
Akzo Nobel Polymer Chemicals

Groundwater Monitoring Report
2018 Annual Report

**Barton
& Loguidice**

443 Electronics Parkway, Liverpool, New York 13088

**Groundwater Monitoring Report
2018 Annual Report**

Akzo Nobel Polymer Chemicals

Lockport-Olcott Road

Burt, New York

NYSDEC Region #9

Prepared for:

Akzo Nobel Polymer Chemicals

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Burt, New York 14028

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Sample Collection Information

Sampled By: Barton & Loguidice, D.P.C.

Sampling Dates: Second Quarter: June 19 and 20, 2018
Fourth Quarter: October 10 and 11, 2018

Sampling Locations:	<u>Overburden</u>	<u>Bedrock</u>
	MW-1	MW-1B ⁽¹⁾
	MW-2	
	MW-3	MW-3B ⁽¹⁾
	MW-4	MW-4B
	MW-5	
	MW-9	MW-9B
	MW-10	MW-10B ⁽¹⁾
	MW-11	MW-11B

Notes: ⁽¹⁾ Sampled in Second Quarter only

Field Determinations: (See Field Data Sheets in Appendix A)
pH
Temperature
Turbidity
Specific Conductance
Eh (Oxidation Reduction Potential)
Dissolved Oxygen
Ferrous Iron
Static Water Levels

Sample Testing

Laboratory: ALS Environmental
1565 Jefferson Road, Bldg 300, Suite 360
Rochester, NY 14623
NYSDOH I.D. No.10145

Parameters Tested: All monitoring locations were analyzed for Volatile Organic Compounds (EPA Method 8260), dissolved iron (EPA Method 2007), dissolved manganese (EPA Method 354.1), sulfate and nitrate as nitrogen (EPA Method 300.0), and methane (Method RSK 175).

Test Report: Second Quarter ALS Report No.: R1805745
Fourth Quarter ALS Report No.: R1809895

Site Information

Introduction

This report presents the results of environmental groundwater monitoring conducted during 2018 monitoring events at Akzo Nobel Polymer Chemicals (Akzo Nobel), Burt, New York. The facility is required to complete groundwater monitoring as defined in 6 New York Code of Rules and Regulations (NYCRR) Part 373 Permit No. 9-2928-00001/00003. The purpose of the monitoring is to evaluate Monitored Natural Attenuation (MNA) of groundwater impacts at the site. The sampling was performed according to the Work Plan approved by the New York State Department of Environmental Conservation (NYSDEC) on March 31, 2006 and to the December 2015 Facility's Groundwater Monitoring Plan (prepared by Barton & Loguidice, D.P.C. (B&L)) approved by NYSDEC on December 7, 2015.

The Site's 6 NYCRR Part 373 Permit states that Akzo Nobel must petition NYSDEC for approval to cease the groundwater monitoring program. Petitioning to seek termination of the groundwater monitoring program will be permissible when the following summarized "Termination Criteria" are met: (a) all Groundwater Protection Standards set forth in Table 1 of the permit have been achieved; or (b) the total concentration of all organic compounds found in Table 1 is no greater than 100 parts per billion (ppb), and no single organic compound concentration exceeds 50 ppb.

In 2009 the NYSDEC granted Akzo Nobel approval to remove monitoring wells MW-6, MW-7, and MW-8 from the monitoring program because historic sampling and laboratory data indicated that those wells exhibited little or no contamination. Additionally, wells MW-1B, MW-3B, and MW-10B are now only sampled one time per year, during the first semi-annual monitoring event due to seasonal dryness.

As detailed in the updated Groundwater Monitoring Plan future groundwater sampling will take place on a semi-annual basis (two times annually), typically during the Second and Fourth Quarters of each year. Groundwater samples will be analyzed for target compound list (TCL) volatile organic compounds (VOCs), select general chemistry and specific field parameters. A Groundwater Monitoring Program Evaluation Report will be submitted annually to the NYSDEC detailing the findings for the year. The updated Groundwater Monitoring Plan also states that a reduction in the sampling frequency of a monitoring well may be considered if an annual review shows that any well or wells consistently has results of non-detected for all parameters for at least four consecutive sampling events. This report includes presentation of both the Second and Fourth Quarter 2018 data, and the annual groundwater monitoring program evaluation report.

Site History

Akzo Nobel is located at 2153 Lockport-Olcott Road in Burt, NY. The facility formerly produced chemical peroxides. Production was discontinued in April 2003; however, the Facility remains in operation as a warehouse and distribution center. The property is 350 acres in size, of which the former production portion of the Site comprises 30 acres. Figures 1 and 2 depict the Site and property boundaries.

The Site is subject to the requirements of 6NYCRR Part 373 – Hazardous Waste Management Facilities. Akzo Nobel has a Part 373 Permit, which required them to conduct a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) and a RCRA Facility Investigation (RFI) to determine the nature and extent of contamination associated with the Facility. These studies were conducted from 1994 to 2002. Based on the findings of the RFI, groundwater impacts were identified at the Site. A corrective measure study (CMS) was conducted to evaluate remedial alternatives. MNA and institutional controls were selected as the final corrective measures for the Site. Akzo Nobel's Part 373 Permit Number 9-02928-00001/00003 was renewed in December 2005. The Permit authorizes Akzo Nobel to implement corrective action measures to address the groundwater contamination at the Site.

Assessment of Monitoring Results

B&L field personnel performed groundwater monitoring activities on June 16 and 17, 2018, and October 10 and 11, 2018. Per the requirements specified in the Groundwater Monitoring Plan, groundwater samples were collected from the designated site monitoring wells depicted on Figure 3. Field measurements included dissolved oxygen, temperature, pH, conductivity, turbidity, oxidation-reduction potential (Eh), ferrous iron concentration, and static groundwater levels. Groundwater samples were analyzed by ALS Environmental for Target Compound List (TCL) volatile organic compounds (VOCs) by USEPA Method SW-846-8260, dissolved iron by USEPA Method SW-846-200.7, dissolved manganese by USEPA Method SW-846 354.1, sulfate and nitrate as nitrogen by USEPA SW-846 300.0, and methane by Method RSK 175.

Tables 1 through 14 of this report provide a summary of historical groundwater monitoring analytical results and a comparison to NYSDEC groundwater standards. Table 15 summarizes the exceedance of NYSDEC groundwater standards. Table 16 and 17 summarize the physical measurements for each monitoring well, and provides water level and field parameter data for each of the 2018 sampling events. Table 18 provides a summary of MNA indicator parameters. Figures 1 through 7 provide site maps, well locations, and groundwater contours for the overburden and bedrock units. Copies of field sampling forms, calibration sheets, and chain of custody forms are provided in Appendix A. Laboratory analytical results provided by ALS Environmental are provided in Appendix B.

The Groundwater Monitoring Work Plan specifies that *"if the sample results from any of the downgradient boundary wells (MW-3, MW-3B, MW-4, MW-4B, MW-9, MW-9B, MW-10, and MW-10B) indicate contamination for any TCL VOCs above the New York State groundwater standards in NYCRR 703.5, the well(s) will be resampled within 2 weeks of obtaining the results. Also, Akzo Nobel will immediately notify the NYSDEC that there was an exceedance at the boundary well."* Boundary well cluster wells MW-11 and MW-11B were installed in February 2007 as a result of VOC detections at MW-9 in 2006. The MW-11 and MW-11B locations now serve as the designated boundary well cluster downgradient of MW-9 and MW-9B. Detections of TCL VOCs above groundwater standards at the MW-9 well cluster no longer require resampling and immediate notification to the NYSDEC. These actions are now required in the event of such exceedances if they occur at the MW-11 well cluster (as well as in any of the other designated boundary wells described in the paragraph above).

Monitoring well locations MW-2, MW-5, and MW-9 have historically exhibited concentrations of several groundwater monitoring constituents above the 6NYCRR Part 703.5 standards (Part 703). In the Second Quarter MW-2 exhibited benzene (3.7 µg/L) in excess of the groundwater quality standard of 1 µg/L, chloroethane (9.0 µg/L) in excess of the groundwater quality standard of 5 µg/L, and toluene (160 µg/L) in excess of the groundwater quality standard of 5 µg/L. In the Fourth Quarter MW-2 did not demonstrate any VOCs in excess of established groundwater quality standards.

Historically, monitoring well MW-5 has exceeded the 50 µg/L groundwater quality standard for acetone. The concentration of acetone within MW-5 varies seasonally with the lowest concentration observed in the First and Second Quarters and the highest concentration observed in the Third and Fourth Quarters. Acetone was detected within MW-5 at concentrations below the groundwater standard in both the Second Quarter (2.5 µg/L) and Fourth Quarter (18 µg/L). The concentration of acetone will continue to be closely evaluated to assess any changes or trends within this monitoring location.

Monitoring well MW-9 exhibited 1,1,1-trichloroethane (111-TCA) at concentrations below the Part 703 groundwater quality standard (5 µg/L) during both the Second Quarter (4.8 µg/L) and Fourth Quarter (4.2 µg/L) monitoring events. This former boundary well has historically exhibited detections of several other VOCs including 1,1,2-trichloroethane, tetrachloroethene, and trichloroethene.

The VOC concentrations within MW-2 and MW-9 have continued to show improvement over time. No other exceedances of the 6NYCRR Part 703.5 standards were observed at these monitoring well locations, and the results are consistent with historical data.

None of the boundary wells exhibited any NYCRR 703.5 New York State groundwater standard exceedances during the 2018 monitoring events, although VOC detections, mostly at low level estimated concentrations, were observed. Carbon disulfide was detected within MW-3 at an estimated concentration during the Fourth Quarter. MW-4 demonstrated Second and

Fourth Quarter detections of acetone at estimated concentrations. MW-4B exhibited carbon disulfide at an estimated concentration in the Fourth Quarter. MW-10 demonstrated 111-TCA at an estimated concentration in the Fourth Quarter. MW-10B exhibited a Second Quarter detection of 1,1-dichloroethane (11-DCA). MW-11 demonstrated Second and Fourth Quarter detections of 111-TCA, and a Second Quarter detections of 4-methyl-2-pentanone at an estimated concentration. VOC concentrations at downgradient boundary wells will continue to be tracked through scheduled monitoring programs.

Static water level measurements were used to calculate overburden and bedrock unit groundwater elevations. The direction of overburden groundwater flow varies seasonally, but was generally to the northwest across the former source area, with the gradient becoming steeper and shifting to the west at the western property boundary. Second and Fourth Quarter Overburden Unit contours are shown in Figure 4 and Figure 6 respectively. The Second Quarter Bedrock Unit groundwater flow was generally to the west as shown in Figure 5. Fourth Quarter Bedrock Unit contour maps were not produced due to the limited static water level measurements collected from Bedrock Unit monitoring wells during these events. The overburden and bedrock relative water level ranges are consistent with historical measurements.

Monitored Natural Attenuation Evaluation

Redox Conditions

Modestly oxidizing (aerobic) conditions were present in the majority of the monitoring wells during the 2018 monitoring year (Table 4). Average ORP values ranged from -78.5 mV at MW-2 to 137.5 mV at MW-4B, with an overall average of 83.5 mV. DO concentrations ranged from 1.2 mg/L at MW-1B in the Second Quarter to 9.2 mg/L at MW-4 in the Second Quarter, with an average DO concentration of 3.99 mg/L. DO is relatively depleted in wells MW-1B, MW-2, MW-3B, and MW-5 (average = 1.66 mg/L).

Dissolved iron concentrations ranged from non-detect (multiple locations) to 2,300 µg/L (MW-2 in the Second Quarter), with an average dissolved iron concentration of 1,030 µg/L in the two wells where dissolved iron was detected. Dissolved manganese ranged from non-detect (multiple locations) to 1,790 µg/L (MW-2 in the Fourth Quarter). These data demonstrate that reductive dechlorination conditions are favorable in the vicinity of well MW-2.

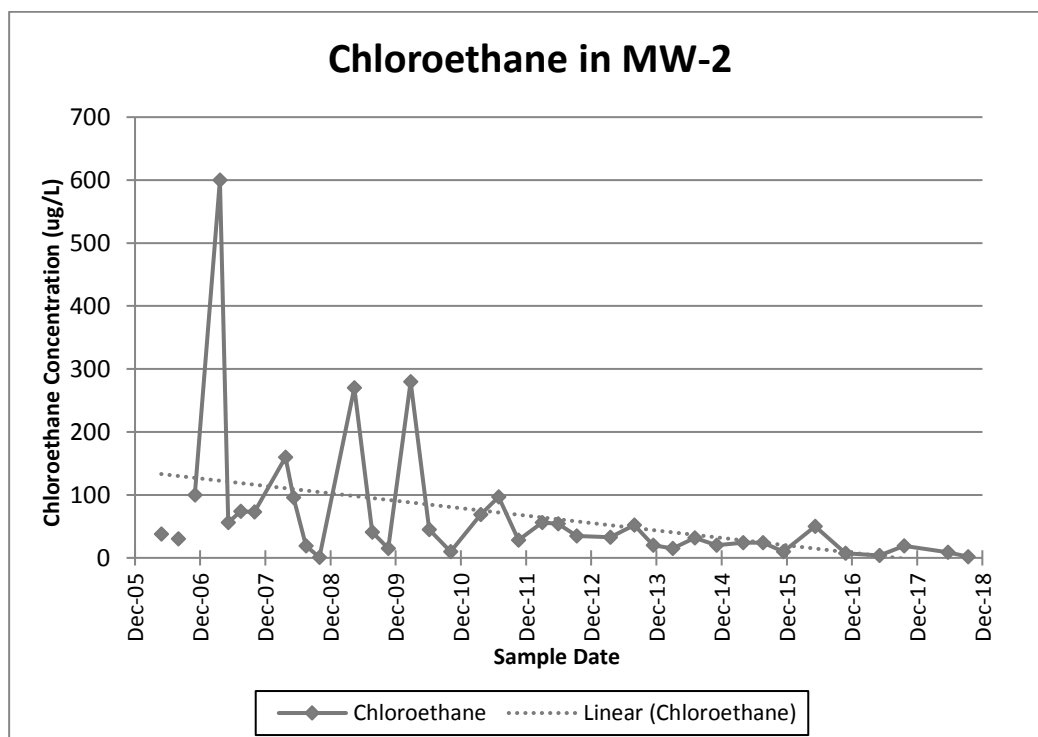
Nitrate was detected at three locations (MW-5, MW-9, and MW-10) during the 2018 sampling events. MW-5 demonstrated nitrate at a concentration of 3.0 mg/L in the Second Quarter. MW-9 demonstrated nitrate at concentrations of 2.5 mg/L in the Second Quarter and 2.2 mg/L in the Fourth Quarter. MW-10 demonstrated nitrate concentrations of 2.4 mg/L in the Second Quarter and 1.2 mg/L in the Fourth Quarter. These observations suggest that the denitrification process is incomplete at these locations.

Methane concentrations were greatest at monitoring well MW-2, averaging 1,450 µg/L during the 2018 monitoring year. These methane concentrations confirm that strongly reducing conditions favoring reductive dechlorination are present in the vicinity of this well. Modestly elevated methane concentrations were also noted at monitoring well MW-1 where the methane concentration was 150 µg/L during the 2018 Second Quarter event.

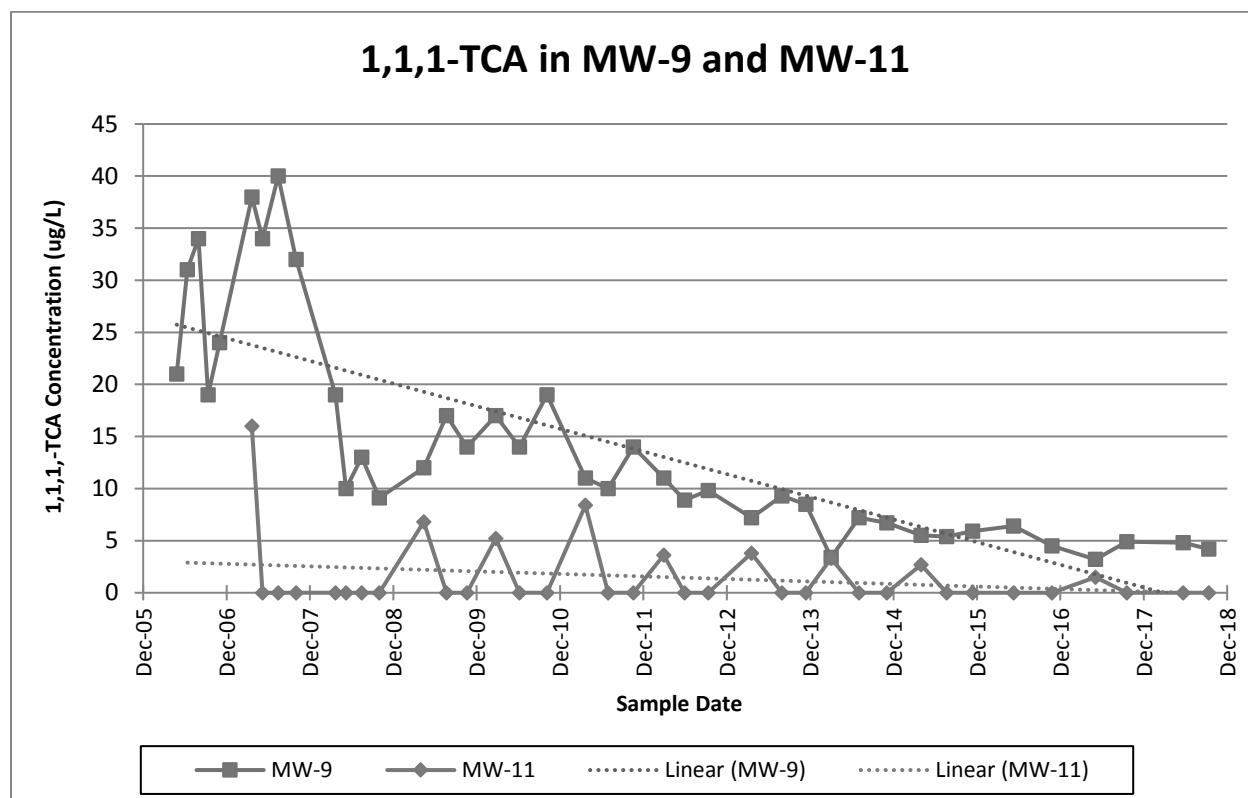
In general, the MNA indicator data are consistent with the results from prior monitoring years. Strongly reducing conditions favoring reductive dechlorination continue to be present in the vicinity of well MW-2. A zone where oxygen levels have been reduced, but conditions remain moderately aerobic (as evidenced by positive ORP values; significant nitrate detections; and infrequent methane, dissolved iron and dissolved manganese detections) encompasses wells MW-5, MW-9 & MW-10. A third zone encompassing monitoring wells MW-3 and MW-4 has near background DO (> 5 mg/L); positive ORP values; infrequent, low-concentration dissolved iron and manganese; and low or no detectable methane.

Degradation Products

The degradation of 111-TCA via reductive dechlorination yields two principal by-products: 11-DCA and CA. During the 2018 monitoring year, both CA and 11-DCA were again detected in MW-2. Low-level concentrations of 11-DCA were also detected at monitoring wells MW-9, MW-10B, and MW-11. The absence of 111-TCA (or its detection at very low concentrations) together with the presence of only low concentrations of 11-DCA suggest that the majority of the 111-TCA in the source area has been degraded to CA. In addition, CA has been declining in the source area in recent years, consistent with the principles of natural attenuation. In lieu of radial diagrams natural attenuation trends and effectiveness are represented in contaminant concentration vs. time graphs as shown for CA in the graph below:



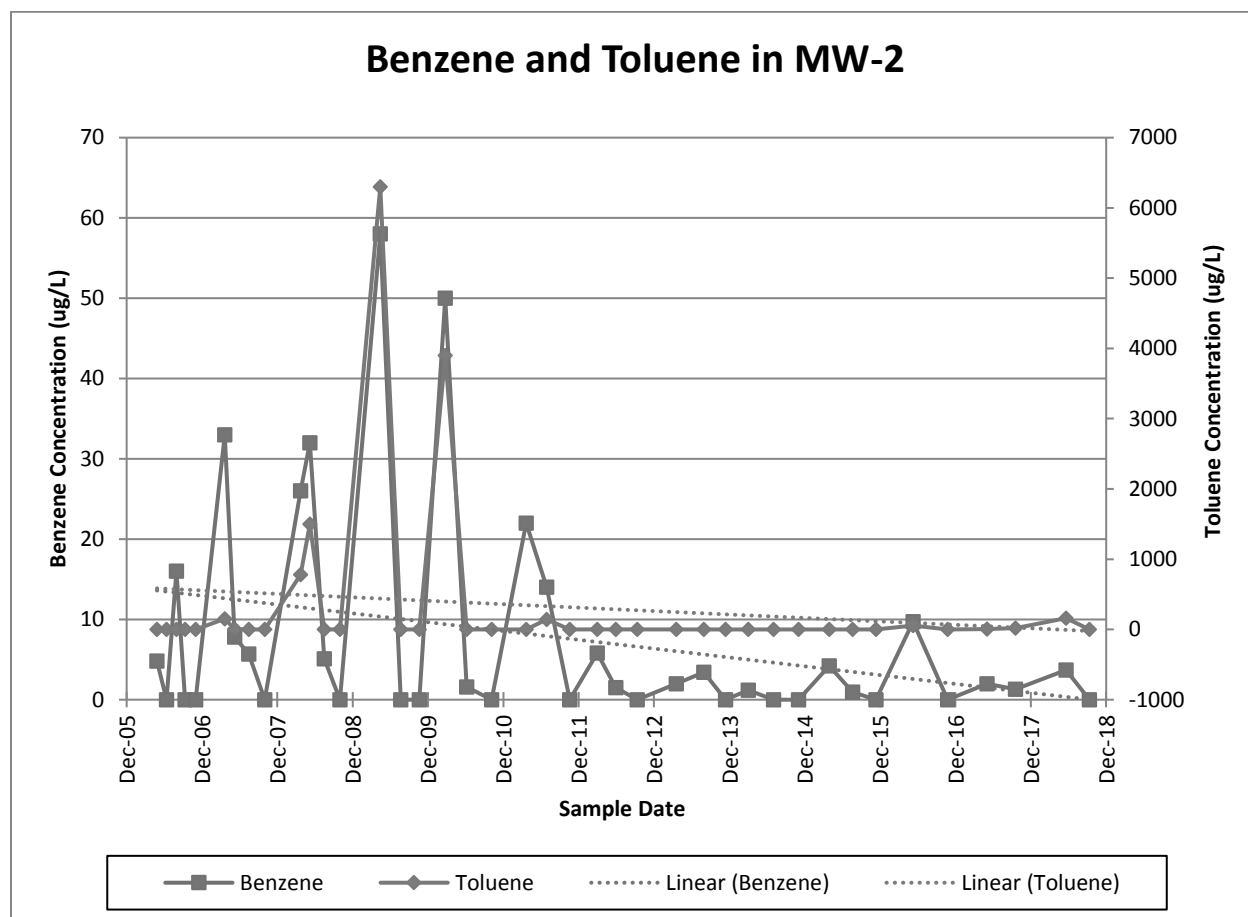
Similarly, low-level detections of 111-TCA in boundary wells MW-9 and MW-11 in recent years also demonstrate trends of declining concentrations (see graph below). Degradation is occurring at the boundary locations, particularly at MW-11, based on the observed redox conditions. However, the starting concentrations of the parent 111-TCA are sufficiently low to yield by-product concentrations that are low and often below the method detection limits. MW-11 did not demonstrate detections of 111-TCA in 2018.



As noted in previous reports prepared by Conestoga-Rovers & Associates (CRA), the anaerobic degradation of CA is a relatively slow process; accordingly, by-product CA would be expected to migrate from the source area with the groundwater flow, degrading anaerobically over time. As the flow of groundwater approaches the more aerobic areas to the west, however, it is likely that the CA will be degraded more rapidly via aerobic mechanisms. Since aerobic degradation of CA is a faster process, it is likely that CA will not reach the boundary wells, and the analytical data supports this conclusion.

BTEX Constituents

Benzene, toluene, ethylbenzene, and xylenes (BTEX) have historically been detected in the source area, including in well MW-2. Higher detections of benzene and toluene concentrations in MW-2 typically occur in the spring months (March, April, May, and June; see figure below) and decline through the remainder of the year. This suggests that the BTEX source may be associated with a water table smear zone that becomes seasonally saturated during periods of relatively higher groundwater levels.

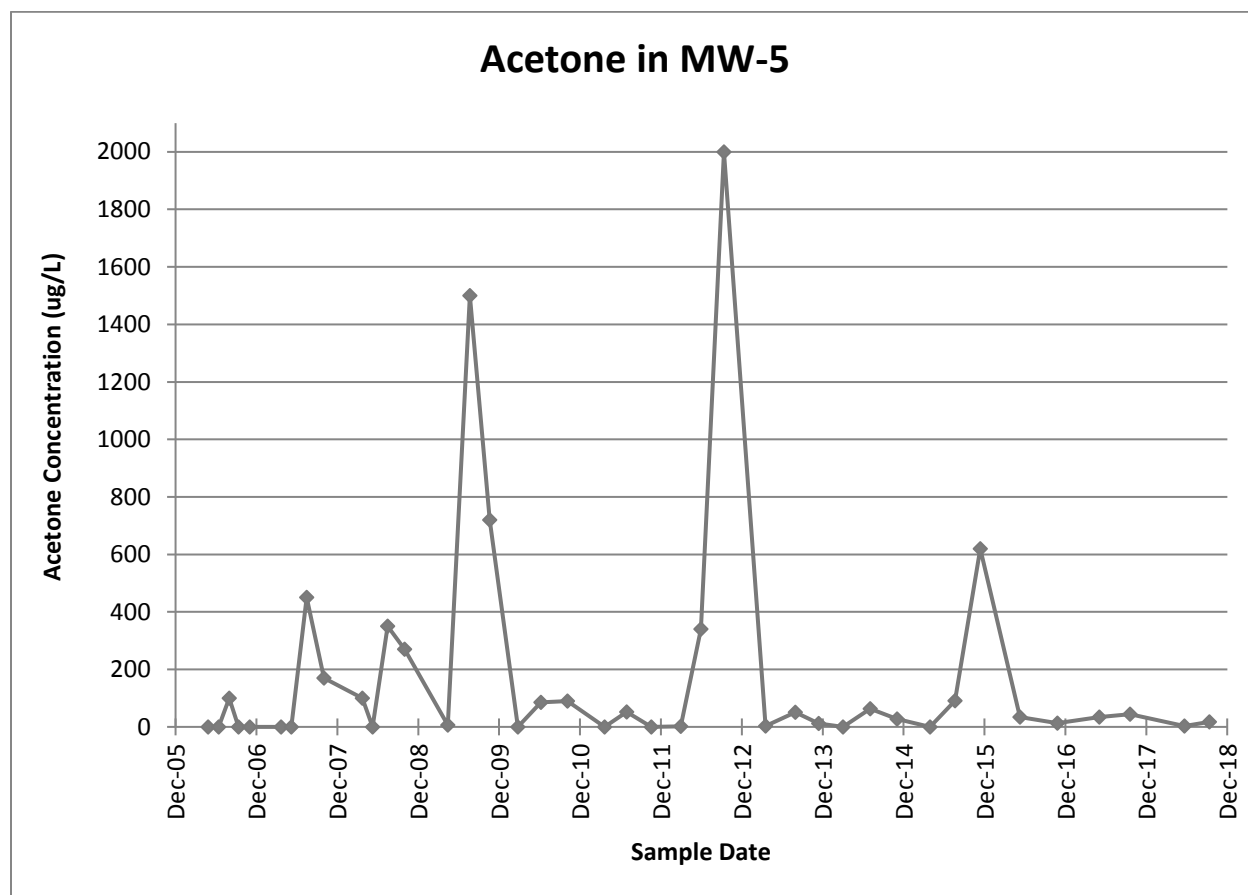


During 2018 none of the monitoring wells exhibited BTEX detections with the exception of benzene, toluene, m,p-xylene, and o-xylene at MW-2 during the 2018 Second Quarter monitoring event. Overall, the results for the 2011 to 2018 monitoring years demonstrate observed consistently low BTEX concentrations in the source area.

Anaerobic degradation of the BTEX constituents continues and BTEX in the source area are no longer at concentrations that can negatively impact downgradient wells. Accordingly, off-site migration of BTEX is not likely to occur.

Acetone

Acetone is frequently detected within Site monitoring wells at low concentrations that may be associated with laboratory artifacts. More significant detections of acetone have been noted in monitoring well MW-5, with historical concentrations as high as 1,500 µg/L detected in August 2009. During the 2018 monitoring year detections of acetone occurred at the MW-5 location below relevant groundwater quality criteria (50 µg/L) in the Second Quarter (2.5 µg/L) and Fourth Quarter (18 µg/L) sampling events. Acetone is readily biodegradable under aerobic conditions and is likely to be fully degraded within a relatively short distance downgradient of monitoring well MW-5.



Conclusions

The groundwater data obtained 2018 for the Akzo Nobel facility is generally consistent with recent and historical water quality data. This data demonstrates the effectiveness of MNA in decreasing the concentrations of organic compounds within the groundwater at the facility. Specific conclusions on groundwater quality are noted below:

- The 111-TCA, previously present in the source area, appears to have been fully degraded to 11-DCA or chloroethane, and the parent compound was not detected in the source area during the 2018 monitoring year. The by-product chloroethane continues to degrade under anaerobic conditions in the source area or degrades aerobically as it migrates towards the Site boundary. The absence of CA in the boundary wells confirms that the source concentrations are no longer high enough to negatively impact boundary wells water quality.
- 111-TCA was detected within MW-9 at concentrations below the groundwater standard, but was not detected within boundary well MW-11 which is downgradient from MW-9. 111-TCA was also detected at MW-10 at an estimated concentration in the Fourth Quarter. Degradation is occurring at the

boundary locations, particularly at MW-11, based on the observed redox conditions.

- Anaerobic degradation of the BTEX constituents in the source area is also occurring. As the flow of groundwater approaches the more aerobic areas to the west, however, BTEX constituents not degraded in the source area appear to be fully degraded aerobically. As in prior years, there were no detections of BTEX constituents in the boundary wells during the 2018 monitoring year.

Termination criteria relating to total concentrations of all organic compounds no greater than 100 ppb was not met during 2018. Termination criteria relating to no single organic compound concentrations exceeding 50 ppb was not met during 2018 (MW-2 Second Quarter toluene = 160 µg/L). Termination criteria relating to all organic compound concentrations meeting groundwater standards was not met in 2018 due to benzene, chloroethane, and toluene detections in MW-2. The groundwater quality will continue to be monitored during upcoming 2019 sampling events. An annual report will also be prepared at the end of 2019 to evaluate the data obtained for the calendar year and assess the continued effectiveness of monitored natural attenuation.

Tables

CAS	Parameter	Units	6NYCRR Part 703.5 Action Limits	MW-108 R102151-013 4/20/2011	MW-108 R1201986-013 1/16/2013	MW-108 R1302598-012 3/29/2012	MW-108 R1403108-012 4/29/2014	MW-108 R1503148-012 4/29/2014	MW-108 R1605971-014 6/7/2015	MW-108 R1704986-013 6/7/2017	MW-108 R1805745-016 6/20/2018
Volatile Organic Compounds											
71-55-6	1,1,1-Trichloroethane (TCA)	µg/L	5	5.0U	0.23U	0.36U	0.36U	0.36U	1.0U	1.0U	1.0U
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	5	5.0U	0.20U	0.25U	0.25U	0.25U	1.0U	1.0U	1.0U
79-00-5	1,1,2-Trichloroethane	µg/L	1	5.0U	0.23U	0.34U	0.34U	0.34U	1.0U	1.0U	1.0U
75-34-3	1,1-Dichloroethane (1,1-DCE)	µg/L	5	5.0U	1.9	2.2	2.2	1.8	2.2	1.8	1.7
75-35-4	1,1-Dichloroethene (1,1-DCE)	µg/L	5	5.0U	0.37U	0.57U	0.57U	0.57U	1.0U	1.0U	1.0U
107-06-2	1,2-Dichloroethane	µg/L	0.6	5.0U	0.20U	0.36U	0.36U	0.36U	1.0U	1.0U	1.0U
540-59-0	1,2-Dichloroethane (Total)	µg/L	5	-	0.40U	0.63U	0.63U	0.63U	2.0U	2.0U	2.0U
78-87-5	1,2-Dichloropropane	µg/L	1	5.0U	0.28U	0.20U	0.20U	0.20U	1.0U	1.0U	1.0U
78-93-3	2-Butanone (Methyl Ethyl Ketone)	µg/L	50	10U	0.51U	0.81U	0.81U	0.81U	5.0U	5.0U	5.0U
591-78-6	2-Hexanone	µg/L	50	10U	0.35U	1.7U	1.7U	1.7U	5.0U	5.0U	5.0U
108-10-1	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	-	10U	0.27U	0.67U	0.67U	0.67U	5.0U	5.0U	5.0U
67-64-1	Acetone	µg/L	50	20U	1.4U	1.3U	1.3U	1.5	1.5	1.7B	5.0U
71-43-2	Benzene	µg/L	1	5.0U	0.21U	0.20U	0.20U	0.20U	1.0U	1.0U	1.0U
75-27-4	Bromodichloromethane	µg/L	50	5.0U	0.20U	0.32U	0.32U	0.32U	1.0U	1.0U	1.0U
75-25-2	Bromoform	µg/L	50	5.0U	0.27U	0.42U	0.42U	0.42U	1.0U	1.0U	1.0U
74-83-9	Bromomethane (Methyl Bromide)	µg/L	5	5.0U	0.31U	0.29U	0.29U	0.29U	1.0U	1.0U	1.0U
75-15-0	Carbon disulfide	µg/L	-	10U	0.20U	0.22U	0.22U	0.22U	1.0U	1.0U	1.0U
56-23-5	Carbon tetrachloride	µg/L	5	5.0U	0.27U	0.45U	0.45U	0.45U	1.0U	1.0U	1.0U
108-90-7	Chlorobenzene	µg/L	5	5.0U	0.20U	0.29U	0.29U	0.29U	1.0U	1.0U	1.0U
75-00-3	Chloroethane	µg/L	5	5.0U	0.31U	0.24U	0.24U	0.24U	1.0U	1.0U	1.0U
67-66-3	Chloroform (Trichloromethane)	µg/L	7	5.0U	0.22U	0.25U	0.25U	0.25U	1.0U	1.0U	1.0U
74-87-3	Chloromethane (Methyl Chloride)	µg/L	-	5.0U	0.24U	0.21U	0.21U	0.21U	1.0U	1.0U	1.0U
124-48-1	Dibromochloromethane	µg/L	50	5.0U	0.20U	0.31U	0.31U	0.31U	1.0U	1.0U	1.0U
75-09-2	Dichloromethane (Methylene Chloride)	µg/L	5	5.0U	0.22U	0.32U	0.32U	0.32U	1.0U	1.0U	1.0U
100-41-4	Ethylbenzene	µg/L	5	5.0U	0.20U	0.20U	0.20U	0.20U	1.0U	1.0U	1.0U
100-42-5	Styrene	µg/L	5	5.0U	0.20U	0.20U	0.20U	0.20U	1.0U	1.0U	1.0U
79-01-4	Tetrachloroethane (PCE)	µg/L	5	5.0U	0.20U	0.30U	0.30U	0.30U	1.0U	1.0U	1.0U
108-88-3	Toluene	µg/L	5	5.0U	0.20U	0.20U	0.20U	0.20U	1.0U	1.0U	1.0U
79-01-6	Trichloroethene (TCE)	µg/L	5	5.0U	0.23U	0.22U	0.22U	0.22U	1.0U	1.0U	1.0U
75-01-4	Vinyl chloride	µg/L	2	5.0U	0.23U	0.32U	0.32U	0			

TABLE 15

2018 GROUNDWATER STANDARD EXCEEDANCES

AKZO NOBEL POLYMER CHEMICALS

BURT, NEW YORK

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BURT, NEW YORK

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[illegible]

TABLE 16
2018 SECOND QUARTER FIELD MEASUREMENTS
AKZO NOBEL POLYMER CHEMICALS
BURT, NEW YORK

Well ID	Well Type	Top of Casing (feet)	Depth to Water (feet BTOC)	Water Elevation (feet)	pH (units)	Temp. (°F)	Conductivity (umhos/cm)	Eh-Redox Potential (Millivolts)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Ferrous Iron (mg/L)
MW-1	Background - Overburden	328.51	10.08	318.43	7.40	52.4	690	222.0	1.17	5.28	0.06
MW-1B	Background - Bedrock	328.29	8.95	319.34	7.60	51.1	3300	-65.0	8.81	1.21	0.95
MW-2	Source Area - Overburden	327.58	8.36	319.22	7.30	55.4	700	-107.0	18.10	1.45	2.93
MW-3	Downgradient Boundary - Overburden	322.58	5.29	317.29	7.50	59.2	840	26.0	7.26	6.83	0.03
MW-3B	Downgradient Boundary - Bedrock	321.85	12.07	309.78	8.10	51.2	630	100.0	12.50	2.30	0.02
MW-4	Downgradient Boundary - Overburden	323.12	9.14	313.98	7.40	52.1	710	92.0	8.59	9.23	0.00
MW-4B	Downgradient Boundary - Bedrock	323.66	23.49	300.17	7.70	50.4	4100	111.0	1.72	3.50	0.00
MW-5	Source Area - Overburden	324.68	5.46	319.22	6.70	55.8	230	-1.0	4.20	1.66	1.78
MW-9	Downgradient - Overburden	325.03	6.46	318.57	7.30	57.7	870	99.0	4.82	3.10	0.03
MW-9B	Downgradient - Bedrock	325.21	24.96	300.25	8.20	54.2	1980	71.0	4.78	2.37	0.00
MW-10	Downgradient Offset - Overburden	328.39	9.18	319.21	7.20	52.7	1080	-26.0	1.48	2.30	0.11
MW-10B	Downgradient Offset - Bedrock	328.12	20.52	307.60	7.60	52.9	1590	-68.0	8.92	3.14	0.71
MW-11	Downgradient Boundary - Overburden	325.76	12.54	313.22	7.20	51.8	850	152.0	0.95	3.83	0.00
MW-11B	Downgradient Boundary - Bedrock	325.32	24.27	301.05	8.20	51.8	840	158.0	-	4.94	0.00

Notes:

BTOC: Below Top of Casing.

mg/L: Milligram/liter.

umohs/cm: Micro-ohms/centimeter.

NTU: Nephelometric Turbidity Unit.

Eh-Redox: Oxygen Release Potential

*: Analytical upper limit

- : Not Sampled

TABLE 17
2018 FOURTH QUARTER FIELD MEASUREMENTS
AKZO NOBEL POLYMER CHEMICALS
BURT, NEW YORK

Well ID	Well Type	Top of Casing (feet)	Depth to Water (feet BTOC)	Water Elevation (feet)	pH (units)	Temp. (°C)	Conductivity (umhos/cm)	Eh-Redox Potential (Millivolts)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Ferrous Iron (mg/L)
MW-1	Background - Overburden	328.51	13.36	315.15	10.04	15.3	1023	68.0	3.57	5.74	0.00
MW-1B	Background - Bedrock	328.29	-	-	-	-	-	-	-	-	-
MW-2	Source Area - Overburden	327.58	10.79	316.79	8.79	19.4	829	-50.0	1.63	1.12	1.06
MW-3	Downgradient Boundary - Overburden	322.58	8.50	314.08	9.27	16.6	1173	167.0	1.21	6.54	0.10
MW-3B	Downgradient Boundary - Bedrock	321.85	-	-	-	-	-	-	-	-	-
MW-4	Downgradient Boundary - Overburden	323.12	11.11	312.01	9.03	15.7	766	165.0	2.88	6.63	0.03
MW-4B	Downgradient Boundary - Bedrock	323.66	19.32	304.34	8.37	13.9	3898	164.0	6.02	3.85	0.08
MW-5	Source Area - Overburden	324.68	8.07	316.61	9.20	16.4	1245	192.0	6.78	2.23	0.11
MW-9	Downgradient - Overburden	325.03	8.53	316.50	9.32	18.7	885	144.0	3.78	5.69	0.02
MW-9B	Downgradient - Bedrock	325.21	21.92	303.29	8.73	14.4	1739	120.0	3.78	2.63	0.02
MW-10	Downgradient Offset - Overburden	328.39	11.59	316.80	8.70	15.3	1027	138.0	1.77	5.37	0.00
MW-10B	Downgradient Offset - Bedrock	328.12	-	-	-	-	-	-	-	-	-
MW-11	Downgradient Boundary - Overburden	325.76	14.99	310.77	9.10	14.7	1305	58.0	15.90	2.67	0.22
MW-11B	Downgradient Boundary - Bedrock	325.32	21.25	304.07	8.87	13.5	927	70.0	2.71	5.03	0.13

Notes:

BTOC: Below Top of Casing.

mg/L: Milligram/liter.

umhos/cm: Micro-ohms/centimeter.

NTU: Nephelometric Turbidity Unit.

Eh-Redox: Oxygen Release Potential

*: Analytical upper limit

- : Not Sampled

Table 18
2018 SUMMARY OF MNA INDICATOR PARAMETER DATA
AKZO NOBEL GROUNDWATER MONITORING
AKZO NOBEL POLYMER CHEMICALS

Well ID	ORP Millivolts	ORP Millivolts	Average ORP Millivolts	DO mg/L	DO mg/L	Average DO mg/L
	06/20/18	10/11/18	2018	06/20/18	10/11/18	2018
MW-1	222.0	68.0	145.0	5.3	5.7	5.5
MW-1B	-65.0	SNR	-65.0	1.2	SNR	1.2
MW-2	-107.0	-50.0	-78.5	1.5	1.1	1.3
MW-3	26.0	167.0	96.5	6.8	6.5	6.7
MW-3B	100.0	SNR	100.0	2.3	SNR	2.3
MW-4	92.0	165.0	128.5	9.2	6.6	7.9
MW-4B	111.0	164.0	137.5	3.5	3.9	3.7
MW-5	-1.0	192.0	95.5	1.7	2.2	1.9
MW-9	99.0	144.0	121.5	3.1	5.7	4.4
MW-9B	71.0	120.0	95.5	2.4	2.6	2.5
MW-10	-26.0	138.0	56.0	2.3	5.4	3.8
MW-10B	-68.0	SNR	-68.0	3.1	SNR	3.1
MW-11	152.0	58.0	105.0	3.8	2.7	3.3
MW-11B	158.0	70.0	114.0	4.9	5.0	5.0
Average	54.6	112.4	83.5	3.65	4.32	3.99
Min	-107.0	-50.0	-107.0	1.21	1.12	1.12
Max	222.0	192.0	222.0	9.23	6.63	9.23

Note: Highlighted cells indicate results consistent with reducing conditions in groundwater
 SNR = Sampling Not Required
 ND = Analyte Not Detected

Table 18
2018 SUMMARY OF MNA INDICATOR PARAMETER DATA
AKZO NOBEL GROUNDWATER MONITORING
AKZO NOBEL POLYMER CHEMICALS

Well ID	Dissolved Iron ug/L	Dissolved Iron ug/L	Average ug/L	Dissolved Mn ug/L	Dissolved Mn ug/L	Average ug/L
	06/20/18	10/11/18	2018	06/20/18	10/11/18	2018
MW-1	ND	ND	ND	169.0	33.0	101.0
MW-1B	ND	SNR	ND	239.0	SNR	239.0
MW-2	2300.0	830.0	1565.0	1790.0	1150.0	1470.0
MW-3	ND	ND	ND	25.1	ND	25.1
MW-3B	159.0	SNR	159.0	60.8	SNR	60.8
MW-4	ND	ND	ND	ND	28.0	28.0
MW-4B	ND	ND	ND	98.3	71.0	84.7
MW-5	ND	ND	ND	ND	27.0	27.0
MW-9	ND	ND	ND	37.3	ND	37.3
MW-9B	ND	ND	ND	29.1	31.0	30.1
MW-10	ND	ND	ND	1300.0	1100.0	1200.0
MW-10B	ND	SNR	ND	65.7	SNR	65.7
MW-11	ND	ND	ND	116.0	105.0	110.5
MW-11B	ND	ND	ND	10.8	ND	10.8
Average	1230	830	1030	328	318	323
Min	159	830	159	11	27	11
Max	2300	830	2300	1790	1150	1790

Note: Highlighted cells indicate results consistent with reducing conditions in groundwater
 SNR = Sampling Not Required
 ND = Analyte Not Detected

Table 18
2018 SUMMARY OF MNA INDICATOR PARAMETER DATA
AKZO NOBEL GROUNDWATER MONITORING
AKZO NOBEL POLYMER CHEMICALS

Well ID	Sulfate mg/L	Sulfate mg/L	Average SO ₄ mg/L	Nitrate mg/L	Nitrate mg/L	Average NO ₃ mg/L	Methane ug/L	Methane ug/L	Average CH ₄ ug/L
	06/20/18	10/11/18	2018	06/20/18	10/11/18	2018	06/20/18	10/11/18	2018
MW-1	44.0	33.6	38.8	ND	ND	ND	150.0	17.0	83.5
MW-1B	1200.0	SNR	1200.0	ND	SNR	ND	2.1	SNR	2.1
MW-2	38.9	71.7	55.3	ND	ND	ND	1300.0	1600.0	1450.0
MW-3	114.0	104.0	109.0	ND	ND	ND	ND	ND	ND
MW-3B	38.5	SNR	38.5	ND	SNR	ND	29.0	SNR	29.0
MW-4	18.9	50.4	34.7	ND	ND	ND	ND	1.5	1.5
MW-4B	1150.0	672.0	911.0	ND	ND	ND	7.8	4.3	6.1
MW-5	50.7	65.8	58.3	3.0	ND	3.0	ND	1.4	1.4
MW-9	52.3	55.1	53.7	2.5	2.2	2.4	ND	1.3	1.3
MW-9B	656.0	620.0	638.0	ND	ND	ND	6.3	4.7	5.5
MW-10	50.0	51.3	50.7	2.4	1.2	1.8	3.9	1.3	2.6
MW-10B	85.7	SNR	85.7	ND	SNR	ND	36.0	SNR	36.0
MW-11	76.3	81.7	79.0	ND	ND	ND	65.0	14.0	39.5
MW-11B	88.0	168.0	128.0	ND	ND	ND	7.1	5.7	6.4
Average	261.7	179.4	220.5	3	2	2	160.7	165.1	162.9
Min	18.9	33.6	18.9	2.4	1.2	1.2	2.1	1.3	1.3
Max	1200.0	672.0	1200.0	3	2.2	3	1300.0	1600.0	1600.0

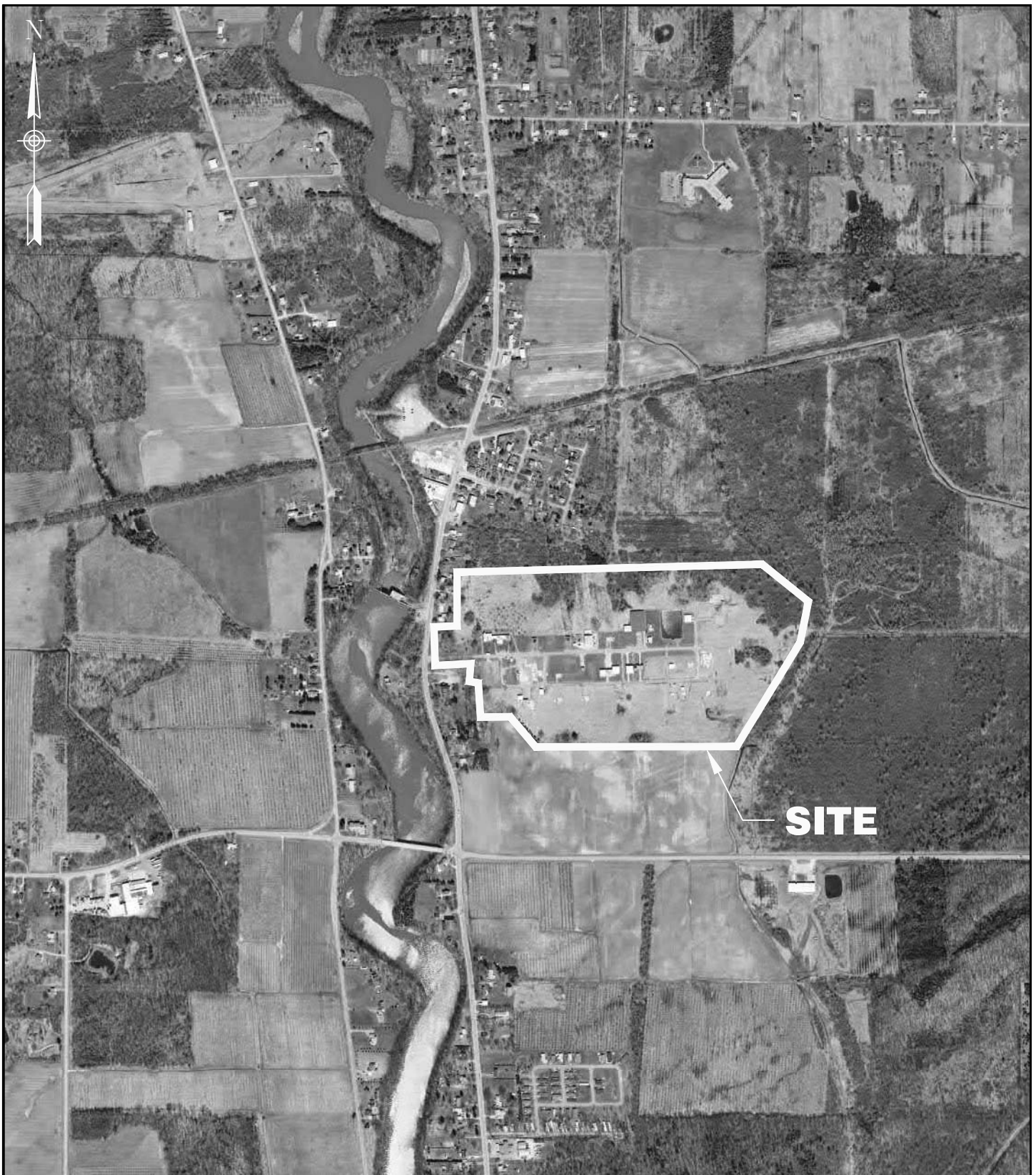
Note: Highlighted cells indicate results consistent with reducing conditions in groundwater

SNR = Sampling Not Required

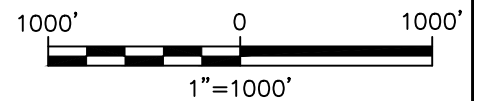
ND = Analyte Not Detected

Figures

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SYR By: bas



SOURCE REFERENCE:
NEW YORK STATE GIS CLEARINGHOUSE, 2008.



**Barton
&Loguidice**

AKZO NOBEL POLYMER CHEMICALS LLC

Figure Number

1

SITE LOCATION MAP

Project Number

1398.001.018

Date

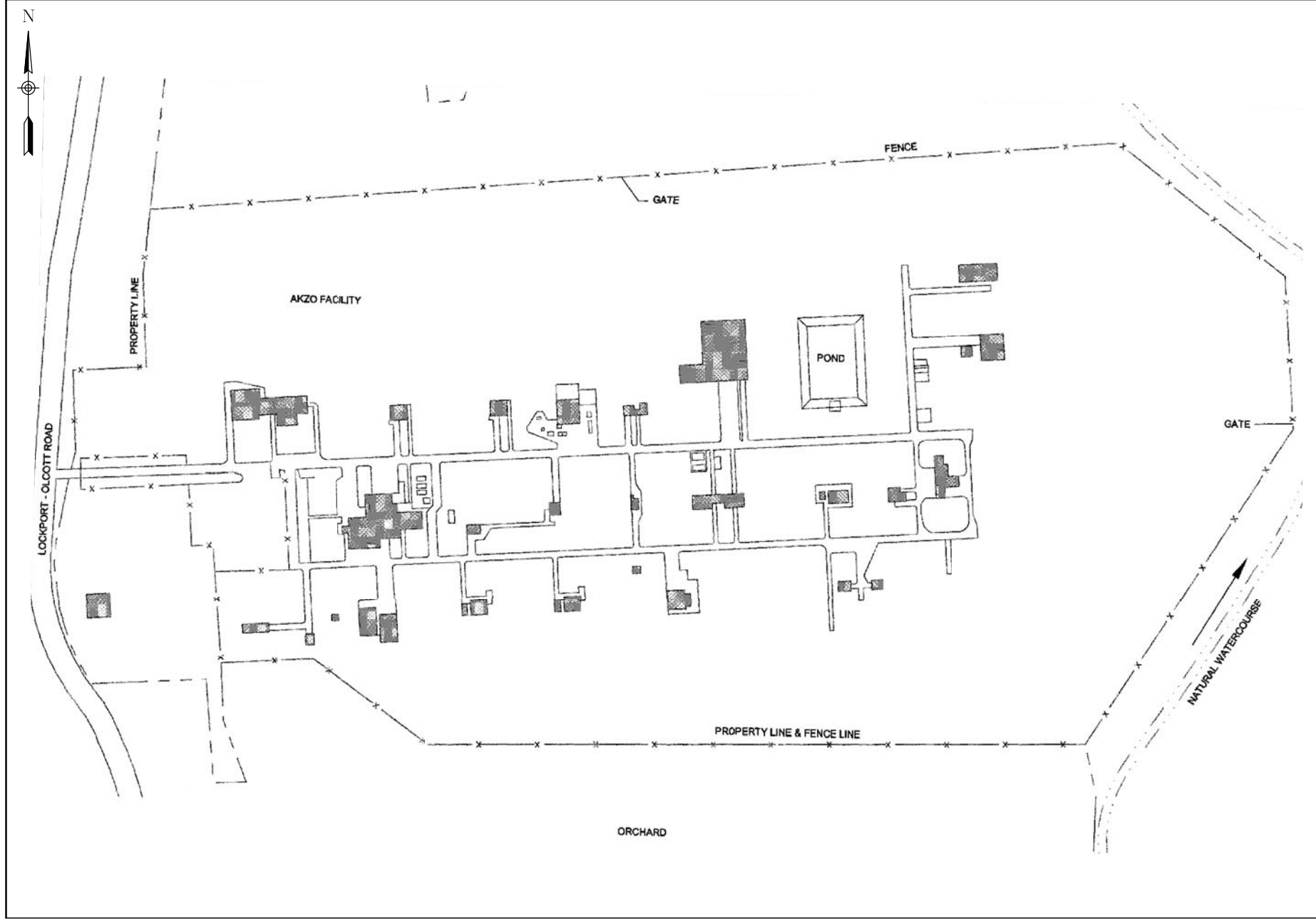
JANUARY 2019

Scale

AS SHOWN

TOWN OF BURT

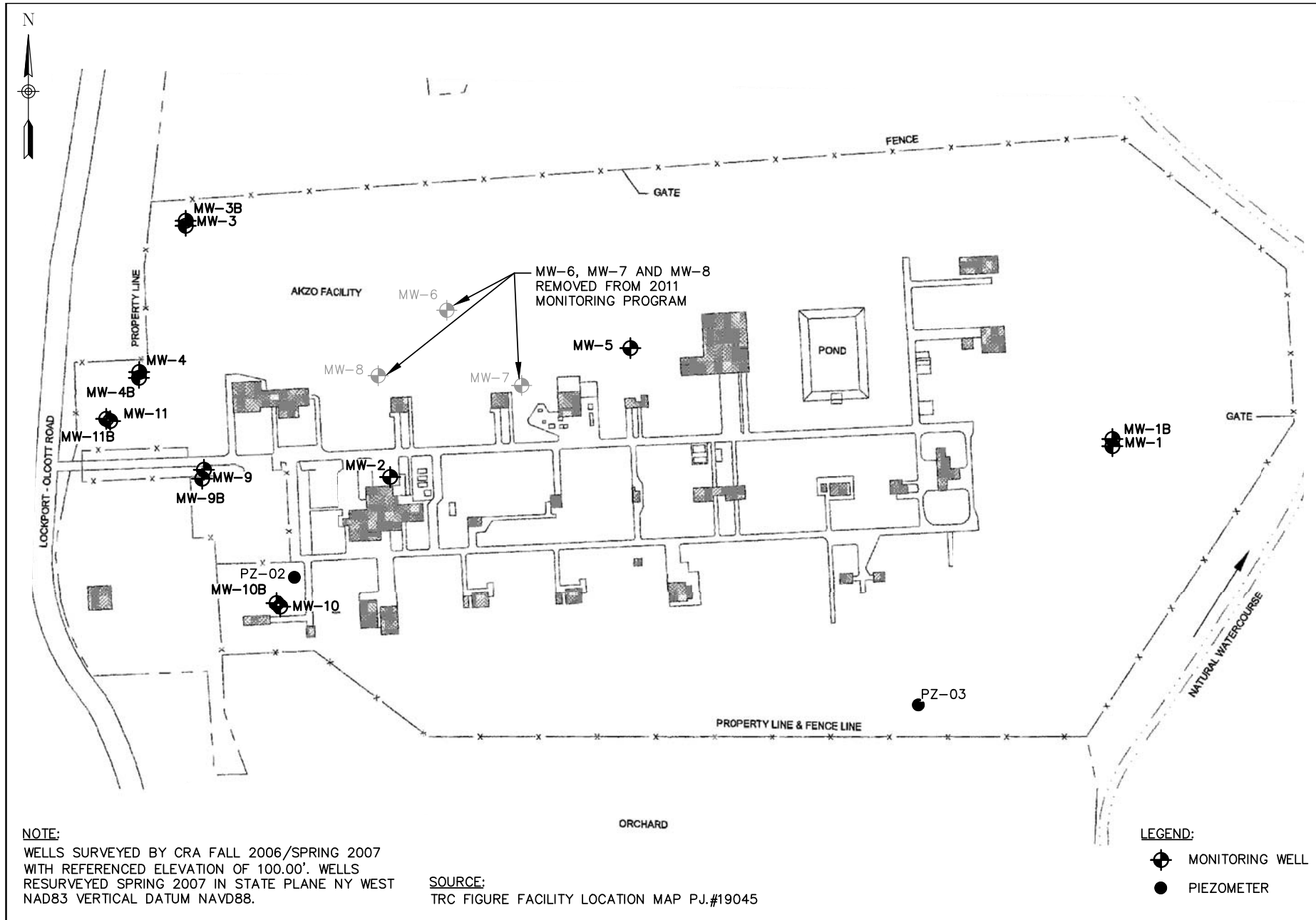
NIAGARA COUNTY, NEW YORK



AKZO NOBEL POLYMER CHEMICALS LLC TOWN OF BURT NIAGARA COUNTY, NEW YORK	Barton & Loguidice Date JANUARY 2019 Scale 1"=200' Figure Number 2 Project Number 1398.001.018
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SITE LAYOUT

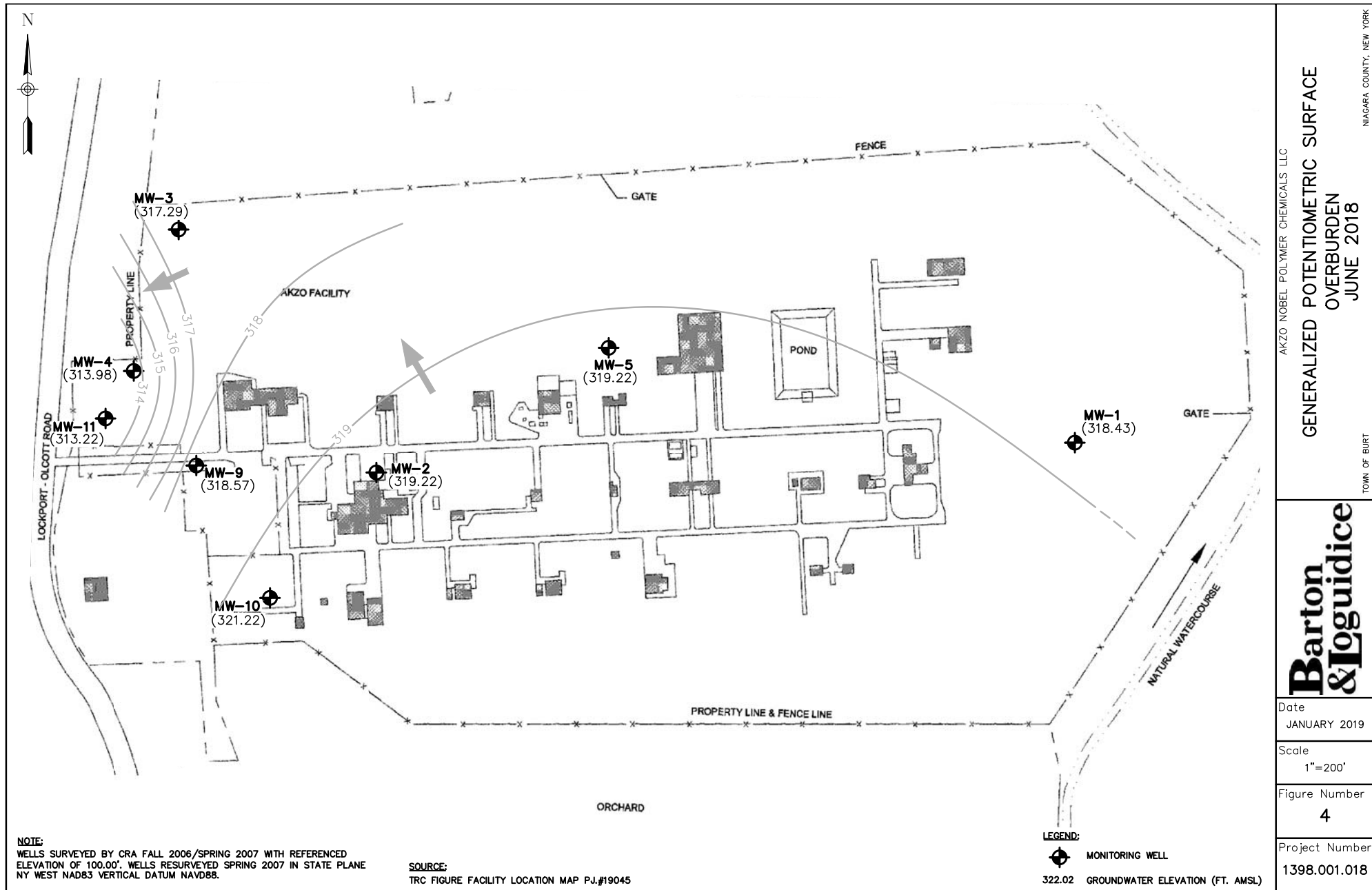
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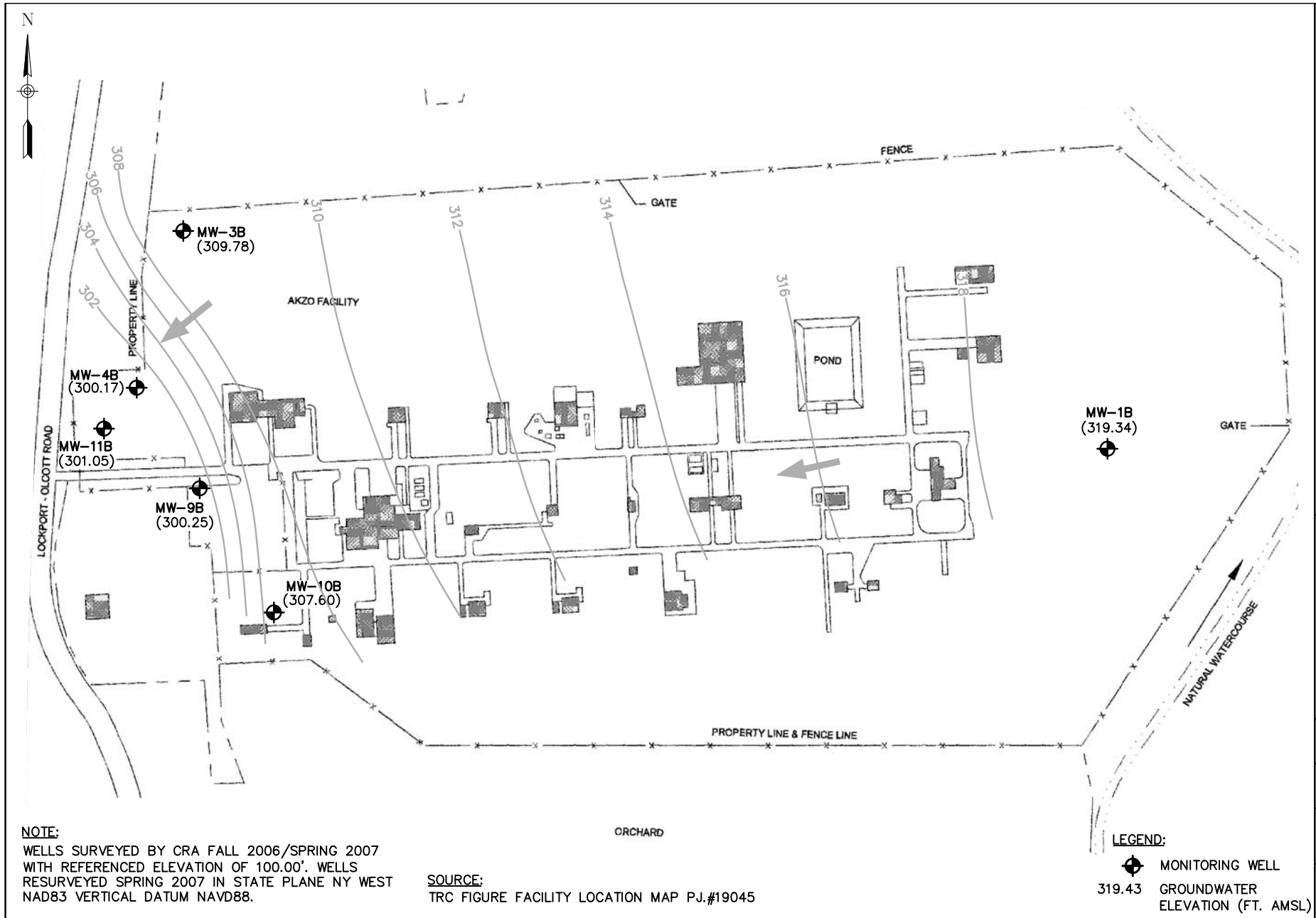


AKZO NOBEL POLYMER CHEMICALS LLC	
WELL LOCATIONS	
TOWN OF BURT	
Barton & Loguidice	
Date	JANUARY 2019
Scale	1"=200'
Figure Number	3
Project Number	1398.001.018

NIAGARA COUNTY, NEW YORK

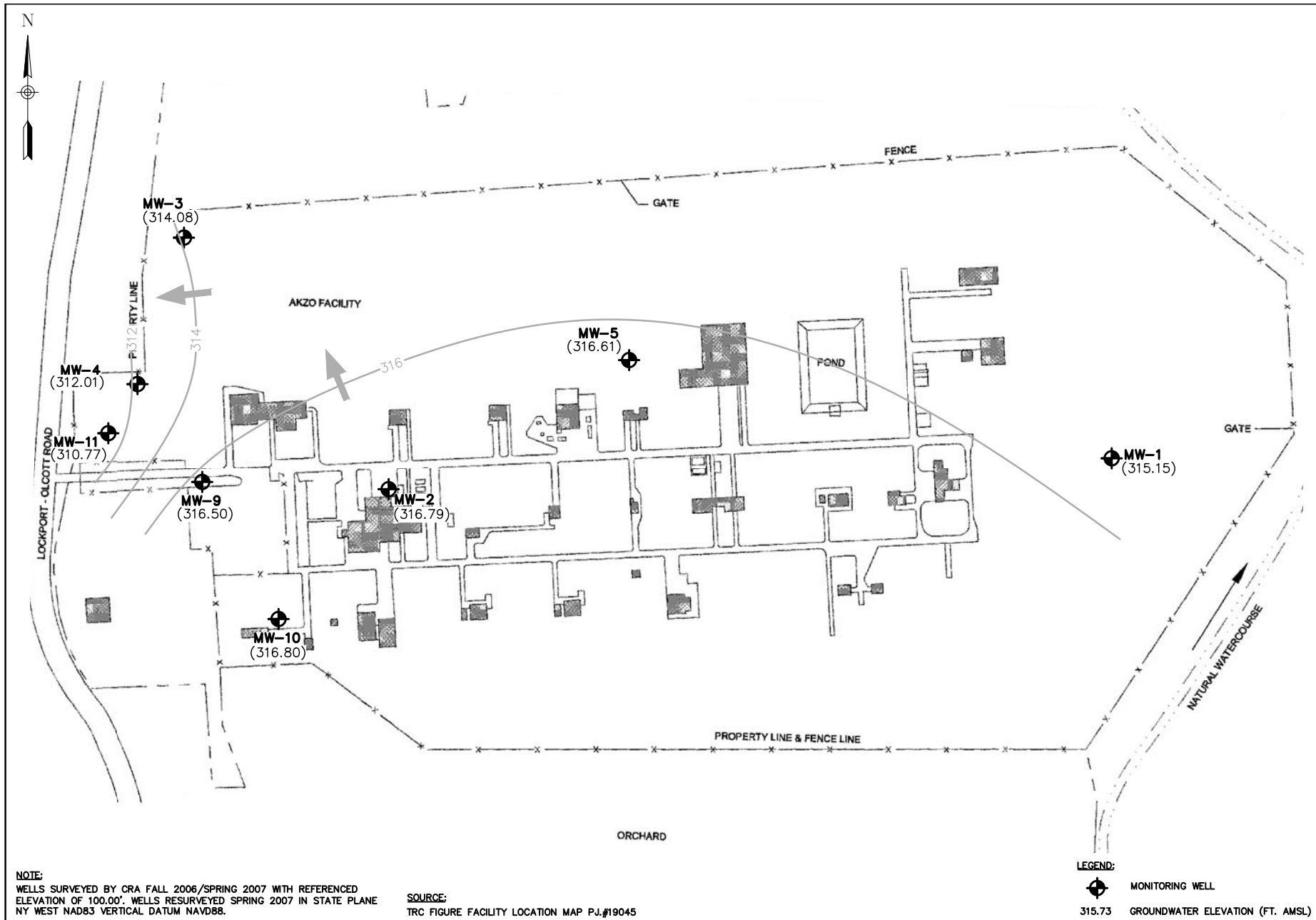
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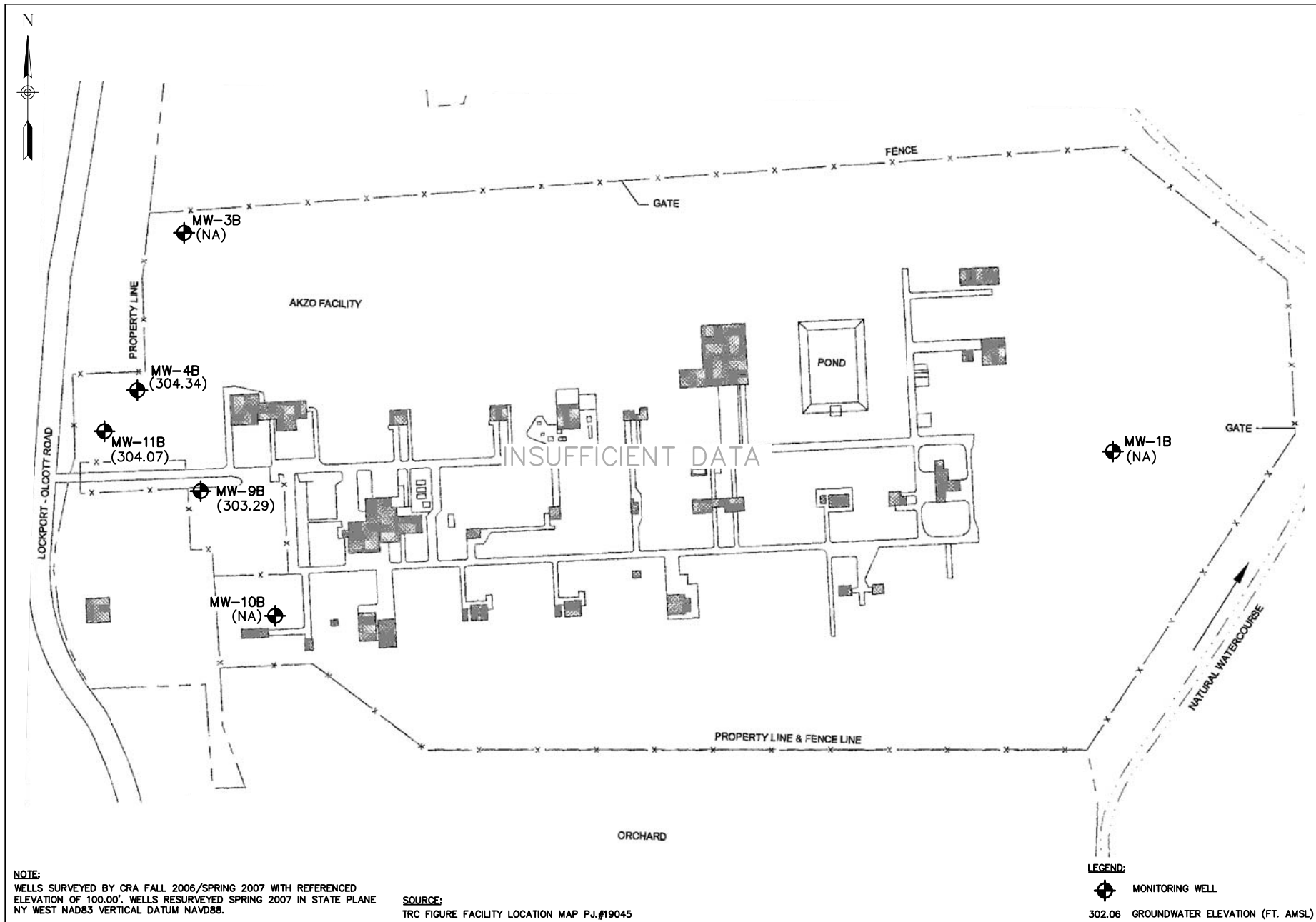
AKZO NOBEL POLYMER CHEMICALS LLC GENERALIZED POTENTIOMETRIC SURFACE BEDROCK JUNE 2018 TOWN OF BURT NIAGARA COUNTY, NEW YORK	
Barton &Loguidice	Date JANUARY 2019 Scale 1"=200' Figure Number 5 Project Number 1398.001.018

Plotted: Jun 02, 2019 - 4:22PM SVR Bx bas
Z:\BL-Vault\ - Project Files\ - Sorted by Project Number [2] Class [2] Folder\1300\1398.001.018\CAD\1398001018_JAN_2019_FIGS 6-7.dwg



Barton & Loguidice	AKZO NOBEL POLYMER CHEMICALS LLC
	GENERALIZED POTENTIOMETRIC SURFACE
	OVERBURDEN
	OCTOBER 2018
Date	JANUARY 2019
Scale	1"=200'
Figure Number	6
Project Number	1398.001.018
TOWN OF BURT NIAGARA COUNTY, NEW YORK	

Plotted: Jun 02, 2019 - 4:24PM SVR Bx: bas
Z:\BL-Vault\ - Project Files\ - Sorted by Project Number [2] Class [2] Folder\1300\1398.001.018\CAD\1398001018_JAN_2019_FIGS 6-7.dwg



AKZO NOBEL POLYMER CHEMICALS LLC	
GENERALIZED POTENTIOMETRIC SURFACE BEDROCK OCTOBER 2018	
TOWN OF BURT NIAGARA COUNTY, NEW YORK	
Barton & Loguidice	
Date	JANUARY 2019
Scale	1"=200'
Figure Number	7
Project Number	1398.001.018

Appendix A

Field Sampling Data Sheets/ Well Stabilization Sheets/ Instrument Calibration Records

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-1 Dope-X
JOB #: 1398.001.018
Temp: 65°F

SAMPLE TYPE: Groundwater ☒
Sediment ☐

Surface Water ☐ Other (specify):
Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	10.08
Measured Well Depth (feet)*:	18
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.0

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 08:34

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 3.0
Volume of Water Purged (gallons): 3.0

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: 15 minutes

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY **Time:** 08:19 **Date:** 6/19/2018

SAMPLING DATA

Sample Appearance
Color: Slight Haze **Sediment:** Trace Fine
Odor: None

Field Measured Parameters

pH (Standard Units)	7.73	Sp. Conductivity (umhos/cm)	660.7
Temperature (F) C	12.2	Eh-Redox Potential (mV)	159.0
Turbidity (NTUs)	13.4	Dissolved Oxygen (mg/L)	2.20
		Ferrous Iron or Fe II (mg/L)	0.00

Samples Collected (Number/Type) 9 60 mL X 2 bottles + 1.4 L Hocking
Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs **Time:** **Date:** 6/19/2018

COMMENTS:

PFOA Sampled @ 0850 on 6/19/18 Dope-X location
PFA's - 2 bottles

FB- 08:49

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-1B
JOB #: 1398.001.018
Temp: 70.9F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>8.95</u>
Measured Well Depth (feet)*:	<u>47</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>6.04</u>

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/14/18
Time: 10:48

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 18.26
Volume of Water Purged (gallons): 18.3

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: Approx 10 min

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 10:27 Date: 6/12/2018

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	<u>8.31</u>	Sp. Conductivity (umhos/cm)	<u>3316</u>
Temperature (F)	<u>10.3 C. 50.5 F</u>	Eh-Redox Potential (mV)	<u>125.0</u>
Turbidity (NTUs)	<u>7.12</u>	Dissolved Oxygen (mg/L)	<u>2.95</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.0</u>

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS:

Lub inadvertently left out sample bottle - but still 1 gal sample
in container w/ sample water - Lub will pour off sample

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-2
JOB #: 1398.001.018
Temp: 65.0°F

SAMPLE TYPE: Groundwater ☒
Sediment ☐

Surface Water ☐ Other (specify):
Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	8.26
Measured Well Depth (feet)*:	16.4
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.24

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/14/18
Time: 10:11

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.86
Volume of Water Purged (gallons): 4.00

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 09:12 Date: 6/12/2018

SAMPLING DATA

Sample Appearance
Color: 11g Sediment: Trace Fines
Odor: Hydrocarbon

Field Measured Parameters

pH (Standard Units)	7.52	Sp. Conductivity (umhos/cm)	617.8
Temperature (F)	14.4	Eh-Redox Potential (mV)	-300
Turbidity (NTUs)	6.24	Dissolved Oxygen (mg/L)	1.72
		Ferrous Iron or Fe II (mg/L)	0.60

8 bottles
Samples Collected (Number/Type) 1 Dioxane Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs 4 Time: _____ Date: / /2018

COMMENTS:

PFAS @ 10:25 on 6/14/18

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: cloudy

SAMPLE LOCATION: MW-3
JOB #: 1398.001.018
Temp: 72.0A

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	5.20
Measured Well Depth (feet)*:	16.8
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.84

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/14/18
Time: 1:20

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 5.52
Volume of Water Purged (gallons): 5.5

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒

Recovery Time: 15 minutes

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:00 Date: 6/20/2018

SAMPLING DATA

Sample Appearance: clear
Color: Sediment: None
Odor:

Field Measured Parameters

pH (Standard Units)	7.90	Sp. Conductivity (umhos/cm)	1136.0
Temperature (F)	14.4	Eh-Redox Potential (mV)	173.0
Turbidity (NTUs)	1.91	Dissolved Oxygen (mg/L)	5.32
		Ferrous Iron or Fe II (mg/L)	0.00

Samples Collected (Number/Type) 8 bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: Date: 1 /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-3B
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Cloudy **Temp:** 70°F
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>12.02</u>
Measured Well Depth (feet)*:	<u>37.2</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>4.02</u>

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 1130

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 12.06
Volume of Water Purged (gallons): 12.06

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: Immediate

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1035 Date: 6/19/2018

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: Trace Fines
Odor: None

Field Measured Parameters

pH (Standard Units)	<u>8.37</u>	Sp. Conductivity (umhos/cm)	<u>558.3</u>
Temperature (°C)	<u>10.9</u>	Eh-Redox Potential (mV)	<u>161.0</u>
Turbidity (NTUs)	<u>13.5</u>	Dissolved Oxygen (mg/L)	<u>2.82</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.00</u>

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 7/1/2018

COMMENTS:

(Same as MW-1B) Lab bottles

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-4
JOB #: 1398.001.018
Temp: 75°F

SAMPLE TYPE: Groundwater ☒
Sediment ☐

Surface Water ☐ Other (specify):
Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	9.19
Measured Well Depth (feet)*:	16
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.09

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 4:53

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 3.27
Volume of Water Purged (gallons): 3.25

Did well purge dry? No ☐ Yes ☒ 1/2 Bailer
Did well recover? No ☐ Yes ☒ Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:14 Date: 6/14/2018

SAMPLING DATA

Sample Appearance
Color: clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.48	Sp. Conductivity (umhos/cm)	692.7
Temperature (F)	16.9	Eh-Redox Potential (mV)	141.0
Turbidity (NTUs)	3.03	Dissolved Oxygen (mg/L)	7.28
		Ferrous Iron or Fe II (mg/L)	0.00

8 bottles

Samples Collected (Number/Type) 8 bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: Date: 1 / 2018

COMMENTS:

Concrete casing has short Hance - Need Replacement

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-4B
JOB #: 1398.001.018
Temp: 75°F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>23.49</u>
Measured Well Depth (feet)*:	<u>40.9</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>2.79</u>

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 12:00

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 8.36
Volume of Water Purged (gallons): 4.00

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒

1/2 barrel
Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:29 Date: 6/20/2018

SAMPLING DATA

Sample Appearance: clear Sediment: None
Color: None
Odor: None

Field Measured Parameters

pH (Standard Units)	<u>7.93</u>	Sp. Conductivity (umhos/cm)	<u>4547</u>
Temperature (°F)	<u>10.4</u>	Eh-Redox Potential (mV)	<u>110.0</u>
Turbidity (NTUs)	<u>3.54</u>	Dissolved Oxygen (mg/L)	<u>3.24</u> <u>3.74</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.00</u>

4 bottles
Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: Date: 1 /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: clear

SAMPLE LOCATION: MW-5 (n3/4.01)
JOB #: 1398.001.018
Temp: 70°F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	5.46
Measured Well Depth (feet)*:	15
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.52

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/14/18
Time: 10:55

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 4.58
Volume of Water Purged (gallons): 4.35

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 10:22 Date: 6/20/2018

SAMPLING DATA

Sample Appearance
Color: clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.55	Sp. Conductivity (umhos/cm)	1106.0
Temperature (F)	14.4	Eh-Redox Potential (mV)	217.0
Turbidity (NTUs)	11.7	Dissolved Oxygen (mg/L)	3.65
		Ferrous Iron or Fe II (mg/L)	0.07

Samples Collected (Number/Type) 3 g bottles 12-16 Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS:

Concrete casing has frust Heave and need replacement

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-9
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Clear **Temp:** 75°F
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>6.46</u>
Measured Well Depth (feet)*:	<u>17.4</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>1.75</u>

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 12:56
13:05

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 5.25
Volume of Water Purged (gallons): 5.50

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: None

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:47 Date: 6/20/2018

SAMPLING DATA

Sample Appearance: Clear Sediment: None
Color: _____
Odor: None

Field Measured Parameters

pH (Standard Units)	<u>7.40</u>	Sp. Conductivity (umhos/cm)	<u>884.1</u>
Temperature (F)	<u>15.1</u>	Eh-Redox Potential (mV)	<u>167.0</u>
Turbidity (NTUs)	<u>3.28</u>	Dissolved Oxygen (mg/L)	<u>3.31</u>
	<u>8 balls</u>	Ferrous Iron or Fe II (mg/L)	<u>0.00</u>

Samples Collected (Number/Type) 8 balls Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / /2018

COMMENTS:

**FIELD SAMPLING DATA SHEET**

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-9B
JOB #: 1398.001.018
Temp: 75°F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>24.96</u>
Measured Well Depth (feet)*:	<u>42.2</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>2.76</u>

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 13:15

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 8.28
Volume of Water Purged (gallons): 5.00

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒

Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:58 Date: 6/20/2018

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: No
Odor: No

Field Measured Parameters

pH (Standard Units)	<u>8.03</u>	Sp. Conductivity (umhos/cm)	<u>1981.0</u>
Temperature (F)	<u>12.2</u>	Eh-Redox Potential (mV)	<u>151.0</u>
Turbidity (NTUs)	<u>5.77</u>	Dissolved Oxygen (mg/L)	<u>2.41</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.00</u>

Samples Collected (Number/Type) 8 bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-10
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Clear **Temp:** 75°F
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	9.18
Measured Well Depth (feet)*:	17.6
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.39

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 6/19/18
 Time: 12:28

PURGING METHOD

Equipment: Bailor ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 4.04
 Volume of Water Purged (gallons): 13.00

Did well purge dry? No ☒ Yes ☐
 Did well recover? No ☐ Yes ☒

Recovery Time: 10 mins

SAMPLING METHOD

Equipment: Bailor ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 12:14 Date: 6/20/2018

SAMPLING DATA

Sample Appearance: clear
 Color: Sediment: None
 Odor: None

Field Measured Parameters

pH (Standard Units)	7.37	Sp. Conductivity (umhos/cm)	937.9
Temperature (F)	12.1	Eh-Redox Potential (mV)	226.0
Turbidity (NTUs)	1.39	Dissolved Oxygen (mg/L)	3.55
		Ferrous Iron or Fe II (mg/L)	0.00

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: Date: 1/2018

COMMENTS:

Used more water to flush out color

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: P.C.

SAMPLE LOCATION: MW-10B
JOB #: 1398.001.018
Temp: 75°F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>20.52</u>
Measured Well Depth (feet)*:	<u>46.6</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>4.17</u>

*depth from measuring point

Measuring point: Top of Rise
Measured by: BJM or GJY
Date: 6/14/18
Time: 12:35

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 12.52
Volume of Water Purged (gallons): 6.25

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒

Recovery Time: minutes

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 12:25 Date: 6/20/2018

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	<u>1526.0</u>
Temperature (F) <u>C</u>	<u>11.5</u>	Eh-Redox Potential (mV)	<u>160</u>
Turbidity (NTUs)	<u>0.74</u>	Dissolved Oxygen (mg/L)	<u>2.59</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.0</u>

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS:

Same as MW-1B - bad coating

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Cloudy

SAMPLE LOCATION: MW-11
JOB #: 1398.001.018
Temp: 65°F

SAMPLE TYPE: Groundwater ☒
Sediment ☐

Surface Water ☐ Other (specify): _____
Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	12.54
Measured Well Depth (feet)*:	21.1
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	1.35

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 0917

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 4.11
Volume of Water Purged (gallons): 2.75

Did well purge dry? No ☐ Yes ☒
Did well recover? No ☐ Yes ☒

Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 09:42 Date: 6/20/2018

SAMPLING DATA

Sample Appearance
Color: Clear Sediment: None
Odor: None

Field Measured Parameters

pH (Standard Units)	7.57	Sp. Conductivity (umhos/cm)	1361.0
Temperature (°F)	10.2	Eh-Redox Potential (mV)	42.0
Turbidity (NTUs)	1.23	Dissolved Oxygen (mg/L)	2.33
		Ferrous Iron or Fe II (mg/L)	0.01

Samples Collected (Number/Type) 9 bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium
+ 1,4 Dioxane

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS: All wells painted Orange recently with aresol paint
09:45 PFAS on 6/18/19

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: cloudy

SAMPLE LOCATION: MW-11B
JOB #: 1398.001.018
Temp: 65.0

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	24.22
Measured Well Depth (feet)*:	52.38
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	4.0

*depth from measuring point

Measuring point: Top of Riser
Measured by: BJM or GJY
Date: 6/19/18
Time: 09:44

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 12.00
Volume of Water Purged (gallons): 12.0

Did well purge dry? No ☒ Yes ☐
Did well recover? No ☐ Yes ☒

Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY **Time:** 09:54 **Date:** 6/20/2018

SAMPLING DATA

Sample Appearance
Color: clear **Sediment:** None floating and (Red)
Odor: None

Field Measured Parameters

pH (Standard Units)	9.07	Sp. Conductivity (umhos/cm)	820.2
Temperature (F)	10.4	Eh-Redox Potential (mV)	64.0
Turbidity (NTUs)	0.47	Dissolved Oxygen (mg/L)	5.15
		Ferrous Iron or Fe II (mg/L)	0.00

Samples Collected (Number/Type) 8 - bottles - 14 liter
3 - bottles - 1 liter
11
Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs **Time:** **Date:** / /2018

COMMENTS:

PFAS sample Time 09:40 on 6/19/18
11/14/18



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 2670
Description YSI 55
Calibrated 6/15/2018 9:26:53AM

Manufacturer YSI	State Certified
Model Number 55	Status Pass
Serial Number/ Lot Number 02A0181AQ	Temp °C 22.64
Location Rochester, NY	Humidity % 42.11
Department	

Calibration Specifications

Group # 1
Group Name Dissolved Oxygen Span
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
100.00 / 100.00	%	100.00	%	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Last Cal Date/ Expiration Date</u>
					<u>Opened Date</u>

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Michele Pagano

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT



Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 19032
Description Hach DR/890
Calibrated 6/18/2018 8:02:38AM

Manufacturer HACH	State Certified
Model Number DR/890	Status Pass
Serial Number/ Lot Number 19032	Temp °C 22.14
Location Rochester, NY	Humidity % 43.48
Department	

Calibration Specifications

Group # 1
Group Name Instrument Test
Test Performed: N/A **As Found Result:** **As Left Result:**

Test Instruments Used During the Calibration

				(As Of Cal Entry Date)	
<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Last Cal Date/ Expiration Date Opened Date</u>

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Michele Pagano

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.

Rochester NY 14623

Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID R254448
Description Myron 6P
Calibrated 6/18/2018 7:57:14AM

Manufacturer Myron
Model Number 6P
Serial Number/ Lot Number 6231715
Location Rochester, NY
Department

State Certified
Status Pass
Temp °C 22.35
Humidity % 42.25

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
ROC - 1.413 COND - 7GH94	1.413 MS/CM CONDUCTIVITY STANDARD	Pine Environmental Services, Inc.	6GJ307	7GH94		8/31/2018
ROC - PH 4.00 - 7GD788	PH 4.00 BUFFER SOLUTION	Pine Environmental Services, Inc.	7GD788	7GD788		4/30/2019
ROC - PH 7.00 - 6GI910	PH 7.00 BUFFER SOLUTION	Pine Environmental Services, Inc.	6GI910	6GI910		9/30/2018

Notes about this calibration



Engineers • Environmental Scientists • Planners • Landscape Architects

Calibration Record

Project No: 1398.001.018

Date: 6/20/18

Calibrated By: Gsy

Time: 0747

pH Instrument Model: pH Testr 10

Standard Solution	Calibration Reading	Acceptable Range
pH 4:		(+/- 1.0 pH, pH 3.0 - 5.0)
pH 7:		(+/- 1.5 pH, pH 5.5 - 8.5)
pH 10:		(+/- 1.0 pH, pH 9.0 - 11.0)

Pass / Fail

Rental Equipment:

Myron 6P

Calibration Reading
pH 4
pH 7
pH 10

Sp. Conductivity

Instrument Model: EC Testr-11

Standard Solution	Calibration Reading	Acceptable Range
1413 uS		(+/- 1.0 % Error = 1399-1427)

Pass / Fail

Calibration Reading

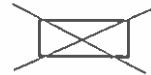
7000 uS

ORP Instrument Model: ORP Testr 10

Standard Solution	Calibration Reading	Acceptable Range
240 mV		(+/- 5% at 25°C, 220 - 260 mV)
or		
YSI Zobell Soln		(Refer to YSI calibration table)

Pass / Fail

Calibration Reading



Turbidimeter Model: LaMotte 2020we

Standard Solution	Calibration Reading	Acceptable Range
0.0	Blank	Blank 0.0 NTU
1.0	<u>1.0</u>	(0.5-1.5 NTU)
10.0	<u>10.0</u>	(8-12 NTU)

Pass / Fail

Myron Orp is calculated off of pH and SpCond. Calibration

Dissolved Oxygen Meter Model: YSI EcoSense

Saturated Air	Air Pressure (MB)	Calibration Reading	Acceptable Range
100%			(+/- 5.0% Error, 95-105%)

Pass / Fail

Comments: Myron + DO meter was calibrated by
PINE Environmental



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

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003, 004, 006, 007, 009, 010, 011,
012, 013, 014, 016, 017, 018

SR#

T050691

Project Name: Akzo Nobel		NUMBER OF CONTAINERS	48H	14D	28D	180D	Remarks
Project Number: 1398.003.004-018			300.0 / NO2	300.0 / NO3	3260C / VOC FP	300.0 / SO4	
Report To: Brian McGrath			RSK 175 / Gases	200.7 / Fe D	200.7 / Mn D		
Company / Address: Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614							
Phone #: 585-325-7190		FAX #:					
Sampler Signature: <i>[Signature]</i>		Sampler Printed Name: Grant Young / Brian McGrath					

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix										
MW-1		6/20/18 0819	Liquid	8	X	X	X	X	X	X	X	X	
Dupe-1			Liquid	8	X	X	X	X	X	X	X	X	
MW-2		0912	Liquid	8	X	X	X	X	X	X	X	X	
MW-3		1100	Liquid	8	X	X	X	X	X	X	X	X	
MW-4		1119	Liquid	8	X	X	X	X	X	X	X	X	
MW-4B		1129	Liquid	8	X	X	X	X	X	X	X	X	
MW-5	QC	1022	Liquid	16	X	X	X	X	X	X	X	X	mc/msd
MW-9		1147	Liquid	8	X	X	X	X	X	X	X	X	
MW-9B		1158	Liquid	8	X	X	X	X	X	X	X	X	
MW-10		1241	Liquid	8	X	X	X	X	X	X	X	X	

Special Instructions/Comments:	Turnaround Requirements	Report Requirements	Invoice Information
	___ RUSH (SURCHARGES APPLY)	___ I. Results Only	P.O.# <u>1398.001.018</u>
	☒ Standard	___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)	Bill To: <u>Barton and Loguidice</u>
	REQUESTED FAX DATE _____	☒ IV. Data Validation Report with Raw Data	
	Requested Report Date _____	EData ___ Yes ___ No	

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Printed Name: Grant Young	Printed Name: Grant Young	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: BTL	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 6/20/18 1521	Date/Time: 6/20/18 1621	Date/Time:	Date/Time:	Date/Time:	Date/Time:



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003, 004, 006, 007, 009, 010, 011, 012, 013, 014, 016, 017, 018

SR#

T050691

Project Name: Akzo Nobel		Report To Brian McGrath
Project Number: 1398.003.004- <i>ds</i>		
Company / Address Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614		
Phone # 585-325-7190		
FAX #		
Sampler Signature <i>Grant Young</i>		Sampler Printed Name Grant Young/Brian McGrath

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix	NUMBER OF CONTAINERS	48H							14D	28D	180D	Remarks
					300.0 / NO2	300.0 / NO3	8260C / VOC FP	RSK 175 / Gases	300.0 / SO4	200.7 / Fe D	200.7 / Mn D				
MW-11		6/20/18 0842	Liquid	8	X	X	X	X	X	X	X				
MW-11B		0954	Liquid	8	X	X	X	X	X	X	X				
Trip Blank			Liquid	3			X								
14. mw-1B		1037	Liquid	8	X	X	X	X	X	X	X				
15. mw-3B		1055	Liquid	8	X	X	X	X	X	X	X				
16. mw-10B		1225	Liquid	8	X	X	X	X	X	X	X				
17.			Liquid												
18.			Liquid												
19.			Liquid												
20.			Liquid												

Special Instructions/Comments:	Turnaround Requirements	Report Requirements	Invoice Information
	☐ RUSH (SURCHARGES APPLY) ☒ Standard	☐ I. Results Only ☐ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ☐ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data	P.O.# <u>1398.001-018</u> Bill To: <u>Barton & Loguidice</u>
	REQUESTED FAX DATE	EData ☐ Yes ☐ No	
	Requested Report Date		

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>Grant Young</i>	Signature <i>Grant Young</i>	Signature	Signature	Signature	Signature
Printed Name Grant Young	Printed Name Grant Young	Printed Name	Printed Name	Printed Name	Printed Name
Firm BTL	Firm ALS	Firm	Firm	Firm	Firm
Date/Time 6/20/18 1521	Date/Time 6/20/18/1521	Date/Time	Date/Time	Date/Time	Date/Time



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

52072

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Project Name AX-0 Nobel		Project Number 1398.001.018		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																	
Project Manager Darrik Jordan		Report CC		PRESERVATIVE																	
Company/Address 11 Centre Park Suite #203 Rochester, NY 14623 d.jordan@bartonandloguidice.com				NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP GC/MS SVOCs • 8270 • 825 GC VOCs • 8021 • 801/602 PESTICIDES • 8081 • 808 PCBs • 8062 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) EPA Method 8270 (1,4-Dioxane)	8															Preservative Key 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other ICE REMARKS/ ALTERNATE DESCRIPTION
Phone (385) 325-7100		Email																			
Sampler's Signature Grant Young		Sampler's Printed Name Grant Young / Bart & Loguidice																			
FOR OFFICE USE ONLY LAB ID		DATE					TIME		MATRIX												
CLIENT SAMPLE ID																					
mw-1		6/20/18	0819	water	1																
mw-2			0912		1																
mw-11			0842		1																
mw-11B	QC		0954		3																
Dupe - X					1																
Field Blank					1																
SPECIAL INSTRUCTIONS/COMMENTS Metals				TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day ☒ Standard (10 business days-No Surcharge) REQUESTED REPORT DATE				REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data Edata Yes No				INVOICE INFORMATION PO # 1398.001.018 BILL TO: Barton and Loguidice									
See QAPP ☐																					
STATE WHERE SAMPLES WERE COLLECTED New York																					
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY							
Signature Grant Young		Signature Darrik Jordan		Signature		Signature		Signature		Signature		Signature		Signature							
Printed Name Grant Young		Printed Name Darrik Jordan		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name							
Firm ALS		Firm ALS		Firm		Firm		Firm		Firm		Firm		Firm							
Date/Time 6/20/18 1521		Date/Time 6/20/18/1521		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time							

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
 CLIENT: Akzo Nobel Polymer Chemicals LLC
 Weather Conditions: P.C.

SAMPLE LOCATION: MW-1
 JOB #: 1398.001.018
 Temp: 70°F's

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	13.36
Measured Well Depth (feet)*:	18
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	0.74

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 10:15

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.22

Volume of Water Purged (gallons): 2.50

Did well purge dry? No ☒ Yes ☐
 Did well recover? No ☐ Yes ☒

Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 09:16 Date: 10/11/2018

SAMPLING DATA

Sample Appearance

Color: slight haze Sediment: fine. fine
 Odor: None

Field Measured Parameters

pH (Standard Units)	10.04	Sp. Conductivity (umhos/cm)	1023.0
Temperature (°F)	15.3	Eh-Redox Potential (mV)	1680
Turbidity (NTUs)	3.57	Dissolved Oxygen (mg/L)	5.74
		Ferrous Iron or Fe II (mg/L)	0.00

Samples Collected (Number/Type) 8+8 = 16 bottles Page-X location Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / / 2018

COMMENTS:

(Page-X)

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: _____

SAMPLE LOCATION: MW-1B
JOB #: 1398.001.018
Temp: _____

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	47
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: _____
 Time: _____

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): _____

Volume of Water Purged (gallons): _____

Did well purge dry? No ☐ Yes ☐
 Did well recover? No ☐ Yes ☐ Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: _____ Date: 1 / /2018

SAMPLING DATA

Sample Appearance

Color: _____ Sediment: _____
 Odor: _____

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	
Temperature (F)		Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	
		Ferrous Iron or Fe II (mg/L)	

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 / /2018

COMMENTS:

SNR this event

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-5
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Overcast/wind **Temp:** 72
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>8.07</u>
Measured Well Depth (feet)*:	<u>15</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>111</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 1021

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 3.33
 Volume of Water Purged (gallons): 3.50

Did well purge dry? No ☒ Yes ☐
 Did well recover? No ☐ Yes ☒

Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 0951 Date: 10/11/2018

SAMPLING DATA

Sample Appearance
 Color: Slight Haze Sediment: none
 Odor: none

Field Measured Parameters

pH (Standard Units)	<u>9.20</u>	Sp. Conductivity (umhos/cm)	<u>1245</u>
Temperature (°C)	<u>16.4</u>	Eh-Redox Potential (mV)	<u>192</u>
Turbidity (NTUs)	<u>6.78</u>	Dissolved Oxygen (mg/L)	<u>2.23</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.11</u>

Samples Collected (Number/Type) 6 Bottles **Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium**

Samples Delivered to: ALS Labs **Time:** _____ **Date:** 1 /2018

COMMENTS:

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-3
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Overcast **Temp:** 72
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>8.50</u>
Measured Well Depth (feet)*:	<u>16.8</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>1.33</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 1040

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 4.0

Volume of Water Purged (gallons): 3.50

Did well purge dry? No ☐ Yes ☒
 Did well recover? No ☐ Yes ☒

2 1/3 Bales
 Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1017 Date: 10/11/2018

SAMPLING DATA

Sample Appearance

Color: clear Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>9.27</u>	Sp. Conductivity (umhos/cm)	<u>1173</u>
Temperature (F)	<u>16.6</u>	Eh-Redox Potential (mV)	<u>167</u>
Turbidity (NTUs)	<u>1.21</u>	Dissolved Oxygen (mg/L)	<u>6.54</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.10</u>

Samples Collected (Number/Type) 8 Bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: _____

SAMPLE LOCATION: MW-3B
JOB #: 1398.001.018
Temp: _____

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	37.2
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: _____
 Time: _____

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): _____

Volume of Water Purged (gallons): _____

Did well purge dry? No ☐ Yes ☐

Did well recover? No ☐ Yes ☐

Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: _____ Date: 1 / /2018

SAMPLING DATA

Sample Appearance

Color: _____ Sediment: _____

Odor: _____

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	
Temperature (F)		Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	
		Ferrous Iron or Fe II (mg/L)	

Samples Collected (Number/Type)

Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 / /2018

COMMENTS:

not required to sample

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
 CLIENT: Akzo Nobel Polymer Chemicals LLC
 Weather Conditions: overcast

SAMPLE LOCATION: MW-4
 JOB #: 1398.001.018
 Temp: 72

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>11.1</u>
Measured Well Depth (feet)*:	<u>16</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>0.78</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 1056

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.35
 Volume of Water Purged (gallons): 2.50

Did well purge dry? No ☐ Yes ☒
 Did well recover? No ☐ Yes ☒ Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1054 Date: 10/11/2018

SAMPLING DATA

Sample Appearance
 Color: clear Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>9.03</u>	Sp. Conductivity (umhos/cm)	<u>766</u>
Temperature (F)	<u>15.7</u>	Eh-Redox Potential (mV)	<u>165</u>
Turbidity (NTUs)	<u>2.88</u>	Dissolved Oxygen (mg/L)	<u>6.63</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.03</u>

Samples Collected (Number/Type) 6 Bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC **SAMPLE LOCATION:** MW-4B
CLIENT: Akzo Nobel Polymer Chemicals LLC **JOB #:** 1398.001.018
Weather Conditions: Overcast **Temp:** 72
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>19.32</u>
Measured Well Depth (feet)*:	<u>40.9</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>3.45</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 1658

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 10.36
 Volume of Water Purged (gallons): 5.00

Did well purge dry? No ☐ Yes ☒ 11:13
 Did well recover? No ☐ Yes ☒ Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1103 Date: 11/11/2018

SAMPLING DATA

Sample Appearance
 Color: Slight Haze Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>8.37</u>	Sp. Conductivity (umhos/cm)	<u>3898</u>
Temperature (F)	<u>13.9</u>	Eh-Redox Potential (mV)	<u>164</u>
Turbidity (NTUs)	<u>6.02</u>	Dissolved Oxygen (mg/L)	<u>3.85</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.08</u>

Samples Collected (Number/Type) 8 Bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / /2018

COMMENTS:

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
 CLIENT: Akzo Nobel Polymer Chemicals LLC
 Weather Conditions: Partly Sunny

SAMPLE LOCATION: MW-11
 JOB #: 1398.001.018
 Temp: 72°F

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>14.99</u>
Measured Well Depth (feet)*:	<u>21.1</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>0.98</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/16/18
 Time: 11:30

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.93
 Volume of Water Purged (gallons): 6.00 - extra purge to remove sediment 1/3 bailer 11:55
 Did well purge dry? No ☒ Yes ☐
 Did well recover? No ☐ Yes ☒ Recovery Time: over 1 hr

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 11:27 Date: 10/11/2018

SAMPLING DATA

Sample Appearance
 Color: light brown Haze Sediment: few fines
 Odor: None

Field Measured Parameters

pH (Standard Units)	<u>9.10</u>	Sp. Conductivity (umhos/cm)	<u>1305</u>
Temperature (F)	<u>14.7</u>	Eh-Redox Potential (mV)	<u>58</u>
Turbidity (NTUs)	<u>15.4</u>	Dissolved Oxygen (mg/L)	<u>2.67</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.22</u>

Samples Collected (Number/Type) 8 Bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 /2018

COMMENTS:

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC SAMPLE LOCATION: MW-11B
 CLIENT: Akzo Nobel Polymer Chemicals LLC JOB #: 1398.001.018
 Weather Conditions: Partly Sunny Temp: 72
 SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>21.25</u>
Measured Well Depth (feet)*:	<u>52.38</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>4.98</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 11:35

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 14.94

Volume of Water Purged (gallons): 15

Did well purge dry? No ☒ Yes ☐
 Did well recover? No ☐ Yes ☒

Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1136 Date: 10/11/2018

SAMPLING DATA

Sample Appearance
 Color: Clear Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>8.87</u>	Sp. Conductivity (umhos/cm)	<u>927</u>
Temperature (F)	<u>13.5</u>	Eh-Redox Potential (mV)	<u>70</u>
Turbidity (NTUs)	<u>2.71</u>	Dissolved Oxygen (mg/L)	<u>5.03</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.13</u>

Samples Collected (Number/Type) 8 Bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / / 2018

COMMENTS: Repacked Bailer due to leakage

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
 CLIENT: Akzo Nobel Polymer Chemicals LLC
 Weather Conditions: partly Sunny

SAMPLE LOCATION: MW-9 n3/m5D
 JOB #: 1398.001.018
 Temp: 72

SAMPLE TYPE: Groundwater ☒
 Sediment ☐

Surface Water ☐
 Leachate ☐ Other (specify): _____

WATER LEVEL DATA

Static Water Level (feet)*:	<u>8.53</u>
Measured Well Depth (feet)*:	<u>17.4</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>1.42</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10.00
 Time: 13:10

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 4.26
 Volume of Water Purged (gallons): 4.5

Did well purge dry? No ☒ Yes ☐ - 1/4 bailer at 4.5
 Did well recover? No ☐ Yes ☒ Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1248 Date: 10/11/2018

SAMPLING DATA

Sample Appearance
 Color: light Haze Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>9.32</u>	Sp. Conductivity (umhos/cm)	<u>885.2</u>
Temperature (F)	<u>18.7</u>	Eh-Redox Potential (mV)	<u>144</u>
Turbidity (NTUs)	<u>3.78</u>	Dissolved Oxygen (mg/L)	<u>5.69</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.02</u>

Samples Collected (Number/Type) 16 Bottles - n3/m5D Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / / 2018

COMMENTS:

n3/m5D location

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC SAMPLE LOCATION: MW-9B
 CLIENT: Akzo Nobel Polymer Chemicals LLC JOB #: 1398.001.018
 Weather Conditions: partly sunny Temp: 72
 SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	<u>21.92</u>
Measured Well Depth (feet)*:	<u>42.2</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>3.24</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/11/18
 Time: 13:40

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 9.73

Volume of Water Purged (gallons): 6.00

Did well purge dry? No ☐ Yes ☒
 Did well recover? No ☐ Yes ☒

1/2 bailer
 Recovery Time: over 1 hr

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1259 Date: 10/11/2018

SAMPLING DATA

Sample Appearance

Color: very slight haze Sediment: NONE
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>8.73</u>	Sp. Conductivity (umhos/cm)	<u>1739</u>
Temperature (F)	<u>14.4</u>	Eh-Redox Potential (mV)	<u>120</u>
Turbidity (NTUs)	<u>3.78</u>	Dissolved Oxygen (mg/L)	<u>2.63</u>
		Ferrous Iron or Fe II (mg/L)	<u>0.02</u>

Samples Collected (Number/Type)

8 bottles

Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / / 2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: Partly Sunny
SAMPLE LOCATION: MW-10
JOB #: 1398.001.018
Temp: 72
SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify):
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	11.59
Measured Well Depth (feet)*:	17.6
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	0.96

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 13:42

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.89

Volume of Water Purged (gallons): 2.25

Did well purge dry? No ☐ Yes ☒ - 1/2 bailed 13:48
 Did well recover? No ☐ Yes ☒ Recovery Time: overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1323 Date: 10/11/2018

SAMPLING DATA

Sample Appearance

Color: Slight Haze Sediment: Particulate/fines
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	8.70	Sp. Conductivity (umhos/cm)	1027
Temperature (°F/C)	15.3	Eh-Redox Potential (mV)	138
Turbidity (NTUs)	1.77	Dissolved Oxygen (mg/L)	5.37
		Ferrous Iron or Fe II (mg/L)	0.0

Samples Collected (Number/Type)

8 Bottles

Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: Date: / /2018

COMMENTS:

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
CLIENT: Akzo Nobel Polymer Chemicals LLC
Weather Conditions: _____

SAMPLE LOCATION: MW-10B
JOB #: 1398.001.018
Temp: _____

SAMPLE TYPE: Groundwater ☒ Surface Water ☐ Other (specify): _____
 Sediment ☐ Leachate ☐

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	46.6
Well Casing Diameter (inches):	2"
Volume in Well Casing (gallons):	

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: _____
 Time: _____

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): _____

Volume of Water Purged (gallons): _____

Did well purge dry? No ☐ Yes ☐
 Did well recover? No ☐ Yes ☐

Recovery Time: _____

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: _____ Date: 1 / /2018

SAMPLING DATA

Sample Appearance

Color: _____ Sediment: _____
 Odor: _____

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	
Temperature (F)		Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	
		Ferrous Iron or Fe II (mg/L)	

Samples Collected (Number/Type) Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: 1 / /2018

COMMENTS:

SNR - this event

Barton & Loguidice

FIELD SAMPLING DATA SHEET

SITE: Akzo Nobel Polymer Chemicals LLC
 CLIENT: Akzo Nobel Polymer Chemicals LLC
 Weather Conditions: partly Sunny

SAMPLE LOCATION: MW-2
 JOB #: 1398.001.018
 Temp: 72

SAMPLE TYPE: Groundwater ☒
 Sediment ☐

Surface Water ☐
 Leachate ☐ Other (specify): _____

WATER LEVEL DATA

Static Water Level (feet)*:	<u>10.74</u>
Measured Well Depth (feet)*:	<u>16.4</u>
Well Casing Diameter (inches):	<u>2"</u>
Volume in Well Casing (gallons):	<u>11.89</u>

*depth from measuring point

Measuring point: Top of Riser
 Measured by: BJM or GJY
 Date: 10/10/18
 Time: 14:00

PURGING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Calculate Volume of Water to Be Purged (gallons): 2.69

Volume of Water Purged (gallons): 2.75 3.50 14:08

Did well purge dry? No ☒ Yes ☒
 Did well recover? No ☐ Yes ☒

Recovery Time: Overnight

SAMPLING METHOD

Equipment: Bailer ☒ Submersible Pump ☐ Air Lift System ☐
 Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
 Dedicated ☒ Non-dedicated ☐

Sampled by: BJM/ GJY Time: 1340 Date: 10/11/2018

SAMPLING DATA

Sample Appearance: light brown Haze
 Color: faint red/teal
 Odor: NONE

Field Measured Parameters

pH (Standard Units)	<u>8.74</u>	Sp. Conductivity (umhos/cm)	<u>828.6</u>
Temperature (F)	<u>19.4</u>	Eh-Redox Potential (mV)	<u>-50</u>
Turbidity (NTUs)	<u>1.63</u>	Dissolved Oxygen (mg/L)	<u>1.12</u>
		Ferrous Iron or Fe II (mg/L)	<u>106</u>

Samples Collected (Number/Type) 8 bottles Voc's, Nitrate, Nitrite, Sulfate, Methane, and Dissolved Iron and Magnesium

Samples Delivered to: ALS Labs Time: _____ Date: / /2018

COMMENTS:



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 31446
Description YSI ProODO
Calibrated 10/9/2018 11:43:01AM

Manufacturer YSI	State Certified
Model Number Pro ODO	Status Pass
Serial Number/ Lot Number 15H102109	Temp °C 22.03
Location Rochester, NY	Humidity % 61.91
Department	

Calibration Specifications

Group # 1	Range Acc % 0.0000						
Group Name Dissolved Oxygen Span	Reading Acc % 3.0000						
Stated Accy Pct of Reading	Plus/Minus 0.00						
Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	%	100.00	%	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Last Cal Date/ Expiration Date</u>
-------------------------	--------------------	---------------------	---------------------	---------------------------------------	---

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Michele Pagano

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT



Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 36944
Description Hach DR/900
Calibrated 10/9/2018 3:40:19PM

Manufacturer	HACH	State Certified	
Model Number	DR/900	Status	Pass
Serial Number/ Lot Number	162670001017	Temp °C	23.56
Location	Rochester, NY	Humidity %	56.68
Department			

Calibration Specifications

Group # 1
Group Name Instrument Test
Test Performed: N/A **As Found Result:** **As Left Result:**

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Last Cal Date/ Expiration Date</u>
-------------------------	--------------------	---------------------	---------------------	-----------------------------------	---

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Michele Pagano

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

1057 East Henrietta Rd.
Rochester NY 14623
Phone: 585-424-2140

Pine Environmental Services, Inc.

Instrument ID 32932
Description Myron 6P
Calibrated 10/9/2018 3:35:19PM

Manufacturer Myron	State Certified
Model Number 6P	Status Pass
Serial Number/ Lot Number 6235167	Temp °C 23.61
Location Rochester, NY	Humidity % 56.79
Department	

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
7.00 / 7.00	PH	7.00	PH	7.00	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.00	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	10.00	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
1.413 / 1.413	ms/cm	1.413	ms/cm	1.413	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
240.00 / 240.00	mv	240.00	mv	240.00	240.00	0.00%	Pass



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

SR#

003, 004, 006, 007, 009, 010, 011, 012, 013, 014, 016, 017, 018

T050691

Project Name: Akzo Nobel		NUMBER OF CONTAINERS	48H	14D	28D	180D	Remarks
Project Number: 1398.003.001	Report To: Brian McGrath		300.0 / NO2	300.0 / NO3	8260C / VOC FP	RSK 175 / Gases	
Company / Address: Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614			300.0 / SO4	200.7 / Fe D	200.7 / Mn D		
Phone #: 585-325-7190	FAX #:						
Sampler Signature: <i>[Signature]</i>	Sampler Printed Name: Grant Young / Brian McGrath						

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix										
MW-1		10/11/18 0916	Liquid	8	X	X	X	X	X	X	X	X	
Dupe-X			Liquid	8	X	X	X	X	X	X	X	X	
MW-2		1340	Liquid	8	X	X	X	X	X	X	X	X	
MW-3		1017	Liquid	8	X	X	X	X	X	X	X	X	
MW-4		1054	Liquid	8	X	X	X	X	X	X	X	X	
MW-4B		1103	Liquid	8	X	X	X	X	X	X	X	X	
MW-5		0951	Liquid	8	X	X	X	X	X	X	X	X	
MW-9	QC	1248	Liquid	8	X	X	X	X	X	X	X	X	ms/msd
MW-9B		1259	Liquid	8	X	X	X	X	X	X	X	X	
MW-10		1323	Liquid	8	X	X	X	X	X	X	X	X	

Special Instructions/Comments:

Turnaround Requirements

☐ RUSH (SURCHARGES APPLY)

☒ Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

- ☐ I. Results Only
☒ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
☐ III. Results + QC and Calibration Summaries
☐ IV. Data Validation Report with Raw Data

EData ☐ Yes ☐ No

Invoice Information

P.O.#

Bill To: B+L

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Printed Name: Grant Young	Printed Name: Grant Young	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: B+L	Firm: B+L	Firm:	Firm:	Firm:	Firm:
Date/Time: 10/11/18 1545	Date/Time: 10/11/18 1545	Date/Time:	Date/Time:	Date/Time:	Date/Time:



ALS Environmental

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SR#

003, 004, 006, 007, 009, 010, 011, 012, 013, 014, 016, 017, 018

T050691

Project Name: Akzo Nobel				NUMBER OF CONTAINERS 48H 14D 28D 180D 300.0 / NO2 300.0 / NO3 B260C / VOC FP RSK 175 / Gases 300.0 / SO4 200.7 / Fe D 200.7 / Mn D				Remarks
Project Number: 1398.003.001								
Report To: Brian McGrath								
Company / Address: Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614								
Phone #: 585-325-7190				FAX #:				
Sampler Signature: <i>[Signature]</i>				Sampler Printed Name: Grant Young / Brian J. McGrath				
CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix					
MW-11		10/11/14 1127	Liquid	8	X	X	X	X
MW-11B		1136	Liquid	8	X	X	X	X
Trip Blank			Liquid	3			X	
14.			Liquid					
15.			Liquid					
16.			Liquid					
17.			Liquid					
18.			Liquid					
19.			Liquid					
20.			Liquid					

Special Instructions/Comments:

Turnaround Requirements

☐ RUSH (SURCHARGES APPLY)

☒ Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

- ☐ I. Results Only
☒ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
☐ III. Results + QC and Calibration Summaries
☐ IV. Data Validation Report with Raw Data

EData ☐ Yes ☐ No

Invoice Information

P.O.#

Bill To: *B+L*

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Printed Name Grant Young	Printed Name Amy L. K.	Printed Name	Printed Name	Printed Name	Printed Name
Firm B+L	Firm ALS	Firm	Firm	Firm	Firm
Date/Time 10/11/14 1545	Date/Time 10/11/14 1545	Date/Time	Date/Time	Date/Time	Date/Time

Appendix B

Analytical Laboratory Summary Report (ALS Environmental)



July 03, 2018

Service Request No:R1805745

Mr. Brian McGrath
Barton & Loguidice, PC
11 Centre Park
Suite 203
Rochester, NY 14614

Laboratory Results for: Akzo Nobel

Dear Mr.McGrath,

Enclosed are the results of the sample(s) submitted to our laboratory June 20, 2018
For your reference, these analyses have been assigned our service request number **R1805745**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Barton & Loguidice, DPC
Project: Akzo Nobel
Sample Matrix: Water

Service Request: R1805745
Date Received: 06/20/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Sixteen water samples were received for analysis at ALS Environmental on 06/20/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 06/27/2018: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/27/2018: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by _____

Date 07/03/2018



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request:R1805745

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1805745-001	MW-1	6/20/2018	0819
R1805745-002	Dupe-1	6/20/2018	
R1805745-003	MW-2	6/20/2018	0912
R1805745-004	MW-3	6/20/2018	1100
R1805745-005	MW-4	6/20/2018	1119
R1805745-006	MW-4B	6/20/2018	1129
R1805745-007	MW-5	6/20/2018	1022
R1805745-008	MW-9	6/20/2018	1147
R1805745-009	MW-9B	6/20/2018	1158
R1805745-010	MW-10	6/20/2018	1214
R1805745-011	MW-11	6/20/2018	0842
R1805745-012	MW-11B	6/20/2018	0954
R1805745-013	Trip Blank	6/20/2018	
R1805745-014	MW-1B	6/20/2018	1037
R1805745-015	MW-3B	6/20/2018	1055
R1805745-016	MW-10B	6/20/2018	1225



ALS Environmental

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

SR#

003, 004, 006, 007, 009, 010, 011,
012, 013, 014, 016, 017, 018

T050691

Project Name: Akzo Nobel		Report To Brian McGrath		NUMBER OF CONTAINERS	48H	14D	28D	180D	Remarks
Project Number: 1398.003.001.018					300.0 / NO2	300.0 / NO3	8260C / VOC FP	RSK 175 / Gases	
Company / Address Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614					300.0 / SO4	200.7 / Fe D	200.7 / Mn D		
Phone # 585-325-7190		FAX #							
Sampler Signature <i>[Signature]</i>		Sampler Printed Name Grant Young / Brian McGrath							
CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix						
MW-1		6/20/18 0819	Liquid	8	X	X	X	X	X
Dupe-1			Liquid	8	X	X	X	X	X
MW-2		0912	Liquid	8	X	X	X	X	X
MW-3		1100	Liquid	8	X	X	X	X	X
MW-4		1119	Liquid	8	X	X	X	X	X
MW-4B		1129	Liquid	8	X	X	X	X	X
MW-5	QC	1022	Liquid	16	X	X	X	X	X
MW-9		1147	Liquid	8	X	X	X	X	X
MW-9B		1158	Liquid	8	X	X	X	X	X
MW-10		124	Liquid	8	X	X	X	X	X

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

☒ Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

- ___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
☒ IV. Data Validation Report with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.# 1398.001.018

Bill To: *Barton and Loguidice*

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Printed Name <i>Grant Young</i>	Printed Name <i>Donna Ward</i>	Printed Name	Printed Name	Printed Name	Printed Name
Firm <i>BTL</i>	Firm <i>ALS</i>	Firm	Firm	Firm	Firm
Date/Time <i>6/20/18 1521</i>	Date/Time <i>6/20/18/1521</i>	Date/Time	Date/Time	Date/Time	Date/Time

R1805745
Barton & Loguidice, PC
Akzo Nobel

5





SR# _____

003, 004, 006, 007, 009, 010, 011,
012, 013, 014, 016, 017, 018

T050691

www.elsglobal.com

Project Name: Akzo Nobel	
Project Number: 1398.003.004- <i>98</i>	Report To Brian McGrath
Company / Address Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614	
Phone # 585-325-7190	FAX #
Sampler Signature <i>[Signature]</i>	Sampler Printed Name Grant Young/Brian T. Gault

CLIENT SAMPLE ID	LABID	SAMPLING		Matrix								
		Date	Time									
MW-11		6/20/18	0842	Liquid	8	X	X	X	X	X	X	X
MW-11B			0954	Liquid	8	X	X	X	X	X	X	X
Trip Blank				Liquid	3			X				
14. mw-1B			1037	Liquid	8	X	X	X	X	X	X	X
15. mw-3B			1055	Liquid	8	X	X	X	X	X	X	X
16. mw-10B		✓	1225	Liquid	8	X	X	X	X	X	X	X
17.				Liquid								
18.				Liquid								
19.				Liquid								
20.				Liquid								

Special Instructions/Comments:

Turnaround Requirements

☐ RUSH (SURCHARGES APPLY)

X Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

☐ I. Results Only

☐ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

☐ III. Results + QC and Calibration Summaries

☒ IV. Data Validation Report with Raw Data

EData	Yes	No
-------	-----	----

Invoice Information

P.O.# 1398.021-018

Bill To: Bartlett
Legislative

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Printed Name <i>Grant Young</i>	Printed Name <i>Samuel Ward</i>	Printed Name	Printed Name	Printed Name	Printed Name
Firm <i>BTL</i>	Firm <i>ALS</i>	Firm	Firm	Firm	Firm
Date/Time <i>6/20/18/1521</i>	Date/Time <i>6/20/18/1521</i>	Date/Time	Date/Time	Date/Time	Date/Time

R1805745

Barton & Loguidice, PC
Akzo Nobel

4





Cooler Receipt and Preservation Check Form

R1805745

5

Barton & Loguidice, PC
Akzo Nobel



Project/Client BTL Folder Number _____

Cooler received on 6/20/18 by: SW

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N
2	Custody papers properly completed (ink, signed)?	Y ☒ N
3	Did all bottles arrive in good condition (unbroken)?	Y ☒ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y ☒ N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Aik, or Sulfide have sig* bubbles?	Y ☒ N NA
6	Where did the bottles originate?	ALS/ROC <u>CLIENT</u>
7	Soil VOA received as: Bulk Encore 5035set	☒ NA

8. Temperature Readings Date: 6/20/18 Time: 1605 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	7.2	1.8	0.8				
Correction Factor (°C)	±0.0	±0.0	±0.0				
Corrected Temp (°C)	7.2	1.8	0.8				
Temp from: Type of bottle							
Within 0-6°C?	Y ☒ N	Y ☒ N	Y ☒ N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Rm 2 by SW on 6/20/18 at 1605
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/21/18 Time: 1356 by: SW

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH							
≤2	<u>201518</u>	HNO ₃	✓	<u>1117071</u>	<u>4/14</u>				
≤2		H ₂ SO ₄							
<4		NaHSO ₄							
5-9		For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		ZnAcetate	- -						
		HCl	** **	<u>4117000</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-039-004

Explain all Discrepancies/ Other Comments:

* locations MW-1B, MW-3B, MW-10B were sampled by client in gallon plastic jugs.

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: SW
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter
8 of 136



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request: R1805745

Sample Name: MW-1
Lab Code: R1805745-001
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: Dupe-1
Lab Code: R1805745-002
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-2
Lab Code: R1805745-003
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-3
Lab Code: R1805745-004
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method

200.7

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request: R1805745

Sample Name: MW-3
Lab Code: R1805745-004
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
300.0
8260C
RSK 175

Extracted/Digested By

Analyzed By
AMOSSES
KRUEST
BALLGEIER

Sample Name: MW-4
Lab Code: R1805745-005
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES
KRUEST
BALLGEIER

Sample Name: MW-4B
Lab Code: R1805745-006
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES
KRUEST
BALLGEIER

Sample Name: MW-5
Lab Code: R1805745-007
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request: R1805745

Sample Name: MW-5
Lab Code: R1805745-007
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
8260C
RSK 175

Extracted/Digested By

Analyzed By
KRUEST
BALLGEIER

Sample Name: MW-9
Lab Code: R1805745-008
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-9B
Lab Code: R1805745-009
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-10
Lab Code: R1805745-010
Sample Matrix: Water

Date Collected: 06/20/18
Date Received: 06/20/18

Analysis Method
200.7
300.0
8260C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request: R1805745

Sample Name: MW-10
Lab Code: R1805745-010
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

RSK 175

Extracted/Digested By**Analyzed By**

BALLGEIER

Sample Name: MW-11
Lab Code: R1805745-011
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSE
KRU
EST
BALLGEIER

Sample Name: MW-11B
Lab Code: R1805745-012
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSE
KRU
EST
BALLGEIER

Sample Name: Trip Blank
Lab Code: R1805745-013
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

8260C

Extracted/Digested By**Analyzed By**KRU
EST

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018

Service Request: R1805745

Sample Name: MW-1B
Lab Code: R1805745-014
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-3B
Lab Code: R1805745-015
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER

Sample Name: MW-10B
Lab Code: R1805745-016
Sample Matrix: Water

Date Collected: 06/20/18**Date Received:** 06/20/18**Analysis Method**

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSEs
KRUEST
BALLGEIER



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:19
Date Received: 06/20/18 15:21

Sample Name: MW-1
Lab Code: R1805745-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/25/18 16:16	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/25/18 16:16	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/25/18 16:16	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/25/18 16:16	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/25/18 16:16	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/25/18 16:16	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/25/18 16:16	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/25/18 16:16	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/25/18 16:16	
2-Hexanone	5.0 U	5.0	0.34	1	06/25/18 16:16	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/25/18 16:16	
Acetone	2.9 J	5.0	2.1	1	06/25/18 16:16	
Benzene	1.0 U	1.0	0.20	1	06/25/18 16:16	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/25/18 16:16	
Bromoform	1.0 U	1.0	0.36	1	06/25/18 16:16	
Bromomethane	1.0 U	1.0	0.70	1	06/25/18 16:16	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/25/18 16:16	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/25/18 16:16	
Chlorobenzene	1.0 U	1.0	0.20	1	06/25/18 16:16	
Chloroethane	1.0 U	1.0	0.23	1	06/25/18 16:16	
Chloroform	1.0 U	1.0	0.28	1	06/25/18 16:16	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/25/18 16:16	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/25/18 16:16	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/25/18 16:16	
Ethylbenzene	1.0 U	1.0	0.20	1	06/25/18 16:16	
Styrene	1.0 U	1.0	0.20	1	06/25/18 16:16	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/25/18 16:16	
Toluene	1.0 U	1.0	0.20	1	06/25/18 16:16	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/25/18 16:16	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/25/18 16:16	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 16:16	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/25/18 16:16	
o-Xylene	1.0 U	1.0	0.20	1	06/25/18 16:16	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 16:16	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:19
Date Received: 06/20/18 15:21

Sample Name: MW-1
Lab Code: R1805745-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	85 - 122	06/25/18 16:16	
Dibromofluoromethane	93	89 - 119	06/25/18 16:16	
Toluene-d8	96	87 - 121	06/25/18 16:16	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Dupe-1
Lab Code: R1805745-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/25/18 16:38	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/25/18 16:38	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/25/18 16:38	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/25/18 16:38	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/25/18 16:38	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/25/18 16:38	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/25/18 16:38	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/25/18 16:38	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/25/18 16:38	
2-Hexanone	5.0 U	5.0	0.34	1	06/25/18 16:38	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/25/18 16:38	
Acetone	3.5 J	5.0	2.1	1	06/25/18 16:38	
Benzene	1.0 U	1.0	0.20	1	06/25/18 16:38	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/25/18 16:38	
Bromoform	1.0 U	1.0	0.36	1	06/25/18 16:38	
Bromomethane	1.0 U	1.0	0.70	1	06/25/18 16:38	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/25/18 16:38	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/25/18 16:38	
Chlorobenzene	1.0 U	1.0	0.20	1	06/25/18 16:38	
Chloroethane	1.0 U	1.0	0.23	1	06/25/18 16:38	
Chloroform	1.0 U	1.0	0.28	1	06/25/18 16:38	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/25/18 16:38	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/25/18 16:38	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/25/18 16:38	
Ethylbenzene	1.0 U	1.0	0.20	1	06/25/18 16:38	
Styrene	1.0 U	1.0	0.20	1	06/25/18 16:38	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/25/18 16:38	
Toluene	1.0 U	1.0	0.20	1	06/25/18 16:38	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/25/18 16:38	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/25/18 16:38	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 16:38	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/25/18 16:38	
o-Xylene	1.0 U	1.0	0.20	1	06/25/18 16:38	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 16:38	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Dupe-1
Lab Code: R1805745-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/25/18 16:38	
Dibromofluoromethane	92	89 - 119	06/25/18 16:38	
Toluene-d8	97	87 - 121	06/25/18 16:38	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:12
Date Received: 06/20/18 15:21

Sample Name: MW-2
Lab Code: R1805745-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/25/18 17:01	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/25/18 17:01	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/25/18 17:01	
1,1-Dichloroethane (1,1-DCA)	3.9	1.0	0.20	1	06/25/18 17:01	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/25/18 17:01	
1,2-Dichloroethane	0.25 J	1.0	0.20	1	06/25/18 17:01	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/25/18 17:01	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/25/18 17:01	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/25/18 17:01	
2-Hexanone	5.0 U	5.0	0.34	1	06/25/18 17:01	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/25/18 17:01	
Acetone	5.0 U	5.0	2.1	1	06/25/18 17:01	
Benzene	3.7	1.0	0.20	1	06/25/18 17:01	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/25/18 17:01	
Bromoform	1.0 U	1.0	0.36	1	06/25/18 17:01	
Bromomethane	1.0 U	1.0	0.70	1	06/25/18 17:01	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/25/18 17:01	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/25/18 17:01	
Chlorobenzene	1.7	1.0	0.20	1	06/25/18 17:01	
Chloroethane	9.0	1.0	0.23	1	06/25/18 17:01	
Chloroform	1.0 U	1.0	0.28	1	06/25/18 17:01	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/25/18 17:01	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/25/18 17:01	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/25/18 17:01	
Ethylbenzene	1.2	1.0	0.20	1	06/25/18 17:01	
Styrene	1.0 U	1.0	0.20	1	06/25/18 17:01	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/25/18 17:01	
Toluene	160	1.0	0.20	1	06/25/18 17:01	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/25/18 17:01	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/25/18 17:01	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 17:01	
m,p-Xylenes	2.1	2.0	0.21	1	06/25/18 17:01	
o-Xylene	0.80 J	1.0	0.20	1	06/25/18 17:01	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 17:01	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:12
Date Received: 06/20/18 15:21

Sample Name: MW-2
Lab Code: R1805745-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/25/18 17:01	
Dibromofluoromethane	92	89 - 119	06/25/18 17:01	
Toluene-d8	95	87 - 121	06/25/18 17:01	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:00
Date Received: 06/20/18 15:21

Sample Name: MW-3
Lab Code: R1805745-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 15:21	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 15:21	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 15:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 15:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 15:21	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 15:21	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 15:21	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 15:21	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 15:21	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 15:21	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 15:21	
Acetone	5.0 U	5.0	2.1	1	06/26/18 15:21	
Benzene	1.0 U	1.0	0.20	1	06/26/18 15:21	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 15:21	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 15:21	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 15:21	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 15:21	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 15:21	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 15:21	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 15:21	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 15:21	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 15:21	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 15:21	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 15:21	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 15:21	
Styrene	1.0 U	1.0	0.20	1	06/26/18 15:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 15:21	
Toluene	1.0 U	1.0	0.20	1	06/26/18 15:21	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 15:21	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 15:21	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 15:21	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 15:21	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 15:21	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 15:21	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:00
Date Received: 06/20/18 15:21

Sample Name: MW-3
Lab Code: R1805745-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/26/18 15:21	
Dibromofluoromethane	92	89 - 119	06/26/18 15:21	
Toluene-d8	96	87 - 121	06/26/18 15:21	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:19
Date Received: 06/20/18 15:21

Sample Name: MW-4
Lab Code: R1805745-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 15:43	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 15:43	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 15:43	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 15:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 15:43	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 15:43	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 15:43	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 15:43	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 15:43	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 15:43	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 15:43	
Acetone	3.2 J	5.0	2.1	1	06/26/18 15:43	
Benzene	1.0 U	1.0	0.20	1	06/26/18 15:43	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 15:43	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 15:43	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 15:43	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 15:43	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 15:43	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 15:43	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 15:43	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 15:43	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 15:43	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 15:43	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 15:43	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 15:43	
Styrene	1.0 U	1.0	0.20	1	06/26/18 15:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 15:43	
Toluene	1.0 U	1.0	0.20	1	06/26/18 15:43	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 15:43	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 15:43	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 15:43	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 15:43	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 15:43	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 15:43	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:19
Date Received: 06/20/18 15:21

Sample Name: MW-4
Lab Code: R1805745-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	85 - 122	06/26/18 15:43	
Dibromofluoromethane	91	89 - 119	06/26/18 15:43	
Toluene-d8	96	87 - 121	06/26/18 15:43	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:29
Date Received: 06/20/18 15:21

Sample Name: MW-4B
Lab Code: R1805745-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 16:06	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 16:06	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 16:06	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 16:06	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 16:06	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 16:06	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 16:06	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 16:06	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 16:06	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 16:06	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 16:06	
Acetone	5.0 U	5.0	2.1	1	06/26/18 16:06	
Benzene	1.0 U	1.0	0.20	1	06/26/18 16:06	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 16:06	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 16:06	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 16:06	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 16:06	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 16:06	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 16:06	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 16:06	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 16:06	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 16:06	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 16:06	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 16:06	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 16:06	
Styrene	1.0 U	1.0	0.20	1	06/26/18 16:06	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 16:06	
Toluene	1.0 U	1.0	0.20	1	06/26/18 16:06	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 16:06	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 16:06	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 16:06	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 16:06	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 16:06	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 16:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:29
Date Received: 06/20/18 15:21

Sample Name: MW-4B
Lab Code: R1805745-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	85 - 122	06/26/18 16:06	
Dibromofluoromethane	91	89 - 119	06/26/18 16:06	
Toluene-d8	97	87 - 121	06/26/18 16:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:22
Date Received: 06/20/18 15:21

Sample Name: MW-5
Lab Code: R1805745-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/25/18 15:54	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/25/18 15:54	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/25/18 15:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/25/18 15:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/25/18 15:54	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/25/18 15:54	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/25/18 15:54	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/25/18 15:54	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/25/18 15:54	
2-Hexanone	5.0 U	5.0	0.34	1	06/25/18 15:54	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/25/18 15:54	
Acetone	2.5 J	5.0	2.1	1	06/25/18 15:54	
Benzene	1.0 U	1.0	0.20	1	06/25/18 15:54	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/25/18 15:54	
Bromoform	1.0 U	1.0	0.36	1	06/25/18 15:54	
Bromomethane	1.0 U	1.0	0.70	1	06/25/18 15:54	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/25/18 15:54	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/25/18 15:54	
Chlorobenzene	1.0 U	1.0	0.20	1	06/25/18 15:54	
Chloroethane	1.0 U	1.0	0.23	1	06/25/18 15:54	
Chloroform	1.0 U	1.0	0.28	1	06/25/18 15:54	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/25/18 15:54	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/25/18 15:54	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/25/18 15:54	
Ethylbenzene	1.0 U	1.0	0.20	1	06/25/18 15:54	
Styrene	1.0 U	1.0	0.20	1	06/25/18 15:54	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/25/18 15:54	
Toluene	1.0 U	1.0	0.20	1	06/25/18 15:54	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/25/18 15:54	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/25/18 15:54	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 15:54	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/25/18 15:54	
o-Xylene	1.0 U	1.0	0.20	1	06/25/18 15:54	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 15:54	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:22
Date Received: 06/20/18 15:21

Sample Name: MW-5
Lab Code: R1805745-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/25/18 15:54	
Dibromofluoromethane	92	89 - 119	06/25/18 15:54	
Toluene-d8	96	87 - 121	06/25/18 15:54	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:47
Date Received: 06/20/18 15:21

Sample Name: MW-9
Lab Code: R1805745-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.8	1.0	0.25	1	06/27/18 13:04	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/27/18 13:04	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/27/18 13:04	
1,1-Dichloroethane (1,1-DCA)	0.38 J	1.0	0.20	1	06/27/18 13:04	
1,1-Dichloroethene (1,1-DCE)	0.29 J	1.0	0.28	1	06/27/18 13:04	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/27/18 13:04	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/27/18 13:04	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/27/18 13:04	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/27/18 13:04	
2-Hexanone	5.0 U	5.0	0.34	1	06/27/18 13:04	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/27/18 13:04	
Acetone	2.8 J	5.0	2.1	1	06/27/18 13:04	
Benzene	1.0 U	1.0	0.20	1	06/27/18 13:04	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/27/18 13:04	
Bromoform	1.0 U	1.0	0.36	1	06/27/18 13:04	
Bromomethane	1.0 U	1.0	0.70	1	06/27/18 13:04	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/27/18 13:04	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/27/18 13:04	
Chlorobenzene	1.0 U	1.0	0.20	1	06/27/18 13:04	
Chloroethane	1.0 U	1.0	0.23	1	06/27/18 13:04	
Chloroform	1.0 U	1.0	0.28	1	06/27/18 13:04	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/27/18 13:04	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/27/18 13:04	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/27/18 13:04	
Ethylbenzene	1.0 U	1.0	0.20	1	06/27/18 13:04	
Styrene	1.0 U	1.0	0.20	1	06/27/18 13:04	
Tetrachloroethene (PCE)	0.52 J	1.0	0.28	1	06/27/18 13:04	
Toluene	1.0 U	1.0	0.20	1	06/27/18 13:04	
Trichloroethene (TCE)	0.25 J	1.0	0.20	1	06/27/18 13:04	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/27/18 13:04	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/27/18 13:04	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/27/18 13:04	
o-Xylene	1.0 U	1.0	0.20	1	06/27/18 13:04	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/27/18 13:04	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:47
Date Received: 06/20/18 15:21

Sample Name: MW-9
Lab Code: R1805745-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/27/18 13:04	
Dibromofluoromethane	103	89 - 119	06/27/18 13:04	
Toluene-d8	102	87 - 121	06/27/18 13:04	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:58
Date Received: 06/20/18 15:21

Sample Name: MW-9B
Lab Code: R1805745-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 16:50	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 16:50	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 16:50	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 16:50	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 16:50	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 16:50	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 16:50	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 16:50	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 16:50	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 16:50	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 16:50	
Acetone	5.0 U	5.0	2.1	1	06/26/18 16:50	
Benzene	1.0 U	1.0	0.20	1	06/26/18 16:50	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 16:50	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 16:50	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 16:50	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 16:50	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 16:50	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 16:50	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 16:50	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 16:50	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 16:50	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 16:50	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 16:50	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 16:50	
Styrene	1.0 U	1.0	0.20	1	06/26/18 16:50	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 16:50	
Toluene	1.0 U	1.0	0.20	1	06/26/18 16:50	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 16:50	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 16:50	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 16:50	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 16:50	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 16:50	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 16:50	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:58
Date Received: 06/20/18 15:21

Sample Name: MW-9B
Lab Code: R1805745-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	85 - 122	06/26/18 16:50	
Dibromofluoromethane	93	89 - 119	06/26/18 16:50	
Toluene-d8	96	87 - 121	06/26/18 16:50	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:14
Date Received: 06/20/18 15:21

Sample Name: MW-10
Lab Code: R1805745-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 17:13	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 17:13	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 17:13	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 17:13	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 17:13	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 17:13	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 17:13	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 17:13	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 17:13	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 17:13	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 17:13	
Acetone	5.0 U	5.0	2.1	1	06/26/18 17:13	
Benzene	1.0 U	1.0	0.20	1	06/26/18 17:13	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 17:13	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 17:13	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 17:13	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 17:13	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 17:13	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 17:13	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 17:13	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 17:13	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 17:13	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 17:13	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 17:13	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 17:13	
Styrene	1.0 U	1.0	0.20	1	06/26/18 17:13	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 17:13	
Toluene	1.0 U	1.0	0.20	1	06/26/18 17:13	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 17:13	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 17:13	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:13	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 17:13	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 17:13	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:13	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:14
Date Received: 06/20/18 15:21

Sample Name: MW-10
Lab Code: R1805745-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	85 - 122	06/26/18 17:13	
Dibromofluoromethane	90	89 - 119	06/26/18 17:13	
Toluene-d8	95	87 - 121	06/26/18 17:13	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:42
Date Received: 06/20/18 15:21

Sample Name: MW-11
Lab Code: R1805745-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 17:35	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 17:35	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 17:35	
1,1-Dichloroethane (1,1-DCA)	1.6	1.0	0.20	1	06/26/18 17:35	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 17:35	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 17:35	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 17:35	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 17:35	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 17:35	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 17:35	
4-Methyl-2-pentanone	0.32 J	5.0	0.29	1	06/26/18 17:35	
Acetone	5.0 U	5.0	2.1	1	06/26/18 17:35	
Benzene	1.0 U	1.0	0.20	1	06/26/18 17:35	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 17:35	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 17:35	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 17:35	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 17:35	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 17:35	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 17:35	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 17:35	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 17:35	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 17:35	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 17:35	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 17:35	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 17:35	
Styrene	1.0 U	1.0	0.20	1	06/26/18 17:35	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 17:35	
Toluene	1.0 U	1.0	0.20	1	06/26/18 17:35	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 17:35	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 17:35	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:35	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 17:35	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 17:35	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:35	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:42
Date Received: 06/20/18 15:21

Sample Name: MW-11
Lab Code: R1805745-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	85 - 122	06/26/18 17:35	
Dibromofluoromethane	94	89 - 119	06/26/18 17:35	
Toluene-d8	99	87 - 121	06/26/18 17:35	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:54
Date Received: 06/20/18 15:21

Sample Name: MW-11B
Lab Code: R1805745-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 17:57	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 17:57	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 17:57	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 17:57	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 17:57	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 17:57	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 17:57	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 17:57	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 17:57	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 17:57	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 17:57	
Acetone	2.4 J	5.0	2.1	1	06/26/18 17:57	
Benzene	1.0 U	1.0	0.20	1	06/26/18 17:57	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 17:57	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 17:57	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 17:57	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 17:57	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 17:57	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 17:57	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 17:57	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 17:57	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 17:57	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 17:57	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 17:57	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 17:57	
Styrene	1.0 U	1.0	0.20	1	06/26/18 17:57	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 17:57	
Toluene	1.0 U	1.0	0.20	1	06/26/18 17:57	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 17:57	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 17:57	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:57	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 17:57	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 17:57	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 17:57	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:54
Date Received: 06/20/18 15:21

Sample Name: MW-11B
Lab Code: R1805745-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/26/18 17:57	
Dibromofluoromethane	92	89 - 119	06/26/18 17:57	
Toluene-d8	98	87 - 121	06/26/18 17:57	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Trip Blank
Lab Code: R1805745-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	06/26/18 14:59	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	06/26/18 14:59	
1,1,2-Trichloroethane	1.0 U	1.0	1	06/26/18 14:59	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	06/26/18 14:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	06/26/18 14:59	
1,2-Dichloroethane	1.0 U	1.0	1	06/26/18 14:59	
1,2-Dichloroethene, Total	2.0 U	2.0	1	06/26/18 14:59	
1,2-Dichloropropane	1.0 U	1.0	1	06/26/18 14:59	
2-Butanone (MEK)	5.0 U	5.0	1	06/26/18 14:59	
2-Hexanone	5.0 U	5.0	1	06/26/18 14:59	
4-Methyl-2-pentanone	5.0 U	5.0	1	06/26/18 14:59	
Acetone	5.0 U	5.0	1	06/26/18 14:59	
Benzene	1.0 U	1.0	1	06/26/18 14:59	
Bromodichloromethane	1.0 U	1.0	1	06/26/18 14:59	
Bromoform	1.0 U	1.0	1	06/26/18 14:59	
Bromomethane	1.0 U	1.0	1	06/26/18 14:59	
Carbon Disulfide	1.0 U	1.0	1	06/26/18 14:59	
Carbon Tetrachloride	1.0 U	1.0	1	06/26/18 14:59	
Chlorobenzene	1.0 U	1.0	1	06/26/18 14:59	
Chloroethane	1.0 U	1.0	1	06/26/18 14:59	
Chloroform	1.0 U	1.0	1	06/26/18 14:59	
Chloromethane (Methyl Chloride)	1.0 U	1.0	1	06/26/18 14:59	
Dibromochloromethane	1.0 U	1.0	1	06/26/18 14:59	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	1	06/26/18 14:59	
Ethylbenzene	1.0 U	1.0	1	06/26/18 14:59	
Styrene	1.0 U	1.0	1	06/26/18 14:59	
Tetrachloroethene (PCE)	1.0 U	1.0	1	06/26/18 14:59	
Toluene	1.0 U	1.0	1	06/26/18 14:59	
Trichloroethene (TCE)	1.0 U	1.0	1	06/26/18 14:59	
Vinyl Chloride	1.0 U	1.0	1	06/26/18 14:59	
cis-1,3-Dichloropropene	1.0 U	1.0	1	06/26/18 14:59	
m,p-Xylenes	2.0 U	2.0	1	06/26/18 14:59	
o-Xylene	1.0 U	1.0	1	06/26/18 14:59	
trans-1,3-Dichloropropene	1.0 U	1.0	1	06/26/18 14:59	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Trip Blank
Lab Code: R1805745-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/26/18 14:59	
Dibromofluoromethane	92	89 - 119	06/26/18 14:59	
Toluene-d8	98	87 - 121	06/26/18 14:59	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:37
Date Received: 06/20/18 15:21

Sample Name: MW-1B
Lab Code: R1805745-014

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 18:20	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 18:20	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 18:20	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 18:20	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 18:20	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 18:20	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 18:20	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 18:20	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 18:20	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 18:20	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 18:20	
Acetone	5.0 U	5.0	2.1	1	06/26/18 18:20	
Benzene	1.0 U	1.0	0.20	1	06/26/18 18:20	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 18:20	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 18:20	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 18:20	
Carbon Disulfide	0.34 J	1.0	0.31	1	06/26/18 18:20	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 18:20	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 18:20	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 18:20	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 18:20	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 18:20	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 18:20	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 18:20	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 18:20	
Styrene	1.0 U	1.0	0.20	1	06/26/18 18:20	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 18:20	
Toluene	1.0 U	1.0	0.20	1	06/26/18 18:20	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 18:20	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 18:20	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 18:20	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 18:20	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 18:20	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 18:20	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:37
Date Received: 06/20/18 15:21

Sample Name: MW-1B
Lab Code: R1805745-014

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	85 - 122	06/26/18 18:20	
Dibromofluoromethane	92	89 - 119	06/26/18 18:20	
Toluene-d8	96	87 - 121	06/26/18 18:20	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:55
Date Received: 06/20/18 15:21

Sample Name: MW-3B
Lab Code: R1805745-015

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 18:42	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 18:42	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 18:42	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 18:42	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 18:42	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 18:42	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 18:42	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 18:42	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 18:42	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 18:42	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 18:42	
Acetone	5.0 U	5.0	2.1	1	06/26/18 18:42	
Benzene	1.0 U	1.0	0.20	1	06/26/18 18:42	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 18:42	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 18:42	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 18:42	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 18:42	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 18:42	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 18:42	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 18:42	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 18:42	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 18:42	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 18:42	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 18:42	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 18:42	
Styrene	1.0 U	1.0	0.20	1	06/26/18 18:42	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 18:42	
Toluene	1.0 U	1.0	0.20	1	06/26/18 18:42	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 18:42	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 18:42	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 18:42	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 18:42	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 18:42	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 18:42	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:55
Date Received: 06/20/18 15:21

Sample Name: MW-3B
Lab Code: R1805745-015

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	06/26/18 18:42	
Dibromofluoromethane	92	89 - 119	06/26/18 18:42	
Toluene-d8	97	87 - 121	06/26/18 18:42	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:25
Date Received: 06/20/18 15:21

Sample Name: MW-10B
Lab Code: R1805745-016

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 19:04	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 19:04	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 19:04	
1,1-Dichloroethane (1,1-DCA)	1.7	1.0	0.20	1	06/26/18 19:04	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 19:04	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 19:04	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 19:04	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 19:04	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 19:04	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 19:04	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 19:04	
Acetone	5.0 U	5.0	2.1	1	06/26/18 19:04	
Benzene	1.0 U	1.0	0.20	1	06/26/18 19:04	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 19:04	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 19:04	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 19:04	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 19:04	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 19:04	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 19:04	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 19:04	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 19:04	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 19:04	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 19:04	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/26/18 19:04	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 19:04	
Styrene	1.0 U	1.0	0.20	1	06/26/18 19:04	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 19:04	
Toluene	1.0 U	1.0	0.20	1	06/26/18 19:04	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 19:04	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 19:04	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 19:04	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 19:04	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 19:04	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 19:04	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:25
Date Received: 06/20/18 15:21

Sample Name: MW-10B
Lab Code: R1805745-016

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	06/26/18 19:04	
Dibromofluoromethane	94	89 - 119	06/26/18 19:04	
Toluene-d8	99	87 - 121	06/26/18 19:04	



Volatile Organic Compounds by GC

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:19
Date Received: 06/20/18 15:21

Sample Name: MW-1
Lab Code: R1805745-001

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	150 D	2.6	2.5	06/27/18 13:50	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Dupe-1
Lab Code: R1805745-002

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	140 D	2.6	2.5	06/27/18 14:21	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:12
Date Received: 06/20/18 15:21

Sample Name: MW-2
Lab Code: R1805745-003

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1300	21	20	06/27/18 14:31	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:00
Date Received: 06/20/18 15:21

Sample Name: MW-3
Lab Code: R1805745-004

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/27/18 14:42	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:19
Date Received: 06/20/18 15:21

Sample Name: MW-4
Lab Code: R1805745-005

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/27/18 14:56	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:29
Date Received: 06/20/18 15:21

Sample Name: MW-4B
Lab Code: R1805745-006

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	7.8	1.1	1	06/27/18 15:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:22
Date Received: 06/20/18 15:21

Sample Name: MW-5
Lab Code: R1805745-007

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/28/18 12:47	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:47
Date Received: 06/20/18 15:21

Sample Name: MW-9
Lab Code: R1805745-008

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/27/18 15:17	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 11:58
Date Received: 06/20/18 15:21

Sample Name: MW-9B
Lab Code: R1805745-009

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	6.3	1.1	1	06/27/18 15:28	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:14
Date Received: 06/20/18 15:21

Sample Name: MW-10
Lab Code: R1805745-010

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	3.9	1.1	1	06/27/18 15:38	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 08:42
Date Received: 06/20/18 15:21

Sample Name: MW-11
Lab Code: R1805745-011

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	65	1.1	1	06/27/18 15:53	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:54
Date Received: 06/20/18 15:21

Sample Name: MW-11B
Lab Code: R1805745-012

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	7.1	1.1	1	06/27/18 16:04	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:37
Date Received: 06/20/18 15:21

Sample Name: MW-1B
Lab Code: R1805745-014

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	2.1	1.1	1	06/27/18 16:28	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 10:55
Date Received: 06/20/18 15:21

Sample Name: MW-3B
Lab Code: R1805745-015

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	29	1.1	1	06/27/18 16:42	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 12:25
Date Received: 06/20/18 15:21

Sample Name: MW-10B
Lab Code: R1805745-016

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	36	2.6	2.5	06/27/18 16:53	



Metals

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METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-001

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	169			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS**-1-****INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

Dupe-1

Contract: R1805745

Lab Code: _____

Case No.: _____

SAS No.: _____

SDG NO.: MW-1Matrix (soil/water): WATERLab Sample ID: R1805745-002Level (low/med): LOWDate Received: 6/20/2018Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	171			P

Color Before: COLORLESSClarity Before: CLEAR

Texture: _____

Color After: COLORLESSClarity After: CLEAR

Artifacts: _____

Comments: _____

METALS**-1-****INORGANIC ANALYSIS DATA SHEET****SAMPLE NO.****MW-2****Contract:** R1805745**Lab Code:** _____**Case No.:** _____**SAS No.:** _____**SDG NO.:** MW-1**Matrix (soil/water):** WATER**Lab Sample ID:** R1805745-003**Level (low/med):** LOW**Date Received:** 6/20/2018**Concentration Units (ug/L or mg/kg dry weight):** UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	2300			P
7439-96-5	Manganese	1790			P

Color Before: COLORLESS**Clarity Before:** CLEAR**Texture:** _____**Color After:** COLORLESS**Clarity After:** CLEAR**Artifacts:** _____**Comments:** _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-004

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	25.1			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-005

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	10.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-4B

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-006

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	98.3			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-5

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-007

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	10.0	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-9

Contract: R1805745

Lab Code: _____

Case No.: _____

SAS No.: _____

SDG NO.: MW-1

Matrix (soil/water): WATER

Lab Sample ID: R1805745-008

Level (low/med): LOW

Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	37.3			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-9BContract: **R1805745**Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: **MW-1**Matrix (soil/water): **WATER** Lab Sample ID: **R1805745-009**Level (low/med): **LOW** Date Received: **6/20/2018**Concentration Units (ug/L or mg/kg dry weight): **UG/L**

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	29.1			P

Color Before: **COLORLESS** Clarity Before: **CLEAR** Texture: _____Color After: **COLORLESS** Clarity After: **CLEAR** Artifacts: _____Comments: _____

METALS**-1-****INORGANIC ANALYSIS DATA SHEET**

SAMPLE NO.

MW-10

Contract: R1805745

Lab Code:

Case No.:

SAS No.:

SDG NO.:

MW-1

Matrix (soil/water): WATER

Lab Sample ID: R1805745-010

Level (low/med): LOW

Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	1300			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

METALS**-1-****INORGANIC ANALYSIS DATA SHEET****SAMPLE NO.****MW-11****Contract:** R1805745**Lab Code:** _____**Case No.:** _____**SAS No.:** _____**SDG NO.:** MW-1**Matrix (soil/water):** WATER**Lab Sample ID:** R1805745-011**Level (low/med):** LOW**Date Received:** 6/20/2018**Concentration Units (ug/L or mg/kg dry weight):** UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	116			P

Color Before: COLORLESS**Clarity Before:** CLEAR**Texture:** _____**Color After:** COLORLESS**Clarity After:** CLEAR**Artifacts:** _____**Comments:** _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-11B

Contract: R1805745

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-012

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	10.8			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-1B

Contract: R1805745

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-014

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	239			P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-3B

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-015

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	159			P
7439-96-5	Manganese	60.8			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

MW-10B

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Lab Sample ID: R1805745-016

Level (low/med): LOW Date Received: 6/20/2018

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	100	U		P
7439-96-5	Manganese	65.7			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:



General Chemistry

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-1
Lab Code: R1805745-001

Service Request: R1805745
Date Collected: 06/20/18 08:19
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:41	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:41	
Sulfate	300.0	44.0	mg/L	2.0	10	06/21/18 10:41	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18 15:21

Sample Name: Dupe-1
Lab Code: R1805745-002

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:47	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:47	
Sulfate	300.0	44.2	mg/L	2.0	10	06/21/18 10:47	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-2
Lab Code: R1805745-003

Service Request: R1805745
Date Collected: 06/20/18 09:12
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:53	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:53	
Sulfate	300.0	38.9	mg/L	2.0	10	06/21/18 10:53	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-3
Lab Code: R1805745-004

Service Request: R1805745
Date Collected: 06/20/18 11:00
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:59	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 10:59	
Sulfate	300.0	114	mg/L	8.0	40	06/21/18 14:27	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-4
Lab Code: R1805745-005

Service Request: R1805745
Date Collected: 06/20/18 11:19
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:05	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:05	
Sulfate	300.0	18.9	mg/L	2.0	10	06/21/18 11:05	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-4B
Lab Code: R1805745-006

Service Request: R1805745
Date Collected: 06/20/18 11:29
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:11	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:11	
Sulfate	300.0	1150	mg/L	40	200	06/26/18 22:12	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-5
Lab Code: R1805745-007

Service Request: R1805745
Date Collected: 06/20/18 10:22
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	3.0	mg/L	1.0	10	06/21/18 11:41	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:41	
Sulfate	300.0	50.7	mg/L	2.0	10	06/21/18 11:41	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water
Sample Name: MW-9
Lab Code: R1805745-008

Service Request: R1805745
Date Collected: 06/20/18 11:47
Date Received: 06/20/18 15:21
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	2.5	mg/L	1.0	10	06/21/18 11:58	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 11:58	
Sulfate	300.0	52.3	mg/L	2.0	10	06/21/18 11:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-9B
Lab Code: R1805745-009

Service Request: R1805745
Date Collected: 06/20/18 11:58
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:04	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:04	
Sulfate	300.0	656	mg/L	20	100	06/21/18 14:57	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-10
Lab Code: R1805745-010

Service Request: R1805745
Date Collected: 06/20/18 12:14
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	2.4	mg/L	1.0	10	06/21/18 12:10	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:10	
Sulfate	300.0	50.0	mg/L	2.0	10	06/21/18 12:10	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-11
Lab Code: R1805745-011

Service Request: R1805745
Date Collected: 06/20/18 08:42
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:16	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:16	
Sulfate	300.0	76.3	mg/L	2.0	10	06/21/18 12:16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18 09:54
Date Received: 06/20/18 15:21

Sample Name: MW-11B
Lab Code: R1805745-012

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:22	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:22	
Sulfate	300.0	88.0	mg/L	2.0	10	06/21/18 12:22	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-1B
Lab Code: R1805745-014

Service Request: R1805745
Date Collected: 06/20/18 10:37
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:27	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:27	
Sulfate	300.0	1200	mg/L	40	200	06/21/18 15:03	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-3B
Lab Code: R1805745-015

Service Request: R1805745
Date Collected: 06/20/18 10:55
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:45	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:45	
Sulfate	300.0	38.5	mg/L	2.0	10	06/21/18 12:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: MW-10B
Lab Code: R1805745-016

Service Request: R1805745
Date Collected: 06/20/18 12:25
Date Received: 06/20/18 15:21

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:51	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/21/18 12:51	
Sulfate	300.0	85.7	mg/L	2.0	10	06/21/18 12:51	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
MW-1	R1805745-001	85	93	96
Dupe-1	R1805745-002	86	92	97
MW-2	R1805745-003	86	92	95
MW-3	R1805745-004	86	92	96
MW-4	R1805745-005	85	91	96
MW-4B	R1805745-006	85	91	97
MW-5	R1805745-007	86	92	96
MW-9	R1805745-008	96	103	102
MW-9B	R1805745-009	87	93	96
MW-10	R1805745-010	85	90	95
MW-11	R1805745-011	85	94	99
MW-11B	R1805745-012	89	92	98
Trip Blank	R1805745-013	86	92	98
MW-1B	R1805745-014	87	92	96
MW-3B	R1805745-015	86	92	97
MW-10B	R1805745-016	88	94	99
Method Blank	RQ1806295-04	87	90	97
Method Blank	RQ1806316-04	88	93	97
Method Blank	RQ1806456-04	97	98	102
Lab Control Sample	RQ1806295-03	92	95	98
Lab Control Sample	RQ1806316-03	90	97	98
Lab Control Sample	RQ1806456-03	100	104	103
MW-5 MS	RQ1806295-05	90	95	97
MW-5 DMS	RQ1806295-06	92	97	97

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18
Date Analyzed: 06/25/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-5
Lab Code: R1805745-007
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ1806295-05				Duplicate Matrix Spike RQ1806295-06				RPD Limit	
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	Limit
1,1,1-Trichloroethane (TCA)	1.0 U	56.3	50.0	113	55.6	50.0	111	74-127	1	30
1,1,2,2-Tetrachloroethane	1.0 U	60.6	50.0	121	60.0	50.0	120	72-122	<1	30
1,1,2-Trichloroethane	1.0 U	52.4	50.0	105	50.8	50.0	102	82-121	3	30
1,1-Dichloroethane (1,1-DCA)	1.0 U	59.9	50.0	120	59.4	50.0	119	74-132	<1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	58.7	50.0	117	58.6	50.0	117	71-118	<1	30
1,2-Dichloroethane	1.0 U	53.2	50.0	106	52.1	50.0	104	68-130	2	30
1,2-Dichloropropane	1.0 U	57.1	50.0	114	53.6	50.0	107	79-124	6	30
2-Butanone (MEK)	5.0 U	48.9	50.0	98	49.6	50.0	99	61-137	1	30
2-Hexanone	5.0 U	49.2	50.0	98	48.7	50.0	97	56-132	<1	30
4-Methyl-2-pentanone	5.0 U	50.4	50.0	101	51.5	50.0	103	60-141	2	30
Acetone	2.5 J	43.4	50.0	82	45.4	50.0	86	35-183	4	30
Benzene	1.0 U	56.8	50.0	114	54.8	50.0	110	76-129	3	30
Bromodichloromethane	1.0 U	53.6	50.0	107	52.7	50.0	105	78-133	2	30
Bromoform	1.0 U	47.9	50.0	96	47.6	50.0	95	58-133	<1	30
Bromomethane	1.0 U	53.4	50.0	107	52.2	50.0	104	10-184	2	30
Carbon Disulfide	1.0 U	55.8	50.0	112	58.2	50.0	116	59-140	4	30
Carbon Tetrachloride	1.0 U	54.2	50.0	108	54.0	50.0	108	65-135	<1	30
Chlorobenzene	1.0 U	52.2	50.0	104	50.9	50.0	102	76-125	3	30
Chloroethane	1.0 U	50.3	50.0	101	47.8	50.0	96	48-146	5	30
Chloroform	1.0 U	59.7	50.0	119	58.0	50.0	116	75-130	3	30
Chloromethane (Methyl Chloride)	1.0 U	53.3	50.0	107	52.3	50.0	105	55-160	2	30
Dibromochloromethane	1.0 U	49.9	50.0	100	50.5	50.0	101	72-128	1	30
Dichloromethane (Methylene Chloride)	1.0 U	53.2	50.0	106	51.8	50.0	104	73-122	3	30
Ethylbenzene	1.0 U	55.0	50.0	110	53.5	50.0	107	72-134	3	30
Styrene	1.0 U	55.7	50.0	111	53.3	50.0	107	74-136	4	30
Tetrachloroethene (PCE)	1.0 U	51.6	50.0	103	50.5	50.0	101	72-125	2	30
Toluene	1.0 U	56.3	50.0	113	54.4	50.0	109	79-119	4	30
Trichloroethene (TCE)	1.0 U	50.4	50.0	101	48.6	50.0	97	74-122	4	30
Vinyl Chloride	1.0 U	61.3	50.0	123	60.2	50.0	120	74-159	2	30
cis-1,3-Dichloropropene	1.0 U	52.2	50.0	104	51.7	50.0	103	52-134	1	30
m,p-Xylenes	2.0 U	112	100	112	109	100	109	80-126	3	30
o-Xylene	1.0 U	55.5	50.0	111	53.8	50.0	108	79-123	3	30
trans-1,3-Dichloropropene	1.0 U	48.2	50.0	96	47.7	50.0	95	71-133	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806295-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/25/18 11:17	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/25/18 11:17	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/25/18 11:17	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/25/18 11:17	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/25/18 11:17	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/25/18 11:17	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/25/18 11:17	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/25/18 11:17	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/25/18 11:17	
2-Hexanone	5.0 U	5.0	0.34	1	06/25/18 11:17	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/25/18 11:17	
Acetone	5.0 U	5.0	2.1	1	06/25/18 11:17	
Benzene	1.0 U	1.0	0.20	1	06/25/18 11:17	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/25/18 11:17	
Bromoform	1.0 U	1.0	0.36	1	06/25/18 11:17	
Bromomethane	1.0 U	1.0	0.70	1	06/25/18 11:17	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/25/18 11:17	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/25/18 11:17	
Chlorobenzene	1.0 U	1.0	0.20	1	06/25/18 11:17	
Chloroethane	1.0 U	1.0	0.23	1	06/25/18 11:17	
Chloroform	1.0 U	1.0	0.28	1	06/25/18 11:17	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/25/18 11:17	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/25/18 11:17	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/25/18 11:17	
Ethylbenzene	1.0 U	1.0	0.20	1	06/25/18 11:17	
Styrene	1.0 U	1.0	0.20	1	06/25/18 11:17	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/25/18 11:17	
Toluene	1.0 U	1.0	0.20	1	06/25/18 11:17	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/25/18 11:17	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/25/18 11:17	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 11:17	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/25/18 11:17	
o-Xylene	1.0 U	1.0	0.20	1	06/25/18 11:17	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/25/18 11:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806295-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	85 - 122	06/25/18 11:17	
Dibromofluoromethane	90	89 - 119	06/25/18 11:17	
Toluene-d8	97	87 - 121	06/25/18 11:17	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806316-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/26/18 12:56	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/26/18 12:56	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/26/18 12:56	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/26/18 12:56	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/26/18 12:56	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/26/18 12:56	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/26/18 12:56	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/26/18 12:56	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/26/18 12:56	
2-Hexanone	5.0 U	5.0	0.34	1	06/26/18 12:56	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/26/18 12:56	
Acetone	5.0 U	5.0	2.1	1	06/26/18 12:56	
Benzene	1.0 U	1.0	0.20	1	06/26/18 12:56	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/26/18 12:56	
Bromoform	1.0 U	1.0	0.36	1	06/26/18 12:56	
Bromomethane	1.0 U	1.0	0.70	1	06/26/18 12:56	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/26/18 12:56	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/26/18 12:56	
Chlorobenzene	1.0 U	1.0	0.20	1	06/26/18 12:56	
Chloroethane	1.0 U	1.0	0.23	1	06/26/18 12:56	
Chloroform	1.0 U	1.0	0.28	1	06/26/18 12:56	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/26/18 12:56	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/26/18 12:56	
Dichloromethane (Methylene Chloride)	0.51 J	1.0	0.47	1	06/26/18 12:56	
Ethylbenzene	1.0 U	1.0	0.20	1	06/26/18 12:56	
Styrene	1.0 U	1.0	0.20	1	06/26/18 12:56	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/26/18 12:56	
Toluene	1.0 U	1.0	0.20	1	06/26/18 12:56	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/26/18 12:56	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/26/18 12:56	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 12:56	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/26/18 12:56	
o-Xylene	1.0 U	1.0	0.20	1	06/26/18 12:56	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/26/18 12:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806316-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	06/26/18 12:56	
Dibromofluoromethane	93	89 - 119	06/26/18 12:56	
Toluene-d8	97	87 - 121	06/26/18 12:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806456-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	06/27/18 12:35	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	06/27/18 12:35	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	06/27/18 12:35	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	06/27/18 12:35	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	06/27/18 12:35	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	06/27/18 12:35	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	06/27/18 12:35	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	06/27/18 12:35	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	06/27/18 12:35	
2-Hexanone	5.0 U	5.0	0.34	1	06/27/18 12:35	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	06/27/18 12:35	
Acetone	5.0 U	5.0	2.1	1	06/27/18 12:35	
Benzene	1.0 U	1.0	0.20	1	06/27/18 12:35	
Bromodichloromethane	1.0 U	1.0	0.31	1	06/27/18 12:35	
Bromoform	1.0 U	1.0	0.36	1	06/27/18 12:35	
Bromomethane	1.0 U	1.0	0.70	1	06/27/18 12:35	
Carbon Disulfide	1.0 U	1.0	0.31	1	06/27/18 12:35	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	06/27/18 12:35	
Chlorobenzene	1.0 U	1.0	0.20	1	06/27/18 12:35	
Chloroethane	1.0 U	1.0	0.23	1	06/27/18 12:35	
Chloroform	1.0 U	1.0	0.28	1	06/27/18 12:35	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	06/27/18 12:35	
Dibromochloromethane	1.0 U	1.0	0.20	1	06/27/18 12:35	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	06/27/18 12:35	
Ethylbenzene	1.0 U	1.0	0.20	1	06/27/18 12:35	
Styrene	1.0 U	1.0	0.20	1	06/27/18 12:35	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	06/27/18 12:35	
Toluene	1.0 U	1.0	0.20	1	06/27/18 12:35	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	06/27/18 12:35	
Vinyl Chloride	1.0 U	1.0	0.22	1	06/27/18 12:35	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/27/18 12:35	
m,p-Xylenes	2.0 U	2.0	0.21	1	06/27/18 12:35	
o-Xylene	1.0 U	1.0	0.20	1	06/27/18 12:35	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	06/27/18 12:35	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806456-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/27/18 12:35	
Dibromofluoromethane	98	89 - 119	06/27/18 12:35	
Toluene-d8	102	87 - 121	06/27/18 12:35	

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/25/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1806295-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.3	20.0	97	75-125
1,1,2,2-Tetrachloroethane	8260C	23.5	20.0	118	78-126
1,1,2-Trichloroethane	8260C	20.1	20.0	100	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.1	20.0	106	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.5	20.0	102	71-118
1,2-Dichloroethane	8260C	19.9	20.0	99	71-127
1,2-Dichloropropane	8260C	19.9	20.0	100	80-119
2-Butanone (MEK)	8260C	18.9	20.0	94	61-137
2-Hexanone	8260C	19.3	20.0	96	63-124
4-Methyl-2-pentanone	8260C	19.6	20.0	98	66-124
Acetone	8260C	16.9	20.0	84	40-161
Benzene	8260C	20.3	20.0	101	79-119
Bromodichloromethane	8260C	20.1	20.0	101	81-123
Bromoform	8260C	20.0	20.0	100	65-146
Bromomethane	8260C	15.0	20.0	75	42-166
Carbon Disulfide	8260C	21.7	20.0	108	66-128
Carbon Tetrachloride	8260C	19.7	20.0	99	70-127
Chlorobenzene	8260C	19.1	20.0	96	80-121
Chloroethane	8260C	16.5	20.0	83	62-131
Chloroform	8260C	21.3	20.0	107	79-120
Chloromethane (Methyl Chloride)	8260C	18.3	20.0	91	65-135
Dibromochloromethane	8260C	20.4	20.0	102	72-128
Dichloromethane (Methylene Chloride)	8260C	19.2	20.0	96	73-122
Ethylbenzene	8260C	19.8	20.0	99	76-120
Styrene	8260C	19.6	20.0	98	80-124
Tetrachloroethene (PCE)	8260C	18.7	20.0	94	72-125
Toluene	8260C	19.8	20.0	99	79-119
Trichloroethene (TCE)	8260C	18.3	20.0	92	74-122
Vinyl Chloride	8260C	20.9	20.0	104	74-159
cis-1,3-Dichloropropene	8260C	18.8	20.0	94	77-122
m,p-Xylenes	8260C	38.4	40.0	96	80-126
o-Xylene	8260C	19.5	20.0	97	79-123
trans-1,3-Dichloropropene	8260C	18.7	20.0	93	71-133

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/26/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1806316-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.3	20.0	101	75-125
1,1,2,2-Tetrachloroethane	8260C	23.8	20.0	119	78-126
1,1,2-Trichloroethane	8260C	20.7	20.0	104	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	22.1	20.0	110	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	21.1	20.0	105	71-118
1,2-Dichloroethane	8260C	20.5	20.0	103	71-127
1,2-Dichloropropane	8260C	21.0	20.0	105	80-119
2-Butanone (MEK)	8260C	18.6	20.0	93	61-137
2-Hexanone	8260C	18.9	20.0	95	63-124
4-Methyl-2-pentanone	8260C	19.2	20.0	96	66-124
Acetone	8260C	17.8	20.0	89	40-161
Benzene	8260C	20.9	20.0	105	79-119
Bromodichloromethane	8260C	20.7	20.0	103	81-123
Bromoform	8260C	19.7	20.0	99	65-146
Bromomethane	8260C	15.7	20.0	78	42-166
Carbon Disulfide	8260C	22.2	20.0	111	66-128
Carbon Tetrachloride	8260C	20.1	20.0	100	70-127
Chlorobenzene	8260C	19.6	20.0	98	80-121
Chloroethane	8260C	17.5	20.0	88	62-131
Chloroform	8260C	21.8	20.0	109	79-120
Chloromethane (Methyl Chloride)	8260C	19.6	20.0	98	65-135
Dibromochloromethane	8260C	21.2	20.0	106	72-128
Dichloromethane (Methylene Chloride)	8260C	20.5	20.0	103	73-122
Ethylbenzene	8260C	20.2	20.0	101	76-120
Styrene	8260C	20.0	20.0	100	80-124
Tetrachloroethene (PCE)	8260C	19.3	20.0	96	72-125
Toluene	8260C	20.2	20.0	101	79-119
Trichloroethene (TCE)	8260C	19.0	20.0	95	74-122
Vinyl Chloride	8260C	22.1	20.0	110	74-159
cis-1,3-Dichloropropene	8260C	19.6	20.0	98	77-122
m,p-Xylenes	8260C	40.3	40.0	101	80-126
o-Xylene	8260C	20.1	20.0	101	79-123
trans-1,3-Dichloropropene	8260C	19.1	20.0	96	71-133

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/27/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1806456-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.5	20.0	97	75-125
1,1,2,2-Tetrachloroethane	8260C	16.9	20.0	84	78-126
1,1,2-Trichloroethane	8260C	19.0	20.0	95	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.1	20.0	90	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	17.8	20.0	89	71-118
1,2-Dichloroethane	8260C	20.5	20.0	102	71-127
1,2-Dichloropropane	8260C	18.3	20.0	91	80-119
2-Butanone (MEK)	8260C	16.5	20.0	83	61-137
2-Hexanone	8260C	17.6	20.0	88	63-124
4-Methyl-2-pentanone	8260C	18.8	20.0	94	66-124
Acetone	8260C	14.9	20.0	75	40-161
Benzene	8260C	17.9	20.0	90	79-119
Bromodichloromethane	8260C	19.2	20.0	96	81-123
Bromoform	8260C	18.5	20.0	93	65-146
Bromomethane	8260C	19.0	20.0	95	42-166
Carbon Disulfide	8260C	19.7	20.0	99	66-128
Carbon Tetrachloride	8260C	18.6	20.0	93	70-127
Chlorobenzene	8260C	16.5	20.0	82	80-121
Chloroethane	8260C	15.1	20.0	76	62-131
Chloroform	8260C	18.6	20.0	93	79-120
Chloromethane (Methyl Chloride)	8260C	17.3	20.0	87	65-135
Dibromochloromethane	8260C	19.8	20.0	99	72-128
Dichloromethane (Methylene Chloride)	8260C	17.3	20.0	86	73-122
Ethylbenzene	8260C	17.1	20.0	85	76-120
Styrene	8260C	17.7	20.0	88	80-124
Tetrachloroethene (PCE)	8260C	15.5	20.0	78	72-125
Toluene	8260C	18.0	20.0	90	79-119
Trichloroethene (TCE)	8260C	18.6	20.0	93	74-122
Vinyl Chloride	8260C	17.7	20.0	88	74-159
cis-1,3-Dichloropropene	8260C	19.8	20.0	99	77-122
m,p-Xylenes	8260C	33.4	40.0	84	80-126
o-Xylene	8260C	16.4	20.0	82	79-123
trans-1,3-Dichloropropene	8260C	20.1	20.0	101	71-133



Volatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18
Date Analyzed: 06/28/18

Duplicate Matrix Spike Summary
Dissolved Gases by GC/FID

Sample Name: MW-5
Lab Code: R1805745-007
Analysis Method: RSK 175

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike RQ1806567-08		Result	Duplicate Matrix Spike RQ1806567-09		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Methane	1.1 U	26.5	26.2	101	25.9	26.2	99	46-143	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806468-01

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/27/18 11:16	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1806567-01

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	06/28/18 10:50	

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/27/18

Duplicate Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1806468-02

Duplicate Lab Control Sample

RQ1806468-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methane	RSK 175	29.3	26.2	112	28.8	26.2	110	75-128	2	20

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/28/18

Duplicate Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1806567-02

Duplicate Lab Control Sample

RQ1806567-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methane	RSK 175	28.3	26.2	108	29.6	26.2	113	75-128	4	20



Metals

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METALS
-3-
BLANKS

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L		Continuing Calibration Blank ug/L						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Iron	100.00	U	100.00	U	100.00	U	100.00	U	100.000	U	P
Manganese	10.00	U	10.00	U	10.00	U	10.00	U	10.000	U	P

Comments:

METALS

-3-

BLANKS

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Iron		100.00	100.00	100.00	U	U	U			P
Manganese		10.00	10.00	10.00	U	U	U			P

Comments:

METALS

-3-

BLANKS

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Iron		100.00								P
Manganese		10.00								P

Comments:

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-5S

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Iron	70 - 130	1010.00	100.00 U	1000.0	101		P
Manganese	70 - 130	507.00	10.00 U	500.0	101		P

Comments:

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

MW-5SD

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Iron	70 - 130	1010.00	100.00 U	1000.0	101		P
Manganese	70 - 130	507.00	10.00 U	500.0	101		P

Comments:

METALS
-6-
DUPLICATES

SAMPLE NO.

MW-5SD

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)C	Duplicate (D)C	RPD	Q	M
Iron		1010.00	1010.00	0		P
Manganese		507.00	507.00	0		P

Comments:

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1805745

Lab Code: Case No.: SAS No.: SDG NO.: MW-1

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K					
	True	Found	%R	True	Found	C	Limits	%R	
Iron	1000	1010	101						
Manganese	500	508	102						

Comments:



General Chemistry

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1805745-MB1

Service Request: R1805745
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/21/18 09:02	
Nitrite as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/21/18 09:02	
Sulfate	300.0	0.20 U	mg/L	0.20	1	06/21/18 09:02	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1805745-MB2

Service Request: R1805745
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/21/18 11:28	
Nitrite as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/21/18 11:28	
Sulfate	300.0	0.20 U	mg/L	0.20	1	06/21/18 11:28	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1805745-MB3

Service Request: R1805745
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Sulfate	300.0	0.20 U	mg/L	0.20	1	06/21/18 14:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1805745-MB4

Service Request: R1805745
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Sulfate	300.0	0.20 U	mg/L	0.20	1	06/26/18 20:50	

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Collected: 06/20/18
Date Received: 06/20/18
Date Analyzed: 6/21/18

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-5 **Units:** mg/L
Lab Code: R1805745-007 **Basis:** NA

Matrix Spike R1805745-007MS						Duplicate Matrix Spike R1805745-007DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	3.0	12.8	10.0	98	12.8	10.0	98	90-110	<1	20
Sulfate	300.0	50.7	70.1	20.0	97	70.5	20.0	99	90-110	<1	20
Nitrite as Nitrogen	300.0	1.0 U	9.4	10.0	94	9.3	10.0	93	90-110	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745**Date Analyzed:** 06/21/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805745-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrate as Nitrogen	300.0	1.01	1.00	101	90-110
Nitrite as Nitrogen	300.0	0.96	1.00	96	90-110
Sulfate	300.0	2.02	2.00	101	90-110

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/21/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805745-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrate as Nitrogen	300.0	1.01	1.00	101	90-110
Nitrite as Nitrogen	300.0	1.00	1.00	100	90-110
Sulfate	300.0	2.04	2.00	102	90-110

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/21/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805745-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	2.01	2.00	100	90-110

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.018
Sample Matrix: Water

Service Request: R1805745
Date Analyzed: 06/26/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805745-LCS4

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	2.03	2.00	101	90-110



October 22, 2018

Service Request No:R1809895

Mr. Brian McGrath
Barton & Loguidice, PC
11 Centre Park
Suite 203
Rochester, NY 14614

Laboratory Results for: Akzo Nobel

Dear Mr.McGrath,

Enclosed are the results of the sample(s) submitted to our laboratory October 11, 2018
For your reference, these analyses have been assigned our service request number **R1809895**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Barton & Loguidice, DPC
Project: Akzo Nobel
Sample Matrix: Water

Service Request: R1809895
Date Received: 10/11/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Thirteen water samples were received for analysis at ALS Environmental on 10/11/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 0 to 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature. If any samples were received for the analysis of pH, chlorine residual, sulfite, or dissolved oxygen, the samples were analyzed past their holding time expiration since these analyses are required to be analyzed within 15 minutes of sampling.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 10/17/2018: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "Brady Kullen".

Approved by _____

Date 10/22/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-1	Lab ID: R1809895-001
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	33.6		0.2	2.0	mg/L	300.0
Manganese, Dissolved	33		2	10	ug/L	200.7
1,2-Dichloroethane	0.31	J	0.20	1.0	ug/L	8260C
1,2-Dichloroethene, Total	0.62	J	0.35	2.0	ug/L	8260C
Acetone	5.4		2.1	5.0	ug/L	8260C
Carbon Disulfide	0.63	BJ	0.31	1.0	ug/L	8260C
Trichloroethene (TCE)	0.29	J	0.20	1.0	ug/L	8260C
Methane, Dissolved	17		0.50	1.1	ug/L	RSK 175

CLIENT ID: DUPE-X	Lab ID: R1809895-002
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	33.9		0.2	2.0	mg/L	300.0
Manganese, Dissolved	33		2	10	ug/L	200.7
1,2-Dichloroethane	0.35	J	0.20	1.0	ug/L	8260C
1,2-Dichloroethene, Total	0.54	J	0.35	2.0	ug/L	8260C
Carbon Disulfide	0.58	BJ	0.31	1.0	ug/L	8260C
Chlorobenzene	0.20	J	0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	0.23	J	0.20	1.0	ug/L	8260C
Methane, Dissolved	16		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-2	Lab ID: R1809895-003
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	71.7		0.2	2.0	mg/L	300.0
Iron, Dissolved	830		20	100	ug/L	200.7
Manganese, Dissolved	1150		2	10	ug/L	200.7
Carbon Disulfide	0.49	BJ	0.31	1.0	ug/L	8260C
Chlorobenzene	0.72	J	0.20	1.0	ug/L	8260C
Chloroethane	1.8		0.23	1.0	ug/L	8260C
Methane, Dissolved	1600		10	21	ug/L	RSK 175

CLIENT ID: MW-3	Lab ID: R1809895-004
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	104		0.8	8.0	mg/L	300.0
Carbon Disulfide	0.41	BJ	0.31	1.0	ug/L	8260C

CLIENT ID: MW-4	Lab ID: R1809895-005
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	50.4		0.2	2.0	mg/L	300.0
Manganese, Dissolved	28		2	10	ug/L	200.7
Acetone	2.3	J	2.1	5.0	ug/L	8260C
Methane, Dissolved	1.5		0.50	1.1	ug/L	RSK 175

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-4B	Lab ID: R1809895-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	672		4	40	mg/L	300.0
Manganese, Dissolved	71		2	10	ug/L	200.7
Carbon Disulfide	0.32	BJ	0.31	1.0	ug/L	8260C
Methane, Dissolved	4.3		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-5	Lab ID: R1809895-007
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	65.8		0.2	2.0	mg/L	300.0
Manganese, Dissolved	27		2	10	ug/L	200.7
Acetone	18		2.1	5.0	ug/L	8260C
Methane, Dissolved	1.4		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-9	Lab ID: R1809895-008
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate as Nitrogen	2.2		0.04	1.0	mg/L	300.0
Sulfate	55.1		0.2	2.0	mg/L	300.0
1,1,1-Trichloroethane (TCA)	4.2		0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.42	J	0.20	1.0	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	0.36	J	0.28	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.61	J	0.28	1.0	ug/L	8260C
Trichloroethene (TCE)	0.40	J	0.20	1.0	ug/L	8260C
Methane, Dissolved	1.3		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-9B	Lab ID: R1809895-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	620		2	20	mg/L	300.0
Manganese, Dissolved	31		2	10	ug/L	200.7
Methane, Dissolved	4.7		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-10	Lab ID: R1809895-010
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Nitrate as Nitrogen	1.2		0.04	1.0	mg/L	300.0
Sulfate	51.3		0.2	2.0	mg/L	300.0
Manganese, Dissolved	1100		2	10	ug/L	200.7
1,1,1-Trichloroethane (TCA)	0.47	J	0.25	1.0	ug/L	8260C
Methane, Dissolved	1.3		0.50	1.1	ug/L	RSK 175

CLIENT ID: MW-11	Lab ID: R1809895-011
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	81.7		0.2	2.0	mg/L	300.0
Manganese, Dissolved	105		2	10	ug/L	200.7
1,1-Dichloroethane (1,1-DCA)	1.7		0.20	1.0	ug/L	8260C
Methane, Dissolved	14		0.50	1.1	ug/L	RSK 175

SAMPLE DETECTION SUMMARY**CLIENT ID: MW-11B****Lab ID: R1809895-012**

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	168		0.8	8.0	mg/L	300.0
Acetone	2.7	J	2.1	5.0	ug/L	8260C
Methane, Dissolved	5.7		0.50	1.1	ug/L	RSK 175



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001

Service Request:R1809895

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1809895-001	MW-1	10/11/2018	0916
R1809895-002	DUPE-X	10/11/2018	
R1809895-003	MW-2	10/11/2018	1340
R1809895-004	MW-3	10/11/2018	1017
R1809895-005	MW-4	10/11/2018	1054
R1809895-006	MW-4B	10/11/2018	1103
R1809895-007	MW-5	10/11/2018	0951
R1809895-008	MW-9	10/11/2018	1248
R1809895-009	MW-9B	10/11/2018	1259
R1809895-010	MW-10	10/11/2018	1323
R1809895-011	MW-11	10/11/2018	1127
R1809895-012	MW-11B	10/11/2018	1136
R1809895-013	Trip Blank	10/11/2018	



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

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SR#

003, 004, 006, 007, 009, 010, 011,
012, 013, 014, 016, 017, 018

T050691

Project Name: Akzo Nobel		NUMBER OF CONTAINERS	48H	14D	28D	180D	Remarks
Project Number: 1398.003.001			300.0 / NO2	300.0 / NO3	8260C / VOC FP	RSK 175 / Gases	
Company / Address Barton & Loguidice, PC 11 Centre Park Suite 203 Rochester NY, 14614			300.0 / SO4	200.7 / Fe D	200.7 / Mn D		
Phone # 585-325-7190							
FAX #							
Sampler Signature <i>[Signature]</i>		Sampler Printed Name Grant Young / Brian T. H. H.					

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix										
MW-1		10/11/18 0916	Liquid	8	X	X	X	X	X	X	X	X	
Dupe-X			Liquid	8	X	X	X	X	X	X	X	X	
MW-2		1340	Liquid	8	X	X	X	X	X	X	X	X	
MW-3		1017	Liquid	8	X	X	X	X	X	X	X	X	
MW-4		1054	Liquid	8	X	X	X	X	X	X	X	X	
MW-4B		1103	Liquid	8	X	X	X	X	X	X	X	X	
MW-5		0951	Liquid	8	X	X	X	X	X	X	X	X	
MW-9	QC	1248	Liquid	8	X	X	X	X	X	X	X	X	ms/msd
MW-9B		1259	Liquid	8	X	X	X	X	X	X	X	X	
MW-10		✓ 1323	Liquid	8	X	X	X	X	X	X	X	X	

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

☒ Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

- ☐ I. Results Only
☒ II. Results + QC Summaries (LCS,
DUP, MS/MSD as required)
☐ III. Results + QC and Calibration
Summaries
☐ IV. Data Validation Report
with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.#

Bill To: *B+L*

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Printed Name Grant Young	Printed Name Grant Young	Printed Name	Printed Name	Printed Name	Printed Name
Firm B+L	Firm ALS	Firm	Firm	Firm	Firm
Date/Time 10/11/18 1545	Date/Time 10/11/18 1545	Date/Time	Date/Time	Date/Time	Date/Time

R1809895
Barton & Loguidice, PC
Akzo Nobel

5





ALS Environmental

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

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SR# _____

003, 004, 006, 007, 009, 010, 011,
012, 013, 014, 016, 017, 018

T050691

Project Name:
Akzo Nobel

Project Number:
1398.003.001

Report To:
Brian McGrath

Company / Address:
Barton & Loguidice, PC
11 Centre Park Suite 203
Rochester NY, 14614

Phone #:
585-325-7190

FAX #:

Sampler Signature:
Grant Young

Sampler Printed Name:
Grant Young

NUMBER OF CONTAINERS	48H		14D		28D		180D	
	300.0 / NO2	300.0 / NO3	8260C / VOC FP	RSK 175 / Gases	300.0 / SO4	200.7 / Fe D	200.7 / Mn D	

Remarks

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix										
MW-11		10/11/14 1127	Liquid	8	X	X	X	X	X	X	X	X	
MW-11B		1136	Liquid	8	X	X	X	X	X	X	X	X	
Trip Blank			Liquid	3			X						
14.			Liquid										
15.			Liquid										
16.			Liquid										
17.			Liquid										
18.			Liquid										
19.			Liquid										
20.			Liquid										

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

☒ Standard

REQUESTED FAX DATE

Requested Report Date

Report Requirements

- ___ I. Results Only
- ☒ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
- ___ III. Results + QC and Calibration Summaries
- ___ IV. Data Validation Report with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.# _____

Bill To: *B+L*

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>Grant Young</i>	Signature: <i>Grant Young</i>	Signature:	Signature:	Signature:	Signature:
Printed Name: Grant Young	Printed Name: Grant Young	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: B+L	Firm: B+L	Firm:	Firm:	Firm:	Firm:
Date/Time: 10/11/14 1545	Date/Time: 10/11/14 1545	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1809895

Barton & Loguidice, PC
Akzo Nobel

5





Cooler Receipt and Preservation Check Form

R1809895

5

Barton & Loguidice, PC
Akzo NobelProject/Client BHL Folder Number _____Cooler received on 10/11/18 by: dmCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N
2	Custody papers properly completed (ink, signed)?	☒ Y N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y N
4	Circle: We Ice Dry Ice Gel packs present?	☒ Y N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	☒ Y N NA
6	Where did the bottles originate?	ALS ROC CLIENT
7	Soil VOA received as: Bulk Encore 5035set	☒ NA

8. Temperature Readings Date: 10/11/18 Time: 1550 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>9.2</u>						
Correction Factor (°C)	<u>±0.0</u>						
Corrected Temp (°C)	<u>9.2</u>						
Temp from: Type of bottle							
Within 0-6°C?	Y ☒ N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
 & Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by dm on 10/11/18 at 1550
 5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 10/15/18 Time: 0927 by: dm

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES ☒ NO ☒ dm
 10. Did all bottle labels and tags agree with custody papers? YES ☒ NO ☒
 11. Were correct containers used for the tests indicated? YES ☒ NO ☒
 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES ☒ NO ☒
 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
<2	<u>20921K</u>	HNO ₃	☒		<u>1117090</u>	<u>9/18</u>				
<2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>4117090</u>	<u>9/19</u>				

**VOAs and 1664 Not to be tested before analysis.
 Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: R-039-004, W13312K

Explain all Discrepancies/ Other Comments:

3 vials for the trip blank

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: dm

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001

Service Request: R1809895

Sample Name: MW-1
Lab Code: R1809895-001
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSSES
KRUEST
FNAEGLER

Sample Name: DUPE-X
Lab Code: R1809895-002
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSSES
KRUEST
FNAEGLER

Sample Name: MW-2
Lab Code: R1809895-003
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method

200.7
300.0
8260C
RSK 175

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN
AMOSSES
KRUEST
FNAEGLER

Sample Name: MW-3
Lab Code: R1809895-004
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method

200.7

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001

Service Request: R1809895

Sample Name: MW-3
Lab Code: R1809895-004
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
300.0
8260C
RSK 175

Extracted/Digested By

Analyzed By
AMOSSES
KRUEST
FNAEGLER

Sample Name: MW-4
Lab Code: R1809895-005
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES
KRUEST
FNAEGLER

Sample Name: MW-4B
Lab Code: R1809895-006
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES
KRUEST
FNAEGLER

Sample Name: MW-5
Lab Code: R1809895-007
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001

Service Request: R1809895

Sample Name: MW-5
Lab Code: R1809895-007
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
8260C
RSK 175

Extracted/Digested By

Analyzed By
KRUEST
FNAEGLER

Sample Name: MW-9
Lab Code: R1809895-008
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST
FNAEGLER

Sample Name: MW-9B
Lab Code: R1809895-009
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST
FNAEGLER

Sample Name: MW-10
Lab Code: R1809895-010
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSEs
KRUEST

ALS Group USA, Corp.

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Analyst Summary report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001

Service Request: R1809895

Sample Name: MW-10
Lab Code: R1809895-010
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
RSK 175

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-11
Lab Code: R1809895-011
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSE
KRUEST
FNAEGLER

Sample Name: MW-11B
Lab Code: R1809895-012
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
200.7
300.0
8260C
RSK 175

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN
AMOSE
KRUEST
FNAEGLER

Sample Name: Trip Blank
Lab Code: R1809895-013
Sample Matrix: Water

Date Collected: 10/11/18
Date Received: 10/11/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:16
Date Received: 10/11/18 15:45

Sample Name: MW-1
Lab Code: R1809895-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/17/18 23:32	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/17/18 23:32	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/17/18 23:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/17/18 23:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/17/18 23:32	
1,2-Dichloroethane	0.31 J	1.0	0.20	1	10/17/18 23:32	
1,2-Dichloroethene, Total	0.62 J	2.0	0.35	1	10/17/18 23:32	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/17/18 23:32	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/17/18 23:32	
2-Hexanone	5.0 U	5.0	0.34	1	10/17/18 23:32	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/17/18 23:32	
Acetone	5.4	5.0	2.1	1	10/17/18 23:32	
Benzene	1.0 U	1.0	0.20	1	10/17/18 23:32	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/17/18 23:32	
Bromoform	1.0 U	1.0	0.36	1	10/17/18 23:32	
Bromomethane	1.0 U	1.0	0.70	1	10/17/18 23:32	
Carbon Disulfide	0.63 BJ	1.0	0.31	1	10/17/18 23:32	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/17/18 23:32	
Chlorobenzene	1.0 U	1.0	0.20	1	10/17/18 23:32	
Chloroethane	1.0 U	1.0	0.23	1	10/17/18 23:32	
Chloroform	1.0 U	1.0	0.28	1	10/17/18 23:32	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/17/18 23:32	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/17/18 23:32	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/17/18 23:32	
Ethylbenzene	1.0 U	1.0	0.20	1	10/17/18 23:32	
Styrene	1.0 U	1.0	0.20	1	10/17/18 23:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/17/18 23:32	
Toluene	1.0 U	1.0	0.20	1	10/17/18 23:32	
Trichloroethene (TCE)	0.29 J	1.0	0.20	1	10/17/18 23:32	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/17/18 23:32	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 23:32	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/17/18 23:32	
o-Xylene	1.0 U	1.0	0.20	1	10/17/18 23:32	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 23:32	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:16
Date Received: 10/11/18 15:45

Sample Name: MW-1
Lab Code: R1809895-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/17/18 23:32	
Dibromofluoromethane	100	89 - 119	10/17/18 23:32	
Toluene-d8	99	87 - 121	10/17/18 23:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Sample Name: DUPE-X
Lab Code: R1809895-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/17/18 23:53	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/17/18 23:53	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/17/18 23:53	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/17/18 23:53	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/17/18 23:53	
1,2-Dichloroethane	0.35 J	1.0	0.20	1	10/17/18 23:53	
1,2-Dichloroethene, Total	0.54 J	2.0	0.35	1	10/17/18 23:53	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/17/18 23:53	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/17/18 23:53	
2-Hexanone	5.0 U	5.0	0.34	1	10/17/18 23:53	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/17/18 23:53	
Acetone	5.0 U	5.0	2.1	1	10/17/18 23:53	
Benzene	1.0 U	1.0	0.20	1	10/17/18 23:53	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/17/18 23:53	
Bromoform	1.0 U	1.0	0.36	1	10/17/18 23:53	
Bromomethane	1.0 U	1.0	0.70	1	10/17/18 23:53	
Carbon Disulfide	0.58 BJ	1.0	0.31	1	10/17/18 23:53	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/17/18 23:53	
Chlorobenzene	0.20 J	1.0	0.20	1	10/17/18 23:53	
Chloroethane	1.0 U	1.0	0.23	1	10/17/18 23:53	
Chloroform	1.0 U	1.0	0.28	1	10/17/18 23:53	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/17/18 23:53	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/17/18 23:53	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/17/18 23:53	
Ethylbenzene	1.0 U	1.0	0.20	1	10/17/18 23:53	
Styrene	1.0 U	1.0	0.20	1	10/17/18 23:53	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/17/18 23:53	
Toluene	1.0 U	1.0	0.20	1	10/17/18 23:53	
Trichloroethene (TCE)	0.23 J	1.0	0.20	1	10/17/18 23:53	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/17/18 23:53	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 23:53	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/17/18 23:53	
o-Xylene	1.0 U	1.0	0.20	1	10/17/18 23:53	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 23:53	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Sample Name: DUPE-X
Lab Code: R1809895-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	10/17/18 23:53	
Dibromofluoromethane	98	89 - 119	10/17/18 23:53	
Toluene-d8	100	87 - 121	10/17/18 23:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:40
Date Received: 10/11/18 15:45

Sample Name: MW-2
Lab Code: R1809895-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 00:15	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 00:15	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 00:15	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 00:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 00:15	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 00:15	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 00:15	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 00:15	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 00:15	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 00:15	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 00:15	
Acetone	5.0 U	5.0	2.1	1	10/18/18 00:15	
Benzene	1.0 U	1.0	0.20	1	10/18/18 00:15	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 00:15	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 00:15	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 00:15	
Carbon Disulfide	0.49 BJ	1.0	0.31	1	10/18/18 00:15	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 00:15	
Chlorobenzene	0.72 J	1.0	0.20	1	10/18/18 00:15	
Chloroethane	1.8	1.0	0.23	1	10/18/18 00:15	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 00:15	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 00:15	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 00:15	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 00:15	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 00:15	
Styrene	1.0 U	1.0	0.20	1	10/18/18 00:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 00:15	
Toluene	1.0 U	1.0	0.20	1	10/18/18 00:15	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 00:15	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 00:15	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:15	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 00:15	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 00:15	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:40
Date Received: 10/11/18 15:45

Sample Name: MW-2
Lab Code: R1809895-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	10/18/18 00:15	
Dibromofluoromethane	101	89 - 119	10/18/18 00:15	
Toluene-d8	101	87 - 121	10/18/18 00:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:17
Date Received: 10/11/18 15:45

Sample Name: MW-3
Lab Code: R1809895-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 00:36	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 00:36	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 00:36	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 00:36	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 00:36	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 00:36	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 00:36	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 00:36	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 00:36	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 00:36	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 00:36	
Acetone	5.0 U	5.0	2.1	1	10/18/18 00:36	
Benzene	1.0 U	1.0	0.20	1	10/18/18 00:36	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 00:36	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 00:36	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 00:36	
Carbon Disulfide	0.41 BJ	1.0	0.31	1	10/18/18 00:36	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 00:36	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 00:36	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 00:36	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 00:36	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 00:36	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 00:36	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 00:36	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 00:36	
Styrene	1.0 U	1.0	0.20	1	10/18/18 00:36	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 00:36	
Toluene	1.0 U	1.0	0.20	1	10/18/18 00:36	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 00:36	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 00:36	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:36	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 00:36	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 00:36	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:36	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:17
Date Received: 10/11/18 15:45

Sample Name: MW-3
Lab Code: R1809895-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/18/18 00:36	
Dibromofluoromethane	101	89 - 119	10/18/18 00:36	
Toluene-d8	100	87 - 121	10/18/18 00:36	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:54
Date Received: 10/11/18 15:45

Sample Name: MW-4
Lab Code: R1809895-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 00:57	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 00:57	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 00:57	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 00:57	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 00:57	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 00:57	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 00:57	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 00:57	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 00:57	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 00:57	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 00:57	
Acetone	2.3 J	5.0	2.1	1	10/18/18 00:57	
Benzene	1.0 U	1.0	0.20	1	10/18/18 00:57	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 00:57	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 00:57	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 00:57	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 00:57	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 00:57	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 00:57	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 00:57	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 00:57	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 00:57	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 00:57	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 00:57	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 00:57	
Styrene	1.0 U	1.0	0.20	1	10/18/18 00:57	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 00:57	
Toluene	1.0 U	1.0	0.20	1	10/18/18 00:57	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 00:57	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 00:57	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:57	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 00:57	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 00:57	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 00:57	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:54
Date Received: 10/11/18 15:45

Sample Name: MW-4
Lab Code: R1809895-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/18/18 00:57	
Dibromofluoromethane	97	89 - 119	10/18/18 00:57	
Toluene-d8	97	87 - 121	10/18/18 00:57	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:03
Date Received: 10/11/18 15:45

Sample Name: MW-4B
Lab Code: R1809895-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 01:19	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 01:19	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 01:19	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 01:19	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 01:19	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 01:19	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 01:19	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 01:19	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 01:19	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 01:19	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 01:19	
Acetone	5.0 U	5.0	2.1	1	10/18/18 01:19	
Benzene	1.0 U	1.0	0.20	1	10/18/18 01:19	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 01:19	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 01:19	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 01:19	
Carbon Disulfide	0.32 BJ	1.0	0.31	1	10/18/18 01:19	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 01:19	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 01:19	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 01:19	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 01:19	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 01:19	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 01:19	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 01:19	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 01:19	
Styrene	1.0 U	1.0	0.20	1	10/18/18 01:19	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 01:19	
Toluene	1.0 U	1.0	0.20	1	10/18/18 01:19	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 01:19	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 01:19	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 01:19	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 01:19	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 01:19	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 01:19	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:03
Date Received: 10/11/18 15:45

Sample Name: MW-4B
Lab Code: R1809895-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/18/18 01:19	
Dibromofluoromethane	97	89 - 119	10/18/18 01:19	
Toluene-d8	97	87 - 121	10/18/18 01:19	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:51
Date Received: 10/11/18 15:45

Sample Name: MW-5
Lab Code: R1809895-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 01:40	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 01:40	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 01:40	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 01:40	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 01:40	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 01:40	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 01:40	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 01:40	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 01:40	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 01:40	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 01:40	
Acetone	18	5.0	2.1	1	10/18/18 01:40	
Benzene	1.0 U	1.0	0.20	1	10/18/18 01:40	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 01:40	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 01:40	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 01:40	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 01:40	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 01:40	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 01:40	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 01:40	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 01:40	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 01:40	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 01:40	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 01:40	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 01:40	
Styrene	1.0 U	1.0	0.20	1	10/18/18 01:40	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 01:40	
Toluene	1.0 U	1.0	0.20	1	10/18/18 01:40	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 01:40	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 01:40	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 01:40	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 01:40	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 01:40	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 01:40	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:51
Date Received: 10/11/18 15:45

Sample Name: MW-5
Lab Code: R1809895-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/18/18 01:40	
Dibromofluoromethane	98	89 - 119	10/18/18 01:40	
Toluene-d8	99	87 - 121	10/18/18 01:40	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:48
Date Received: 10/11/18 15:45

Sample Name: MW-9
Lab Code: R1809895-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.2	1.0	0.25	1	10/18/18 02:02	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 02:02	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 02:02	
1,1-Dichloroethane (1,1-DCA)	0.42 J	1.0	0.20	1	10/18/18 02:02	
1,1-Dichloroethene (1,1-DCE)	0.36 J	1.0	0.28	1	10/18/18 02:02	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 02:02	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 02:02	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 02:02	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 02:02	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 02:02	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 02:02	
Acetone	5.0 U	5.0	2.1	1	10/18/18 02:02	
Benzene	1.0 U	1.0	0.20	1	10/18/18 02:02	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 02:02	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 02:02	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 02:02	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 02:02	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 02:02	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 02:02	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 02:02	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 02:02	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 02:02	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 02:02	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 02:02	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 02:02	
Styrene	1.0 U	1.0	0.20	1	10/18/18 02:02	
Tetrachloroethene (PCE)	0.61 J	1.0	0.28	1	10/18/18 02:02	
Toluene	1.0 U	1.0	0.20	1	10/18/18 02:02	
Trichloroethene (TCE)	0.40 J	1.0	0.20	1	10/18/18 02:02	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 02:02	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:02	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 02:02	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 02:02	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:02	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:48
Date Received: 10/11/18 15:45

Sample Name: MW-9
Lab Code: R1809895-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	10/18/18 02:02	
Dibromofluoromethane	96	89 - 119	10/18/18 02:02	
Toluene-d8	100	87 - 121	10/18/18 02:02	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:59
Date Received: 10/11/18 15:45

Sample Name: MW-9B
Lab Code: R1809895-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 02:23	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 02:23	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 02:23	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 02:23	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 02:23	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 02:23	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 02:23	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 02:23	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 02:23	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 02:23	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 02:23	
Acetone	5.0 U	5.0	2.1	1	10/18/18 02:23	
Benzene	1.0 U	1.0	0.20	1	10/18/18 02:23	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 02:23	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 02:23	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 02:23	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 02:23	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 02:23	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 02:23	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 02:23	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 02:23	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 02:23	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 02:23	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 02:23	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 02:23	
Styrene	1.0 U	1.0	0.20	1	10/18/18 02:23	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 02:23	
Toluene	1.0 U	1.0	0.20	1	10/18/18 02:23	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 02:23	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 02:23	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:23	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 02:23	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 02:23	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:23	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:59
Date Received: 10/11/18 15:45

Sample Name: MW-9B
Lab Code: R1809895-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	10/18/18 02:23	
Dibromofluoromethane	98	89 - 119	10/18/18 02:23	
Toluene-d8	101	87 - 121	10/18/18 02:23	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:23
Date Received: 10/11/18 15:45

Sample Name: MW-10
Lab Code: R1809895-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.47 J	1.0	0.25	1	10/18/18 02:45	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 02:45	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 02:45	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 02:45	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 02:45	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 02:45	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 02:45	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 02:45	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 02:45	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 02:45	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 02:45	
Acetone	5.0 U	5.0	2.1	1	10/18/18 02:45	
Benzene	1.0 U	1.0	0.20	1	10/18/18 02:45	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 02:45	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 02:45	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 02:45	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 02:45	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 02:45	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 02:45	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 02:45	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 02:45	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 02:45	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 02:45	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 02:45	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 02:45	
Styrene	1.0 U	1.0	0.20	1	10/18/18 02:45	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 02:45	
Toluene	1.0 U	1.0	0.20	1	10/18/18 02:45	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 02:45	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 02:45	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:45	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 02:45	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 02:45	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 02:45	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:23
Date Received: 10/11/18 15:45

Sample Name: MW-10
Lab Code: R1809895-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/18/18 02:45	
Dibromofluoromethane	101	89 - 119	10/18/18 02:45	
Toluene-d8	98	87 - 121	10/18/18 02:45	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:27
Date Received: 10/11/18 15:45

Sample Name: MW-11
Lab Code: R1809895-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 03:06	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 03:06	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 03:06	
1,1-Dichloroethane (1,1-DCA)	1.7	1.0	0.20	1	10/18/18 03:06	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 03:06	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 03:06	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 03:06	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 03:06	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 03:06	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 03:06	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 03:06	
Acetone	5.0 U	5.0	2.1	1	10/18/18 03:06	
Benzene	1.0 U	1.0	0.20	1	10/18/18 03:06	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 03:06	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 03:06	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 03:06	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 03:06	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 03:06	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 03:06	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 03:06	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 03:06	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 03:06	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 03:06	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 03:06	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 03:06	
Styrene	1.0 U	1.0	0.20	1	10/18/18 03:06	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 03:06	
Toluene	1.0 U	1.0	0.20	1	10/18/18 03:06	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 03:06	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 03:06	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 03:06	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 03:06	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 03:06	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 03:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:27
Date Received: 10/11/18 15:45

Sample Name: MW-11
Lab Code: R1809895-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/18/18 03:06	
Dibromofluoromethane	99	89 - 119	10/18/18 03:06	
Toluene-d8	100	87 - 121	10/18/18 03:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:36
Date Received: 10/11/18 15:45

Sample Name: MW-11B
Lab Code: R1809895-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/18/18 03:27	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/18/18 03:27	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/18/18 03:27	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/18/18 03:27	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/18/18 03:27	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/18/18 03:27	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/18/18 03:27	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/18/18 03:27	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/18/18 03:27	
2-Hexanone	5.0 U	5.0	0.34	1	10/18/18 03:27	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/18/18 03:27	
Acetone	2.7 J	5.0	2.1	1	10/18/18 03:27	
Benzene	1.0 U	1.0	0.20	1	10/18/18 03:27	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/18/18 03:27	
Bromoform	1.0 U	1.0	0.36	1	10/18/18 03:27	
Bromomethane	1.0 U	1.0	0.70	1	10/18/18 03:27	
Carbon Disulfide	1.0 U	1.0	0.31	1	10/18/18 03:27	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/18/18 03:27	
Chlorobenzene	1.0 U	1.0	0.20	1	10/18/18 03:27	
Chloroethane	1.0 U	1.0	0.23	1	10/18/18 03:27	
Chloroform	1.0 U	1.0	0.28	1	10/18/18 03:27	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/18/18 03:27	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/18/18 03:27	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/18/18 03:27	
Ethylbenzene	1.0 U	1.0	0.20	1	10/18/18 03:27	
Styrene	1.0 U	1.0	0.20	1	10/18/18 03:27	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/18/18 03:27	
Toluene	1.0 U	1.0	0.20	1	10/18/18 03:27	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/18/18 03:27	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/18/18 03:27	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 03:27	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/18/18 03:27	
o-Xylene	1.0 U	1.0	0.20	1	10/18/18 03:27	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/18/18 03:27	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:36
Date Received: 10/11/18 15:45

Sample Name: MW-11B
Lab Code: R1809895-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/18/18 03:27	
Dibromofluoromethane	99	89 - 119	10/18/18 03:27	
Toluene-d8	98	87 - 121	10/18/18 03:27	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Sample Name: Trip Blank
Lab Code: R1809895-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	1	10/17/18 23:10	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1	10/17/18 23:10	
1,1,2-Trichloroethane	1.0 U	1.0	1	10/17/18 23:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	1	10/17/18 23:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	1	10/17/18 23:10	
1,2-Dichloroethane	1.0 U	1.0	1	10/17/18 23:10	
1,2-Dichloroethene, Total	2.0 U	2.0	1	10/17/18 23:10	
1,2-Dichloropropane	1.0 U	1.0	1	10/17/18 23:10	
2-Butanone (MEK)	5.0 U	5.0	1	10/17/18 23:10	
2-Hexanone	5.0 U	5.0	1	10/17/18 23:10	
4-Methyl-2-pentanone	5.0 U	5.0	1	10/17/18 23:10	
Acetone	5.0 U	5.0	1	10/17/18 23:10	
Benzene	1.0 U	1.0	1	10/17/18 23:10	
Bromodichloromethane	1.0 U	1.0	1	10/17/18 23:10	
Bromoform	1.0 U	1.0	1	10/17/18 23:10	
Bromomethane	1.0 U	1.0	1	10/17/18 23:10	
Carbon Disulfide	1.0 U	1.0	1	10/17/18 23:10	
Carbon Tetrachloride	1.0 U	1.0	1	10/17/18 23:10	
Chlorobenzene	1.0 U	1.0	1	10/17/18 23:10	
Chloroethane	1.0 U	1.0	1	10/17/18 23:10	
Chloroform	1.0 U	1.0	1	10/17/18 23:10	
Chloromethane (Methyl Chloride)	1.0 U	1.0	1	10/17/18 23:10	
Dibromochloromethane	1.0 U	1.0	1	10/17/18 23:10	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	1	10/17/18 23:10	
Ethylbenzene	1.0 U	1.0	1	10/17/18 23:10	
Styrene	1.0 U	1.0	1	10/17/18 23:10	
Tetrachloroethene (PCE)	1.0 U	1.0	1	10/17/18 23:10	
Toluene	1.0 U	1.0	1	10/17/18 23:10	
Trichloroethene (TCE)	1.0 U	1.0	1	10/17/18 23:10	
Vinyl Chloride	1.0 U	1.0	1	10/17/18 23:10	
cis-1,3-Dichloropropene	1.0 U	1.0	1	10/17/18 23:10	
m,p-Xylenes	2.0 U	2.0	1	10/17/18 23:10	
o-Xylene	1.0 U	1.0	1	10/17/18 23:10	
trans-1,3-Dichloropropene	1.0 U	1.0	1	10/17/18 23:10	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Sample Name: Trip Blank
Lab Code: R1809895-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/17/18 23:10	
Dibromofluoromethane	98	89 - 119	10/17/18 23:10	
Toluene-d8	98	87 - 121	10/17/18 23:10	



Volatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:16
Date Received: 10/11/18 15:45

Sample Name: MW-1
Lab Code: R1809895-001

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	17	1.1	1	10/16/18 14:44	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Sample Name: DUPE-X
Lab Code: R1809895-002

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	16	1.1	1	10/16/18 14:55	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:40
Date Received: 10/11/18 15:45

Sample Name: MW-2
Lab Code: R1809895-003

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1600	21	20	10/16/18 15:06	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:17
Date Received: 10/11/18 15:45

Sample Name: MW-3
Lab Code: R1809895-004

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	10/16/18 15:19	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 10:54
Date Received: 10/11/18 15:45

Sample Name: MW-4
Lab Code: R1809895-005

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.5	1.1	1	10/16/18 15:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:03
Date Received: 10/11/18 15:45

Sample Name: MW-4B
Lab Code: R1809895-006

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	4.3	1.1	1	10/16/18 15:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 09:51
Date Received: 10/11/18 15:45

Sample Name: MW-5
Lab Code: R1809895-007

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.4	1.1	1	10/16/18 16:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:48
Date Received: 10/11/18 15:45

Sample Name: MW-9
Lab Code: R1809895-008

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.3	1.1	1	10/19/18 13:34	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 12:59
Date Received: 10/11/18 15:45

Sample Name: MW-9B
Lab Code: R1809895-009

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	4.7	1.1	1	10/19/18 13:44	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 13:23
Date Received: 10/11/18 15:45

Sample Name: MW-10
Lab Code: R1809895-010

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.3	1.1	1	10/19/18 13:54	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:27
Date Received: 10/11/18 15:45

Sample Name: MW-11
Lab Code: R1809895-011

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	14	1.1	1	10/19/18 14:03	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18 11:36
Date Received: 10/11/18 15:45

Sample Name: MW-11B
Lab Code: R1809895-012

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	5.7	1.1	1	10/19/18 14:13	



Metals

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-1
Lab Code: R1809895-001

Service Request: R1809895
Date Collected: 10/11/18 09:16
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 13:48	10/15/18	
Manganese, Dissolved	200.7	33	ug/L	10	1	10/17/18 13:48	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: DUPE-X
Lab Code: R1809895-002

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 13:51	10/15/18	
Manganese, Dissolved	200.7	33	ug/L	10	1	10/17/18 13:51	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-2
Lab Code: R1809895-003

Service Request: R1809895
Date Collected: 10/11/18 13:40
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	830	ug/L	100	1	10/17/18 13:54	10/15/18	
Manganese, Dissolved	200.7	1150	ug/L	10	1	10/17/18 13:54	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-3
Lab Code: R1809895-004

Service Request: R1809895
Date Collected: 10/11/18 10:17
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 13:57	10/15/18	
Manganese, Dissolved	200.7	10 U	ug/L	10	1	10/17/18 13:57	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-4
Lab Code: R1809895-005

Service Request: R1809895
Date Collected: 10/11/18 10:54
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:00	10/15/18	
Manganese, Dissolved	200.7	28	ug/L	10	1	10/17/18 14:00	10/15/18	

ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-4B
Lab Code: R1809895-006

Service Request: R1809895
Date Collected: 10/11/18 11:03
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:03	10/15/18	
Manganese, Dissolved	200.7	71	ug/L	10	1	10/17/18 14:03	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-5
Lab Code: R1809895-007

Service Request: R1809895
Date Collected: 10/11/18 09:51
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:13	10/15/18	
Manganese, Dissolved	200.7	27	ug/L	10	1	10/17/18 14:13	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-9
Lab Code: R1809895-008

Service Request: R1809895
Date Collected: 10/11/18 12:48
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:16	10/15/18	
Manganese, Dissolved	200.7	10 U	ug/L	10	1	10/17/18 14:16	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-9B
Lab Code: R1809895-009

Service Request: R1809895
Date Collected: 10/11/18 12:59
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:31	10/15/18	
Manganese, Dissolved	200.7	31	ug/L	10	1	10/17/18 14:31	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-10
Lab Code: R1809895-010

Service Request: R1809895
Date Collected: 10/11/18 13:23
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:34	10/15/18	
Manganese, Dissolved	200.7	1100	ug/L	10	1	10/17/18 14:34	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-11
Lab Code: R1809895-011

Service Request: R1809895
Date Collected: 10/11/18 11:27
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:37	10/15/18	
Manganese, Dissolved	200.7	105	ug/L	10	1	10/17/18 14:37	10/15/18	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-11B
Lab Code: R1809895-012

Service Request: R1809895
Date Collected: 10/11/18 11:36
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 14:40	10/15/18	
Manganese, Dissolved	200.7	10 U	ug/L	10	1	10/17/18 14:40	10/15/18	



General Chemistry

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-1
Lab Code: R1809895-001

Service Request: R1809895
Date Collected: 10/11/18 09:16
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:40	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:40	
Sulfate	300.0	33.6	mg/L	2.0	10	10/12/18 10:40	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: DUPE-X
Lab Code: R1809895-002

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:45	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:45	
Sulfate	300.0	33.9	mg/L	2.0	10	10/12/18 10:45	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water
Sample Name: MW-2
Lab Code: R1809895-003

Service Request: R1809895
Date Collected: 10/11/18 13:40
Date Received: 10/11/18 15:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:50	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 10:50	
Sulfate	300.0	71.7	mg/L	2.0	10	10/12/18 10:50	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water
Sample Name: MW-3
Lab Code: R1809895-004

Service Request: R1809895
Date Collected: 10/11/18 10:17
Date Received: 10/11/18 15:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:06	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:06	
Sulfate	300.0	104	mg/L	8.0	40	10/12/18 11:11	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-4
Lab Code: R1809895-005

Service Request: R1809895
Date Collected: 10/11/18 10:54
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:17	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:17	
Sulfate	300.0	50.4	mg/L	2.0	10	10/12/18 11:17	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-4B
Lab Code: R1809895-006

Service Request: R1809895
Date Collected: 10/11/18 11:03
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:22	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:22	
Sulfate	300.0	672	mg/L	40	200	10/12/18 11:38	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-5
Lab Code: R1809895-007

Service Request: R1809895
Date Collected: 10/11/18 09:51
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:43	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:43	
Sulfate	300.0	65.8	mg/L	2.0	10	10/12/18 11:43	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-9
Lab Code: R1809895-008

Service Request: R1809895
Date Collected: 10/11/18 12:48
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	2.2	mg/L	1.0	10	10/12/18 11:48	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 11:48	
Sulfate	300.0	55.1	mg/L	2.0	10	10/12/18 11:48	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-9B
Lab Code: R1809895-009

Service Request: R1809895
Date Collected: 10/11/18 12:59
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:04	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:04	
Sulfate	300.0	620	mg/L	20	100	10/12/18 12:09	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-10
Lab Code: R1809895-010

Service Request: R1809895
Date Collected: 10/11/18 13:23
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.2	mg/L	1.0	10	10/12/18 12:15	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:15	
Sulfate	300.0	51.3	mg/L	2.0	10	10/12/18 12:15	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-11
Lab Code: R1809895-011

Service Request: R1809895
Date Collected: 10/11/18 11:27
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:20	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:20	
Sulfate	300.0	81.7	mg/L	2.0	10	10/12/18 12:20	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: MW-11B
Lab Code: R1809895-012

Service Request: R1809895
Date Collected: 10/11/18 11:36
Date Received: 10/11/18 15:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:25	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/12/18 12:25	
Sulfate	300.0	168	mg/L	8.0	40	10/15/18 21:48	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
MW-1	R1809895-001	96	100	99
DUPE-X	R1809895-002	95	98	100
MW-2	R1809895-003	94	101	101
MW-3	R1809895-004	93	101	100
MW-4	R1809895-005	91	97	97
MW-4B	R1809895-006	91	97	97
MW-5	R1809895-007	93	98	99
MW-9	R1809895-008	92	96	100
MW-9B	R1809895-009	95	98	101
MW-10	R1809895-010	93	101	98
MW-11	R1809895-011	91	99	100
MW-11B	R1809895-012	91	99	98
Trip Blank	R1809895-013	91	98	98
Method Blank	RQ1811198-04	96	101	101
Lab Control Sample	RQ1811198-03	92	101	98
MW-9 MS	RQ1811198-05	99	102	101
MW-9 DMS	RQ1811198-06	97	104	100

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dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18
Date Analyzed: 10/18/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-9
Lab Code: R1809895-008
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ1811198-05				Duplicate Matrix Spike RQ1811198-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	4.2	53.8	50.0	99	54.5	50.0	101	74-127	1	30
1,1,2,2-Tetrachloroethane	1.0 U	41.6	50.0	83	41.3	50.0	83	72-122	<1	30
1,1,2-Trichloroethane	1.0 U	45.6	50.0	91	44.2	50.0	88	82-121	3	30
1,1-Dichloroethane (1,1-DCA)	0.42 J	52.6	50.0	104	51.4	50.0	102	74-132	2	30
1,1-Dichloroethene (1,1-DCE)	0.36 J	47.7	50.0	95	48.7	50.0	97	71-118	2	30
1,2-Dichloroethane	1.0 U	49.2	50.0	98	48.1	50.0	96	68-130	2	30
1,2-Dichloropropane	1.0 U	48.2	50.0	96	46.2	50.0	92	79-124	4	30
2-Butanone (MEK)	5.0 U	39.9	50.0	80	38.5	50.0	77	61-137	3	30
2-Hexanone	5.0 U	39.1	50.0	78	38.4	50.0	77	56-132	2	30
4-Methyl-2-pentanone	5.0 U	41.7	50.0	83	40.5	50.0	81	60-141	3	30
Acetone	5.0 U	37.0	50.0	74	37.5	50.0	75	35-183	1	30
Benzene	1.0 U	50.1	50.0	100	49.3	50.0	99	76-129	2	30
Bromodichloromethane	1.0 U	49.2	50.0	98	49.9	50.0	100	78-133	2	30
Bromoform	1.0 U	42.0	50.0	84	44.0	50.0	88	58-133	5	30
Bromomethane	1.0 U	31.1	50.0	62	30.5	50.0	61	10-184	2	30
Carbon Disulfide	1.0 U	50.1	50.0	100	50.0	50.0	100	59-140	<1	30
Carbon Tetrachloride	1.0 U	47.8	50.0	96	48.5	50.0	97	65-135	1	30
Chlorobenzene	1.0 U	47.7	50.0	95	46.5	50.0	93	76-125	2	30
Chloroethane	1.0 U	36.9	50.0	74	37.1	50.0	74	48-146	<1	30
Chloroform	1.0 U	48.1	50.0	96	48.2	50.0	96	75-130	<1	30
Chloromethane (Methyl Chloride)	1.0 U	44.7	50.0	89	45.1	50.0	90	55-160	1	30
Dibromochloromethane	1.0 U	46.6	50.0	93	46.2	50.0	92	72-128	<1	30
Dichloromethane (Methylene Chloride)	1.0 U	45.9	50.0	92	45.5	50.0	91	73-122	<1	30
Ethylbenzene	1.0 U	50.7	50.0	101	49.8	50.0	100	72-134	2	30
Styrene	1.0 U	49.5	50.0	99	48.4	50.0	97	74-136	2	30
Tetrachloroethene (PCE)	0.61 J	49.8	50.0	98	50.1	50.0	99	72-125	<1	30
Toluene	1.0 U	49.8	50.0	100	48.4	50.0	97	79-119	3	30
Trichloroethene (TCE)	0.40 J	47.9	50.0	95	47.5	50.0	94	74-122	<1	30
Vinyl Chloride	1.0 U	46.2	50.0	92	46.4	50.0	93	74-159	<1	30
cis-1,3-Dichloropropene	1.0 U	48.2	50.0	96	48.5	50.0	97	52-134	<1	30
m,p-Xylenes	2.0 U	99.5	100	100	100	100	100	80-126	<1	30
o-Xylene	1.0 U	48.9	50.0	98	47.5	50.0	95	79-123	3	30
trans-1,3-Dichloropropene	1.0 U	45.0	50.0	90	46.0	50.0	92	71-133	2	30

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ALS Group USA, Corp.
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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1811198-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	10/17/18 22:49	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	10/17/18 22:49	
1,1,2-Trichloroethane	1.0 U	1.0	0.25	1	10/17/18 22:49	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	10/17/18 22:49	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	10/17/18 22:49	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	10/17/18 22:49	
1,2-Dichloroethene, Total	2.0 U	2.0	0.35	1	10/17/18 22:49	
1,2-Dichloropropane	1.0 U	1.0	0.21	1	10/17/18 22:49	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	10/17/18 22:49	
2-Hexanone	5.0 U	5.0	0.34	1	10/17/18 22:49	
4-Methyl-2-pentanone	5.0 U	5.0	0.29	1	10/17/18 22:49	
Acetone	5.0 U	5.0	2.1	1	10/17/18 22:49	
Benzene	1.0 U	1.0	0.20	1	10/17/18 22:49	
Bromodichloromethane	1.0 U	1.0	0.31	1	10/17/18 22:49	
Bromoform	1.0 U	1.0	0.36	1	10/17/18 22:49	
Bromomethane	1.0 U	1.0	0.70	1	10/17/18 22:49	
Carbon Disulfide	0.98 J	1.0	0.31	1	10/17/18 22:49	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	10/17/18 22:49	
Chlorobenzene	1.0 U	1.0	0.20	1	10/17/18 22:49	
Chloroethane	1.0 U	1.0	0.23	1	10/17/18 22:49	
Chloroform	1.0 U	1.0	0.28	1	10/17/18 22:49	
Chloromethane (Methyl Chloride)	1.0 U	1.0	0.28	1	10/17/18 22:49	
Dibromochloromethane	1.0 U	1.0	0.20	1	10/17/18 22:49	
Dichloromethane (Methylene Chloride)	1.0 U	1.0	0.47	1	10/17/18 22:49	
Ethylbenzene	1.0 U	1.0	0.20	1	10/17/18 22:49	
Styrene	1.0 U	1.0	0.20	1	10/17/18 22:49	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	10/17/18 22:49	
Toluene	1.0 U	1.0	0.20	1	10/17/18 22:49	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	10/17/18 22:49	
Vinyl Chloride	1.0 U	1.0	0.22	1	10/17/18 22:49	
cis-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 22:49	
m,p-Xylenes	2.0 U	2.0	0.21	1	10/17/18 22:49	
o-Xylene	1.0 U	1.0	0.20	1	10/17/18 22:49	
trans-1,3-Dichloropropene	1.0 U	1.0	0.30	1	10/17/18 22:49	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1811198-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/17/18 22:49	
Dibromofluoromethane	101	89 - 119	10/17/18 22:49	
Toluene-d8	101	87 - 121	10/17/18 22:49	

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/17/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1811198-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.6	20.0	98	75-125
1,1,2,2-Tetrachloroethane	8260C	18.2	20.0	91	78-126
1,1,2-Trichloroethane	8260C	19.2	20.0	96	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	20.9	20.0	104	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	71-118
1,2-Dichloroethane	8260C	19.9	20.0	100	71-127
1,2-Dichloropropane	8260C	18.9	20.0	95	80-119
2-Butanone (MEK)	8260C	18.8	20.0	94	61-137
2-Hexanone	8260C	18.8	20.0	94	63-124
4-Methyl-2-pentanone	8260C	19.8	20.0	99	66-124
Acetone	8260C	18.2	20.0	91	40-161
Benzene	8260C	19.4	20.0	97	79-119
Bromodichloromethane	8260C	19.6	20.0	98	81-123
Bromoform	8260C	20.2	20.0	101	65-146
Bromomethane	8260C	14.9	20.0	74	42-166
Carbon Disulfide	8260C	20.9	20.0	105	66-128
Carbon Tetrachloride	8260C	18.1	20.0	90	70-127
Chlorobenzene	8260C	18.8	20.0	94	80-121
Chloroethane	8260C	15.2	20.0	76	62-131
Chloroform	8260C	19.6	20.0	98	79-120
Chloromethane (Methyl Chloride)	8260C	17.5	20.0	88	65-135
Dibromochloromethane	8260C	19.7	20.0	98	72-128
Dichloromethane (Methylene Chloride)	8260C	19.2	20.0	96	73-122
Ethylbenzene	8260C	19.2	20.0	96	76-120
Styrene	8260C	19.9	20.0	100	80-124
Tetrachloroethene (PCE)	8260C	19.4	20.0	97	72-125
Toluene	8260C	19.3	20.0	97	79-119
Trichloroethene (TCE)	8260C	19.3	20.0	97	74-122
Vinyl Chloride	8260C	18.8	20.0	94	74-159
cis-1,3-Dichloropropene	8260C	19.9	20.0	100	77-122
m,p-Xylenes	8260C	38.8	40.0	97	80-126
o-Xylene	8260C	18.9	20.0	95	79-123
trans-1,3-Dichloropropene	8260C	18.7	20.0	94	71-133

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Superset Reference: 18-0000484538 rev 00



Volatile Organic Compounds by GC

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18
Date Analyzed: 10/19/18

Duplicate Matrix Spike Summary
Dissolved Gases by GC/FID

Sample Name: MW-9
Lab Code: R1809895-008
Analysis Method: RSK 175

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike RQ1811342-04		Result	Duplicate Matrix Spike RQ1811342-05		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Methane	1.3	28.7	26.2	105	28.3	26.2	103	46-143	1	20

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1811125-02

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	10/16/18 11:20	

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1811342-02

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Methane	1.1 U	1.1	1	10/19/18 12:57	

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/19/18

Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1811342-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Methane	RSK 175	31.1	26.2	119	75-128

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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/16/18

Duplicate Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1811125-03

Duplicate Lab Control Sample

RQ1811125-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methane	RSK 175	24.8	26.2	95	24.5	26.2	93	75-128	1	20



Metals

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1809895-MB

Service Request: R1809895
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	200.7	100 U	ug/L	100	1	10/17/18 12:59	10/15/18	
Manganese, Dissolved	200.7	10 U	ug/L	10	1	10/17/18 12:59	10/15/18	

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dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18
Date Analyzed: 10/17/18

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: MW-9 **Units:** ug/L
Lab Code: R1809895-008 **Basis:** NA

Matrix Spike R1809895-008MS						Duplicate Matrix Spike R1809895-008DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron, Dissolved	200.7	100 U	950	1000	95	960	1000	96	70-130	<1	20
Manganese, Dissolved	200.7	10 U	495	500	99	497	500	99	70-130	<1	20

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dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/17/18

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L**Basis:**NA**Lab Control Sample**

R1809895-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	200.7	960	1000	96	85-115
Manganese, Dissolved	200.7	494	500	99	85-115



General Chemistry

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Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1809895-MB1

Service Request: R1809895
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	0.10 U	mg/L	0.10	1	10/12/18 10:29	
Nitrite as Nitrogen	300.0	0.10 U	mg/L	0.10	1	10/12/18 10:29	
Sulfate	300.0	0.20 U	mg/L	0.20	1	10/12/18 10:29	

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dba ALS Environmental

Analytical Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1809895-MB2

Service Request: R1809895
Date Collected: NA
Date Received: NA

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Sulfate	300.0	0.20 U	mg/L	0.20	1	10/15/18 20:40	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18
Date Analyzed: 10/12/18

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-2 **Units:** mg/L
Lab Code: R1809895-003 **Basis:** NA

Matrix Spike R1809895-003MS						Duplicate Matrix Spike R1809895-003DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	1.0 U	9.7	10.0	97	9.6	10.0	96	90-110	1	20
Sulfate	300.0	71.7	88.7	20.0	85 *	88.3	20.0	83 *	90-110	<1	20
Nitrite as Nitrogen	300.0	1.0 U	9.6	10.0	96	9.5	10.0	95	90-110	1	20

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ALS Group USA, Corp.
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QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Collected: 10/11/18
Date Received: 10/11/18
Date Analyzed: 10/12/18

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW-9 **Units:** mg/L
Lab Code: R1809895-008 **Basis:** NA

Matrix Spike R1809895-008MS						Duplicate Matrix Spike R1809895-008DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	2.2	11.8	10.0	96	12.1	10.0	99	90-110	3	20
Sulfate	300.0	55.1	73.4	20.0	92	74.0	20.0	95	90-110	<1	20
Nitrite as Nitrogen	300.0	1.0 U	9.2	10.0	92	9.7	10.0	97	90-110	5	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/12/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1809895-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrate as Nitrogen	300.0	0.98	1.00	98	90-110
Nitrite as Nitrogen	300.0	0.98	1.00	98	90-110
Sulfate	300.0	2.05	2.00	103	90-110

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Barton & Loguidice, DPC
Project: Akzo Nobel/1398.003.001
Sample Matrix: Water

Service Request: R1809895
Date Analyzed: 10/15/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1809895-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	2.14	2.00	107	90-110

Appendix C

Water Level Elevation Data

Akzo Nobel Polymer Chemicals LLC
Water Level Elevation Data
2011-2018

	MW-1		MW-1B		MW-2		MW-3		MW-3B		MW-4	
TOP OF CASING ELEVATION	328.51		328.29		327.58		322.58		321.85		323.12	
DATE	water level	elevation	water level	elevation	water level	elevation	water level	elevation	water level	elevation	water level	elevation
4/19/2011	6.41	322.10	7.21	321.08	5.73	321.85	3.14	319.44	10.81	315.42	6.79	316.33
7/28/2011	11.54	316.97	-	-	9.87	317.71	6.80	315.78	-	-	9.58	313.54
11/17/2011	13.09	315.42	7.21	321.08	10.59	316.99	7.13	315.45	10.81	311.04	9.65	313.47
3/28/2012	7.63	320.88	7.09	321.20	6.76	320.82	3.33	319.25	10.98	310.87	7.65	315.47
6/27/2012	10.94	317.57	-	-	9.13	318.45	6.31	316.27	-	-	9.48	313.64
10/9/2012	13.89	314.62	-	-	11.07	316.51	9.35	313.23	-	-	11.46	311.66
4/15/2013	6.02	322.49	6.76	321.53	5.68	321.90	2.66	319.92	10.65	311.20	6.45	316.67
8/27/2013	11.41	317.10	-	-	9.42	318.16	6.23	316.35	-	-	9.61	313.51
12/10/2013	9.78	318.73	-	-	8.29	319.29	3.78	318.80	-	-	7.90	315.22
4/28/2014	6.82	321.69	6.50	321.79	6.10	321.48	2.36	320.22	10.98	310.87	7.28	315.84
8/28/2014	10.73	317.78	-	-	9.01	318.57	5.39	317.19	-	-	9.09	314.03
10/30/2014	11.45	317.06	-	-	10.27	317.31	6.88	315.70	-	-	9.67	313.45
4/29/2015	7.65	320.86	6.83	321.46	6.64	320.94	3.52	319.06	11.20	310.65	7.51	315.61
8/18/2015	11.67	316.84	-	-	9.92	317.66	6.91	315.67	-	-	10.12	313.00
12/10/2015	11.52	316.99	-	-	10.31	317.27	5.92	316.66	-	-	9.73	313.39
6/6/2016	10.01	318.50	8.86	319.43	8.45	319.13	5.28	317.30	11.97	309.88	9.10	314.02
11/22/2016	14.14	314.37	-	-	11.68	315.90	10.80	311.78	-	-	15.28	307.84
5/31/2017	7.45	321.06	7.28	321.01	6.44	321.14	2.83	319.75	10.68	311.17	7.70	315.42
10/16/2017	11.52	316.99	-	-	9.57	318.01	5.25	317.33	-	-	9.46	313.66
6/19/2018	10.08	318.43	8.95	319.34	8.36	319.22	5.29	317.29	12.07	309.78	9.19	313.93
10/10/2018	13.36	315.15	-	-	10.79	316.79	8.50	314.08	-	-	11.11	312.01

Akzo Nobel Polymer Chemicals LLC
Water Level Elevation Data
2011-2018

	MW-4B		MW-5		MW-6		MW-7		MW-8		MW-9	
TOP OF PVC PIPE ELEVATION	323.66		324.68		325.31		324.10		326.23		325.03	
DATE	water level	elevation	water level	elevation	water level	elevation	water level	elevation	water level	elevation	water level	elevation
4/19/2011	20.18	303.48	8.05	316.63	-	-	-	-	-	-	4.60	320.43
7/28/2011	21.73	301.93	6.71	317.97	-	-	-	-	-	-	7.84	317.19
11/17/2011	16.81	306.85	7.76	316.92	7.79	317.52	6.53	317.57	8.81	317.42	8.60	316.43
3/28/2012	18.52	305.14	3.88	320.80	-	-	-	-	-	-	5.07	319.96
6/27/2012	21.46	302.20	6.33	318.35	-	-	-	-	-	-	7.22	317.81
10/9/2012	18.54	305.12	8.28	316.40	-	-	-	-	-	-	8.88	316.15
4/15/2013	19.21	304.45	3.01	321.67	-	-	-	-	-	-	4.13	320.90
8/27/2013	20.34	303.32	6.58	318.10	-	-	-	-	-	-	7.66	317.37
12/10/2013	16.29	307.37	5.44	319.24	-	-	-	-	-	-	6.64	318.39
4/28/2014	21.00	302.66	3.50	321.18	-	-	-	-	-	-	3.32	321.71
8/28/2014	20.76	302.90	6.21	318.47	-	-	-	-	-	-	7.47	317.56
10/30/2014	18.02	305.64	7.44	317.24	-	-	-	-	-	-	8.43	316.60
4/29/2015	21.10	302.56	3.82	320.86	-	-	-	-	-	-	5.22	319.81
8/18/2015	21.60	302.06	7.20	317.48	-	-	-	-	-	-	8.16	316.87
12/10/2015	16.87	306.79	7.43	317.25	-	-	-	-	-	-	8.38	316.65
6/6/2016	21.61	302.05	5.58	319.10	-	-	-	-	-	-	6.52	318.51
11/22/2016	17.51	306.15	8.92	315.76	-	-	-	-	-	-	9.27	315.76
5/31/2017	21.35	302.31	3.69	320.99	-	-	-	-	-	-	4.53	320.50
10/16/2017	17.87	305.79	6.68	318.00	-	-	-	-	-	-	7.40	317.63
6/19/2018	23.49	300.17	5.46	319.22	-	-	-	-	-	-	6.46	318.57
10/10/2018	19.32	304.34	8.07	316.61	-	-	-	-	-	-	8.53	316.50

Akzo Nobel Polymer Chemicals LLC
Water Level Elevation Data
2011-2018

	MW-9B		MW-10		MW-10B		MW-11		MW-11B		-	
TOP OF PVC PIPE ELEVATION	325.21		328.39		328.12		325.76		325.32			
DATE	water level	elevation	water level	elevation	water level	elevation	water level	elevation	water level	elevation		
4/19/2011	23.16	302.05	6.37	322.02	23.51	304.61	10.62	315.14	22.22	303.10		
7/28/2011	24.47	300.74	6.24	322.15	-	-	13.85	311.91	23.66	301.66		
11/17/2011	19.66	305.55	11.38	317.01	23.51	304.61	14.31	311.45	19.12	306.20		
3/28/2012	21.12	304.09	7.47	320.92	21.70	306.42	11.38	314.38	20.45	304.87		
6/27/2012	24.00	301.21	9.77	318.62	-	-	13.35	312.41	23.43	301.89		
10/9/2012	21.26	303.95	11.88	316.51	-	-	15.12	310.64	20.53	304.79		
4/15/2013	22.36	302.85	6.30	322.09	22.40	305.72	10.11	315.65	21.75	303.57		
8/27/2013	22.93	302.28	10.21	318.18	-	-	13.62	312.14	22.29	303.03		
12/10/2013	18.52	306.69	9.02	319.37	-	-	12.64	313.12	18.40	306.92		
4/28/2014	22.82	302.39	7.41	320.98	23.73	304.39	10.96	314.80	22.82	302.50		
8/28/2014	23.20	302.01	9.81	318.58	-	-	13.24	312.52	22.58	302.74		
10/30/2014	20.22	304.99	11.07	317.32	-	-	14.31	311.45	18.96	306.36		
4/29/2015	23.60	301.61	7.32	321.07	22.99	305.13	11.29	314.47	22.85	302.47		
8/18/2015	23.85	301.36	10.70	317.69	-	-	14.18	311.58	23.49	301.83		
12/10/2015	19.15	306.06	11.10	317.29	-	-	13.91	311.85	19.02	306.30		
6/6/2016	23.77	301.44	9.24	319.15	21.22	306.90	12.93	312.83	23.31	302.01		
11/22/2016	19.87	305.34	12.66	315.73	-	-	15.54	310.22	19.57	305.75		
5/31/2017	23.75	301.46	7.17	321.22	20.17	307.95	11.00	314.76	23.00	302.32		
10/16/2017	20.42	304.79	10.32	318.07	-	-	13.59	312.17	19.83	305.49		
6/19/2018	24.96	300.25	9.18	319.21	20.52	307.60	12.54	313.22	24.27	301.05		
10/10/2018	21.92	303.29	11.59	316.80	-	-	14.99	310.77	21.25	304.07		

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