenzene	19.730	0.50	20.00	0	98.6	62	131				
1,2-Dibromo-3-chloropropane	20.990	1.0	20.00	0	105	66	126				
1,2-Dibromoethane	22.230	0.50	20.00	0	111	80	126				
1,2-Dichlorobenzene	19.800	0.50	20.00	0	99.0	80	120				
1,2-Dichloroethane	20.840	0.50	20.00	0	104	80	121				
1,2-Dichloropropane	18.170	0.50	20.00	0	90.9	79	120				
1,3,5-Trimethylbenzene	19.870	0.50	20.00	0	99.4	69	128				
1,3-Dichlorobenzene	20.130	0.50	20.00	0	101	80	120				
1,3-Dichloropropane	18.030	0.50	20.00	0	90.2	80	120				
1,4-Dichlorobenzene	19.810	0.50	20.00	0	99.0	80	120				
2,2-Dichloropropane	20.910	0.50	20.00	0	105	56	144				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N015021-001DMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957482**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Butanone	143.690	5.0	200.0	0	71.8	4	163				
2-Chlorotoluene	18.510	0.50	20.00	0	92.6	79	120				
4-Chlorotoluene	18.870	0.50	20.00	0	94.4	79	120				
4-Isopropyltoluene	20.360	0.50	20.00	0	102	70	128				
Benzene	19.680	0.50	20.00	0	98.4	80	120				
Bromobenzene	20.280	0.50	20.00	0	101	80	120				
Bromodichloromethane	22.580	0.50	20.00	0.4500	111	80	124				
Bromoform	24.510	0.50	20.00	0	123	66	139				
Bromomethane	16.430	1.0	20.00	0	82.2	18	174				
Carbon tetrachloride	27.560	0.50	20.00	0	138	59	144				
Chlorobenzene	19.410	0.50	20.00	0	97.0	80	120				
Chloroethane	27.160	1.0	20.00	0	136	62	145				
Chloroform	27.060	0.50	20.00	8.050	95.1	74	120				
Chloromethane	18.370	0.50	20.00	0.1700	91.0	37	157				
cis-1,2-Dichloroethene	19.140	0.50	20.00	0	95.7	73	125				
Dibromochloromethane	23.300	0.50	20.00	0.3300	115	77	130				
Dibromomethane	20.990	0.50	20.00	0	105	70	132				
Dichlorodifluoromethane	22.540	0.50	20.00	0	113	47	159				
Ethylbenzene	19.380	0.50	20.00	0	96.9	79	120				
Freon-113	22.350	0.50	20.00	0	112	64	132				
Hexachlorobutadiene	23.050	0.50	20.00	0	115	66	128				
Isopropylbenzene	19.550	0.50	20.00	0	97.8	78	120				
m,p-Xylene	40.240	1.0	40.00	0	101	80	120				
Methylene chloride	16.540	2.0	20.00	0	82.7	65	122				
MTBE	18.670	0.50	20.00	0	93.4	71	125				
n-Butylbenzene	19.000	0.50	20.00	0	95.0	65	134				
n-Propylbenzene	18.600	0.50	20.00	0	93.0	78	121				
Naphthalene	16.270	0.50	20.00	0	81.4	52	137				
o-Xylene	20.260	0.50	20.00	0	101	80	120				
sec-Butylbenzene	19.220	0.50	20.00	0	96.1	76	122				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N015021-001DMS** SampType: **MS** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957482**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	19.200	0.50	20.00	0	96.0	43	145				
tert-Butylbenzene	20.180	0.50	20.00	0	101	78	120				
Tetrachloroethene	21.530	0.50	20.00	0	108	71	123				
Toluene	20.690	0.50	20.00	0.03000	103	80	120				
trans-1,2-Dichloroethene	19.230	0.50	20.00	0	96.2	64	132				
Trichloroethene	22.750	0.50	20.00	0	114	79	121				
Trichlorofluoromethane	25.070	0.50	20.00	0	125	65	144				
Vinyl chloride	18.990	0.50	20.00	0	95.0	64	134				
Xylenes, Total	60.500	1.5	60.00	0	101	70	130				
Surr: 1,2-Dichloroethane-d4	23.000		25.00		92.0	78	125				
Surr: 4-Bromofluorobenzene	25.920		25.00		104	80	120				
Surr: Dibromofluoromethane	23.690		25.00		94.8	80	122				
Surr: Toluene-d8	25.580		25.00		102	80	120				

Sample ID: **N015021-001DMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	22.260	0.50	20.00	0	111	76	127	22.92	2.92	20	
1,1,1-Trichloroethane	21.250	0.50	20.00	0	106	72	125	21.67	1.96	20	
1,1,2,2-Tetrachloroethane	15.980	0.50	20.00	0	79.9	75	126	16.64	4.05	20	
1,1,2-Trichloroethane	20.150	0.50	20.00	0	101	80	120	20.63	2.35	20	
1,1-Dichloroethane	17.140	0.50	20.00	0	85.7	69	128	17.90	4.34	20	
1,1-Dichloroethene	22.100	0.50	20.00	0	110	62	135	22.35	1.12	20	
1,1-Dichloropropene	20.810	0.50	20.00	0	104	75	123	21.08	1.29	20	
1,2,3-Trichlorobenzene	19.640	0.50	20.00	0	98.2	66	129	20.90	6.22	20	
1,2,3-Trichloropropane	15.960	0.50	20.00	0	79.8	73	124	16.86	5.48	20	
1,2,4-Trichlorobenzene	19.620	0.50	20.00	0	98.1	63	131	21.16	7.55	20	
1,2,4-Trimethylbenzene	18.330	0.50	20.00	0	91.7	62	131	19.73	7.36	20	
1,2-Dibromo-3-chloropropane	18.420	1.0	20.00	0	92.1	66	126	20.99	13.0	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N015021-001DMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	21.340	0.50	20.00	0	107	80	126	22.23	4.09	20	
1,2-Dichlorobenzene	18.700	0.50	20.00	0	93.5	80	120	19.80	5.71	20	
1,2-Dichloroethane	20.570	0.50	20.00	0	103	80	121	20.84	1.30	20	
1,2-Dichloropropane	17.990	0.50	20.00	0	90.0	79	120	18.17	0.996	20	
1,3,5-Trimethylbenzene	18.540	0.50	20.00	0	92.7	69	128	19.87	6.93	20	
1,3-Dichlorobenzene	18.870	0.50	20.00	0	94.4	80	120	20.13	6.46	20	
1,3-Dichloropropane	17.660	0.50	20.00	0	88.3	80	120	18.03	2.07	20	
1,4-Dichlorobenzene	18.340	0.50	20.00	0	91.7	80	120	19.81	7.71	20	
2,2-Dichloropropane	20.280	0.50	20.00	0	101	56	144	20.91	3.06	20	
2-Butanone	142.070	5.0	200.0	0	71.0	4	163	143.7	1.13	20	
2-Chlorotoluene	17.320	0.50	20.00	0	86.6	79	120	18.51	6.64	20	
4-Chlorotoluene	17.450	0.50	20.00	0	87.2	79	120	18.87	7.82	20	
4-Isopropyltoluene	18.920	0.50	20.00	0	94.6	70	128	20.36	7.33	20	
Benzene	19.440	0.50	20.00	0	97.2	80	120	19.68	1.23	20	
Bromobenzene	19.110	0.50	20.00	0	95.6	80	120	20.28	5.94	20	
Bromodichloromethane	21.440	0.50	20.00	0.4500	105	80	124	22.58	5.18	20	
Bromoform	23.330	0.50	20.00	0	117	66	139	24.51	4.93	20	
Bromomethane	15.950	1.0	20.00	0	79.8	18	174	16.43	2.96	20	
Carbon tetrachloride	27.120	0.50	20.00	0	136	59	144	27.56	1.61	20	
Chlorobenzene	18.820	0.50	20.00	0	94.1	80	120	19.41	3.09	20	
Chloroethane	25.030	1.0	20.00	0	125	62	145	27.16	8.16	20	
Chloroform	26.560	0.50	20.00	8.050	92.6	74	120	27.06	1.86	20	
Chloromethane	17.810	0.50	20.00	0.1700	88.2	37	157	18.37	3.10	20	
cis-1,2-Dichloroethene	17.730	0.50	20.00	0	88.6	73	125	19.14	7.65	20	
Dibromochloromethane	23.110	0.50	20.00	0.3300	114	77	130	23.30	0.819	20	
Dibromomethane	21.100	0.50	20.00	0	106	70	132	20.99	0.523	20	
Dichlorodifluoromethane	21.760	0.50	20.00	0	109	47	159	22.54	3.52	20	
Ethylbenzene	18.290	0.50	20.00	0	91.4	79	120	19.38	5.79	20	
Freon-113	22.030	0.50	20.00	0	110	64	132	22.35	1.44	20	
Hexachlorobutadiene	20.740	0.50	20.00	0	104	66	128	23.05	10.6	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **N015021-001DMSD** SampType: **MSD** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **ZZZZZZ** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	18.220	0.50	20.00	0	91.1	78	120	19.55	7.04	20	
m,p-Xylene	38.860	1.0	40.00	0	97.2	80	120	40.24	3.49	20	
Methylene chloride	15.900	2.0	20.00	0	79.5	65	122	16.54	3.95	20	
MTBE	18.020	0.50	20.00	0	90.1	71	125	18.67	3.54	20	
n-Butylbenzene	17.720	0.50	20.00	0	88.6	65	134	19.00	6.97	20	
n-Propylbenzene	17.280	0.50	20.00	0	86.4	78	121	18.60	7.36	20	
Naphthalene	15.380	0.50	20.00	0	76.9	52	137	16.27	5.62	20	
o-Xylene	19.790	0.50	20.00	0	99.0	80	120	20.26	2.35	20	
sec-Butylbenzene	18.110	0.50	20.00	0	90.6	76	122	19.22	5.95	20	
Styrene	19.010	0.50	20.00	0	95.1	43	145	19.20	0.995	20	
tert-Butylbenzene	19.050	0.50	20.00	0	95.2	78	120	20.18	5.76	20	
Tetrachloroethene	21.180	0.50	20.00	0	106	71	123	21.53	1.64	20	
Toluene	20.290	0.50	20.00	0.03000	101	80	120	20.69	1.95	20	
trans-1,2-Dichloroethene	18.070	0.50	20.00	0	90.4	64	132	19.23	6.22	20	
Trichloroethene	22.380	0.50	20.00	0	112	79	121	22.75	1.64	20	
Trichlorofluoromethane	24.240	0.50	20.00	0	121	65	144	25.07	3.37	20	
Vinyl chloride	17.870	0.50	20.00	0	89.4	64	134	18.99	6.08	20	
Xylenes, Total	58.650	1.5	60.00	0	97.8	70	130	60.50	3.11	20	
Surr: 1,2-Dichloroethane-d4	23.170		25.00		92.7	78	125		0		
Surr: 4-Bromofluorobenzene	26.220		25.00		105	80	120		0		
Surr: Dibromofluoromethane	24.040		25.00		96.2	80	122		0		
Surr: Toluene-d8	25.690		25.00		103	80	120		0		

Sample ID: **P150319MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **PBW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **PBW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	1.0									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Butanone	ND	5.0									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	1.0									

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **PBW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.50									
Chloromethane	0.170	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Freon-113	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	0.600	2.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	0.030	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: 1,2-Dichloroethane-d4	24.180		25.00		96.7	78	125				
Surr: 4-Bromofluorobenzene	24.880		25.00		99.5	80	120				
Surr: Dibromofluoromethane	24.920		25.00		99.7	80	122				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: Cardno ATC
Work Order: N014984
Project: Maryland Square, Z085000030

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WATERP

Sample ID: **P150319MB3** SampType: **MBLK** TestCode: **8260WATERP** Units: **µg/L** Prep Date: RunNo: **99529**
Client ID: **PBW** Batch ID: **P15VW047** TestNo: **EPA 8260B** Analysis Date: **3/19/2015** SeqNo: **1957486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	25.220		25.00		101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Maryland Square PCE Site

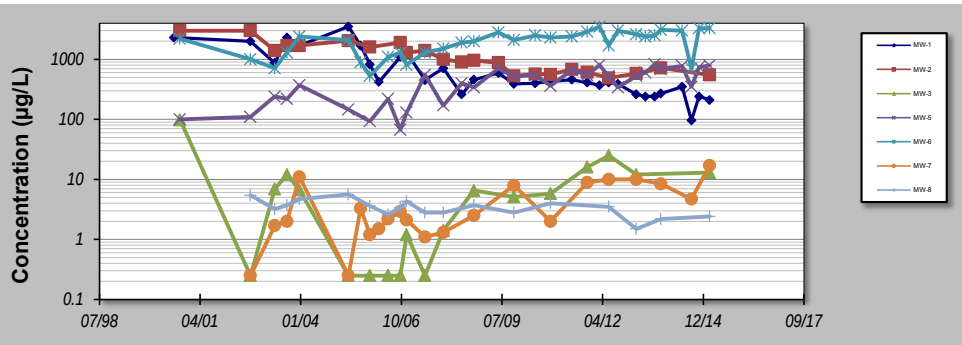
APPENDIX C
MANN-KENDALL TREND TEST FOR PLUME STABILITY

Cardno ATC
Shaping the Future

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	15-Apr-14	Job ID:	Z085000030
Facility Name:	Maryland Square PCE Site	Constituent:	PCE
Conducted By:	Cardno ATC	Concentration Units:	µg/L

Sampling Point ID:	MW-1	MW-2	MW-3	MW-5	MW-6	MW-7	MW-8
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Aug 00	2,300						
2	Oct 00		3,000	98	100	2,200		
3	Sep 02	2,000	3,000	0.25	110	1,000	0.25	5.4
4	May 03	870	1,400	6.9	240	710	1.7	3.2
5	Sep 03	2,300	1,700	12	220	1,300	2	3.7
6	Jan 04	1,700	1,700	6.7	370	2,400	11	4.7
7	May 05	3,500	2,050	0.25	146	2,090	0.25	5.6
8	Sep 05	1,700				890	3.3	
9	Dec 05	820	1,600	0.25	93	530	1.2	3.6
10	Mar 06	420					1.5	
11	Jun 06			0.25	220	1,100	2.2	2.6
12	Oct 06	1,100	1,900	0.25	67	1,300	2.9	3.4
13	Dec 06	1,300	1,300	1.2	130	810	2.1	4.3
14	Jun 07	450	1,400	0.25	550	1,300	1.1	2.8
15	Dec 07	710	1,000	1.4	170	1,500	1.3	2.8
16	Jun 08	260	900		400	1,900		
17	Oct 08	460	960	6.5	340	2,000	2.5	3.7
18	Jun 09	590	880		700	2,800		
19	Nov 09	390	530	5.1	520	2,100	7.9	2.8
20	Jun 10	400	570		550	2,500		
21	Nov 10	430	560	5.8	360	2,300	2.0	4
22	Jun 11	460	680		670	2,400		
23	Nov 11	410	610	16	540	2,900	8.9	
24	Mar 12	370			800	3,500		
25	Jun 12	410	490	25	520	1,700	10	3.5
26	Sep 12	390			340	3,000		
27	Mar 13	260	580	12	530	2,600	10	1.5
28	Jun 13	240			600	2,400		
29	Sep 13	240			830	2,500		
30	Nov 13	270	720		690	3,100	8.4	2.2
31	Jun 14	350			780	3,000		
32	Sep 14	96			350	700	4.7	
33	Nov 14	240			740	3,300		
34	Mar 15	210	550	13	790	3,300	17	2.4
35								
Coefficient of Variation:		1.00	0.61	1.99	0.56	0.43	0.96	0.31
Mann-Kendall Statistic (S):		-367	-184	41	261	257	106	-65
Confidence Factor:		>99.9%	>99.9%	91.8%	>99.9%	>99.9%	99.9%	99.3%
Concentration Trend:		Decreasing	Decreasing	Prob. Increasing	Increasing	Increasing	Increasing	Decreasing



Notes:

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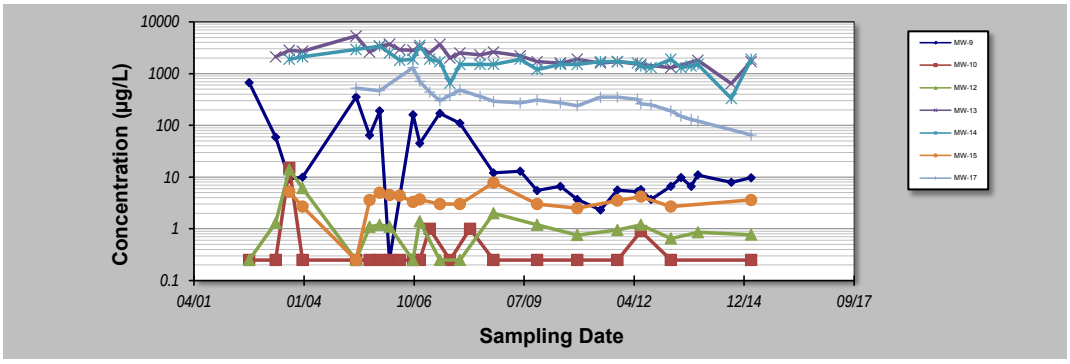
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-9	MW-10	MW-12	MW-13	MW-14	MW-15	MW-17
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Sep 02	670	0.25	0.25				
2	May 03	59	0.25	1.3	2100			
3	Sep 03	9	15	14	2,800	1900	5.2	
4	Jan 04	10	0.25	6.1	2,700	2100	2.7	
5	May 05	353	0.25	0.25	5,310	2,920	0.25	520
6	Sep 05	64	0.25	1.1	2,600		3.6	
7	Dec 05	190	0.25	1.2	3,400	3,400	5	470
8	Mar 06	0.25	0.25	1.1	3,700	2,500	4.5	
9	Jun 06		0.25		2,900	1,800	4.4	
10	Oct 06	160	0.25	0.25	2,800	1,900	3.3	1300
11	Dec 06	45	0.25	1.4	3,200	3,500	3.7	710
12	Mar 07		1		2,500	1,900		440
13	Jun 07	170		0.25	3,700	1,700	3	300
14	Sep 07		0.25		2,000	650		380
15	Dec 07	110		0.25	2,500	1,500	3	480
16	Mar 08		1					
17	Jun 08				2,300	1,500		360
18	Oct 08	12	0.25	2	2,600	1,500	7.8	290
19	Jun 09	13			2,200	1,900		270
20	Nov 09	6	0.25	1.2	1,700	1,200	3	310
21	Jun 10	7			1,600	1,500		270
22	Nov 10	4	0.25	0.76	1,900	1,500	2.5	240
23	Jun 11	2			1,600	1,700		350
24	Nov 11	5.6	0.25	0.95	1,700	1,700	3.5	350
25	May 12	5.2				1,600		320
26	Jun 12	5.7	0.9	1.2	1,500	1,400	4.2	260
27	Sep 12	3.7				1,300		250
28	Mar 13	6.6	0.25	0.65	1,300	1,900	2.7	190
29	Jun 13	9.8				1,300		150
30	Sep 13	6.6				1,400		130
31	Nov 13	11.0		0.86	1,800	1,500		120
32	Jun 14							
33	Sep 14	7.9			640	330		
34	Nov 14							
35	Mar 15	9.7	0.25	0.77	1,700	1,900	3.6	65
36								
37								
38								
39								
40								
Coefficient of Variation:		2.04	3.00	1.75	0.39	0.38	0.41	0.69
Mann-Kendall Statistic (S):		-126	-1	-26	-215	-171	-22	-208
Confidence Factor:		99.4%	50.0%	78.9%	>99.9%	99.9%	78.4%	>99.9%
Concentration Trend:		Decreasing	No Trend	No Trend	Decreasing	Decreasing	Stable	Decreasing



Notes:

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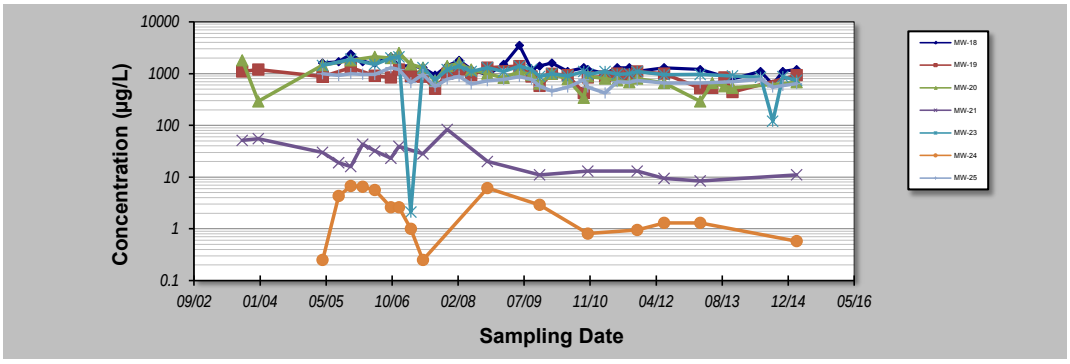
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-18	MW-19	MW-20	MW-21	MW-23	MW-24	MW-25
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Sep 03		1,100	1,800	51			
2	Jan 04		1,200	290	55			
3	May 05	1,600	873	1,460	30	1,430	0.25	993
4	Sep 05	1,700			19		4.3	920
5	Dec 05	2,400	1,300	1,800	16	1,900	6.7	1,000
6	Mar 06	1,700			43		6.5	970
7	Jun 06	1,600	910	2,100	32	1,500	5.6	960
8	Oct 06	2,100	840	2,000	23	2,000	2.6	1,300
9	Dec 06	1,400	1,200	2,500	39	2,100	2.6	1,200
10	Mar 07	1,400	890	1,500		2.1	1.0	670
11	Jun 07	1,300	870	1,300	28	1,300	0.25	960
12	Sep 07	930	510	730		750		560
13	Dec 07	1,400	990	1,400	83	1,200		780
14	Mar 08	1,800	1,200	1,600		1,400		890
15	Jun 08	1,200	930	1,200		1,100		630
16	Oct 08	950	1,300	1,000	20	1,300	6.1	730
17	Feb 09	1,500		830		1,100		770
18	Jun 09	3,500	1,400	1,100		1,400		880
19	Sep 09	1,200	880	940		1,200		770
20	Nov 09	1,400	580	640	11	880	2.9	570
21	Feb 10	1,600	990	990		1,000		460
22	Jun 10	1,100	930	780		900		550
23	Oct 10	1,300	420	340		1,100		760
24	Nov 10	1,200	840	890	13	970	0.81	550
25	Mar 11	1,000	880	800		1,100		420
26	Jun 11	1,300	1,000	740		970		700
27	Sep 11	1,300	950	680		1,000		680
28	Nov 11	1,100	1,100	800	13	1,100	0.95	740
29	Jun 12	1,300	1,000	660	9.4	950	1.3	660
30	Mar 13	1,200	520	290	8.4	960	1.3	660
31	Jun 13		530	660				
32	Sep 13		840	570				
33	Nov 13	780	440	530		900		700
34	Jun 14	1,100				850		780
35	Sep 14	620				120		550
36	Nov 14	1,100				870		590
37	Mar 15	1,200	930	680	11.0	740	0.58	640
38								
39								
40								
Coefficient of Variation:		0.37	0.28	0.53	0.71	0.40	0.86	0.27
Mann-Kendall Statistic (S):		-252	-80	-293	-85	-253	-39	-246
Confidence Factor:		>99.9%	92.0%	>99.9%	100.0%	>99.9%	95.7%	>99.9%
Concentration Trend:		Decreasing	Prob. Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing



Notes:

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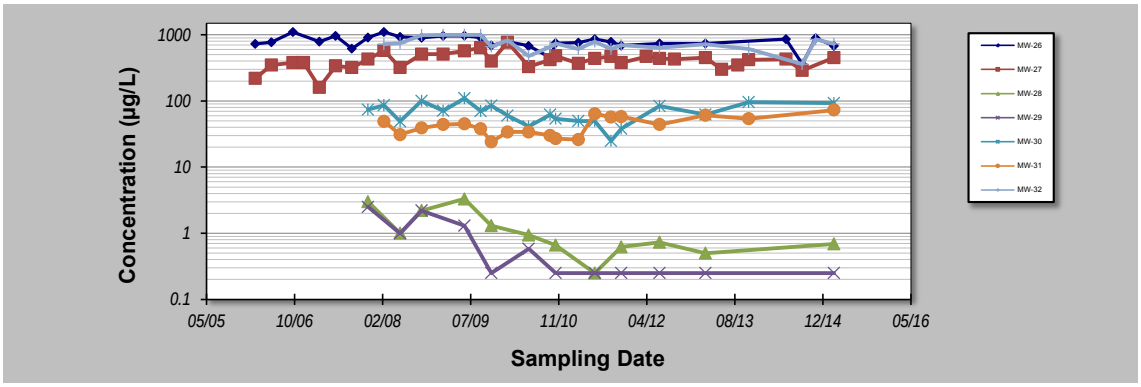
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Mar 06	730	220					
2	Jun 06	770	350					
3	Oct 06	1,100	380					
4	Dec 06		380					
5	Mar 07	790	160					
6	Jun 07	960	340					
7	Sep 07	620	320					
8	Dec 07	910	430	3.0	2.5	74		
9	Mar 08	1,100	580			86	49	720
10	Jun 08	930	320	1.0	1.0	49	31	750
11	Oct 08	900	510	2.2	2.2	100	39	990
12	Feb 09	960	510			71	44	1,000
13	Jun 09	970	570	3.3	1.3	110	45	1,000
14	Sep 09	910	640			70	38	1,000
15	Nov 09	690	400	1.3	0.25	85	24	660
16	Feb 10	790	770			60	34	830
17	Jun 10	680	330	0.94	0.58	41	34	480
18	Oct 10	450	420	.		62	30	660
19	Nov 10	750	480	0.66	0.25	54	27	740
20	Mar 11	760	370			50	26	610
21	Jun 11	860	440	0.25	0.25	50	64	790
22	Sep 11	780	470			25	57	610
23	Nov 11	690	380	0.62	0.25	38	58	700
24	Mar 12		470					
25	Jun 12	740	440	0.73	0.25	84	44	640
26	Sep 12		430					
27	Mar 13	740	450	0.50	0.25	62	61	720
28	Jun 13		300					
29	Sep 13		350					
30	Nov 13		420			96	54	610
31	Jun 14	860	430					
32	Sep 14	360	290					360
33	Nov 14	890						850
34	Mar 15	680	450	0.69	0.25	93	73	730
35								
Coefficient of Variation:		0.21	0.27	0.80	1.05	0.34	0.33	0.23
Mann-Kendall Statistic (S):		-106	17	-38	-39	-32	43	-60
Confidence Factor:		98.1%	60.2%	99.6%	99.7%	84.1%	92.8%	96.3%
Concentration Trend:		Decreasing	No Trend	Decreasing	Decreasing	Stable	Prob. Increasing	Decreasing



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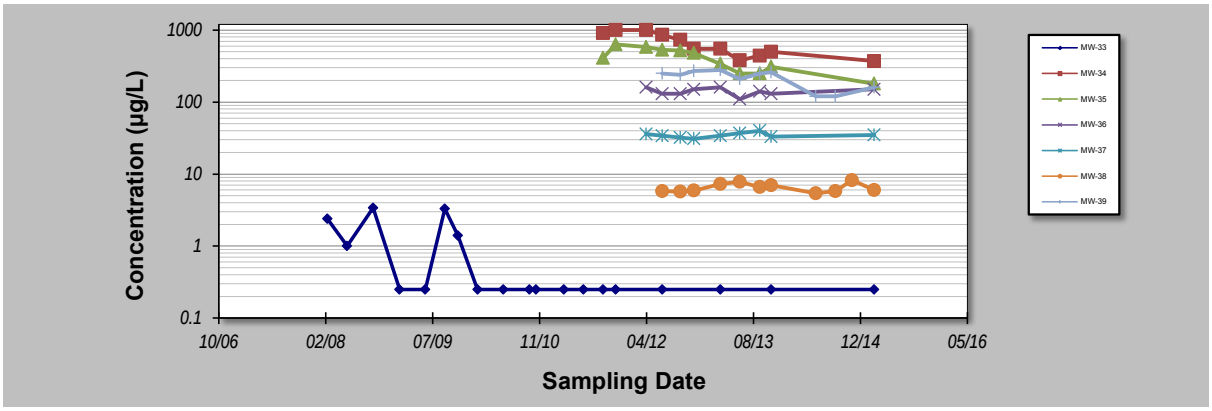
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-33	MW-34	MW-35	MW-36	MW-37	MW-38	MW-39
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Mar 08	2.4						
2	Jun 08	1.0						
3	Oct 08	3.4						
4	Feb 09	0.25						
5	Jun 09	0.25						
6	Sep 09	3.3						
7	Nov 09	1.4						
8	Feb 10	0.25						
9	Jun 10	0.25						
10	Oct 10	0.25						
11	Nov 10	0.25						
12	Mar 11	0.25						
13	Jun 11	0.25						
14	Sep 11	0.25	910	410				
15	Nov 11	0.25	1,000	630				
16	Mar 12		1,000	580	160	36		
17	Jun 12	0.25	860	530	130	34	5.8	250
18	Sep 12		730	520	130	32	5.7	240
19	Nov 12		550	480	150	31	5.9	270
20	Mar 13	0.25	550	340	160	34	7.3	280
21	Jun 13		380	250	110	37	7.8	210
22	Sep 13		440	250	140	40	6.6	250
23	Nov-13	0.25	500	310	130	33	7.0	260
24	Jun 14						5.4	120
25	Sep 14						5.8	120
26	Nov 14						8.2	
27	Mar 15	0.25	370	180	150	35	6.0	160
28								
29								
30								
Coefficient of Variation:		1.34	0.37	0.37	0.12	0.08	0.15	0.28
Mann-Kendall Statistic (S):		-62	-43	-40	-3	5	10	-17
Confidence Factor:		98.5%	>99.9%	100.0%	58.0%	65.7%	75.3%	92.2%
Concentration Trend:		Decreasing	Decreasing	Decreasing	Stable	No Trend	No Trend	Prob. Decreasing



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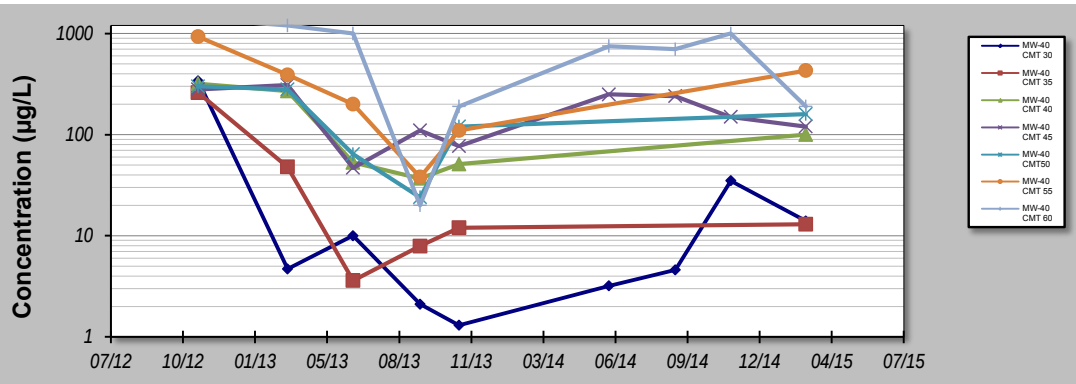
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-40 CMT 30	MW-40 CMT 35	MW-40 CMT 40	MW-40 CMT 45	MW-40 CMT50	MW-40 CMT 55	MW-40 CMT 60
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Nov 12	340	260	320	280	300	930	1,400
2	Mar 13	4.7	48	270	310	280	390	1,200
3	Jun 13	10	3.6	53	47	64	200	1,000
4	Sep 13	2.1	7.9	37	110	24	38	20
5	Nov-13	1.3	12	51	77	120	110	190
6	Jun 14	3.2			250			750
7	Sep 14	4.6			240			700
8	Nov 14	35			150			1,000
9	Mar 15	14	13	100	120	160	430	190
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.40	1.05	0.90	0.54	0.71	0.73	0.68
Mann-Kendall Statistic (S):		0	2	-7	-6	-5	0	-14
Confidence Factor:		46.0%	59.2%	86.4%	69.4%	76.5%	40.8%	91.0%
Concentration Trend:		No Trend	No Trend	Stable	Stable	Stable	Stable	Prob. Decreasing



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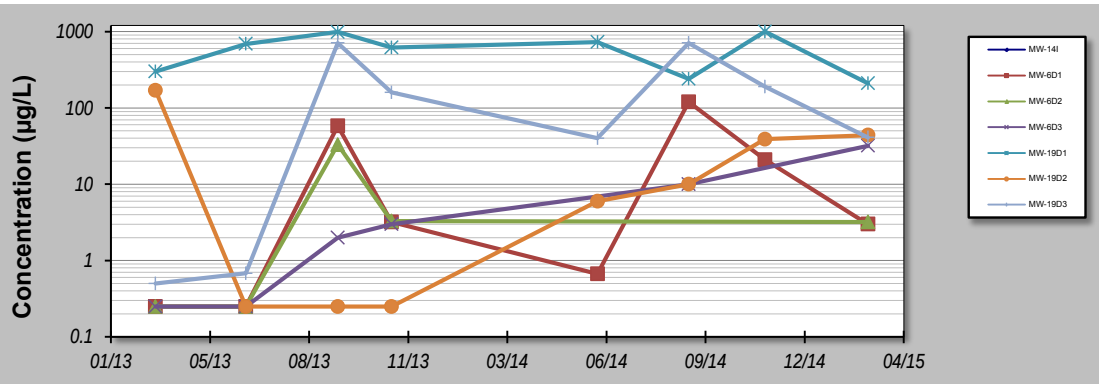
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-14I	MW-6D1	MW-6D2	MW-6D3	MW-19D1	MW-19D2	MW-19D3
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Mar 13	7,200	0.25	0.25	0.25	300	170	0.50
2	Jun 13	5,500	0.25	0.25	0.25	690	0.25	0.68
3	Sep 13	3,700	58	33	2.0	990	0.25	710
4	Nov-13	10,000	3.2	3.3	3.0	620	0.25	160
5	Jun 14	9,800	0.67			730	6.0	40
6	Sep 14	9,300	120		10	240	10	710
7	Nov 14	11,000	21			1,000	39	190
8	Mar 15	11,000	3.0	3.2	32	210	44	41
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.32	1.53	1.76	1.56	0.53	1.34	1.31
Mann-Kendall Statistic (S):		15	3	3	14	-2	18	9
Confidence Factor:		95.8%	61.4%	67.5%	99.6%	54.8%	99.7%	83.2%
Concentration Trend:		Increasing	No Trend	No Trend	Increasing	Stable	Increasing	No Trend



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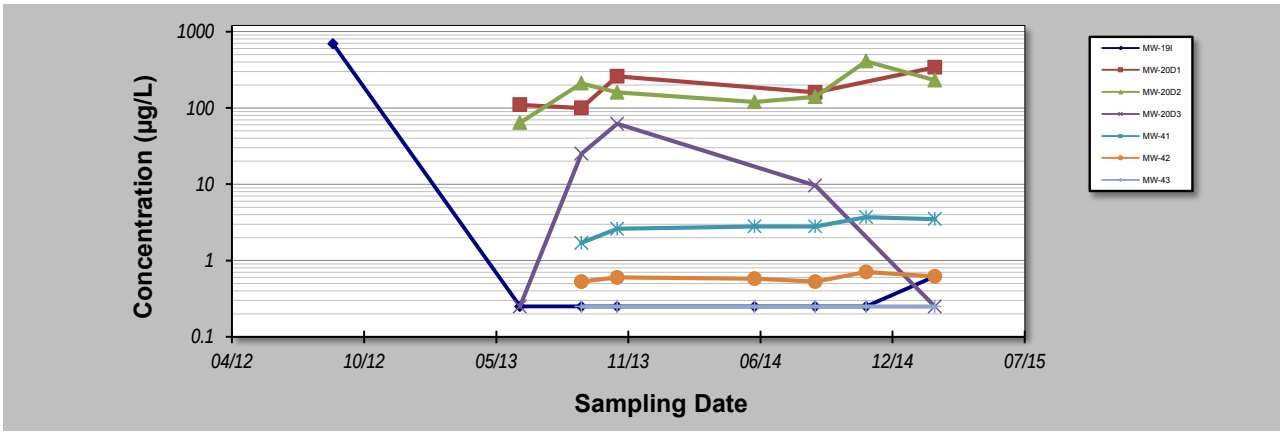
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 15-Apr-14
Facility Name: Maryland Square PCE Site
Conducted By: Cardno ATC

Job ID: Z085000030
Constituent: PCE
Concentration Units: µg/L

Sampling Point ID:	MW-19I	MW-20D1	MW-20D2	MW-20D3	MW-41	MW-42	MW-43
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	Sep 12	690						
2	Jun 13	0.25	110	64	0.25			
3	Sep 13	0.25	100	210	25	1.7	0.53	0.25
4	Nov-13	0.25	260	160	62	2.6	0.60	0.25
5	Jun 14	0.25		120		2.8	0.58	0.25
6	Sep 14	0.25	160	140	10	2.8	0.53	0.25
7	Nov 14	0.25		410		3.7	0.71	0.25
8	Mar 15	0.62	340	230	0.25	3.5	0.62	0.25
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.82	0.53	0.59	1.33	0.25	0.11	0.00
Mann-Kendall Statistic (S):		-1	6	9	-1	12	6	0
Confidence Factor:		50.0%	88.3%	88.1%	50.0%	98.2%	81.5%	39.3%
Concentration Trend:		No Trend	No Trend	No Trend	No Trend	Increasing	No Trend	Stable



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.