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Subject:
2019 Annual Monitoring Report, Colesville Landfill
Broome County, New York. (Site No. 704010).

ENVIRONMENT

Date:
February 18, 2020

Dear Mr. Long:

Contact:
Steven M. Feldman

This Annual Monitoring Report (report) was prepared on behalf of the Broome County Division of Solid Waste Management for the Colesville Landfill, located in Broome County, New York (Site) to evaluate and document long-term monitoring (LTM) activities at the Site. The Site is listed in the Registry of Inactive Hazardous Waste Disposal Sites as Class 4 and monitoring activities are being conducted pursuant to the Site Management Plan (SMP) (Broome County Division of Solid Waste Management and ARCADIS 2015), which was approved by the New York State Department of Environmental Conservation (NYSDEC).

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This 2019 Annual Monitoring Report describes the collection and analysis of the following data:

- Groundwater data collected in September 2019
- Surface water and spring water data collected in June and September 2019;
- SP-5 remediation system influent/effluent data collected in June and September 2019; and,
- SP-3 sediment data collected in June and September 2019.

The following sections describe the sampling methodology, laboratory analytical results, a discussion of findings, and a summary of conclusions, and recommendations.

METHODOLOGY

The following section provides a summary of the environmental monitoring for the reporting period. The site plan and monitoring locations are provided on Figures 1 and 2.

Groundwater Monitoring

Groundwater monitoring performed in September 2019 consisted of 5th Quarter groundwater monitoring from 14 monitoring wells and is described in the SMP Monitoring Schedule. The samples were collected and analyzed by the laboratory (ALS) for volatile organic compounds (VOCs) and field analyzed for pH, temperature, oxidation-reduction potential (ORP), turbidity and specific conductance. Samples from a subset of monitoring wells were selectively analyzed for total organic carbon (TOC), total and dissolved iron and manganese, nitrate, sulfate and light hydrocarbons (ethene, ethane and methane).

Surface Water Monitoring

Surface water samples were collected at the SW-2, SW-3, SW-4, and F-6 locations during the June and September 2019 monitoring events. Surface water samples were collected as direct grab samples from the North Stream at areas collocated with the spring samples, and at a location further downgradient of the springs (F-6) in accordance with the SMP. Surface water samples were collected and analyzed by the laboratory (ALS) for VOCs and metals and field analyzed for dissolved oxygen (DO), specific conductance, pH, oxidation-reduction potential, temperature and turbidity.

Spring Water and Sediment Monitoring

Spring water samples were collected at the SP-2, SP-3, and SP-4 locations during the June and September 2019 monitoring events. Spring water samples were collected as grab samples, consistent with the SMP. Spring water samples were collected and analyzed by the laboratory (ALS) for VOCs and total metals and field analyzed for specific conductance, pH, oxidation-reduction potential, temperature and turbidity. In addition to the above, a spring water inspection was completed during the sampling event to evaluate the presence and appearance/condition of existing springs.

Sediment samples were collected during the June and September 2019 monitoring events where the SP-3 spring exfiltrates from the large riprap area onto the stream bank. All sediment samples were submitted for laboratory analysis of total metals. Measures were taken to decant off the liquid during the sample collection with the objective of preventing analysis of samples with a high percent moisture content, which we believe has resulted in a positive bias (i.e., distorted higher than the true value) in metals concentrations in the past.

Spring Water Remediation System Performance Monitoring

SP-5 Spring Water Remediation System OM&M was conducted during the June and September 2019 monitoring events. System OM&M was conducted in accordance with the SMP and consisted of the collection of influent and effluent spring water samples for analysis of VOCs and metals. The influent sample was collected as a grab sample from the influent monitoring well, which is located within the SP-5 treatment unit and screened below the liquid phase granular activated carbon (LPGAC) zone. The

treatment system effluent sample was collected as a grab sample from the discharge pipe prior to entering the outfall stone apron.

RESULTS

The results of the environmental effectiveness and remediation system performance monitoring for the reporting period are summarized below, by environmental medium. Analytical data generated since completion of the May 1, 2012 IRZ injection are also included to support an evaluation of concentration trends over time. An electronic copy of the reporting period laboratory analytical results is included in Appendix A.

Groundwater Quality

Analytical results for VOCs in groundwater samples collected during the reporting period are provided in Table 1. A summary of all analytical data collected since 2012 has also been provided in the same table for comparative purposes.

As shown in Table 1, landfill perimeter monitoring well PW-7 exhibited detections in September 2019 of the same VOCs (i.e., 1,1-dichloroethane [DCA], chloroethane [CA], cis-1,2-dichloroethene [DCE], and trichloroethene [TCE]) that were detected during 2018, with the addition of vinyl chloride (16 ug/L). Vinyl Chloride was detected in groundwater samples prior to 2018 and is still consistent with the general chemical fingerprint in PW-7. Since it is a daughter compound for chlorinated ethenes, it provides evidence of continued biodegradation in this area of the landfill. Although total VOC (TVOC) concentrations in PW-7 showed a relative increase from 2018 to 2019, there has been a significant decline in TVOC concentrations observed since September 2014. Landfill perimeter monitoring well GMMW-7 also exhibited TVOC concentrations that fluctuated upward, indicating that there continues to be variability in VOC mass that emanates from beneath the landfill.

Downgradient from the landfill perimeter in the mid-plume area (i.e., GMMW-5, GMMW-6, and GMMW-2), concentrations of chlorinated ethenes have significantly decreased, with DCA and CA being the primary VOC present in groundwater.

Further downgradient in monitoring wells near East Windsor Road (i.e., PW-4, PW-3 and W-16S), TVOC concentrations range from below the limits of detection to 35 ug/L. Former recovery well GMPW-4 has exhibited a decreasing trend in TVOC concentrations since 2014 but continues to show detections of several VOCs.

Concentrations of VOCs south of East Windsor Road (i.e., W-18 and W-20S) were also consistent with previous sampling results. TVOC concentrations in W-18 (21 ug/L) continue to show a decreasing trend and W-20S remains below detection limits.

Table 2 provides a summary of the geochemical monitoring results including general chemistry, inorganics, field parameters and dissolved gas parameters. Analytical data indicate that groundwater geochemistry has been slowly shifting towards baseline conditions but remains moderately to strongly anaerobic in and immediately downgradient of the reagent injection wells. This observation is supported by the following:

- Nitrate concentrations in groundwater monitoring wells in close proximity to and downgradient of the injection well network is considerably below the baseline concentration of 0.632 mg/L, at non-detect concentrations. The non-detect concentrations of nitrate are an indicator of reducing conditions.
- Dissolved (filtered) iron concentrations remained elevated and significantly higher than baseline conditions in close proximity to the injection well network. The highest dissolved iron concentrations are observed downgradient of the injection well network at monitoring wells GMMW-5 (17 mg/L) and GMMW-6 (12.6 mg/l).
- Ethene, ethane and methane concentrations remained elevated in close proximity to and downgradient of the injection well network.

Surface Water Quality

Surface water quality analytical results for June and September 2019, along with data since completion of the May 1, 2012 IRZ injection, are summarized in Table 2. As shown in Table 2, surface water quality remained consistent when compared to historical data. The TVOC concentration at surface water sampling locations were below the limits of detection except for trace levels of VOCs. The metals concentrations, many below limits of detection, at the F-6, SW-3 and SW-4 sampling locations were also consistent with the background, upgradient sample SW-2, and historical data. These data indicate that surface water quality is not being adversely impacted by the landfill.

Spring Water Quality

The embankment of the North Stream was inspected for springs during the site visits in June, and September 2019. During inspection events, iron hydroxide staining was observed around the SP-2, SP-3, and SP-4 springs and the SP-5-effluent area. These observations have been generally consistent with conditions observed since October 2012 (i.e., first sampling event following the IRZ discontinuation period).

Spring water samples were collected at the SP-2, SP-3, and SP-4 locations following the June and September 2019 inspections. Spring water quality analytical results are summarized in Table 3. VOCs were not detected at the SP-2 spring water location during 2019 except for trace concentrations of TCE (0.30 µg/L) in June and September. Acetone was flagged and considered non-detect because the VOC trip blank associated with the September 2019 data set had an acetone detection of 7.8 ug/L.

Despite the presence of low-level concentrations of VOCs in spring water samples collected at the SP-3 and SP-4 locations, only non-detect to trace concentrations of VOCs were present in the surrounding surface water (Table 2).

These data continue to demonstrate that VOCs detected in the spring water are not adversely impacting surface water quality in the North Stream. Spring water VOC concentrations in September 2019 only exceeded the NYSDEC Part 703 Water Quality Standards (WQS) for Class C fresh surface waters for Chlorobenzene (8.1 ug/L) at SP-3. All other VOC compounds were below the applicable WQS or non-detect. Where WQSs were not available, the NYSDEC Division of Water Technical Operational Guidance Series (TOGS 1.1.1) standards and guidance values were listed for comparative purposes. Since the

designated use of Class C waters is fishing, the standards and guidance values are protective of fish, shellfish, and wildlife propagation and survival, as well as primary and secondary contact recreation.

In general, the concentrations of metals were below their respective WQS with the exception of iron, which was present in all spring water samples at levels that exceeded the criteria for protection of aquatic life from chronic effects.

Sediment Quality

Sediment samples (SP-3-SED) were collected in the vicinity of SP-3 during the site visits in June, and September 2019 using the sampling methodology previously described. Sediment quality analytical results are summarized in Table 4.

Measures were taken to decant the liquid out of the sample during collection, and the sediment samples had percent moisture contents of 32.3 and 29.1 respectively. This range of percent moisture content appears to provide reliable data (i.e., not biased high) when comparing the relationship between sample moisture content and analytical data from previous results. When the moisture content is very high, the metals in the sediment pore water are included in the analysis. When the sample results are normalized to a dry weight basis the result is a very high concentration of metals in the sediment. Both the June and September sampling efforts found exceedances of arsenic when compared to Class A, NYSDEC Freshwater Sediment Screening Values, but these results were consistent with arsenic concentrations in samples collected in previous years. The sediment data will continue to be assessed to determine if future sediment scraping and disposal is necessary to maintain conditions that are consistent with Class A sediment (low risk to aquatic life), as described in Table 4 - Freshwater Sediment Guidance Values of the NYSDEC Screening and Assessment of Contaminated Sediment document (NYSDEC 2014).

Groundwater Remediation System

One reagent injection was conducted during 2019. The injection was initiated on August 27, 2019 and was completed on August 29, 2019. The prior molasses injection event was completed on May 1, 2012. Appendix B provides a summary of the quantity of molasses solution that was injected in each of the injection wells.

Spring Water Remediation System

During the site visits in June and September 2019, the SP-5 Spring Water Remediation System was cleaned out by ALS and did not require replacement of granulated activated carbon media. SP-5 analytical results for this reporting period are provided in Table 5. As shown in Table 5, influent TVOC concentrations remained stable in June (24 µg/L) and September (28 µg/L) 2019 when compared to historical data. Furthermore, the influent concentrations were below (or within the range of) their respective BPJ limits during the reporting period. TVOC concentrations of 15 µg/L (June 2019) and 2.9 µg/L (September 2019) were detected in SP-5 effluent.

Table 6 contains the SP-5 spring water remediation system VOC mass removal estimate for the reporting period and since system startup. Approximately 450,000 gallons of spring water were treated during this reporting period and approximately 0.09 pounds (lbs) of mass were recovered since December 2018. An

estimated 7,490,000 gallons of spring water has been treated and an estimated 2.7 lbs of VOC mass has been recovered since system startup in October 2003.

IC/EC AND O&M PLAN COMPLIANCE

Broome County personnel conducted site inspections to comply with IC/EC requirements during 2019. The completed Inspection and Certification Form is provided as Appendix C. In addition, Broome County's compliance with components of the O&M portion of the SMP is documented in Appendix D.

CONCLUSIONS

Based on the data generated during the reporting period, Arcadis concludes the following:

- The concentration of VOCs in groundwater downgradient of the landfill boundary generally remained stable during the reporting period when compared with the previous groundwater monitoring event; however, VOC concentrations at the landfill perimeter (i.e., PW-7 and GMMW-7) increased in comparison with 2018 results.
- There have not been any discernible changes in the relative appearance of spring areas thus far since the discontinuation pilot test, except for the SP-3 area where substantial amounts of willows and grasses have become established.
- VOC and metals concentrations in surface water continue to be low or non-detect and consistent with historical data, despite the presence of VOCs and metals in the spring water.
- Sediment quality results during June and September of 2019 were generally consistent with sediment sample results from 2018.

RECOMMENDATIONS

The following recommendations are made for this reporting period:

- Continue to conduct monitoring for residual VOCs via groundwater, spring water, and surface water monitoring in accordance with the SMP.
- Continue to inspect the former spring locations and the embankment of the North Stream.
- Continue to conduct semi-annual sediment sampling at SP-3.

PROJECT SCHEDULE

Semi-annual sampling of surface water, spring water, sediment and SP-5 influent/effluent will continue in accordance with the SMP. The next 5th quarter groundwater monitoring event is scheduled for the 4th quarter of 2020.

Please feel free to contact me if you have any questions or comments.

Sincerely,

Arcadis of New York, Inc.



Steven M. Feldman
Project Manager

Copies:

Laurie Haskell, Broome County
George Jacob, USEPA
Richard Jones, NYSDOH, electronic copy

Enclosures:

Tables

- 1 Concentrations of Volatile Organic Compounds Detected in Groundwater, Colesville Landfill, Broome County, New York.
- 2 Concentrations of General Chemistry, Inorganics, Field Parameters and Dissolved Gases Detected in Groundwater, Colesville Landfill, Broome County, New York.
- 3 Concentrations of Volatile Organic Compounds and Selected Metals Detected in Surface Water, Colesville Landfill, Broome County, New York.
- 4 Concentrations of Volatile Organic Compounds and Selected Metals Detected in Spring Water, Colesville Landfill, Broome County, New York.
- 5 Concentrations of Metals Detected in Sediment Samples Associated with Springs, Colesville Landfill, Broome County, New York.
- 6 Concentrations of Volatile Organic Compounds Detected in Aqueous Samples Collected from the SP-5 Spring Water Remediation System, Colesville Landfill, Broome County, New York.
- 7 SP-5 Spring Water Remediation System Mass Removal Rate of Volatile Organic Compounds, Colesville Landfill, Broome County, New York.

Figures

- 1 Site Plan, Colesville Landfill, Broome County, New York
- 2 Spring Water and Surface Water Sampling Locations Along the North Stream, Colesville Landfill, Broome County, New York

Attachment

- A Laboratory Analytical Results
- B Molasses Solution Injection Volumes
- C Inspection and Certification Form
- D O&M Plan Compliance Form

TABLES



Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Location ID: Date:	GMMW-05 12/17/13	GMMW-05 03/19/14	GMMW-05 06/19/14	GMMW-05 09/08/14	GMMW-05 12/09/15	GMMW-05 03/29/17	GMMW-05 06/14/18	GMMW-05 07/25/18	GMMW-05 09/17/19	GMMW-06 03/22/12	GMMW-06 06/21/12	GMMW-06 09/19/12	GMMW-06 12/18/12	GMMW-06 03/26/13	GMMW-06 06/19/13	GMMW-06 09/18/13	GMMW-06 12/17/13	GMMW-06 03/20/14	GMMW-06 06/19/14	GMMW-06 09/08/14	GMMW-06 12/09/15	GMMW-06 03/29/17
1,1,1-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	2.6	<1.0	0.92 J	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1-Dichloroethane		5.3	2.8	3.6	0.92 J	3.5 J	10	11	9.8	<5.0	110 D	100	110 D	120 D	110 J	93	69	59	36	32	29	9.0 J	14
1,1-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2,4-Trichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dibromoethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dichloroethane		<1.0	<1.0	0.52 J	<5.0	0.37 J	<5.0	<5.0	0.36 J	<5.0	0.81 J	<2.0	0.85 J	0.81 J	<2.0	0.80 J	<2.0	<4.0	<4.0	<4.0	0.82 J	<10	<10
1,2-Dichloropropane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.76 J	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.60 J	<10	<10
1,3-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,4-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
2-Butanone		<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<20	<10	<10	<20	<20	<20	<40	<40	<40	<10	<20	<20
2-Hexanone		<5.0	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<10	<5.0	<10	<5.0	<5.0	<10	<10	<10	<20	<20	<20	<10	<20	<20
4-Methyl-2-pentanone		<5.0	<5.0	<5.0	<10	<10 J	<10	<10	<10	<10	<5.0	<10	<5.0	<5.0	<10	<10	<10	<20	<20	<20	<10	<20	<20
Acetone		<10	4.1 J	<10	<10 J	<10	<10	<10	2.7 J	<10	7.3 J	<20 B	<10 B	<10	<20	<20	<20	<40	<40	<40	<10	<20 B	<20
Benzene		1.0	0.70 J	1.5	0.88 J	1.1 J	<5.0	<5.0	1.1 J	<5.0	6.6	4.9	5.9	5.2	5.0	4.8	5.6	5.9	6.0	6.3	6.9	5.8 J	<10
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Bromoform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Bromomethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Carbon Disulfide		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Carbon Tetrachloride		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Chlorobenzene		5.3 J	4.4 J	9.8	5.2	9.5	8.8	8.1	6.1	14	30 J	24	26	22	26	26	27 J	28	34	31	29	19	20
Chloroethane		73 J	45 J	96	55	46	61	60	46	69	120 D	100	240 D	140 D	150	140	270 D	270	260	290	230 D	200	200
Chloroform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Chloromethane		<1.0	<1.0	0.59 J	0.32 J	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.22 J	<10	<10
cis-1,2-Dichloroethene		1.4	1.6	2.3	1.2 J	1.4 J	<5.0	<5.0	0.99 J	<5.0	5.9	10	9.6	8.3	13	12	5.0	5.8	3.9 J	4.9	4.6 J	2.5 J	<10
cis-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Cyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	0.80 J	<2.0	<1.0	2.9	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Dibromochloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	1.8	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10 J	<10
Ethylbenzene		<1.0	<1.0	<1.0	0.26 J	0.52 J	<5.0	<5.0	<5.0	<5.0	1.7 J	<2.0	0.89 J	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.63 J	0.48 J	<10
Isopropylbenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.23 J	<10	<10
Methyl acetate		<1.0	<2.5	<2.5	<10	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<10	<10	<10	<20	<20
Methyl tert-butyl ether		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Methylcyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Methylene Chloride		<1.0 B	0.49 J	<1.0 B	<5.0	<5.0	<5.0	<5.0	0.62 J	<5.0	5.2	4.3	3.9	3.2	4.6	3.4	3.5	<4.1 B	5.0	5.2	3.8 J	3.1 J	<10
Styrene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Tetrachloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Toluene		0.56 J	<1.0	0.74 J	0.74 J	<5.0	<5.0	<5.0	<5.0	<5.0	4.1	1.4 J	2.8	2.1	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.87 J	<10	<10
trans-1,2-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.34 J	<5.0	1.1 J	<2.0	0.93 J	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	1.1 J	0.90 J	<10
trans-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Trichloroethene		1.2	1.0	1.3	0.72 J	1.9 J	5.1	5.6	4.8 J	<5.0	2.9	6.1	3.3	7.1	5.3	9.6	4.0 J	5.4	5.6	4.4	3.4 J	1.2 J	<10
Trichlorofluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Vinyl Chloride		1.3	<1.0	1.2	0.46 J	0.39 J	<5.0	<5.0	0.66 J	<5.0	4.9	9.9	11	7.8	7.7	8.0	3.9	<4.0	<4.0	<4.0	2.7 J	0.82 J	<10
m,p-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)		<2.0	<2.0	<2.0	1.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	3.8	1.4 J	1.7 J										

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Location ID: Date:	GMMW-06 06/14/18	GMMW-06 07/25/18	GMMW-06 09/17/19	GMMW-07 09/19/12	GMMW-07 09/18/13	GMMW-07 03/20/14	GMMW-07 09/08/14	GMMW-07 12/09/15	GMMW-07 03/29/17	GMMW-07 06/14/18	GMMW-07 09/17/19	PW-03 09/19/12	PW-03 09/17/13	PW-03 09/05/14	PW-03 12/09/15	PW-03 03/29/17	PW-03 06/14/18	PW-03 09/17/19	PW-04 03/22/12	PW-04 06/21/12	PW-04 09/19/12	PW-04 12/18/12	PW-04 03/26/13	PW-04 06/19/13
1,1,1-Trichloroethane		<10	<10	<5.0	2.2	3.6	2.9	0.59 J	0.80 J	<5.0	<5.0	<5.0	3.0	2.6	2.7 J	1.3 J	<5.0	<5.0	<5.0	2.2	5.3	6.0	5.8	4.5	4.8
1,1,2,2-Tetrachloroethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloro-1,2,2-trifluoroethane		<10	<10	<5.0	0.45 J	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		<10	<10	<5.0	1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		<10	14	51	230 DJ	78	59	51	20	<5.0	24	110	34	30	27	20	<5.0	6.7	6.6	60	4.3	9.7	7.7	4.8	4.8
1,1-Dichloroethene		<10	<10	<5.0	1.3	<1.0	0.40 J	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.30 J	<1.0	<1.0
1,2,4-Trichlorobenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane		<10	0.84 J	<5.0	2.1	0.45 J	<1.0	0.54 J	<5.0	<5.0	<5.0	<5.0	0.26 J	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.49 J	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.72 J	0.53 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone		<20	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone		<20	<20	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone		<20	<20	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone		<20	4.5 J	<10	<10	<10	3.9 J	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene		<10	4.3 J	<5.0	2.6	1.3	1.3	0.80 J	<5.0	<5.0	<5.0	<5.0	<1.0	0.67 J	1.4 J	0.67 J	<5.0	<5.0	<5.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide		<20	<20	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene		19	19	22	23	18	16	4.4 J	3.6 J	<5.0	<5.0	11	1.2	2.5	5.7	5.4	<5.0	<5.0	<5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane		190	180	110	160 D	23	11	14	6.0	<5.0	8.9	53	6.4	3.6	3.7 J	3.3 J	<5.0	<5.0	<5.0	11	1.0	3.5	1.0	<1.0	1.0
Chloroform		<10	<10	<5.0	1.1	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.57 J	0.35 J	0.36 J	0.26 J	<5.0	<5.0	<5.0	<1.0	<1.0 B	0.56 J	0.53 J	<1.0	0.47 J
Chloromethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		<10	2.4 J	9.0	200 DJ	46	34	39	8.1	<5.0	19	77	17	16	26	9.5	<5.0	<5.0	<5.0	29	1.8	5.2	4.4	2.9	3.4
cis-1,3-Dichloropropene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane		<20	<20	<10	0.37 J	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	0.69 J	<1.0	<1.0
Dibromochloromethane		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<10	<10	<5.0	2.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	1.8	1.8	<1.0	<1.0	1.3
Ethylbenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl acetate		<20	<20	<10	<1.0	<1.0	<2.5	<10	<10	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane		<20	<20	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride		<10	3.0 J	<5.0	2.3	<1.0	0.47 J	0.70 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.47 J	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene		<10	<10	<5.0	0.44 J	<1.0	0.36 J	<5.0	<5.0	<5.0	<5.0	<5.0	2.5	2.4	2.5 J	2.2 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene		<10	0.88 J	<5.0	0.92 J	<1.0	<1.0	0.33 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.36 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene		<10	<10	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene		<10	0.68 J	<5.0	47	23	19	4.9 J	7.4	<5.0	5.5														

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Location ID: Date:	PW-7 Lower	PW-7 Upper	PW-07	PW-07	PW-07	W-07	W-07	W-07	W-07	W-07	W-07	W-07	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	W-16S	
		06/03/16	06/03/16	03/29/17	06/14/18	09/17/19	09/19/12	09/17/13	09/05/14	12/09/15	03/08/17	06/14/18	09/17/19	09/18/12	09/17/13	09/05/14	12/09/15	03/08/17	06/14/18	09/17/19	09/18/12	09/17/13	09/05/14	12/09/15	03/08/17	06/14/18	09/17/19
1,1,1-Trichloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		32	16	48	20	76	1.9	2.7	0.57 J	2.6 J	<5.0	<5.0	<5.0	13	12	11	10	11	8.8	11	<1.0	<1.0	0.38 J	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.60 J	0.47 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone		<10	<10	<10	<10	<10	<10	<10	<10 J	1.1 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10
2-Hexanone		<10	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10
4-Methyl-2-pentanone		<10	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10
Acetone		<10	<10	<10	<10	<10	<10	<10	<10 J	<10 B	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10
Benzene		<5.0	<5.0	<5.0	<5.0	<5.0	0.48 J	0.57 J	<5.0	0.53 J	<5.0	<5.0	<5.0	1.7	1.3	1.7 J	1.3 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide		<10	<10	<10	<10	<10	<1.0	<1.0	<10	1.8 J	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10
Carbon Tetrachloride		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene		<5.0	<5.0	<5.0	9.6	21	1.9	2.1	<5.0	5.2	7.2	<5.0	<5.0	18	19	19	19	19	24	24	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane		7.0	<5.0	20	13	36	4.9	3.3	0.27 J	<5.0	<5.0	<5.0	<5.0	9.5	8.4	4.4 J	3.4 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		13	6.7	23	13	56	<1.0	0.84 J	<5.0	1.5 J	<5.0	<5.0	<5.0	1.3	1.5	1.4 J	1.4 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane		<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Dibromochloromethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0
Ethylbenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate		<10	<10	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<10
Methyl tert-butyl ether		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Methylene Chloride		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0					

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Location ID: Date:	W-18 09/18/12	W-18 09/17/13	W-18 09/05/14	W-18 12/09/15	W-18 03/29/17	W-18 06/14/18	W-18 09/17/19	W-20S 09/18/12	W-20S 09/17/13	W-20S 09/05/14	W-20S 12/09/15	W-20S 03/29/17	W-20S 06/14/18	W-20S 09/17/19	GMPW-04 04/26/12	GMPW-04 06/21/12	GMPW-04 09/20/13	GMPW-04 09/05/14	GMPW-04 12/09/15	GMPW-04 03/08/17	GMPW-04 06/14/18	GMPW-04 07/25/18	GMPW-04 09/17/19
1,1,1-Trichloroethane		8.2	8.1	6.0	4.5 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	1.1	7.8	6.3	3.5 J	<5.0	<5.0	3.0 J	<5.0
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,1,2-trichloro-1,2,2-trifluoroethane		0.34 J	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,1,2-Trichloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,1-Dichloroethane		18	16	15	14	<5.0	5.9	6.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	9.0	29	38	32	34	23	22	18
1,1-Dichloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.61 J	0.65 J	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,2-Dibromoethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,2-Dichloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.44 J	<5.0	<5.0	<5.0	0.34 J	<5.0
1,2-Dichloropropane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.71 J	0.59 J	<5.0	<5.0	0.45 J	<5.0
1,3-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
1,4-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
2-Butanone		<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10
2-Hexanone		<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<10
4-Methyl-2-pentanone		<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<10
Acetone		<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10
Benzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.57 J	<1.0	3.2 J	2.4 J	<5.0	<5.0	1.7 J	<5.0
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Bromoform		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Bromomethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Carbon Disulfide		<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Chlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	2.0	4.7	16	12	14	11	6.5	8.7
Chloroethane		1.8	<1.0	0.71 J	0.72 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	4.2	14	20	15	14	13	10	6.2
Chloroform		0.49 J	0.41 J	0.36 J	0.38 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.28 J	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane		<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		16	15	15	12	<5.0	6.7	5.7	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	4.9	14	24	14	14	11	10	8.3
cis-1,3-Dichloropropene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane		<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Dibromochloromethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	1.1	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
Ethylbenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate		<1.0	<1.0	<10 J	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10 J	<10	<10	<10	<10	<10
Methyl tert-butyl ether		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Methylene Chloride		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.59 J	1.4 J	0.87 J	<5.0	<5.0	0.63 J	<5.0
Styrene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.40 J	0.59 J	0.58 J	<5.0	<5.0	<5.0	<5.0
Toluene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.50 J	0.47 J	<5.0	<5.0	0.34 J	<5.0
trans-1,3-Dichloropropene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		19	19	20	11	<5.0	9.3	9.2	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	5.7	31	36	32	32	25	16	21
Trichlorofluoromethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.96 J	3.1	4.0 J	1.9 J	<5.0	<5.0	1.5 J	<5.0
m,p-Xylene		--	--	--	--																			

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Notes and abbreviations:

Bold constituent detected above method detection limit.

B	Compound considered non-detect at the listed value due to associated blank contamination.
D	Concentration is based on a diluted sample analysis.
J	Concentration is an estimated value.
ug/L	micrograms per liter
VOCs	volatile organic compounds
--	Not analyzed.
<	analyte below detection limit

Table 2.
Concentrations of General Chemistry, Inorganics,
Field Parameters and Dissolved Gases Detected in Groundwater,
Colesville Landfill,
Broome County, New York.

Parameters	Units	Typical Baseline Values for Discontinuation Pilot Test Area ⁽¹⁾	GMMW-02 06/14/18	GMMW-02 09/17/19	GMMW-05 06/14/18	GMMW-05 09/17/19	GMMW-06 06/14/18	GMMW-06 09/17/19	GMMW-07 06/14/18	GMMW-07 09/17/19	GMPW-04 06/14/18
GENERAL CHEMISTRY											
Nitrate	mg/L	0.632	<1	<1	<1	<1	<1	<1	<1	<1	--
Nitrite	mg/L	0.026	<1	<1	<1	<1	<1	<1	<1	<1	--
Sulfate	mg/L	4.38	14.4	13.8	9.1	2.2	<2	3.5	12.8	12.1	--
Total Organic Carbon	mg/L	6.6	1.7	2.1	2.7	2.7	5.9	5.2	<1	2.1	--
INORGANICS											
Iron	mg/L	0.493	0.190	0.120	18.4	19.7	14.3	17.8	<0.100	0.100	--
Iron (Filtered)	mg/L	0.455	<0.1	<0.1	16.2	17	12.6	12.6	<0.1	<0.1	--
Manganese	mg/L	2.15	--	6.16	--	4.03	--	10.4	--	2.79	--
FIELD PARAMETERS											
pH	Standard units	6.88	6.33	6.23	6.73	6.79	6.53	6.45	6.57	6.79	6.5
Specific Conductance	mmhos/cm	0.420	0.485	0.513	0.401	0.367	0.859	0.875	0.236	0.374	0.686
Temperature	deg C	13.0	10.9	10.9	11.6	11.4	12	11	15.1	12.1	11.5
Reduction/Oxidation Potential	mv		108	100	-60	-89	-54	-31	133	85	112
Turbidity	NTU		2.5	2	14.3	8.2	11	9.2	9.3	7.7	3
DISSOLVED GASES											
Ethane	ng/L	2,590	620	600	4,600	12,000	12,000	3,100	70 J	700	--
Ethene	ng/L	7,700	880	420	5,200	670	1,600	2,600	370	2,800	--
Methane	ug/L	450	1,000	600	200	1,400	1,400	610	57	500	--

Notes and abbreviations on last page.

Table 2.
Concentrations of General Chemistry, Inorganics,
Field Parameters and Dissolved Gases Detected in Groundwater,
Colesville Landfill,
Broome County, New York.

Parameters	Units	Typical Baseline Values for Discontinuation Pilot Test Area ⁽¹⁾	GMPW-04 09/17/19	PW-03 06/14/18	PW-03 09/17/19	PW-04 06/14/18	PW-04 06/14/18 Dup	PW-04 09/17/19	PW-04 09/17/19 Dup	PW-05 06/14/18	PW-05 09/17/19
GENERAL CHEMISTRY											
Nitrate	mg/L	0.632	--	<1	<1	<1	1.1	<1	<1	--	--
Nitrite	mg/L	0.026	--	<1	<1	<1	<1	<1	<1	--	--
Sulfate	mg/L	4.38	--	9.6	10.2	25.2	16.2	12.6	12.9	--	--
Total Organic Carbon	mg/L	6.6	--	1.7	2	1.9	1.8	1.8	1.7	--	--
INORGANICS											
Iron	mg/L	0.493	--	5.47	0.920	0.95	34.8	0.560	0.900	--	--
Iron (Filtered)	mg/L	0.455	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Manganese	mg/L	2.15	--	--	0.0160	--	--	0.129	0.194	--	--
FIELD PARAMETERS											
pH	Standard units	6.88	6.45	6.47	7.44	6.4	6.37	6.96	6.97	7.11	8.11
Specific Conductance	mmhos/cm	0.420	0.651	0.419	0.393	0.385	0.389	0.246	0.247	0.28	0.28
Temperature	deg C	13.0	12.7	11.6	14.7	11.5	11.5	11.9	11.9	14.6	13.4
Reduction/Oxidation Potential	mv		107	141	160	178	183	141	143	54	90
Turbidity	NTU		3.3	24	15.2	3.9	4.3	9	8.5	36.8	49.6
DISSOLVED GASES											
Ethane	ng/L	2,590	--	<200	<6	64 J	50 J	<6	<6	--	--
Ethene	ng/L	7,700	--	<200	<12	<200	<200	<12	<12	--	--
Methane	ug/L	450	--	0.06 J	30	63	44	0.15 J	0.13 J	--	--

Notes and abbreviations on last page.

Table 2.
Concentrations of General Chemistry, Inorganics,
Field Parameters and Dissolved Gases Detected in Groundwater,
Colesville Landfill,
Broome County, New York.

Parameters	Units	Typical Baseline Values for Discontinuation Pilot Test Area ⁽¹⁾	PW-07 06/14/18	PW-07 09/17/19	W-07 06/14/18	W-07 09/17/19	W-16S 06/14/18	W-16S 09/17/19	W-17S 06/14/18	W-17S 09/17/19	W-18 06/14/18
GENERAL CHEMISTRY											
Nitrate	mg/L	0.632	1.7	1.9	--	--	--	<1	--	--	<1
Nitrite	mg/L	0.026	<1	<1	--	--	--	<1	--	--	<1
Sulfate	mg/L	4.38	8.7	8.2	--	--	--	10.9	--	--	8.2
Total Organic Carbon	mg/L	6.6	1.5	1.8	--	--	--	2	--	--	2.5
INORGANICS											
Iron	mg/L	0.493	11.9	35.5	--	--	--	0.440	--	--	1.70
Iron (Filtered)	mg/L	0.455	2.25	3.96	--	--	--	0.24	--	--	<0.1
Manganese	mg/L	2.15	--	6.34	--	--	--	11.9	--	--	--
FIELD PARAMETERS											
pH	Standard units	6.88	6.48	6.97	6.66	6.35	6.25	6.27	7.25	6.31	6.38
Specific Conductance	mmhos/cm	0.420	0.171	0.217	0.41	0.329	0.406	0.477	0.139	0.188	0.319
Temperature	deg C	13.0	13	11.9	10.1	11.9	12.6	14.1	11.8	15.6	12.8
Reduction/Oxidation Potential	mv		62	1	-35	4	101	34	167	167	192
Turbidity	NTU		29.2	18	8.5	14.8	3.1	4	3.6	9.2	5.6
DISSOLVED GASES											
Ethane	ng/L	2,590	29 J	200	--	--	--	100 J	--	--	<200
Ethene	ng/L	7,700	140 J	680	--	--	--	48 J	--	--	<200
Methane	ug/L	450	11	180	--	--	--	2,000	--	--	0.059 J

Notes and abbreviations on last page.

Table 2.
Concentrations of General Chemistry, Inorganics,
Field Parameters and Dissolved Gases Detected in Groundwater,
Colesville Landfill,
Broome County, New York.

Parameters	Units	Typical Baseline Values for Discontinuation Pilot Test Area ⁽¹⁾	W-18 09/17/19	W-20S 06/14/18	W-20S 09/17/19
GENERAL CHEMISTRY					
Nitrate	mg/L	0.632	<1	1	<1
Nitrite	mg/L	0.026	<1	<1	<1
Sulfate	mg/L	4.38	8.7	10	9.8
Total Organic Carbon	mg/L	6.6	1.4	1.2	<1
INORGANICS					
Iron	mg/L	0.493	0.250	2.23	3.98
Iron (Filtered)	mg/L	0.455	<0.1	<0.1	<0.1
Manganese	mg/L	2.15	0.0420	--	3.14
FIELD PARAMETERS					
pH	Standard units	6.88	6.27	7	6.22
Specific Conductance	mmhos/cm	0.420	0.444	0.132	0.134
Temperature	deg C	13.0	15.8	11.9	13.6
Reduction/Oxidation Potential	mv		94	152	183
Turbidity	NTU		2.9	10.9	13.9
DISSOLVED GASES					
Ethane	ng/L	2,590	<6	<200	<6
Ethene	ng/L	7,700	<12	<200	<12
Methane	ug/L	450	0.43 J	0.13 J	0.11 J

Notes and abbreviations on last page.

Table 2.
Concentrations of General Chemistry, Field Parameters,
and Dissolved Gases Detected in Groundwater,
Colesville Landfill,
Broome County, New York.⁽¹⁾

Notes and abbreviations:

Bold constituent detected above method detection limit.

B	Compound considered non-detect at the listed value due to associated blank contamination.
D	Concentration is based on a diluted sample analysis.
deg C	degrees Celsius
IRZ	in-situ reactive zone
J	Concentration is an estimated value.
mg/L	milligrams per liter
mmhos/cm	millimhos per centimeter
ng/L	nanograms per liter
ug/L	micrograms per liter
--	not analyzed or collected
<	Analyte below detection limit.
(1)	Values represent data from Monitoring Well GMMW-5 collected on December 7, 1998.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		F-6 3/28/2013	F-6 9/19/2013	F-6 3/19/2014	F-6 9/9/2014	F-6 12/8/2015	F-6 12/13/2016	F-6 5/9/2017	F-6 9/13/2017	F-6 6/8/2018	F-6 06/03/19	F-6 09/16/19	SW-2 3/28/2013	SW-2 9/19/2013	SW-2 3/19/2014	SW-2 9/9/2014	SW-2 12/8/2015	SW-2 12/13/2016	SW-2 5/9/2017	SW-2 9/13/2017
<u>Volatile organic compounds (VOCs)</u> <u>(units in ug/L)</u>	NYSDEC Part 703 WQS ²	Basis																			
1,1,1-Trichloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		<1.0	<1.0	<1.0	0.31 J	0.26 J	0.28 J	0.21 J	0.35 J	0.45 J	0.43 J	0.57 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.9 J	<10
Benzene	10	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0 B	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 B	<5.0 B	<5.0
Carbon Disulfide	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10
Carbon Tetrachloride	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

	Sample ID:		F-6	F-6	F-6	F-6	F-6	F-6	F-6	F-6	F-6	F-6	F-6	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2
Constituents	Date:		3/28/2013	9/19/2013	3/19/2014	9/9/2014	12/8/2015	12/13/2016	5/9/2017	9/13/2017	6/8/2018	06/03/19	09/16/19	3/28/2013	9/19/2013	3/19/2014	9/9/2014	12/8/2015	12/13/2016	5/9/2017	9/13/2017
Volatile organic compounds (VOCs) (units in ug/L) (continued)																					
Chloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.31 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<1.0	<1.0	<2.5	<10	<10	<10 J	<10	<10	<10	<10	<10	<1.0	<1.0	<2.5	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichlorofluoromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	5	A(C) c	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		NA	NA	NA	0.31 J	0.26 J	0.28 J	0.21 J	0.35 J	0.45 J	0.43 J	0.88 J	NA	NA	NA	NA	ND	ND	1.9 J	ND

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		F-6 3/28/2013	F-6 9/19/2013	F-6 3/19/2014	F-6 9/9/2014	F-6 12/8/2015	F-6 12/13/2016	F-6 5/9/2017	F-6 9/13/2017	F-6 6/8/2018	F-6 06/03/19	F-6 09/16/19	SW-2 3/28/2013	SW-2 9/19/2013	SW-2 3/19/2014	SW-2 9/9/2014	SW-2 12/8/2015	SW-2 12/13/2016	SW-2 5/9/2017	SW-2 9/13/2017
Metals (units in mg/L)																					
Aluminum	0.1	A(C)	0.077 J	<0.200	0.130 J	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.13 J	<0.200	0.240	<0.100	<0.100	<0.100	0.206	<0.100
Antimony	NA		<0.020	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.020	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	<0.010	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.010	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Barium	NA		0.0066	0.00890	0.00770	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0067	0.00780	0.00790	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Beryllium	1100	A(C) e	<0.0020	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.0020	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.0010	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0010	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		8.7	20.7	9.00	19.0	21.2	14.0	7.67	21.4	18.5	11.1	18.7	5.3	14.6	5.10	14.0	12.1	5.61	6.36	15.2
Chromium	0.086	A(C) f	<0.0040	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0040	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0040	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0040	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	0.16	0.0870	0.160	<0.100	<0.100	<0.100	0.198	<0.100	<0.100	0.290	<0.100	0.16	0.0190 J	0.290	<0.100	<0.100	<0.100	0.320	<0.100
Lead	0.005	A(C) f	<0.0050	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0050	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		2.4	4.50	2.60	4.46	4.59	3.22	2.35	4.70	4.30	3.00	4.10	1.9	3.60	1.90	3.61	3.20	1.90	2.14	3.90
Manganese	NA		0.064	0.0900	0.0680	0.0517	0.0709	0.0419	0.0478	0.0500	0.0490	0.0730	0.0670	0.025	0.00180 J	0.0650	<0.0100	0.0100	<0.0100	0.0434	<0.0100
Mercury	0.0000007	H(FC)	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.010	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.010	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		0.87	0.920	1.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0.92	0.870	0.990	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.015	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.015	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0030	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0030	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		5.1	6.20	5.40	6.68	6.39	6.39	4.82	7.20	7.10	5.20	7.40	4.9	6.10	4.90	6.14	5.73	5.65	4.63	6.80
Thallium	0.008	A(C) g	<0.020	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.020	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0050	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0050	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	0.0016 J	<0.0100	0.00160 J	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

	Sample ID:		SW-2	SW-2	SW-2	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4
Constituents	Date:		6/8/2018	06/03/19	09/16/19	9/19/2013	3/19/2014	9/9/2014	12/8/2015	12/13/2016	5/9/2017	9/13/2017	6/8/2018	06/03/19	09/16/19	9/19/2013	3/28/2013	3/19/2014	9/9/2014	12/8/2015	12/13/2016	5/9/2017
<u>Volatile organic compounds (VOCs)</u> <u>(units in ug/L)</u>	NYSDEC Part 703 WQS ²	Basis																				
1,1,1-Trichloroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		<5.0	<5.0	<5.0	0.72 J	<1.0	1.4 J	1.2 J	0.43 J	0.28 J	0.90 J	0.73 J	0.78 J	1.2 J	0.82 J	0.49 J	<1.0	1.0 J	0.93 J	0.44 J	0.30 J
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 J	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10
2-Hexanone	NA		<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	3.0 BJ	<10	<10	<10	1.4 J	<10	<10	2.3 J
Benzene	10	H(FC)	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0 B	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0 B
Carbon Disulfide	NA		<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.40 J	0.30 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.23 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chloroform	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		SW-2 6/8/2018	SW-2 06/03/19	SW-2 09/16/19	SW-3 9/19/2013	SW-3 3/19/2014	SW-3 9/9/2014	SW-3 12/8/2015	SW-3 12/13/2016	SW-3 5/9/2017	SW-3 9/13/2017	SW-3 6/8/2018	SW-3 06/03/19	SW-3 09/16/19	SW-4 9/19/2013	SW-4 3/28/2013	SW-4 3/19/2014	SW-4 9/9/2014	SW-4 12/8/2015	SW-4 12/13/2016	SW-4 5/9/2017
Volatile organic compounds (VOCs) (units in ug/L) (continued)																						
Chloromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	0.34 J	0.31 J	<5.0	<5.0	<5.0	0.26 J	0.31 J	0.43 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10	<10	<1.0	<2.5	<10	<10	<10 J	<10	<10	<10	<10	<10	<1.0	<1.0	<2.5	<10	<10	<10 J	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	<5.0	<5.0	<5.0	<1.0	<1.0	0.27 J	<5.0	<5.0	<5.0	0.32 J	<5.0	<5.0	0.28 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		ND	ND	ND	0.72 J	NA	2.01 J	1.5 J	0.43 J	0.28 J	1.2 J	0.99 J	1.5 J	5.4 J	0.82 J	0.49 J	NA	2.4 J	0.93 J	0.44 J	2.6 J

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		SW-2 6/8/2018	SW-2 06/03/19	SW-2 09/16/19	SW-3 9/19/2013	SW-3 3/19/2014	SW-3 9/9/2014	SW-3 12/8/2015	SW-3 12/13/2016	SW-3 5/9/2017	SW-3 9/13/2017	SW-3 6/8/2018	SW-3 06/03/19	SW-3 09/16/19	SW-4 9/19/2013	SW-4 3/28/2013	SW-4 3/19/2014	SW-4 9/9/2014	SW-4 12/8/2015	SW-4 12/13/2016	SW-4 5/9/2017
Metals (units in mg/L)																						
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.200	0.210	<0.100	<0.100	<0.100	0.105	<0.100	<0.100	<0.100	<0.100	<0.200	0.085 J	0.150 J	<0.100	<0.100	<0.100	0.101
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0200	<0.020	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.010	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100
Barium	NA		<0.0200	<0.0200	<0.0200	0.00810	0.00760	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.00830	0.0066	0.00770	<0.0200	<0.0200	<0.0200	<0.0200
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00200	<0.0020	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00100	<0.0010	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		12.6	7.90	13.7	17.9	7.20	17.2	17.9	10.7	6.70	19.1	17.0	10.5	16.2	19.2	7.9	7.90	17.0	19.2	11.8	6.99
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.00400	<0.0040	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.00400	<0.0040	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0100	<0.010	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	<0.100	0.320	<0.100	<0.0500	0.240	<0.100	<0.100	<0.100	0.196	<0.100	<0.100	0.420	<0.100	0.0670	0.18	0.210	<0.100	<0.100	<0.100	0.197
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0050	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		3.50	2.60	3.20	4.00	2.30	4.12	4.06	2.65	2.20	4.30	4.00	3.00	3.60	4.20	2.3	2.40	4.03	4.31	2.86	2.23
Manganese	NA		<0.0100	0.0550	<0.0100	0.00530	0.0530	0.0133	0.0375	0.0130	0.0437	0.0100	0.0170	0.106	0.0560	0.0790	0.061	0.0710	0.0535	0.0431	0.0423	0.0453
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0100	<0.010	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	0.830	0.960	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0.910	0.87	0.960	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0150	<0.015	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.00300	<0.0030	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		6.50	4.90	6.90	6.20	5.00	6.50	6.01	6.08	4.70	7.00	7.00	5.10	6.80	6.00	5.0	5.10	6.14	6.38	6.08	4.71
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0200	<0.020	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.00500	<0.0050	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200	<0.0100	0.00170 J	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	<0.0100	<0.010	0.00180 J	<0.0200	<0.0200	<0.0200	<0.0200 J

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents		Sample ID: Date:		SW-4 9/13/2017	SW-4 6/8/2018	SW-4 06/03/19	SW-4 09/16/19
<u>Volatile organic compounds (VOCs)</u> <u>(units in ug/L)</u>		NYSDEC Part 703 WQS ²	Basis				
1,1,1-Trichloroethane		NA		<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		NA		<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		NA		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		40	H(FC)	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		NA		0.85 J	0.72 J	0.51 J	0.92 J
1,1-Dichloroethene		NA		<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		5	A(C) a	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane		NA		<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane		NA		<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene		5	A(C) b	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		NA		<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		NA		<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene		5	A(C) b	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		5	A(C) b	<5.0	<5.0	<5.0	<5.0
2-Butanone		NA		<10	<10	<10	<10
2-Hexanone		NA		<10	<10	<10	<10
4-Methyl-2-pentanone		NA		<10	<10	<10	<10
Acetone		NA		<10	<10	<10	<10
Benzene		10	H(FC)	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane		NA		<5.0	<5.0	<5.0	<5.0
Bromoform		NA		<5.0	<5.0	<5.0	<5.0
Bromomethane		NA		<5.0	<5.0	<5.0	<5.0
Carbon Disulfide		NA		<10	<10	<10	<10
Carbon Tetrachloride		NA		<5.0	<5.0	<5.0	<5.0
Chlorobenzene		5	A(C)	<5.0	<5.0	<5.0	0.21 J
Chloroethane		NA		<5.0	<5.0	<5.0	<5.0
Chloroform		NA		<5.0	<5.0	<5.0	<5.0

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents		Sample ID: Date:		SW-4 9/13/2017	SW-4 6/8/2018	SW-4 06/03/19	SW-4 09/16/19
Volatile organic compounds (VOCs) (units in ug/L) (continued)							
Chloromethane		NA		<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		NA		0.30 J	<5.0	<5.0	0.46 J
cis-1,3-Dichloropropene		NA		<5.0	<5.0	<5.0	<5.0
Cyclohexane		NA		<10	<10	<10	<10
Dibromochloromethane		NA		<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane		NA		<5.0	<5.0	<5.0	<5.0
Ethylbenzene		17	A(C) c	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		NA		<5.0	<5.0	<5.0	<5.0
Methyl acetate		NA		<10	<10	<10	<10
Methyl tert-butyl ether		NA		<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		NA		<10	<10	<10	<10
Methylene Chloride		200	H(FC)	<5.0	<5.0	<5.0	<5.0
Styrene		NA		<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		1	H(FC) c	<5.0	<5.0	<5.0	<5.0
Toluene		6000	H(FC)	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		NA		<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		NA		<5.0	<5.0	<5.0	<5.0
Trichloroethene		40	H(FC)	<5.0	<5.0	<5.0	0.21 J
Trichlorofluoromethane		NA		<5.0	<5.0	<5.0	<5.0
Vinyl Chloride		NA		<5.0	<5.0	<5.0	<5.0
Xylenes (total)		5	A(C) c	<5.0	<5.0	<5.0	<5.0
Total VOCs		NA		1.2 J	0.72 J	0.51 J	1.8 J

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		SW-4 9/13/2017	SW-4 6/8/2018	SW-4 06/03/19	SW-4 09/16/19
Metals (units in mg/L)						
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.100
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100
Barium	NA		<0.0200	<0.0200	<0.0200	<0.0200
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		19.8	18.3	10.8	17.2
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	0.180	0.110	0.330	<0.100
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		4.50	4.30	3.00	3.80
Manganese	NA		0.0710	0.0660	0.0730	0.0750
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		6.90	7.00	5.30	7.00
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200

See notes on the next page.

Table 3
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Notes and abbreviations:

Bold constituent detected above method detection limit.

J	Concentration is an estimated value.
mg/L	milligrams per liter
ug/L	micrograms per liter
<	Analyte below detection limit.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 7/13/2012	SP-2 3/28/2013	SP-2 6/19/2013	SP-2 9/19/2013	SP-2 12/18/2013	SP-2 3/19/2014	SP-2 6/10/2015	SP-2 12/8/2015
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3 J	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1-Dichloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.2 J	<5.0
1,1-Dichloroethene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J
1,2-Dibromoethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dichloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dichloropropane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
4-Methyl-2-pentanone	NA		<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10
Benzene	10	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromodichloromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromoform	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Bromomethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J
Carbon Disulfide	NA		<5.0	<1.0	<1.0	<1.0	<1.0	0.73 J	<10	<10
Carbon Tetrachloride	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Chloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Chloroform	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Chloromethane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
cis-1,3-Dichloropropene	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Cyclohexane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10
Dibromochloromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J
Ethylbenzene	17	A(C) c	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Methyl acetate	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<2.5	<10	<10
Methyl tert-butyl ether	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Methylcyclohexane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Styrene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Toluene	6000	H(FC)	12	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Trichloroethene	40	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2 J	0.47 J
Trichlorofluoromethane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0
Xylenes (total)	5	A(C) c	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0
Total VOCs	NA		12	NA	NA	NA	NA	0.73 J	6.7 J	0.47 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 7/13/2012	SP-2 3/28/2013	SP-2 6/19/2013	SP-2 9/19/2013	SP-2 12/18/2013	SP-2 3/19/2014	SP-2 6/10/2015	SP-2 12/8/2015
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	NA	0.39	0.720	1.50	2.40	5.10	<0.100	<0.100
Antimony	NA		NA	<0.020	<0.0200	<0.0200	<0.0200	<0.0200	<0.0600	<0.0600
Arsenic	0.15	A(C) d	NA	<0.010	<0.0100	<0.0100	<0.0100	<0.0150	<0.0100	<0.0100
Barium	NA		NA	0.0087	0.0130	0.0190	0.0320	0.0460	<0.0200	0.0276
Beryllium	1100	A(C) e	NA	<0.0020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00300	<0.00300
Cadmium	0.002	A(C) f	NA	<0.0010	<0.00100	<0.00100	<0.00100	<0.00200	<0.00500	<0.00500
Calcium	NA		NA	7.20	7.30	7.70	7.80	8.90	11.1	11.3
Chromium	0.086	A(C) f	NA	<0.0040	<0.00400	0.00180 J	0.00240 J	0.00570	<0.0100	<0.0100
Cobalt	0.005	A(C) g	NA	<0.0040	0.000640 J	0.00110 J	0.00220 J	0.00530	<0.0500	<0.0500
Copper	0.009	A(C) f	NA	<0.010	<0.0100	0.00240 J	0.00440 J	0.00890 J	<0.0200	<0.0200
Iron	0.3	A(C)	NA	0.51	0.930	2.30	3.60	9.00	<0.100	1.30
Lead	0.005	A(C) f	NA	<0.0050	<0.00500	<0.00500	0.00430 J	0.0120	<0.00500	<0.00500
Magnesium	NA		NA	2.0	1.80	2.20	2.40	3.20	3.37	2.89
Manganese	NA		NA	0.12	0.200	0.580	0.850	1.20	<0.0100	4.34
Mercury	0.0000007	H(FC)	NA	<0.00020	<0.000200	<0.000200	NA	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	NA	<0.010	<0.0100	0.00350 J	0.00590 J	0.00960 J	<0.0400	<0.0400
Potassium	NA		NA	0.75	0.410 J	1.30	1.30	1.90	<2.00	<2.00
Selenium	0.0046	A(C) d	NA	<0.015	<0.0150	<0.0150	<0.0150	<0.0250	<0.0100	<0.0100
Silver	0.0001	A(C) h	NA	<0.0030	<0.00300	<0.00300	<0.00300	<0.00600	<0.0100	<0.0100
Sodium	NA		NA	4.5	5.00	4.20	4.10	4.20	4.22	5.00
Thallium	0.008	A(C) g	NA	<0.020	<0.0200	<0.0200	<0.0200	<0.0200	<0.0100	<0.0100
Vanadium	0.014	A(C) g	NA	<0.0050	<0.00500	0.00200 J	0.00320 J	0.00770	<0.0500	<0.0500
Zinc	0.08	A(C) f	NA	0.0023 J	0.00630 J	0.00820 J	0.0150	0.0250	<0.0200	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 6/3/2016	SP-2 12/13/2016	SP-2 5/9/2017	SP-2 9/13/2017	SP-02 6/8/2018	SP-2 12/6/2018	SP-2 6/3/2019	SP-2 9/16/2019
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<5.0	0.65 J	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		<5.0	<5.0	20	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10 J	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		2.4 J	1.6 J	1.8 J	<10	<10	<10	<10	3.4 BJ
Benzene	10	H(FC)	<5.0	<5.0	0.21 J	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0	<5.0	<5.0 B	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide	NA		<10	<10	<10	0.30 BJ	<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<5.0	<5.0	7.4	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	NA		<5.0	<5.0	5.7	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<5.0	<5.0	7.3	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10 J	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	0.59 J	0.52 J	3.6 J	<5.0	0.28 J	<5.0	0.30 J	0.30 J
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	<5.0	2.5 J	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		3.0 J	2.1 J	49 J	0.30 J	0.28 J	ND	0.30 J	3.7 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 6/3/2016	SP-2 12/13/2016	SP-2 5/9/2017	SP-2 9/13/2017	SP-02 6/8/2018	SP-2 12/6/2018	SP-2 6/3/2019	SP-2 9/16/2019
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0150	<0.0100	<0.0100	0.0410	<0.0100	<0.0100	<0.0100	0.0280
Barium	NA		0.0269	<0.0200	0.0270	<0.0200	0.0210	<0.0200	<0.0200	0.0270
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		9.40	10.9	27.6	9.30	8.60	8.50	8.90	10.3
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	3.05	2.84	6.95	8.52	3.37	2.27	1.99	16.1
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		2.20	2.84	5.91	2.20	2.10	2.40	2.40	2.60
Manganese	NA		2.63	5.07	2.28	4.43	2.39	1.54	1.84	4.90
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		5.63	4.55	3.62	4.60	5.60	4.50	4.70	5.50
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 7/13/2012	SP-3 3/28/2013	SP-3 6/19/2013	SP-3 9/19/2013	SP-3 12/18/2013	SP-3 3/19/2014	SP-3 6/19/2014	SP-3 9/9/2014
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethane	NA		76	41	23	22	26	34	25	10
1,1-Dichloroethene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dibromoethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichloroethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichloropropane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
4-Methyl-2-pentanone	NA		<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10
Benzene	10	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromodichloromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromoform	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromomethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Carbon Disulfide	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Carbon Tetrachloride	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Chlorobenzene	5	A(C)	42	3.5	1.7	3.1	1.5	2.7	3.0	1.9 J
Chloroethane	NA		18	7.0	2.4	5.0	4.6	5.9	6.0	1.8 J
Chloroform	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Chloromethane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
cis-1,2-Dichloroethene	NA		24 Q	14	7.8	6.5	6.1	9.8	9.4	2.3 J
cis-1,3-Dichloropropene	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Cyclohexane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Dibromochloromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Isopropylbenzene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Methyl acetate	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<10
Methyl tert-butyl ether	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Methylcyclohexane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Methylene Chloride	200	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Styrene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Toluene	6000	H(FC)	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Trichloroethene	40	H(FC)	7	4.8	4.2	3.5	3.2	3.8	2.8	1.2 J
Trichlorofluoromethane	NA		<5.0 Q	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Vinyl Chloride	NA		21	2.1	<1.0	1.5	1.7	2.4	2.0	0.47 J
Xylenes (total)	5	A(C) c	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0
Total VOCs	NA		188	72	39	42	43	59	48	18 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 7/13/2012	SP-3 3/28/2013	SP-3 6/19/2013	SP-3 9/19/2013	SP-3 12/18/2013	SP-3 3/19/2014	SP-3 6/19/2014	SP-3 9/9/2014
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	NA	<0.20	<0.200	<0.200	<0.200	<0.200	<0.200	<0.100
Antimony	NA		NA	<0.020	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0600
Arsenic	0.15	A(C) d	NA	<0.010	<0.0100	<0.0100	<0.0100	<0.0150	<0.0150	<0.0100
Barium	NA		NA	0.015	0.0140	0.0170	0.0150	0.0170	0.0190	<0.0200
Beryllium	1100	A(C) e	NA	<0.0020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00300
Cadmium	0.002	A(C) f	NA	<0.0010	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	<0.00500
Calcium	NA		NA	21.3	22.6	24.0	22.0	21.8	27.2	24.0
Chromium	0.086	A(C) f	<0.0500	<0.0040	<0.00400	<0.00400	<0.00400	<0.00400	<0.00400	<0.0100
Cobalt	0.005	A(C) g	<0.0500	0.0013 J	0.000650 J	0.000870 J	0.00110 J	0.00130 J	0.00130 J	<0.0500
Copper	0.009	A(C) f	NA	<0.010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0200
Iron	0.3	A(C)	16.0	0.84	0.570	1.80	2.10	7.70	1.30	1.17
Lead	0.005	A(C) f	NA	<0.0050	<0.00500	<0.00500	<0.00500	<0.0100	<0.0100	<0.00500
Magnesium	NA		7.00	5.0	5.10	5.40	5.10	5.20	6.00	5.61
Manganese	NA		4.40	1.4	0.920	1.60	1.30	1.50	2.20	1.67
Mercury	0.0000007	H(FC)	NA	<0.00020	<0.000200	<0.000200	--	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	NA	0.0019 J	<0.0100	0.00160 J	0.00170 J	<0.0100	0.00180 J	<0.0400
Potassium	NA		NA	1.1	1.40	1.20	1.10	1.20	1.50	<2.00
Selenium	0.0046	A(C) d	NA	<0.015	<0.0150	<0.0150	<0.0150	<0.0250	<0.0250	<0.0100
Silver	0.0001	A(C) h	<0.0500	<0.0030	<0.00300	<0.00300	<0.00300	<0.00600	<0.00600	<0.0100
Sodium	NA		NA	3.8	4.40	3.90	4.00	3.50	3.70	4.74
Thallium	0.008	A(C) g	NA	<0.020	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0100
Vanadium	0.014	A(C) g	<0.300	<0.0050	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0500
Zinc	0.08	A(C) f	NA	0.0020 J	0.00490 J	0.00330 J	0.00240 J	0.00240 J	0.00580 J	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 6/10/2015	SP-3 12/8/2015	SP-3 6/3/2016	SP-3 12/13/2016	SP-3 5/9/2017	SP-3 9/13/2017	SP-03 6/8/2018	SP-3 12/6/2018
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		21	18	20	43	4.8 J	26	26	9.6
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	0.33 J	<5.0	0.24 J	0.37 J	<5.0
1,2-Dichloroethane	NA		<5.0	<5.0	<5.0	0.37 J	<5.0	<5.0	0.44 J	0.23 J
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	5.	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<5.0	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<5.0	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<5.0	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		<5.0	<10	<10	<10	2.4 J	<10	<10	<10
Benzene	10	H(FC)	0.27 J	<5.0	0.22 J	0.64 J	<5.0	0.69 J	0.49 J	<5.0
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0	<5.0 J	<5.0	<5.0 B	<5.0 B	<5.0	<5.0	<5.0
Carbon Disulfide	NA		<10	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	7.9	3.8 J	7.5	22	1.1 J	20	29	3.3 J
Chloroethane	NA		4.3 J	2.9 J	3.8 J	12	0.77 J	9.1	4.7 J	1.4 J
Chloroform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.48 J
cis-1,2-Dichloroethene	NA		5.2	3.9 J	5.2	14	1.2 J	6.7	10	5.0 J
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	1.7 J	1.4 J	2.0 J	4.0 J	1.1 J	3.2 J	3.4 J	1.2 J
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		2.4 J	1.0 J	1.2 J	5.6	<5.0	3.7 J	4.5 J	0.65 J
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		43 J	31 J	40 J	100 J	11 J	70 J	79 J	22 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 6/10/2015	SP-3 12/8/2015	SP-3 6/3/2016	SP-3 12/13/2016	SP-3 5/9/2017	SP-3 9/13/2017	SP-03 6/8/2018	SP-3 12/6/2018
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0159	<0.0100	0.0138	0.0243	<0.0100	0.0360	0.0180	<0.0100
Barium	NA		0.0274	<0.0200	0.0317	0.0380	<0.0200	0.0430	0.0350	0.0250
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		21.7	33.3	25.6	28.2	28.9	31.2	26.6	30.6
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	11.1	2.56	13.2	19.3	0.775	17.2	13.1	1.74
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		5.00	7.22	5.52	6.00	6.40	7.10	6.10	6.80
Manganese	NA		2.13	1.69	2.44	3.77	1.94	3.62	3.04	2.04
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		4.41	3.85	4.01	3.77	3.91	3.80	3.90	3.60
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 6/3/2019	SP-3 9/16/2019	SP-4 9/20/2012	SP-4 3/28/2013	SP-4 6/19/2013	SP-4 9/19/2013	SP-4 12/18/2013	SP-4 3/19/2014
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	40	H(FC)	0.27 J	0.46 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	NA		12	18	1.8	14	4.7	3.6	27	40
1,1-Dichloroethene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	NA		<5.0	0.50 J	<1.0	0.51 J	0.46 J	<1.0	0.97 J	0.94 J
1,2-Dichloropropane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone	NA		<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	NA		<10	2.1 BJ	<10	<10	4.5 J	<10	<10	<10
Benzene	10	H(FC)	<5.0	<5.0	<1.0	<1.0	0.45 J	0.85 J	1.1	0.96 J
Bromodichloromethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	NA		<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	5	A(C)	0.76 J	8.1	<1.0	4.0	3.6	6.9	5.1	5.4
Chloroethane	NA		1.3 J	3.3 J	<1.0	55	35	76	73	43
Chloroform	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	NA		7.9	9.3	<1.0	0.88 J	<1.0	<1.0	2.7	4.9
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	NA		<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl acetate	NA		<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5
Methyl tert-butyl ether	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	NA		<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	200	H(FC)	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.48 J
Styrene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	6000	H(FC)	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	40	H(FC)	2.6 J	2.8 J	<1.0	0.78 J	<1.0	<1.0	1.8	4.2
Trichlorofluoromethane	NA		<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	NA		0.45 J	2.5 J	<1.0	<1.0	<1.0	<1.0	3.7	3.5
Xylenes (total)	5	A(C) c	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total VOCs	NA		25 J	47 J	1.8	75 J	49 J	87 J	115 J	103 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 6/3/2019	SP-3 9/16/2019	SP-4 9/20/2012	SP-4 3/28/2013	SP-4 6/19/2013	SP-4 9/19/2013	SP-4 12/18/2013	SP-4 3/19/2014
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.100	<0.100	--	<0.20	1.50	0.0970 J	0.130 J	<0.200
Antimony	NA		<0.0600	<0.0600	--	<0.020	<0.0200	<0.0200	<0.0200	<0.0200
Arsenic	0.15	A(C) d	<0.0100	<0.0100	--	0.023	0.0470	0.120	0.0990	0.0290
Barium	NA		<0.0200	0.0260	--	0.065	0.120	0.100	0.0940	0.0570
Beryllium	1100	A(C) e	<0.00300	<0.00300	--	<0.0020	<0.00200	<0.00200	<0.00200	<0.00200
Cadmium	0.002	A(C) f	<0.00500	<0.00500	--	<0.0010	<0.00100	<0.00100	<0.00100	<0.00200
Calcium	NA		26.5	28.5	--	61.8	70.0	66.5	67.6	56.5
Chromium	0.086	A(C) f	<0.0100	<0.0100	--	<0.0040	0.00290 J	0.00120 J	<0.00400	<0.00400
Cobalt	0.005	A(C) g	<0.0500	<0.0500	--	0.0012 J	0.00250 J	0.00110 J	0.00130 J	0.00110 J
Copper	0.009	A(C) f	<0.0200	<0.0200	--	<0.010	0.00170 J	<0.0100	<0.0100	<0.0100
Iron	0.3	A(C)	0.920	3.30	--	7.1	32.7	25.6	24.5	9.90
Lead	0.005	A(C) f	<0.00500	<0.00500	--	<0.0050	<0.00500	<0.00500	<0.00500	<0.0100
Magnesium	NA		6.20	6.50	--	14.7	16.6	15.0	16.1	13.8
Manganese	NA		0.610	2.43	--	4.7	6.20	5.70	6.10	4.90
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	--	<0.00020	<0.000200	<0.000200	--	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	--	<0.010	0.00320 J	<0.0100	<0.0100	<0.0100
Potassium	NA		<2.00	<2.00	--	1.3	2.60	1.50	1.30	1.10
Selenium	0.0046	A(C) d	<0.0100	<0.0100	--	<0.015	<0.0150	<0.0150	<0.0150	<0.0250
Silver	0.0001	A(C) h	<0.0100	<0.0100	--	<0.0030	<0.00300	0.00190 J	<0.00300	<0.00600
Sodium	NA		3.50	3.80	--	9.4	9.70	9.40	9.20	7.30
Thallium	0.008	A(C) g	<0.0100	<0.0100	--	<0.020	<0.0200	<0.0200	<0.0200	<0.0200
Vanadium	0.014	A(C) g	<0.0500	<0.0500	--	<0.0050	0.00270 J	<0.00500	<0.00500	<0.00500
Zinc	0.08	A(C) f	<0.0200	<0.0200	--	<0.010	0.0210	<0.0100	0.00160 J	<0.0100

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-4 6/19/2014	SP-4 9/9/2014	SP-4 6/10/2015	SP-4 12/8/2015	SP-4 6/3/2016	SP-4 12/13/2016	SP-4 5/9/2017	SP-4 9/13/2017
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroeth	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		25	9.3	13	10	13	8.6	6.1	3.8 J
1,1-Dichloroethene	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		0.67 J	0.71 J	0.43 J	0.69 J	0.61 J	0.58 J	<5.0	0.47 J
1,2-Dichloropropane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<5.0	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<5.0	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		<10	1.3 J	2.2 J	1.3 J	1.4 J	<10	<10	1.6 J
Benzene	10	H(FC)	0.60 J	0.95 J	0.46 J	0.61 J	0.37 J	0.40 J	0.20 J	0.45 J
Bromodichloromethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0 B	<5.0
Carbon Disulfide	NA		<1.0	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	4.2	7.1	4.1 J	5.4	5.0	4.6 J	2.4 J	5.4
Chloroethane	NA		34	46	20	23	18	15	7.0	8.5
Chloroform	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		2.8	1.5 J	1.7 J	0.96 J	1.6 J	0.72 J	0.50 J	0.57 J
cis-1,3-Dichloropropene	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<1.0	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<2.5	<10	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<1.0	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<1.0	0.37 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	2.7	0.80 J	1.6 J	0.56 J	1.2 J	0.33 J	0.63 J	<5.0
Trichlorofluoromethane	NA		<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		1.5	0.99 J	0.78 J	0.47 J	<5.0	0.38 J	<5.0	<5.0
Xylenes (total)	5	A(C) c	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		72 J	69 J	44 J	43 J	41 J	31 J	17 J	21 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-4 6/19/2014	SP-4 9/9/2014	SP-4 6/10/2015	SP-4 12/8/2015	SP-4 6/3/2016	SP-4 12/13/2016	SP-4 5/9/2017	SP-4 9/13/2017
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.200	4.12	<0.100	<0.100	1.25	<0.100	<0.100	0.140
Antimony	NA		<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0360	0.243	0.125	0.141	0.129	0.0737	0.0455	0.101
Barium	NA		0.0670	0.237	0.394	0.107	0.132	0.0870	0.0617	0.0980
Beryllium	1100	A(C) e	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		57.8	64.8	66.4	57.9	51.7	54.0	46.8	54.0
Chromium	0.086	A(C) f	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	0.000740 J	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	7.50	110	222	36.9	46.4	24.4	10.7	21.6
Lead	0.005	A(C) f	<0.0100	0.00750	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		12.8	14.8	12.6	12.7	10.7	11.2	9.11	10.7
Manganese	NA		3.60	6.75	5.60	5.70	5.43	4.63	2.47	5.21
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		1.70	2.56	2.10	<2.00	2.08	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0250	<0.0100	0.0118	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		7.30	8.24	7.75	7.56	7.28	6.15	6.13	6.70
Thallium	0.008	A(C) g	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	0.00190 J	0.0276	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-04 6/8/2018	SP-4 12/6/2018	SP-4 6/3/2019	SP-4 9/16/2019
	NYSDEC Part 703 WQS ⁽¹⁾	Basis				
1,1,1-Trichloroethane	NA		<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		3.3 J	4.5 J	5.1	3.6 J
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		0.28 J	<5.0	0.25 J	0.33 J
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<10
Acetone	NA		<10	<10	<10	2.1 BJ
Benzene	10	H(FC)	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0	<5.0	<5.0	<5.0
Carbon Disulfide	NA		<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	1.7 J	1.9 J	3.5 J	4.2 J
Chloroethane	NA		1.6 J	3.0 J	3.5 J	2.9 J
Chloroform	NA		<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		0.39 J	0.41 J	0.85 J	0.93 J
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	0.48 J	0.37 J	0.81 J	0.49 J
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	<5.0	0.32 J	0.40 J
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		7.8 J	10 J	14 J	15 J

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-04 6/8/2018	SP-4 12/6/2018	SP-4 6/3/2019	SP-4 9/16/2019
	NYSDEC Part 703 WQS ⁽¹⁾	Basis				
Metals (units in mg/L)						
Aluminum	0.1	A(C)	0.120	<0.100	<0.100	<0.100
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0190	0.0370	0.0440	0.0920
Barium	NA		0.0580	0.0510	0.0590	0.0780
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		43.6	39.2	40.7	42.5
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	7.43	8.81	10.3	14.6
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		8.50	7.50	7.80	7.80
Manganese	NA		3.68	2.65	3.04	4.63
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		7.00	6.40	6.10	7.90
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200

See notes on last page.

Table 4.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.⁽¹⁾

Notes and Abbreviations:

Bold constituent detected above method detection limit.

	Concentration exceeds WQS.
J	Concentration is an estimated value.
B	Compound considered non-detect at the listed value due to associated blank contamination.
mg/L	milligrams per liter
ug/L	micrograms per liter
NA	not applicable
VOCs	volatile organic compounds
WQS	water quality standard
<	analyte below detection limit
(1)	NYSEC Part 703 water quality standards were tabulated for Class C fresh surface waters. Where not available, the NYSDCE Division of Water Technical Operational Guidance Series (TOGS 1.1.1) standards and guidance values were used. Where standards for metals are based on hardness, a default value of 100 mg/L was used. Codes for the basis of the standards and guidance values follows: H(FC) = Health (Fish Consumption) A(C) = Aquatic (Chronic) gv = guidance value a = applies to sum of 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzenes b = applies to sum of 1,2-, 1,3- and 1,4-dichlorobenzenes c = TOGS 1.1.1 guidance value d = for dissolved form e = for hardness > 75 ppm f = hardness dependent standard, which is based on a default hardness of 100 mg/L g = acid-soluble form h = for ionic silver

Table 5.
Concentrations of Metals Detected in Sediment Samples Associated with Springs,
Colesville Landfill,
Broome County, New York.⁽¹⁾

	NYSDEC Freshwater Sediment Screening Values ^a			Location ID: Sample ID: Date:	SED-1 SP-1-SED (Background) 9/19/2013 ⁽²⁾	SED-3 SP-3C-SED 3/28/2013 ⁽⁷⁾	SED-3 SP-3-SED 9/19/2013 ⁽⁷⁾	SED-3 SP-3-SED 12/18/2013	SED-3 SP-3-SED 3" (3 inch depth) 12/18/2013 ⁽⁸⁾	SED-3 SP-3-SED-STREAM (Stream Sediment) 12/18/2013 ⁽⁹⁾	SED-3 SP-3-SED 3/19/2014	SED-3 SP-3-SED (2) 3/19/2014 ⁽¹⁰⁾	SED-3 SP-3-SED 9/9/2014	SED-3 S-3 06/10/15	SED-3 SP-3 SEDIMENT 12/08/15
	Class A	Class B	Class C	NOAA SQuiRT values ^b											
Metals (Units in mg/kg) ⁽¹⁾															
Arsenic	10	10 – 33	33	NA	18.2	10.2	132	22.7	10.5	13.0	98.9	20.0	11.5	860	1,100
Barium	NA	NA	NA	NA	68.2	44.3	673	181	43.2	58.9	624	77.9	34.0	110	154
Beryllium	NA	NA	NA	NA	0.680	0.39	0.550 J	<1.10	0.390	0.660	0.690 J	0.520	<0.421	<1.70	<1.70
Cadmium	1	1 – 5	5	NA	0.160 J	0.19 J	1.50	0.370 J	0.0740 J	0.110 J	1.70 J	0.230 J	<0.702	17.6	30.4
Calcium	NA	NA	NA	NA	1,040	917	5,970	1,730 B	828 B	1,660 B	4,770	1,360	790	<5,630	3,300
Chromium	43	43 – 110	110	NA	16.2	13.2	24.4	3.40	13.5	22.5	12.4 J	14.9	11.0	<5.60	<5.50
Cobalt	NA	NA	NA	50+ ^c	16.3	10.3	93.2	25.9	10.5	16.0	83.0	16.6	7.70	<28.2	<27.5
Copper	32	32 – 150	150	NA	24.4	18.9	19.4	4.30 J	18.3	32.3	19.3	25.3	13.8	<11.3	<11.0
Iron	NA	NA	NA	20,000-40,000	35,200	23,100	204,000	35,500 B	23,600 B	41,000 B	154,000	36,800	23,200	570,000	548,000
Lead	36	36 – 130	130	NA	19.9	14.1	32.2	5.20 J	20.7	20.0	30.2	17.1	11.3	10.5	43.2
Magnesium	NA	NA	NA	NA	3,790	3,260	1,720	645 B	3,220 B	5,630 B	2,450	3,660	2,770	<563	701
Manganese	NA	NA	NA	460-1100	1,670	1,140	88,800	20,700 B	894 B	1,160 B	66,500	5,510	668	1,120	865
Mercury	0.2	0.2 – 1	1	NA	<0.0270	<0.026	<0.110	<0.0230	<0.0220	<0.0380	<0.0660	<0.0260 J	<0.0440	<0.192	<0.178
Nickel	23	23 – 49	49	NA	28.0	23.0	68.2	15.7 J	21.8	36.6	62.4	29.6	16.5	<22.5	<22.0
Potassium	NA	NA	NA	NA	819	793	1,340	434	856	1,230	1,140	709	617	<1,130	<1,100
Selenium	NA	NA	NA	NA	<5.10	0.60 J	31.6	<21.3	<4.70	<7.20	22.7	1.20 J	<1.40	<56.3	12.6
Silver	1	1 – 2.2	2.2	NA	<0.640	<0.65	15.4	<2.70	<0.590	<0.900	<22.5	0.370 J	<1.40	<5.60	<5.50
Sodium	NA	NA	NA	NA	37.1 J	30.0 J	<869	<744	33.7 J	52.6 J	<524 B	24.7 J	<140	<563	<551
Thallium	NA	NA	NA	NA	0.430 J	<7.8	30.8 J	<31.9	<7.10	<10.8	14.0 J	1.60 J	<1.40	<11.3	<16.5
Vanadium	NA	NA	NA	NA	16.8	13.0	12.0	3.70	13.3	21.2	11.1	15.4	9.90	<28.2	<27.5
Zinc	120	120 – 460	460	NA	74.6	59.6	108	41.1 B	60.6 B	102 B	111	79.0	43.7	18.7	29.6
Miscellaneous															
Percent Moisture (% by wt.)	NA	NA	NA	NA	25.0	27.0	82.1	12.5	14.0	46.4	71.4	26.1	29.5	82.6	82.2

Notes and abbreviations on last page.

Table 5.
Concentrations of Metals Detected in Sediment Samples Associated with Springs,
Colesville Landfill,
Broome County, New York.⁽¹⁾

	NYSDEC Freshwater Sediment Screening Values ^a			Location ID: Sample ID:	SED-3 Mid_Channel	SED-3 SP-3-SED	SED-3 SP-3-SED	SED-3 SP-3- Down SED	SED-3 SP-3 SED	SED-3 Down After Clean	SED-3 Down Before Clean	SED-3 Before Clean	SED-3 After Clean	SED-3	SED-3 SP-3 - SED	SED-3 SP-3 -SED
				Date:	03/09/16	03/09/16	06/03/16	12/13/16	12/13/16	05/09/17	05/09/17	05/09/17	05/09/17	09/13/17	06/03/19	09/16/19
	Class A	Class B	Class C	NOAA SQuiRT values ^b												
Metals (Units in mg/kg) ⁽¹⁾																
Arsenic	10	10 – 33	33	NA	35.3	128	52.2	169	11.2	17.0	18.1	48.2	31.7	40.3	35.4	10.3
Barium	NA	NA	NA	NA	152	182	53.2	339	46.1	59.9	57.7	62.2	55.0	54.8	61.8	41.8
Beryllium	NA	NA	NA	NA	<0.371	<0.799	<0.504	<1.80	0.425	0.508	0.557	0.399	0.419	<0.470	<0.410	<0.380
Cadmium	1	1 – 5	5	NA	<0.618	<1.30	<0.840	<2.90	<0.664	<0.651	<0.696	<0.643	<0.654	<0.780	0.740	<0.640
Calcium	NA	NA	NA	NA	1,440	939	554	3,740	628	597	540	185	286	<160	<140	270
Chromium	43	43 – 110	110	NA	<1.20	25.5	15.7	<5.90	14.6	16.3	17.0	13.3	14.6	14.4	10.9	10.3
Cobalt	NA	NA	NA	50+ ^c	14.2	17.5	11.7	<29.4	11.5	12.2	13.3	9.20	9.30	10.9	9.00	7.70
Copper	32	32 – 150	150	NA	2.70	36.8	21.8	<11.7	20.5	23.2	20.8	18.8	20.3	16.3	16.2	14.9
Iron	NA	NA	NA	20,000-40,000	39,600	99,100	55,400	132,000	28,100	35,900	33,600	52,200	41,900	48,100	40,100	22,500
Lead	36	36 – 130	130	NA	4.60	207	56.2	<29.4	17.3	15.1	18.8	15.6	16.8	21.1	13.4	14.0
Magnesium	NA	NA	NA	NA	387	5,790	3,800	1,290	3,910	4,180	4,350	3,600	3,890	3,680	2,900	2,660
Manganese	NA	NA	NA	460-1100	23,000	667	721	49,800	630	1,820	1,290	1,470	658	1,300	1,660	506
Mercury	0.2	0.2 – 1	1	NA	<0.0430	0.116	<0.0570	<0.187	<0.0450	<0.0430	<0.0450	<0.0420	<0.0440	<0.0520	<0.0490	<0.0430
Nickel	23	23 – 49	49	NA	7.80	40.5	25.4	<23.5	20.8	27.0	27.3	21.4	23.1	22.2	17.8	16.3
Potassium	NA	NA	NA	NA	302	1,590	844	<1,170	1,050	986	1,110	941	993	640	820	670
Selenium	NA	NA	NA	NA	7.00	<2.70	<1.70	24.8	1.80	1.80	1.60	2.50	<1.30	2.10	<1.40	<1.30
Silver	1	1 – 2.2	2.2	NA	<1.20	<2.70	<1.70	<5.90	<1.30	<1.30	<1.40	<1.30	<1.30	<1.60	<1.40	<1.30
Sodium	NA	NA	NA	NA	<124	<266	<168	<587	<133	<130	<139	<129	<131	<160	<140	<130
Thallium	NA	NA	NA	NA	<1.20	<2.70	<1.70	<5.90	<1.30	<1.30	<1.40	<1.30	<1.30	<1.60	<14.0	<1.30
Vanadium	NA	NA	NA	NA	<6.20	25.6	15.0	<29.4	15.6	18.1	18.2	14.8	15.6	15.9	12.4	11.3
Zinc	120	120 – 460	460	NA	11.4	107	70.7	41.2	60.6	72.9	73.3	60.9	64.0	63.1	51.7	46.2
Miscellaneous																
Percent Moisture (% by wt.)	NA	NA	NA	NA	23	63.9	43.3	83.3	27.6	25.4	28.2	23.8	26.5	38.1	32.3	29.1

Notes and abbreviations on last page.

Table 5.
Concentrations of Metals Detected in Sediment Samples Associated with Springs,
Colesville Landfill,
Broome County, New York.⁽¹⁾

Notes and abbreviations:

- a Values obtained from NYSDEC Technical Guidance for Screening Contaminated Sediments dated June 24, 2014.
- b Values obtained from NOAAs SQUIRT (Buchman, MF. 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle, WA. Office of Response and Restoration Division, NOAA, 34 pp.)
- c Value from Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario, Canada. Aug 1993. Value is LEL from Canadian Sediment Guidelines.

- ⁽¹⁾ Data presented in this table corresponds to monitoring data during a three-year period (March 2016 to December 2018).
- ⁽²⁾ Background sediment sample collected by Arcadis from SP-1 spring sample location upstream of the SP-2 spring sample location (see Figure 1).

Bold constituent detected above method detection limit.

B Analyte detected in the associated Method Blank.

J Concentration is an estimated value

Clas Considered to be slightly to moderately contaminated and additional testing required to evaluate the potential risks to aquatic life.

Clas Considered to be highly contaminated and likely to pose a risk to aquatic life.

mg/l milligrams per kilogram

NA Not applicable

NOA National Oceanic and Atmospheric Administration

NYS New York State Department of Environmental Conservation

SQT Screening Quick Reference Tables

 Class B sediments

 Class C sediments

 within or exceeds NOAA SQUIRT values

< Analyte below detection limit.

Table 6
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 3/22/2012	SP-5 INF. 6/20/2012	SP-5 INF. 9/20/2012	SP-5 INF. 12/19/2012	SP-5 INF. 3/28/2013	SP-5 INF. 6/19/2013	SP-5 INF. 9/20/2013	SP-5 INF. 12/18/2013	SP-5 INF. 3/20/2014	SP-5 INF. 6/19/2014	SP-5 INF. 9/9/2014	SP-5 INF. 6/10/2015	SP-5 INF. 12/8/2015	SP-5 INF. 6/3/2016	SP-5 INF. 12/13/2016	SP-5 INF. 5/9/2017	SP-5 INF. 9/13/2017	SP-5 INF. 6/8/2018
VOCs																				
1,1,1-Trichloroethane	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	50		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	10		12	11	12	12	12	11	9.5	8.2	11	8.6	9.0	10	7.7	8.9	6.4	4.7 J	5.8	5.0
1,1-Dichloroethene	10-100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	10-50		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	10-100		<1.0	<1.0	0.33 J	0.32 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	0.43 J	<5.0	<5.0	0.38 J	<5.0	<5.0	<5.0
1,2-Dichloropropane	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	0.21 J	<5.0	<5.0	0.22 J	<5.0
1,3-Dichlorobenzene	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.4 J	1.6 J	<10	<10	1.3 J	2.0 J	<10	<10
Benzene	5		0.72 J	0.91 J	1.3	1.4	1.4	1.4	1.5	0.90 J	1.2	0.81 J	1.1 J	0.91 J	<5.0	0.87 J	0.78 J	0.67 J	0.89 J	0.70 J
Bromodichloromethane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	50		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 B	<1.0	1.4 J	0.74 J	<10	2.1 J	0.29 J	<10	0.49 BJ	0.60 J
Carbon Tetrachloride	10-50		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	10-25		16	16	20	17	19	20	19	9.0	17	12	10	8.5	7.9	8.6	8.3	13	7.9	11
Chloroethane	10		2.1	2.2	9.7	2.0	0.65 J	1.9	2.5	2.7	1.9	2.2	1.8 J	3.4 J	<5.0	<5.0	1.1 J	<5.0	<5.0	<5.0
Chloroform	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	10		1.7	1.6	1.6	1.5	0.97 J	1.1	<1.0	<1.0	1.2	0.83 J	0.94 J	1.1 J	<5.0	1.2 J	1.0 J	1.5 J	1.3 J	1.2 J
cis-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	10		<1.0	0.84 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes and Abbreviations on last page.

Table 6
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 3/22/2012	SP-5 INF. 6/20/2012	SP-5 INF. 9/20/2012	SP-5 INF. 12/19/2012	SP-5 INF. 3/28/2013	SP-5 INF. 6/19/2013	SP-5 INF. 9/20/2013	SP-5 INF. 12/18/2013	SP-5 INF. 3/20/2014	SP-5 INF. 6/19/2014	SP-5 INF. 9/9/2014	SP-5 INF. 6/10/2015	SP-5 INF. 12/8/2015	SP-5 INF. 6/3/2016	SP-5 INF. 12/13/2016	SP-5 INF. 5/9/2017	SP-5 INF. 9/13/2017	SP-5 INF. 6/8/2018
Methyl acetate	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<10	<10	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	10-100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	10-50		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.31 J	<5.0
trans-1,2-Dichloroethene	10-100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	10		2.0	2.2	2.6	2.5	2.7	2.7	2.7	1.5	2.7	1.5	2.1 J	1.7 J	<5.0	1.5 J	1.6 J	1.9 J	1.6 J	1.9 J
Trichlorofluoromethane	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	10		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.45 J	0.37 J	<5.0	0.34 J	<5.0	0.64 J	<5.0	<5.0
Xylenes (total)	NA		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs			34.52 J	34.75 J	48 J	37 J	37 J	38	35	22 J	35	26 J	28 J	29 J	16	24 J	21 J	24 J	19 J	20 J
Metals																				
Aluminum														<0.100	<0.100	0.110	<0.100	0.143	0.120	<0.100
Antimony														<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic														0.0691	0.121	0.225	0.128	0.179	0.224	0.170
Barium														0.152	0.149	0.142	0.121	0.109	0.148	0.132
Beryllium														<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium														<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium														42.8	46.1	40.8	37.3	38.2	44.3	43.3
Chromium														<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt														<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper														<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron														59.4	64.2	33.3	22.0	19.6	27.0	24.8
Lead														0.0139	0.00620	0.0505	0.0190	0.0458	0.0481	0.0453
Magnesium														10.2	10.6	9.40	8.71	9.25	10.5	10.3
Manganese														5.78	6.53	5.58	5.36	4.98	6.19	6.14
Mercury														<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel														<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium														2.86	2.85	2.75	2.40	2.06	3.20	2.70
Selenium														<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver														<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium														7.11	7.28	7.13	6.32	5.74	6.90	6.70
Thallium														<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium														<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc														3.15	6.81	9.46	5.08	6.17 J	6.16	5.36

Notes and Abbreviations on last page.

Table 6
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 12/6/2018	SP-5 INF. 06/03/19	SP-5 INF. 09/16/19	SP-5 EFF. 12/19/2012	SP-5 EFF. 3/28/2013	SP-5 EFF. 6/19/2013	SP-5 EFF. 9/20/2013	SP-5 EFF. 12/18/2013	SP-5 EFF. 3/20/2014	SP-5 EFF. 6/19/2014	SP-5 EFF. 9/9/2014	SP-5 EFF. 6/10/2015	SP-5 EFF. 12/8/2015	SP-5 EFF. 6/3/2016	SP-5 EFF. 12/13/2016	SP-5 EFF. 5/9/2017	SP-5 EFF. 9/13/2017	SP-5 EFF. 6/8/2018	SP-5 EFF. 12/6/2018	SP-5 EFF. 06/03/19	SP-5 EFF. 09/16/19
VOCs																							
1,1,1-Trichloroethane	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	50		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	100		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	10		4.7 J	4.9 J	4.5 J	1.1	8.5	2.2	<1.0	<1.0	7.7	1.7	<5.0	0.55 J	<5.0	1.1 J	0.60 J	2.2 J	1.6 J	2.8 J	3.7 J	4.1 J	2.6 J
1,1-Dichloroethene	10-100		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	10-50		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	10-100		<5.0	<5.0	0.21 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	10		<5.0	0.21 J	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		<10	<10	5.7 BJ	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	2.4 J	<10	<10	<10	<10	<10
Benzene	5		0.57 J	0.60 J	0.60 J	<1.0	0.97 J	<1.0	<1.0	<1.0	0.82 J	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.34 J	0.24 J	<5.0
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0 B	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide	NA		2.0 J	2.4 J	2.5 J	<1.0	<1.0	<1.0	<1.0	<1.0	<3.7 B	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	10-50		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	10-25		11	13	11	<1.0	15	<1.0	<1.0	<1.0	15	<1.0	<5.0	0.32 J	<5.0	0.46 J	<5.0	3.6 J	<5.0	1.8 J	8.8	7.0	<5.0
Chloroethane	10		<5.0	<5.0	<5.0	5.3	<1.0	1.8	<1.0	<1.0	1.4	1.6	<5.0	0.94 J	<5.0	<5.0	0.86 J	1.1 J	<5.0	1.1 J	0.81 J	1.1 J	<5.0
Chloroform	100		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	0.36 BJ	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	10		1.1 J	1.3 J	1.4 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.28 J	0.77 J	0.68 J	<5.0
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes and Abbreviations on last page.

Table 6
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 12/6/2018	SP-5 INF. 06/03/19	SP-5 INF. 09/16/19	SP-5 EFF. 12/19/2012	SP-5 EFF. 3/28/2013	SP-5 EFF. 6/19/2013	SP-5 EFF. 9/20/2013	SP-5 EFF. 12/18/2013	SP-5 EFF. 3/20/2014	SP-5 EFF. 6/19/2014	SP-5 EFF. 9/9/2014	SP-5 EFF. 6/10/2015	SP-5 EFF. 12/8/2015	SP-5 EFF. 6/3/2016	SP-5 EFF. 12/13/2016	SP-5 EFF. 5/9/2017	SP-5 EFF. 9/13/2017	SP-5 EFF. 6/8/2018	SP-5 EFF. 12/6/2018	SP-5 EFF. 06/03/19	SP-5 EFF. 09/16/19
Methyl acetate	NA		<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Methylcyclohexane	NA		<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Methylene Chloride	10-100		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Styrene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Tetrachloroethene	10-50		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Toluene	5		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
trans-1,2-Dichloroethene	10-100		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Trichloroethene	10		1.9 J	1.9 J	2.0 J	<1.0	2.1	<1.0	<1.0	<1.0	1.8	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.42 J	<5.0	0.35 J	1.1 J	0.95 J	<5.0
Trichlorofluoromethane	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Vinyl Chloride	10		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.33 J	0.34 J	0.45 J	0.29 J	0.42 J	0.26 J
Xylenes (total)	NA		<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Total VOCs			21 J	24 J	28 J	6.4	27 J	4.0	NA	NA	27 J	3.3	NA	1.8 J	NA	1.6 J	1.5 J	10 J	2.3 J	6.8 J	16J	15 J	2.9 J
Metals																							
Aluminum			0.170	0.230	<0.100											<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	
Antimony			<0.0600	<0.0600	<0.0600											<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	
Arsenic			0.140	0.261	0.161											0.127	0.0794	0.0784	0.145	0.203	0.0630	0.106	0.143
Barium			0.114	0.128	0.155											0.141	0.142	0.111	0.152	0.152	0.116	0.139	0.167
Beryllium			<0.00300	<0.00300	<0.00300											<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	
Cadmium			<0.00500	<0.00500	<0.00500											<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
Calcium			41.5	47.0	49.6											40.0	41.6	36.7	43.1	43.3	40.1	47.4	47.4
Chromium			<0.0100	<0.0100	<0.0100											<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
Cobalt			<0.0500	<0.0500	<0.0500											<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	
Copper			<0.0200	<0.0200	<0.0200											<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	
Iron			19.1	27.6	27.9											26.1	24.1	16.6	24.7	29.9	18.6	20.5	28.5
Lead			0.0352	0.0906	0.0181											<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
Magnesium			9.90	11.2	10.9											9.36	9.91	8.92	10.6	10.6	9.90	11.6	11.1
Manganese			5.46	5.79	6.64											5.50	6.09	4.89	6.24	6.27	5.43	5.67	6.72
Mercury			<0.000200	<0.000200	<0.000200											<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	
Nickel			<0.0400	<0.0400	<0.0400											<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	
Potassium			2.20	2.80	3.50											2.83	2.60	2.13	3.00	2.90	2.10	2.60	3.20
Selenium			<0.0100	<0.0100	<0.0100											<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
Silver			<0.0100	<0.0100	<0.0100											<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
Sodium			5.50	5.20	6.30											7.04	7.09	5.85	6.90	6.90	5.50	5.30	6.40
Thallium			<0.0100	<0.0100	<0.0100											<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	
Vanadium			<0.0500	<0.0500	<0.0500											<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	
Zinc			5.27	11.5	2.07											<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	

Notes and Abbreviations on last page.

Table 6
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Notes and Abbreviations:

1. Model Technology BPJ Limits recommended for carbon adsorption with appropriate pretreatment from Attachment C of TOGS 1.2.1.
2. When a range is listed for the BPJ limit, a variation in available references was found. Recommended daily maximum limits should be in this range.

Bold constituent detected above method detection limit.

EFF.	effluent
INF.	influent
J	Concentration is an estimated value
B	Compound considered non-detect at the listed value due to associated blank contamination.
NA	not applicable
ug/L	micrograms per liter
VOCs	volatile organic compounds
BPJ	Best Professional Judgment
<	Analyte below detection limit.
TOGS	Technical and Operational Guidance Series

Table 7
SP-5 Spring Water Remediation System
Mass Removal Rate of Volatile Organic Compounds
Colesville Landfill
Broome County, New York

Date Sampled	Total VOC Influent Concentration (ug/L)	Effluent Flowrate (gpm)	Depth to Water (feet btc)	Total SW Treated ⁽¹⁾ Between Sampling Interval (gal)	Influent Concentration Geometric Mean ⁽²⁾ (ug/L)	Total Estimated ⁽³⁾ Mass Removed (lbs)
6/8/2018	20.0	1.1 ⁽⁴⁾	NM	420,000	20	0.072
12/6/2018	21.0	1.1 ⁽⁴⁾	NM	290,000	20	0.050
6/3/2019	24.0	1.1 ⁽⁴⁾	NM	280,000	22	0.052
9/16/2019	28.0	1.1 ⁽⁴⁾	NM	170,000	26	0.037
Total Estimated Mass Removed Since System Startup (lbs) =						2.7
Total Effluent Treated During Reporting Period (gallons) =						450,000
Total Effluent Treated Since System Startup (gallons) =						7,490,000

Notes and Abbreviations:

1. Total Spring Water Treated Between Sampling Intervals = Effluent Flowrate Geometric Mean x 1440 min/day x days between sampling events.
2. Influent Concentration Geometric Mean = $(\text{Influent Concentration for prior sampling event} \times \text{Influent Concentration for current sampling event})^{(1/2)}$.
3. Total Mass Removed = (Total Groundwater Treated Between Sampling Intervals) x Influent Concentration Geometric Mean x 3.7854 L/gal x (1 lbs / 453,592,370 ug).
4. Effluent flow rate not recorded during the reporting period. Value shown is the average flow rate recorded between March 2013 and September 2014.

btc	below top of casing
gal	gallons
gpm	gallons per minute
lbs	pounds
NM	not measured
ug/L	micrograms per liter
SW	spring water
VOC	volatile organic compound

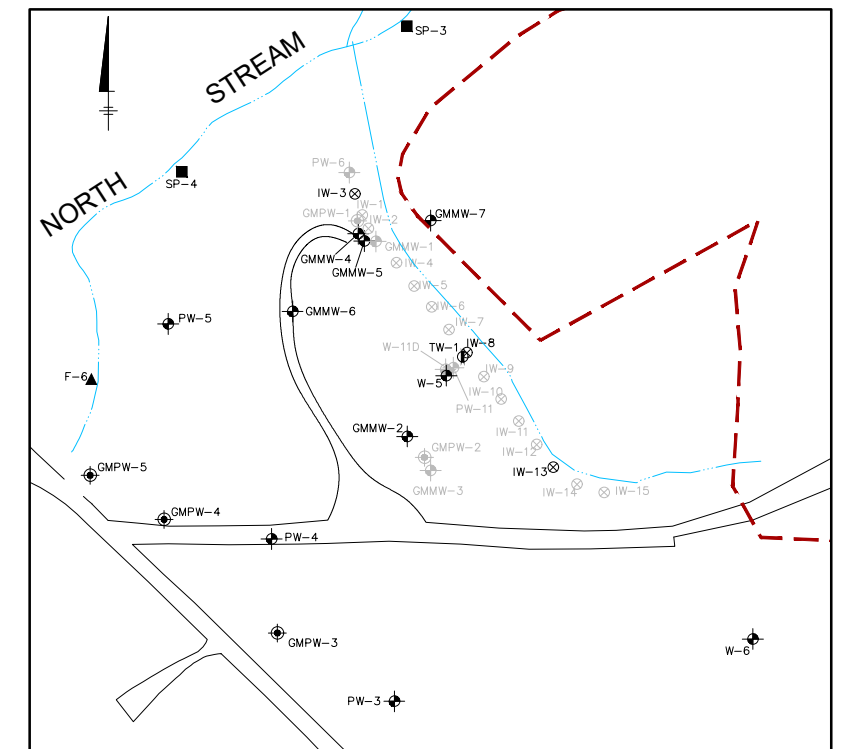
FIGURES



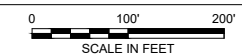


EXPLANATION

BOLD	IN-SITU REACTIVE ZONE (IRZ) DISCONTINUATION PILOT TEST MONITORING WELL
W-24 GMW-7 	LOCATION AND DESIGNATION OF MONITORING WELL
SCOTT 	LOCATION AND DESIGNATION OF EXISTING HOMEOWNER WELL
1W-2 	LOCATION AND DESIGNATION OF INJECTION WELL
GMPW-3 	LOCATION AND DESIGNATION OF PRODUCTION WELL
TW-1 	LOCATION AND DESIGNATION OF TEST MONITORING WELL
F-6 	LOCATION AND DESIGNATION OF SURFACE WATER SAMPLE
SP-2 	LOCATION AND DESIGNATION OF SPRING SAMPLE AND CO-LOCATED SEDIMENT SAMPLE

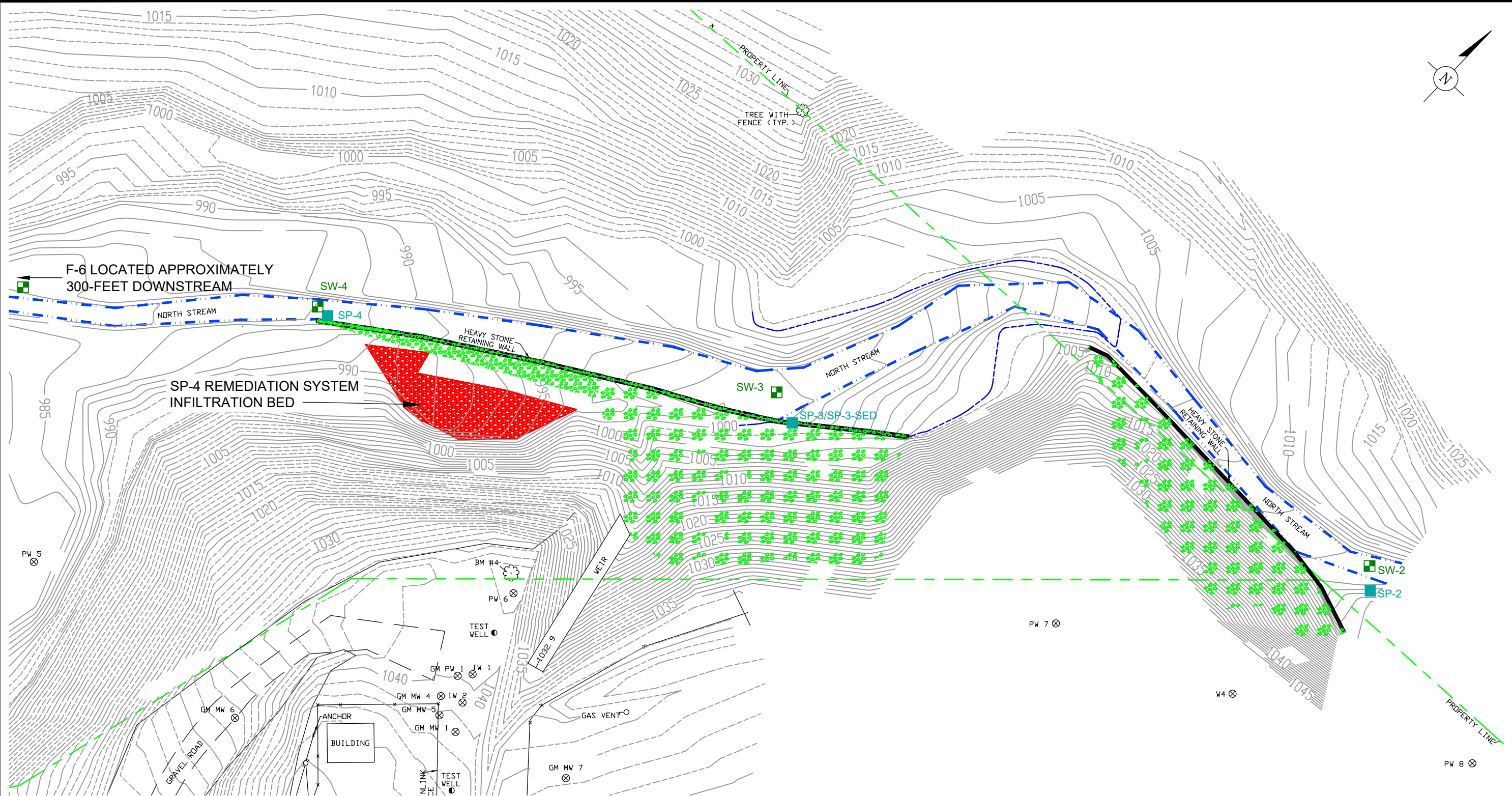


SITE PLAN SHOWING PROJECT AREA

COLESVILLE LANDFILL
COLESVILLE, NEW YORK

SITE PLAN

CITY:SYRACUSE-ENV DIV/GROUP:ENV DBA: SANCHEZ LD:ALS PIC:Ort PM: (Regd) TM: (Ort) LVR: (Option) = OFF = REF
C:\Users\lsanchez\OneDrive - ARCADIS\BIM 360 Docs\BOONE COUNTY, NY\COLESVILLE LANDFILL GROUNDWATER\2017\NY000849.002801-DWG\BC-AR-F02 SAMPLING LOCA NORTH STREAM.dwg LAYOUT: 2 SAVED: 12/13/2017 10:28 AM ACADVER: 20.1S (LMS TECH) PAGES: 20 OF 20
PLOTSTYLETABLE: ARCADIS.ctb PLOTTED: 12/13/2017 1:16 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: COLESVILLE LANDFILL GROUNDWATER



LEGEND:

-  SPRING WATER AND CO-LOCATED SEDIMENT SAMPLING LOCATION (APPROXIMATE)
-  SURFACE WATER SAMPLING LOCATION (APPROXIMATE)
-  RIP RAP
-  RETAINING WALL
-  NORTH STREAM



COLESVILLE LANDFILL
COLESVILLE, NEW YORK

**SPRING WATER AND SURFACE WATER
SAMPLING LOCATIONS
ALONG THE NORTH STREAM**

 Design & Consultancy
for natural and
built assets

FIGURE
2

ATTACHMENTS



APPENDIX A

Laboratory Analytical Results





June 25, 2019

Service Request No:R1905078

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville SW/Seeps/Sed

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory June 05, 2019
For your reference, these analyses have been assigned our service request number **R1905078**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, 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), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

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: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil, Water

Service Request: R1905078
Date Received: 06/05/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven soil, water samples were received for analysis at ALS Environmental on 06/05/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/12/2019: The upper control limit was exceeded for Selenium in the Contract Required Detection Limit Standard (CRDL). 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.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 06/10/2019: 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.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Approved by

A handwritten signature in black ink, appearing to read "Randy Krutten".

Date

06/25/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: F-6			Lab ID: R1905078-001			

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.99			0.20	mg/L	SM 4500-O G
Conductivity, Field	120				uMHOS/cm	120.1
pH, Field	7.16				pH Units	SM 4500-H+ B
Temperature, Field	11.1				deg C	SM 2550 B
Turbidity, Field	1.6				NTU	180.1
Calcium, Total	11100			1000	ug/L	6010C
Iron, Total	290			100	ug/L	6010C
Magnesium, Total	3000			1000	ug/L	6010C
Manganese, Total	73			10	ug/L	6010C
Sodium, Total	5200			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.43	J	0.20	5.0	ug/L	8260C
Acetone	2.9	J	2.1	10	ug/L	8260C

CLIENT ID: SW-4			Lab ID: R1905078-002			

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.92			0.20	mg/L	SM 4500-O G
Conductivity, Field	112				uMHOS/cm	120.1
pH, Field	7.36				pH Units	SM 4500-H+ B
Temperature, Field	11.4				deg C	SM 2550 B
Turbidity, Field	1.7				NTU	180.1
Calcium, Total	10800			1000	ug/L	6010C
Iron, Total	330			100	ug/L	6010C
Magnesium, Total	3000			1000	ug/L	6010C
Manganese, Total	73			10	ug/L	6010C
Sodium, Total	5300			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.51	J	0.20	5.0	ug/L	8260C

CLIENT ID: SP-4			Lab ID: R1905078-003			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	319				uMHOS/cm	120.1
pH, Field	6.61				pH Units	SM 4500-H+ B
Temperature, Field	11.7				deg C	SM 2550 B
Turbidity, Field	1				NTU	180.1
Arsenic, Total	44			10	ug/L	6010C
Barium, Total	59			20	ug/L	6010C
Calcium, Total	40700			1000	ug/L	6010C
Iron, Total	10300			100	ug/L	6010C
Magnesium, Total	7800			1000	ug/L	6010C
Manganese, Total	3040			10	ug/L	6010C
Sodium, Total	6100			1000	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-4	Lab ID: R1905078-003

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1-Dichloroethane (1,1-DCA)	5.1		0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.25	J	0.20	5.0	ug/L	8260C
Acetone	4.0	J	2.1	10	ug/L	8260C
Chlorobenzene	3.5	J	0.20	5.0	ug/L	8260C
Chloroethane	3.5	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.81	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.32	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.85	J	0.23	5.0	ug/L	8260C

CLIENT ID: SW-3	Lab ID: R1905078-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.76			0.20	mg/L	SM 4500-O G
Conductivity, Field	110				uMHOS/cm	120.1
pH, Field	7.16				pH Units	SM 4500-H+ B
Temperature, Field	11.7				deg C	SM 2550 B
Turbidity, Field	1.9				NTU	180.1
Calcium, Total	10500			1000	ug/L	6010C
Iron, Total	420			100	ug/L	6010C
Magnesium, Total	3000			1000	ug/L	6010C
Manganese, Total	106			10	ug/L	6010C
Sodium, Total	5100			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.78	J	0.20	5.0	ug/L	8260C
Acetone	4.4	J	2.1	10	ug/L	8260C
Chlorobenzene	0.40	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.31	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-3	Lab ID: R1905078-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	198				uMHOS/cm	120.1
pH, Field	6.72				pH Units	SM 4500-H+ B
Temperature, Field	14.0				deg C	SM 2550 B
Turbidity, Field	2				NTU	180.1
Calcium, Total	26500			1000	ug/L	6010C
Iron, Total	920			100	ug/L	6010C
Magnesium, Total	6200			1000	ug/L	6010C
Manganese, Total	610			10	ug/L	6010C
Sodium, Total	3500			1000	ug/L	6010C
1,1,2-Trichloroethane	0.27	J	0.20	5.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	12		0.20	5.0	ug/L	8260C
Acetone	6.6	J	2.1	10	ug/L	8260C
Chlorobenzene	0.76	J	0.20	5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-3 Lab ID: R1905078-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Chloroethane	1.3	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	2.6	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.45	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	7.9		0.23	5.0	ug/L	8260C

CLIENT ID: SW-2 Lab ID: R1905078-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.52			0.20	mg/L	SM 4500-O G
Conductivity, Field	95				uMHOS/cm	120.1
pH, Field	6.93				pH Units	SM 4500-H+ B
Temperature, Field	11.7				deg C	SM 2550 B
Turbidity, Field	2.5				NTU	180.1
Calcium, Total	7900			1000	ug/L	6010C
Iron, Total	320			100	ug/L	6010C
Magnesium, Total	2600			1000	ug/L	6010C
Manganese, Total	55			10	ug/L	6010C
Sodium, Total	4900			1000	ug/L	6010C
Acetone	4.4	J	2.1	10	ug/L	8260C

CLIENT ID: SP-2 Lab ID: R1905078-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	106				uMHOS/cm	120.1
pH, Field	6.32				pH Units	SM 4500-H+ B
Temperature, Field	13.0				deg C	SM 2550 B
Turbidity, Field	9.5				NTU	180.1
Calcium, Total	8900			1000	ug/L	6010C
Iron, Total	1990			100	ug/L	6010C
Magnesium, Total	2400			1000	ug/L	6010C
Manganese, Total	1840			10	ug/L	6010C
Sodium, Total	4700			1000	ug/L	6010C
Trichloroethene (TCE)	0.30	J	0.20	5.0	ug/L	8260C

CLIENT ID: SP-5-Influent Lab ID: R1905078-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	404				uMHOS/cm	120.1
pH, Field	6.42				pH Units	SM 4500-H+ B
Temperature, Field	11.3				deg C	SM 2550 B
Turbidity, Field	21.6				NTU	180.1
Aluminum, Total	230			100	ug/L	6010C
Arsenic, Total	261			10	ug/L	6010C
Barium, Total	128			20	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-5-Influent			Lab ID: R1905078-008			

Analyte	Results	Flag	MDL	MRL	Units	Method
Calcium, Total	47000			1000	ug/L	6010C
Iron, Total	27600			100	ug/L	6010C
Lead, Total	90.6			5.0	ug/L	6010C
Magnesium, Total	11200			1000	ug/L	6010C
Manganese, Total	5790			10	ug/L	6010C
Potassium, Total	2800			2000	ug/L	6010C
Sodium, Total	5200			1000	ug/L	6010C
Zinc, Total	11500			200	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	4.9	J	0.20	5.0	ug/L	8260C
1,2-Dichloropropane	0.21	J	0.20	5.0	ug/L	8260C
Acetone	2.8	J	2.1	10	ug/L	8260C
Benzene	0.60	J	0.20	5.0	ug/L	8260C
Carbon Disulfide	2.4	J	0.25	10	ug/L	8260C
Chlorobenzene	13		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	1.9	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	1.3	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-5-Effluent			Lab ID: R1905078-009			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	414				uMHOS/cm	120.1
pH, Field	6.33				pH Units	SM 4500-H+ B
Temperature, Field	11.6				deg C	SM 2550 B
Turbidity, Field	1.6				NTU	180.1
Arsenic, Total	106			10	ug/L	6010C
Barium, Total	139			20	ug/L	6010C
Calcium, Total	47400			1000	ug/L	6010C
Iron, Total	20500			100	ug/L	6010C
Magnesium, Total	11600			1000	ug/L	6010C
Manganese, Total	5670			10	ug/L	6010C
Potassium, Total	2600			2000	ug/L	6010C
Sodium, Total	5300			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	4.1	J	0.20	5.0	ug/L	8260C
Benzene	0.24	J	0.20	5.0	ug/L	8260C
Chlorobenzene	7.0		0.20	5.0	ug/L	8260C
Chloroethane	1.1	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.95	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.42	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.68	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-3-Sediment			Lab ID: R1905078-010			

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	67.7				Percent	ALS SOP



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-3-Sediment			Lab ID: R1905078-010			

Analyte	Results	Flag	MDL	MRL	Units	Method
Aluminum, Total	8200			27	mg/Kg	6010C
Arsenic, Total	35.4			1.4	mg/Kg	6010C
Barium, Total	61.8			2.7	mg/Kg	6010C
Cadmium, Total	0.74			0.68	mg/Kg	6010C
Chromium, Total	10.9			1.4	mg/Kg	6010C
Cobalt, Total	9.0			6.8	mg/Kg	6010C
Copper, Total	16.2			2.7	mg/Kg	6010C
Iron, Total	40100			270	mg/Kg	6010C
Lead, Total	13.4			3.4	mg/Kg	6010C
Magnesium, Total	2900			140	mg/Kg	6010C
Manganese, Total	1660			27	mg/Kg	6010C
Nickel, Total	17.8			5.5	mg/Kg	6010C
Potassium, Total	820			270	mg/Kg	6010C
Vanadium, Total	12.4			6.8	mg/Kg	6010C
Zinc, Total	51.7			2.7	mg/Kg	6010C

CLIENT ID: Trip Blank			Lab ID: R1905078-011			

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	7.8	J	2.1	10	ug/L	8260C



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: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request:R1905078

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905078-001	F-6	6/3/2019	1020
R1905078-002	SW-4	6/3/2019	1040
R1905078-003	SP-4	6/3/2019	1140
R1905078-004	SW-3	6/3/2019	1055
R1905078-005	SP-3	6/3/2019	1105
R1905078-006	SW-2	6/3/2019	1120
R1905078-007	SP-2	6/3/2019	1130
R1905078-008	SP-5-Influent	6/3/2019	1245
R1905078-009	SP-5-Effluent	6/3/2019	1225
R1905078-010	SP-3-Sediment	6/3/2019	1110
R1905078-011	Trip Blank	6/3/2019	1020



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

56893

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name Colesville SW and Seeps and Sed		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																																																	
Project Manager Laurie Haskell		Report CC		PRESERVATIVE																																																																	
Company/Address Broome County, Colesville LF, Colesville NY		Phone #		Email		NUMBER OF CONTAINERS																																																															
Sampler's Signature Brian Mackin		Sampler's Printed Name BRIAN MACKIN		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 _____																																																																	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		REMARKS/ ALTERNATE DESCRIPTION																																																											
F-6				6/3/19		1020		W		5		K		109																																																							
SW-4						1040		W		5		K		110																																																							
SP-4						1140		W		5		K		111																																																							
SW-3						1055		W		5		K		112																																																							
SP-3						1105		W		5		K		113																																																							
SW-2						1120		W		5		K		114																																																							
SP-2						1130		W		5		K		115																																																							
SP-5- Influent						1245		W		5		K		117																																																							
SP-5- Effluent						1225		W		5		K		116																																																							
SP-3- Sediment						1110		S		1				SP-3																																																							
Trip Blank				↓		1020		W		3		K																																																									
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 Edata ____ Yes ____										INVOICE INFORMATION PO # _____ BILL TO: _____ R1905078 Broome County Division of Solid Waste Management Colesville SW/Seeps/Sed 5 Barcode																																							
STATE WHERE SAMPLES WERE COLLECTED										RELINQUISHED BY										RECEIVED BY										RELINQUISHED BY										RECEIVED BY										RELINQUISHED BY										RECEIVED BY									
Signature Brian Mackin										Signature Kyle Lee										Signature Kyle Lee										Signature Kyle Lee										Signature Kyle Lee										Signature Kyle Lee										Signature Kyle Lee									
Printed Name BRIAN MACKIN										Printed Name Kyle Lee										Printed Name Kyle Lee										Printed Name Kyle Lee										Printed Name Kyle Lee										Printed Name Kyle Lee										Printed Name Kyle Lee									
Firm ALS										Firm ALS										Firm ALS										Firm ALS										Firm ALS										Firm ALS										Firm ALS									
Date/Time 6/3/19										Date/Time 6/3/19 1310										Date/Time 6/5/19										Date/Time 6/5/19										Date/Time 6/5/19										Date/Time 6/5/19										Date/Time 6/5/19 1355									



Cooler Receipt and Preservation Check Form

R1905078

5

Broome County Division of Solid Waste Management
Colesville SW/Seeps/Bed



Project/Client _____ Folder Number _____

Cooler received on 6/15/14 by: Shw/6

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: ~~Wet Ice~~ Dry Ice Gel packs present?	Y ☒ N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vial, Alk, or Sulfide have sig* bubbles?	Y ☒ NA
6	Where did the bottles originate?	ALS/ROC CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <u>NA</u> <u>6/15/14</u>

8. Temperature Readings Date: 6/15/14 Time: 140 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	1.8	1.7	2.6	2.4	2.8	3.1	4.5	0.3
Correction Factor (°C)	±0.0	±0.0	±0.0	±0.0	±0.0	±0.0	±0.0	±0.0
Corrected Temp (°C)	1.8	1.7	2.6	2.4	2.8	3.1	4.5	0.3
Temp from: Type of bottle								
Within 0-6°C?	☒ N	☒ N	☒ N	☒ N	☒ N	☒ N	☒ N	☒ N
If <0°C, were samples frozen?	Y N	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 Shw/6 on 6/15/14 at 140
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/6/19 Time: 1250 by: SP

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES ☒ NO ☒ date/penis
- Did all bottle labels and tags agree with custody papers? YES ☒ NO ☒
- Were correct containers used for the tests indicated? YES ☒ NO ☒
- Were 5035 vials acceptable (no extra labels, not leaking)? YES ☒ NO ☒
- 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
≥12		NaOH	Yes No						
≤2	<u>220617</u>	HNO ₃	☒	<u>1118061</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>					

**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: 19-02-07, 8-333-002, 040 119-1BNU

Explain all Discrepancies/ Other Comments:

headspace: locations 36, 14, 14 (1 vial ea)

CLRES	<u>BULK</u>
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: @
PC Secondary Review: _____

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



FIELD MONITORING REPORT

21905078

PROJECT Colesville SW + Seeps LAB ID 109SAMPLE POINT ID F-6

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1020 SWL _____
Appearance Clean
Weather Conditions PSun 55°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>7.16</u>	<u>7.16</u>
	Conductivity	µmhos/cm	<u>120</u>	<u>120</u>
	Temperature	Degrees Celsius	<u>11.1</u>	<u>11.1</u>
	Redox	millivolts	<u>56</u>	
	Turbidity	NTU	<u>1.6</u>	

Calibration Date/Time 6/3/19 1000 7.00/10.00/4.00
1413 set 1413OBSERVATIONS D.O. = 9.99 mg/L 0.0/10.0



FIELD MONITORING REPORT

PROJECT Colesville SW+ Seeps LAB ID 110

SAMPLE POINT ID SW-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1040 SWL _____
Appearance Clear
Weather Conditions PSun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ ✓	pH	unit	7.36	7.35
	Conductivity	µmhos/cm	112	112
	Temperature	Degrees Celsius	11.4	11.3
	Redox	millivolts	71	
	Turbidity	NTU	1.7	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS

D.O. = 9.92 mg/l



FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 111

SAMPLE POINT ID SP-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1140 SWL —
Appearance Clean
Weather Conditions PSun 55°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>6.61</u>	<u>6.61</u>
	Conductivity	µmhos/cm	<u>319</u>	<u>319</u>
	Temperature	Degrees Celsius	<u>11.7</u>	<u>11.7</u>
	Redox	millivolts	<u>-42</u>	
	Turbidity	NTU	<u>1.0</u>	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville SW + Seeps

LAB ID 112

SAMPLE POINT ID SW-3

PURGE INFORMATION

Well Depth (ft.) _____

Purge Date _____ Purge Method _____

SWL (ft.) _____

Start Time _____ Stop Time _____

Standing Water (ft.) _____

Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____

Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 6/3/19

Time 1055

SWL _____

Appearance Clean

Weather Conditions P Sun 55°

Sampling Technician (Print) BRIAN MACKIN

Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myson</u> ↓ <u>LaMotte</u>	pH	unit	<u>7.16</u>	<u>7.15</u>
	Conductivity	µmhos/cm	<u>110</u>	<u>110</u>
	Temperature	Degrees Celsius	<u>11.7</u>	<u>11.7</u>
	Redox	millivolts	<u>41</u>	
	Turbidity	NTU	<u>1.9</u>	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS

D.O. = 9.76 mg/l



FIELD MONITORING REPORT

PROJECT Colesville SW's + Seeps LAB ID 113

SAMPLE POINT ID SP-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1105 SWL _____
Appearance Rust - Van dint
Weather Conditions PSun, 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.72	6.70
	Conductivity	µmhos/cm	198	198
	Temperature	Degrees Celsius	14.0	14.0
	Redox	millivolts	57	
	Turbidity	NTU	2.0	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW+ Seds LAB ID 114

SAMPLE POINT ID SW-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1120 SWL _____
Appearance Clean
Weather Conditions PSun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.93	6.93
	Conductivity	µmhos/cm	95	95
	Temperature	Degrees Celsius	11.7	11.7
	Redox	millivolts	114	
	Turbidity	NTU	2.5	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS

D.O. = 9.52 mg/l



FIELD-MONITORING REPORT

PROJECT Colesville SW + Seeps LAB ID 115

SAMPLE POINT ID SP-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1130 SWL _____
Appearance Clean
Weather Conditions P Sun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>6.32</u>	<u>6.31</u>
	Conductivity	µmhos/cm	<u>106</u>	<u>106</u>
	Temperature	Degrees Celsius	<u>13.0</u>	<u>13.0</u>
	Redox	millivolts	<u>69</u>	
	Turbidity	NTU	<u>9.5</u>	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville SW + Seeps LAB ID 117

SAMPLE POINT ID SP-5 Influent

PURGE INFORMATION

Well Depth (ft.) 4.10 Purge Date 6/3/19 Purge Method Bailer
SWL (ft.) 0.32 Start Time 1235 Stop Time 1240
Standing Water (ft.) 3.72 Volume Purged gal. 1.8 # casings 3
Well Constant (gal/ft.) 0.163 Observations Turbid tan with
Well Volume (gal.) 0.6 suspended solids

SAMPLING INFORMATION

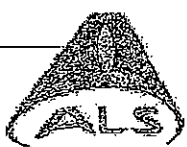
Sample Method Bailer
Date 6/3/19 Time 1245 SWL 0.32
Appearance Tan tint, slightly turbid with suspended solids
Weather Conditions PSun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓	pH	unit	6.42	6.41
	Conductivity	µmhos/cm	404	403
	Temperature	Degrees Celsius	11.3	11.3
	Redox	millivolts	-34	
LaMotte	Turbidity	NTU	21.6	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 116

SAMPLE POINT ID SP-5-Effluent

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 12:25 SWL _____
Appearance Clear
Weather Conditions P Sun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Nipon</u> ↓ <u>LaMotte</u>	pH	unit	<u>6.33</u>	<u>6.33</u>
	Conductivity	µmhos/cm	<u>414</u>	<u>414</u>
	Temperature	Degrees Celsius	<u>11.6</u>	<u>11.6</u>
	Redox	millivolts	<u>-22</u>	
	Turbidity	NTU	<u>1.6</u>	

Calibration Date/Time 6/3/19 1000

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Sediment LAB ID SP-3-Sediment

SAMPLE POINT ID SP-3-Sediment

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/3/19 Time 1110 SWL _____

Appearance Sandy gray brown

Weather Conditions PSun 55°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
~~Miyori~~	pH	unit		
	Conductivity	µmhos/cm		
	Temperature	Degrees Celsius		
	Redox	millivolts		
~~LaMotte~~	Turbidity	NTU		

Calibration Date/Time 6/3/19 1000

OBSERVATIONS



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 (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

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1905078

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Soil	Total Solids
SM 2550 B	Water	Temperature, Field
SM 4500-H+ B	Water	pH, Field
SM 4500-O G	Water	Oxygen, Dissolved

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed/

Service Request: R1905078

Sample Name: F-6
Lab Code: R1905078-001
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SW-4
Lab Code: R1905078-002
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SP-4
Lab Code: R1905078-003
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed/

Service Request: R1905078

Sample Name: SP-4
Lab Code: R1905078-003
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SW-3
Lab Code: R1905078-004
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SP-3
Lab Code: R1905078-005
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed/

Service Request: R1905078

Sample Name: SW-2
Lab Code: R1905078-006
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SP-2
Lab Code: R1905078-007
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SP-5-Influent
Lab Code: R1905078-008
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	CKUTZER
7470A	KMCLAEN	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed/

Service Request: R1905078

Sample Name: SP-5-Influent
Lab Code: R1905078-008
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method
8260C
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
FNAEGLER
JJANSON
JJANSON

Sample Name: SP-5-Effluent
Lab Code: R1905078-009
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method
120.1
180.1
6010C
7470A
8260C
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
JJANSON
JJANSON
CKUTZER
KMCLAEN
FNAEGLER
JJANSON
JJANSON

Sample Name: SP-3-Sediment
Lab Code: R1905078-010
Sample Matrix: Soil

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method
6010C
6010C
7471B
ALS SOP

Extracted/Digested By

Analyzed By
CKUTZER
NMANSEN
KMCLAEN
KAWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed/

Service Request: R1905078

Sample Name: Trip Blank
Lab Code: R1905078-011
Sample Matrix: Water

Date Collected: 06/3/19
Date Received: 06/5/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER



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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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

Sample Name: F-6
Lab Code: R1905078-001

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)	5.0 U	5.0	0.21	1	06/10/19 15:39	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,1-Dichloroethane (1,1-DCA)	0.43 J	5.0	0.20	1	06/10/19 15:39	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 15:39	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 15:39	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 15:39	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 15:39	
2-Hexanone	10 U	10	0.20	1	06/10/19 15:39	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 15:39	
Acetone	2.9 J	10	2.1	1	06/10/19 15:39	
Benzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 15:39	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 15:39	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 15:39	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 15:39	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 15:39	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 15:39	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 15:39	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 15:39	
Cyclohexane	10 U	10	0.26	1	06/10/19 15:39	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 15:39	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 15:39	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 15:39	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 15:39	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 15:39	
Methyl Acetate	10 U	10	0.33	1	06/10/19 15:39	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 15:39	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 15:39	
Styrene	5.0 U	5.0	0.20	1	06/10/19 15:39	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 15:39	
Toluene	5.0 U	5.0	0.20	1	06/10/19 15:39	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 15:39	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 15:39	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 15:39	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

Sample Name: F-6
Lab Code: R1905078-001

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 15:39	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 15:39	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 15:39	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 15:39	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 15:39	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/10/19 15:39	
Dibromofluoromethane	96	89 - 119	06/10/19 15:39	
Toluene-d8	99	87 - 121	06/10/19 15:39	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:40
Date Received: 06/05/19 13:55

Sample Name: SW-4
Lab Code: R1905078-002

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)	5.0 U	5.0	0.21	1	06/10/19 16:01	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,1-Dichloroethane (1,1-DCA)	0.51 J	5.0	0.20	1	06/10/19 16:01	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 16:01	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 16:01	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 16:01	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 16:01	
2-Hexanone	10 U	10	0.20	1	06/10/19 16:01	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 16:01	
Acetone	10 U	10	2.1	1	06/10/19 16:01	
Benzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 16:01	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 16:01	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 16:01	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 16:01	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 16:01	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 16:01	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 16:01	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 16:01	
Cyclohexane	10 U	10	0.26	1	06/10/19 16:01	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 16:01	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 16:01	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 16:01	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 16:01	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 16:01	
Methyl Acetate	10 U	10	0.33	1	06/10/19 16:01	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 16:01	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 16:01	
Styrene	5.0 U	5.0	0.20	1	06/10/19 16:01	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 16:01	
Toluene	5.0 U	5.0	0.20	1	06/10/19 16:01	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 16:01	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 16:01	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 16:01	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:40
Date Received: 06/05/19 13:55

Sample Name: SW-4
Lab Code: R1905078-002

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 16:01	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 16:01	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 16:01	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 16:01	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 16:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/10/19 16:01	
Dibromofluoromethane	96	89 - 119	06/10/19 16:01	
Toluene-d8	97	87 - 121	06/10/19 16:01	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:40
Date Received: 06/05/19 13:55

Sample Name: SP-4
Lab Code: R1905078-003

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)	5.0 U	5.0	0.21	1	06/10/19 16:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,1-Dichloroethane (1,1-DCA)	5.1	5.0	0.20	1	06/10/19 16:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 16:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 16:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 16:23	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,2-Dichloroethane	0.25 J	5.0	0.20	1	06/10/19 16:23	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:23	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:23	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 16:23	
2-Hexanone	10 U	10	0.20	1	06/10/19 16:23	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 16:23	
Acetone	4.0 J	10	2.1	1	06/10/19 16:23	
Benzene	5.0 U	5.0	0.20	1	06/10/19 16:23	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 16:23	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 16:23	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 16:23	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 16:23	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 16:23	
Chlorobenzene	3.5 J	5.0	0.20	1	06/10/19 16:23	
Chloroethane	3.5 J	5.0	0.23	1	06/10/19 16:23	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 16:23	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 16:23	
Cyclohexane	10 U	10	0.26	1	06/10/19 16:23	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 16:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 16:23	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 16:23	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 16:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 16:23	
Methyl Acetate	10 U	10	0.33	1	06/10/19 16:23	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 16:23	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 16:23	
Styrene	5.0 U	5.0	0.20	1	06/10/19 16:23	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 16:23	
Toluene	5.0 U	5.0	0.20	1	06/10/19 16:23	
Trichloroethene (TCE)	0.81 J	5.0	0.20	1	06/10/19 16:23	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 16:23	
Vinyl Chloride	0.32 J	5.0	0.20	1	06/10/19 16:23	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:40
Date Received: 06/05/19 13:55

Sample Name: SP-4
Lab Code: R1905078-003

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 16:23	
cis-1,2-Dichloroethene	0.85 J	5.0	0.23	1	06/10/19 16:23	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 16:23	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 16:23	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 16:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/10/19 16:23	
Dibromofluoromethane	99	89 - 119	06/10/19 16:23	
Toluene-d8	99	87 - 121	06/10/19 16:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:55
Date Received: 06/05/19 13:55

Sample Name: SW-3
Lab Code: R1905078-004

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)	5.0 U	5.0	0.21	1	06/10/19 16:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,1-Dichloroethane (1,1-DCA)	0.78 J	5.0	0.20	1	06/10/19 16:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 16:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 16:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 16:45	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:45	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 16:45	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 16:45	
2-Hexanone	10 U	10	0.20	1	06/10/19 16:45	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 16:45	
Acetone	4.4 J	10	2.1	1	06/10/19 16:45	
Benzene	5.0 U	5.0	0.20	1	06/10/19 16:45	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 16:45	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 16:45	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 16:45	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 16:45	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 16:45	
Chlorobenzene	0.40 J	5.0	0.20	1	06/10/19 16:45	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 16:45	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 16:45	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 16:45	
Cyclohexane	10 U	10	0.26	1	06/10/19 16:45	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 16:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 16:45	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 16:45	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 16:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 16:45	
Methyl Acetate	10 U	10	0.33	1	06/10/19 16:45	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 16:45	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 16:45	
Styrene	5.0 U	5.0	0.20	1	06/10/19 16:45	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 16:45	
Toluene	5.0 U	5.0	0.20	1	06/10/19 16:45	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 16:45	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 16:45	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 16:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:55
Date Received: 06/05/19 13:55

Sample Name: SW-3
Lab Code: R1905078-004

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 16:45	
cis-1,2-Dichloroethene	0.31 J	5.0	0.23	1	06/10/19 16:45	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 16:45	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 16:45	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 16:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/10/19 16:45	
Dibromofluoromethane	99	89 - 119	06/10/19 16:45	
Toluene-d8	101	87 - 121	06/10/19 16:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:05
Date Received: 06/05/19 13:55

Sample Name: SP-3
Lab Code: R1905078-005

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)	5.0 U	5.0	0.21	1	06/10/19 17:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,1,2-Trichloroethane	0.27 J	5.0	0.20	1	06/10/19 17:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,1-Dichloroethane (1,1-DCA)	12	5.0	0.20	1	06/10/19 17:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 17:08	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 17:08	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 17:08	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:08	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 17:08	
2-Hexanone	10 U	10	0.20	1	06/10/19 17:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 17:08	
Acetone	6.6 J	10	2.1	1	06/10/19 17:08	
Benzene	5.0 U	5.0	0.20	1	06/10/19 17:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 17:08	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 17:08	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 17:08	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 17:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 17:08	
Chlorobenzene	0.76 J	5.0	0.20	1	06/10/19 17:08	
Chloroethane	1.3 J	5.0	0.23	1	06/10/19 17:08	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 17:08	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 17:08	
Cyclohexane	10 U	10	0.26	1	06/10/19 17:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 17:08	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 17:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 17:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 17:08	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 17:08	
Methyl Acetate	10 U	10	0.33	1	06/10/19 17:08	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 17:08	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 17:08	
Styrene	5.0 U	5.0	0.20	1	06/10/19 17:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 17:08	
Toluene	5.0 U	5.0	0.20	1	06/10/19 17:08	
Trichloroethene (TCE)	2.6 J	5.0	0.20	1	06/10/19 17:08	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 17:08	
Vinyl Chloride	0.45 J	5.0	0.20	1	06/10/19 17:08	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:05
Date Received: 06/05/19 13:55

Sample Name: SP-3
Lab Code: R1905078-005

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 17:08	
cis-1,2-Dichloroethene	7.9	5.0	0.23	1	06/10/19 17:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 17:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 17:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 17:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/10/19 17:08	
Dibromofluoromethane	98	89 - 119	06/10/19 17:08	
Toluene-d8	99	87 - 121	06/10/19 17:08	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:20
Date Received: 06/05/19 13:55

Sample Name: SW-2
Lab Code: R1905078-006

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)	5.0 U	5.0	0.21	1	06/10/19 17:30	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 17:30	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 17:30	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 17:30	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 17:30	
2-Hexanone	10 U	10	0.20	1	06/10/19 17:30	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 17:30	
Acetone	4.4 J	10	2.1	1	06/10/19 17:30	
Benzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 17:30	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 17:30	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 17:30	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 17:30	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 17:30	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 17:30	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 17:30	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 17:30	
Cyclohexane	10 U	10	0.26	1	06/10/19 17:30	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 17:30	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 17:30	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 17:30	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 17:30	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 17:30	
Methyl Acetate	10 U	10	0.33	1	06/10/19 17:30	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 17:30	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 17:30	
Styrene	5.0 U	5.0	0.20	1	06/10/19 17:30	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 17:30	
Toluene	5.0 U	5.0	0.20	1	06/10/19 17:30	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 17:30	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 17:30	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 17:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:20
Date Received: 06/05/19 13:55

Sample Name: SW-2
Lab Code: R1905078-006

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 17:30	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 17:30	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 17:30	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 17:30	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 17:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/10/19 17:30	
Dibromofluoromethane	98	89 - 119	06/10/19 17:30	
Toluene-d8	99	87 - 121	06/10/19 17:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:30
Date Received: 06/05/19 13:55

Sample Name: SP-2
Lab Code: R1905078-007

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)	5.0 U	5.0	0.21	1	06/10/19 17:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 17:52	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 17:52	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 17:52	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 17:52	
2-Hexanone	10 U	10	0.20	1	06/10/19 17:52	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 17:52	
Acetone	10 U	10	2.1	1	06/10/19 17:52	
Benzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 17:52	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 17:52	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 17:52	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 17:52	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 17:52	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 17:52	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 17:52	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 17:52	
Cyclohexane	10 U	10	0.26	1	06/10/19 17:52	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 17:52	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 17:52	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 17:52	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 17:52	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 17:52	
Methyl Acetate	10 U	10	0.33	1	06/10/19 17:52	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 17:52	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 17:52	
Styrene	5.0 U	5.0	0.20	1	06/10/19 17:52	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 17:52	
Toluene	5.0 U	5.0	0.20	1	06/10/19 17:52	
Trichloroethene (TCE)	0.30 J	5.0	0.20	1	06/10/19 17:52	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 17:52	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 17:52	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 11:30
Date Received: 06/05/19 13:55

Sample Name: SP-2
Lab Code: R1905078-007

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 17:52	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 17:52	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 17:52	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 17:52	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 17:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/10/19 17:52	
Dibromofluoromethane	99	89 - 119	06/10/19 17:52	
Toluene-d8	100	87 - 121	06/10/19 17:52	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 12:45
Date Received: 06/05/19 13:55

Sample Name: SP-5-Influent
Lab Code: R1905078-008

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)	5.0 U	5.0	0.21	1	06/10/19 18:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,1-Dichloroethane (1,1-DCA)	4.9 J	5.0	0.20	1	06/10/19 18:14	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 18:14	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 18:14	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 18:14	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,2-Dichloropropane	0.21 J	5.0	0.20	1	06/10/19 18:14	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:14	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:14	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 18:14	
2-Hexanone	10 U	10	0.20	1	06/10/19 18:14	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 18:14	
Acetone	2.8 J	10	2.1	1	06/10/19 18:14	
Benzene	0.60 J	5.0	0.20	1	06/10/19 18:14	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 18:14	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 18:14	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 18:14	
Carbon Disulfide	2.4 J	10	0.25	1	06/10/19 18:14	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 18:14	
Chlorobenzene	13	5.0	0.20	1	06/10/19 18:14	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 18:14	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 18:14	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 18:14	
Cyclohexane	10 U	10	0.26	1	06/10/19 18:14	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 18:14	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 18:14	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 18:14	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 18:14	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 18:14	
Methyl Acetate	10 U	10	0.33	1	06/10/19 18:14	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 18:14	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 18:14	
Styrene	5.0 U	5.0	0.20	1	06/10/19 18:14	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 18:14	
Toluene	5.0 U	5.0	0.20	1	06/10/19 18:14	
Trichloroethene (TCE)	1.9 J	5.0	0.20	1	06/10/19 18:14	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 18:14	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 18:14	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 12:45
Date Received: 06/05/19 13:55

Sample Name: SP-5-Influent
Lab Code: R1905078-008

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 18:14	
cis-1,2-Dichloroethene	1.3 J	5.0	0.23	1	06/10/19 18:14	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 18:14	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 18:14	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 18:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/10/19 18:14	
Dibromofluoromethane	99	89 - 119	06/10/19 18:14	
Toluene-d8	99	87 - 121	06/10/19 18:14	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 12:25
Date Received: 06/05/19 13:55

Sample Name: SP-5-Effluent
Lab Code: R1905078-009

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)	5.0 U	5.0	0.21	1	06/10/19 18:37	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,1-Dichloroethane (1,1-DCA)	4.1 J	5.0	0.20	1	06/10/19 18:37	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 18:37	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 18:37	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 18:37	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:37	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 18:37	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 18:37	
2-Hexanone	10 U	10	0.20	1	06/10/19 18:37	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 18:37	
Acetone	10 U	10	2.1	1	06/10/19 18:37	
Benzene	0.24 J	5.0	0.20	1	06/10/19 18:37	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 18:37	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 18:37	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 18:37	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 18:37	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 18:37	
Chlorobenzene	7.0	5.0	0.20	1	06/10/19 18:37	
Chloroethane	1.1 J	5.0	0.23	1	06/10/19 18:37	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 18:37	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 18:37	
Cyclohexane	10 U	10	0.26	1	06/10/19 18:37	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 18:37	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 18:37	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 18:37	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 18:37	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 18:37	
Methyl Acetate	10 U	10	0.33	1	06/10/19 18:37	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 18:37	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 18:37	
Styrene	5.0 U	5.0	0.20	1	06/10/19 18:37	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 18:37	
Toluene	5.0 U	5.0	0.20	1	06/10/19 18:37	
Trichloroethene (TCE)	0.95 J	5.0	0.20	1	06/10/19 18:37	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 18:37	
Vinyl Chloride	0.42 J	5.0	0.20	1	06/10/19 18:37	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 12:25
Date Received: 06/05/19 13:55

Sample Name: SP-5-Effluent
Lab Code: R1905078-009

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 18:37	
cis-1,2-Dichloroethene	0.68 J	5.0	0.23	1	06/10/19 18:37	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 18:37	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 18:37	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 18:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/10/19 18:37	
Dibromofluoromethane	100	89 - 119	06/10/19 18:37	
Toluene-d8	99	87 - 121	06/10/19 18:37	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

Sample Name: Trip Blank
Lab Code: R1905078-011

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)	5.0 U	5.0	0.21	1	06/10/19 15:17	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 15:17	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 15:17	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 15:17	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 15:17	
2-Hexanone	10 U	10	0.20	1	06/10/19 15:17	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 15:17	
Acetone	7.8 J	10	2.1	1	06/10/19 15:17	
Benzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 15:17	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 15:17	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 15:17	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 15:17	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 15:17	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 15:17	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 15:17	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 15:17	
Cyclohexane	10 U	10	0.26	1	06/10/19 15:17	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 15:17	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 15:17	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 15:17	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 15:17	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 15:17	
Methyl Acetate	10 U	10	0.33	1	06/10/19 15:17	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 15:17	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 15:17	
Styrene	5.0 U	5.0	0.20	1	06/10/19 15:17	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 15:17	
Toluene	5.0 U	5.0	0.20	1	06/10/19 15:17	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 15:17	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 15:17	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 15:17	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: Trip Blank
Lab Code: R1905078-011

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 15:17	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 15:17	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 15:17	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 15:17	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 15:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/10/19 15:17	
Dibromofluoromethane	97	89 - 119	06/10/19 15:17	
Toluene-d8	98	87 - 121	06/10/19 15:17	



Metals

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: F-6
Lab Code: R1905078-001

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:15	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:15	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:15	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:15	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:15	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:15	06/10/19	
Calcium, Total	6010C	11100	ug/L	1000	1	06/12/19 00:15	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:15	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:15	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:15	06/10/19	
Iron, Total	6010C	290	ug/L	100	1	06/12/19 00:15	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:15	06/10/19	
Magnesium, Total	6010C	3000	ug/L	1000	1	06/12/19 00:15	06/10/19	
Manganese, Total	6010C	73	ug/L	10	1	06/12/19 00:15	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:23	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:15	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:15	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:15	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:15	06/10/19	
Sodium, Total	6010C	5200	ug/L	1000	1	06/12/19 00:15	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:15	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:15	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:15	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-4
Lab Code: R1905078-002

Service Request: R1905078
Date Collected: 06/03/19 10:40
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:18	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:18	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:18	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:18	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:18	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:18	06/10/19	
Calcium, Total	6010C	10800	ug/L	1000	1	06/12/19 00:18	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:18	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:18	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:18	06/10/19	
Iron, Total	6010C	330	ug/L	100	1	06/12/19 00:18	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:18	06/10/19	
Magnesium, Total	6010C	3000	ug/L	1000	1	06/12/19 00:18	06/10/19	
Manganese, Total	6010C	73	ug/L	10	1	06/12/19 00:18	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:26	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:18	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:18	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:18	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:18	06/10/19	
Sodium, Total	6010C	5300	ug/L	1000	1	06/12/19 00:18	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:18	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:18	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:18	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1905078-003

Service Request: R1905078
Date Collected: 06/03/19 11:40
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:21	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:21	06/10/19	
Arsenic, Total	6010C	44	ug/L	10	1	06/12/19 00:21	06/10/19	
Barium, Total	6010C	59	ug/L	20	1	06/12/19 00:21	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:21	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:21	06/10/19	
Calcium, Total	6010C	40700	ug/L	1000	1	06/12/19 00:21	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:21	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:21	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:21	06/10/19	
Iron, Total	6010C	10300	ug/L	100	1	06/12/19 00:21	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:21	06/10/19	
Magnesium, Total	6010C	7800	ug/L	1000	1	06/12/19 00:21	06/10/19	
Manganese, Total	6010C	3040	ug/L	10	1	06/12/19 00:21	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:28	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:21	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:21	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:21	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:21	06/10/19	
Sodium, Total	6010C	6100	ug/L	1000	1	06/12/19 00:21	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:21	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:21	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:21	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-3
Lab Code: R1905078-004

Service Request: R1905078
Date Collected: 06/03/19 10:55
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:25	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:25	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:25	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:25	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:25	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:25	06/10/19	
Calcium, Total	6010C	10500	ug/L	1000	1	06/12/19 00:25	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:25	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:25	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:25	06/10/19	
Iron, Total	6010C	420	ug/L	100	1	06/12/19 00:25	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:25	06/10/19	
Magnesium, Total	6010C	3000	ug/L	1000	1	06/12/19 00:25	06/10/19	
Manganese, Total	6010C	106	ug/L	10	1	06/12/19 00:25	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:31	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:25	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:25	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:25	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:25	06/10/19	
Sodium, Total	6010C	5100	ug/L	1000	1	06/12/19 00:25	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:25	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:25	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:25	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-3
Lab Code: R1905078-005

Service Request: R1905078
Date Collected: 06/03/19 11:05
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:28	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:28	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:28	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:28	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:28	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:28	06/10/19	
Calcium, Total	6010C	26500	ug/L	1000	1	06/12/19 00:28	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:28	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:28	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:28	06/10/19	
Iron, Total	6010C	920	ug/L	100	1	06/12/19 00:28	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:28	06/10/19	
Magnesium, Total	6010C	6200	ug/L	1000	1	06/12/19 00:28	06/10/19	
Manganese, Total	6010C	610	ug/L	10	1	06/12/19 00:28	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:33	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:28	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:28	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:28	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:28	06/10/19	
Sodium, Total	6010C	3500	ug/L	1000	1	06/12/19 00:28	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:28	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:28	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:28	06/10/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-2
Lab Code: R1905078-006

Service Request: R1905078
Date Collected: 06/03/19 11:20
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:38	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:38	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:38	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:38	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:38	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:38	06/10/19	
Calcium, Total	6010C	7900	ug/L	1000	1	06/12/19 00:38	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:38	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:38	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:38	06/10/19	
Iron, Total	6010C	320	ug/L	100	1	06/12/19 00:38	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:38	06/10/19	
Magnesium, Total	6010C	2600	ug/L	1000	1	06/12/19 00:38	06/10/19	
Manganese, Total	6010C	55	ug/L	10	1	06/12/19 00:38	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:41	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:38	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:38	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:38	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:38	06/10/19	
Sodium, Total	6010C	4900	ug/L	1000	1	06/12/19 00:38	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:38	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:38	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:38	06/10/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1905078-007

Service Request: R1905078
Date Collected: 06/03/19 11:30
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:41	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:41	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/12/19 00:41	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/12/19 00:41	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:41	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:41	06/10/19	
Calcium, Total	6010C	8900	ug/L	1000	1	06/12/19 00:41	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:41	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:41	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:41	06/10/19	
Iron, Total	6010C	1990	ug/L	100	1	06/12/19 00:41	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:41	06/10/19	
Magnesium, Total	6010C	2400	ug/L	1000	1	06/12/19 00:41	06/10/19	
Manganese, Total	6010C	1840	ug/L	10	1	06/12/19 00:41	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:44	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:41	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/12/19 00:41	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:41	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:41	06/10/19	
Sodium, Total	6010C	4700	ug/L	1000	1	06/12/19 00:41	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:41	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:41	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:41	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5-Influent
Lab Code: R1905078-008

Service Request: R1905078
Date Collected: 06/03/19 12:45
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	230	ug/L	100	1	06/12/19 00:44	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:44	06/10/19	
Arsenic, Total	6010C	261	ug/L	10	1	06/12/19 00:44	06/10/19	
Barium, Total	6010C	128	ug/L	20	1	06/12/19 00:44	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:44	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:44	06/10/19	
Calcium, Total	6010C	47000	ug/L	1000	1	06/12/19 00:44	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:44	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:44	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:44	06/10/19	
Iron, Total	6010C	27600	ug/L	100	1	06/12/19 00:44	06/10/19	
Lead, Total	6010C	90.6	ug/L	5.0	1	06/12/19 00:44	06/10/19	
Magnesium, Total	6010C	11200	ug/L	1000	1	06/12/19 00:44	06/10/19	
Manganese, Total	6010C	5790	ug/L	10	1	06/12/19 00:44	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:46	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:44	06/10/19	
Potassium, Total	6010C	2800	ug/L	2000	1	06/12/19 00:44	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:44	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:44	06/10/19	
Sodium, Total	6010C	5200	ug/L	1000	1	06/12/19 00:44	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:44	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:44	06/10/19	
Zinc, Total	6010C	11500	ug/L	200	10	06/12/19 15:18	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5-Effluent
Lab Code: R1905078-009

Service Request: R1905078
Date Collected: 06/03/19 12:25
Date Received: 06/05/19 13:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/12/19 00:47	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/12/19 00:47	06/10/19	
Arsenic, Total	6010C	106	ug/L	10	1	06/12/19 00:47	06/10/19	
Barium, Total	6010C	139	ug/L	20	1	06/12/19 00:47	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/12/19 00:47	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:47	06/10/19	
Calcium, Total	6010C	47400	ug/L	1000	1	06/12/19 00:47	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:47	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/12/19 00:47	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/12/19 00:47	06/10/19	
Iron, Total	6010C	20500	ug/L	100	1	06/12/19 00:47	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/12/19 00:47	06/10/19	
Magnesium, Total	6010C	11600	ug/L	1000	1	06/12/19 00:47	06/10/19	
Manganese, Total	6010C	5670	ug/L	10	1	06/12/19 00:47	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 12:49	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/12/19 00:47	06/10/19	
Potassium, Total	6010C	2600	ug/L	2000	1	06/12/19 00:47	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:47	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/12/19 00:47	06/10/19	
Sodium, Total	6010C	5300	ug/L	1000	1	06/12/19 00:47	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/12/19 00:47	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/12/19 00:47	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/12/19 00:47	06/10/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil

Sample Name: SP-3-Sediment
Lab Code: R1905078-010

Service Request: R1905078
Date Collected: 06/03/19 11:10
Date Received: 06/05/19 13:55

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	8200	mg/Kg	27	1	06/11/19 18:18	06/07/19	
Antimony, Total	6010C	8.2 U	mg/Kg	8.2	1	06/11/19 18:18	06/07/19	
Arsenic, Total	6010C	35.4	mg/Kg	1.4	1	06/11/19 18:18	06/07/19	
Barium, Total	6010C	61.8	mg/Kg	2.7	1	06/11/19 18:18	06/07/19	
Beryllium, Total	6010C	0.41 U	mg/Kg	0.41	1	06/11/19 18:18	06/07/19	
Cadmium, Total	6010C	0.74	mg/Kg	0.68	1	06/11/19 18:18	06/07/19	
Calcium, Total	6010C	140 U	mg/Kg	140	1	06/11/19 18:18	06/07/19	
Chromium, Total	6010C	10.9	mg/Kg	1.4	1	06/11/19 18:18	06/07/19	
Cobalt, Total	6010C	9.0	mg/Kg	6.8	1	06/11/19 18:18	06/07/19	
Copper, Total	6010C	16.2	mg/Kg	2.7	1	06/11/19 18:18	06/07/19	
Iron, Total	6010C	40100	mg/Kg	270	10	06/11/19 19:00	06/07/19	
Lead, Total	6010C	13.4	mg/Kg	3.4	1	06/11/19 18:18	06/07/19	
Magnesium, Total	6010C	2900	mg/Kg	140	1	06/11/19 18:18	06/07/19	
Manganese, Total	6010C	1660	mg/Kg	27	10	06/11/19 19:00	06/07/19	
Mercury, Total	7471B	0.049 U	mg/Kg	0.049	1	06/14/19 12:36	06/13/19	
Nickel, Total	6010C	17.8	mg/Kg	5.5	1	06/11/19 18:18	06/07/19	
Potassium, Total	6010C	820	mg/Kg	270	1	06/11/19 18:18	06/07/19	
Selenium, Total	6010C	1.4 U	mg/Kg	1.4	1	06/12/19 15:34	06/07/19	
Silver, Total	6010C	1.4 U	mg/Kg	1.4	1	06/11/19 18:18	06/07/19	
Sodium, Total	6010C	140 U	mg/Kg	140	1	06/11/19 18:18	06/07/19	
Thallium, Total	6010C	14 U	mg/Kg	14	10	06/11/19 19:00	06/07/19	
Vanadium, Total	6010C	12.4	mg/Kg	6.8	1	06/11/19 18:18	06/07/19	
Zinc, Total	6010C	51.7	mg/Kg	2.7	1	06/11/19 18:18	06/07/19	



General Chemistry

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil

Sample Name: SP-3-Sediment
Lab Code: R1905078-010

Service Request: R1905078
Date Collected: 06/03/19 11:10
Date Received: 06/05/19 13:55

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	67.7	Percent	-	1	06/07/19 08:55	



Field Data

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: F-6
Lab Code: R1905078-001

Service Request: R1905078
Date Collected: 06/03/19 10:20
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	120	uMHOS/cm	-	1	06/03/19 10:20	
Oxygen, Dissolved	SM 4500-O G	9.99	mg/L	0.20	1	06/03/19 10:20	
pH, Field	SM 4500-H+ B	7.16	pH Units	-	1	06/03/19 10:20	
Temperature, Field	SM 2550 B	11.1	deg C	-	1	06/03/19 10:20	
Turbidity, Field	180.1	1.6	NTU	-	1	06/03/19 10:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-4
Lab Code: R1905078-002

Service Request: R1905078
Date Collected: 06/03/19 10:40
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	112	uMHOS/cm	-	1	06/03/19 10:40	
Oxygen, Dissolved	SM 4500-O G	9.92	mg/L	0.20	1	06/03/19 10:40	
pH, Field	SM 4500-H+ B	7.36	pH Units	-	1	06/03/19 10:40	
Temperature, Field	SM 2550 B	11.4	deg C	-	1	06/03/19 10:40	
Turbidity, Field	180.1	1.7	NTU	-	1	06/03/19 10:40	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1905078-003

Service Request: R1905078
Date Collected: 06/03/19 11:40
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	319	uMHOS/cm	-	1	06/03/19 11:40	
pH, Field	SM 4500-H+ B	6.61	pH Units	-	1	06/03/19 11:40	
Temperature, Field	SM 2550 B	11.7	deg C	-	1	06/03/19 11:40	
Turbidity, Field	180.1	1	NTU	-	1	06/03/19 11:40	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-3
Lab Code: R1905078-004

Service Request: R1905078
Date Collected: 06/03/19 10:55
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	110	uMHOS/cm	-	1	06/03/19 10:55	
Oxygen, Dissolved	SM 4500-O G	9.76	mg/L	0.20	1	06/03/19 10:55	
pH, Field	SM 4500-H+ B	7.16	pH Units	-	1	06/03/19 10:55	
Temperature, Field	SM 2550 B	11.7	deg C	-	1	06/03/19 10:55	
Turbidity, Field	180.1	1.9	NTU	-	1	06/03/19 10:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1905078-005

Service Request: R1905078
Date Collected: 06/03/19 11:05
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	198	uMHOS/cm	-	1	06/03/19 11:05	
pH, Field	SM 4500-H+ B	6.72	pH Units	-	1	06/03/19 11:05	
Temperature, Field	SM 2550 B	14.0	deg C	-	1	06/03/19 11:05	
Turbidity, Field	180.1	2	NTU	-	1	06/03/19 11:05	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-2
Lab Code: R1905078-006

Service Request: R1905078
Date Collected: 06/03/19 11:20
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	95	uMHOS/cm	-	1	06/03/19 11:20	
Oxygen, Dissolved	SM 4500-O G	9.52	mg/L	0.20	1	06/03/19 11:20	
pH, Field	SM 4500-H+ B	6.93	pH Units	-	1	06/03/19 11:20	
Temperature, Field	SM 2550 B	11.7	deg C	-	1	06/03/19 11:20	
Turbidity, Field	180.1	2.5	NTU	-	1	06/03/19 11:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1905078-007

Service Request: R1905078
Date Collected: 06/03/19 11:30
Date Received: 06/05/19 13:55
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	106	uMHOS/cm	-	1	06/03/19 11:30	
pH, Field	SM 4500-H+ B	6.32	pH Units	-	1	06/03/19 11:30	
Temperature, Field	SM 2550 B	13.0	deg C	-	1	06/03/19 11:30	
Turbidity, Field	180.1	9.5	NTU	-	1	06/03/19 11:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5-Influent
Lab Code: R1905078-008

Service Request: R1905078
Date Collected: 06/03/19 12:45
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	404	uMHOS/cm	-	1	06/03/19 12:45	
pH, Field	SM 4500-H+ B	6.42	pH Units	-	1	06/03/19 12:45	
Temperature, Field	SM 2550 B	11.3	deg C	-	1	06/03/19 12:45	
Turbidity, Field	180.1	21.6	NTU	-	1	06/03/19 12:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5-Effluent
Lab Code: R1905078-009

Service Request: R1905078
Date Collected: 06/03/19 12:25
Date Received: 06/05/19 13:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	414	uMHOS/cm	-	1	06/03/19 12:25	
pH, Field	SM 4500-H+ B	6.33	pH Units	-	1	06/03/19 12:25	
Temperature, Field	SM 2550 B	11.6	deg C	-	1	06/03/19 12:25	
Turbidity, Field	180.1	1.6	NTU	-	1	06/03/19 12:25	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078

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
F-6	R1905078-001	95	96	99
SW-4	R1905078-002	94	96	97
SP-4	R1905078-003	96	99	99
SW-3	R1905078-004	97	99	101
SP-3	R1905078-005	96	98	99
SW-2	R1905078-006	95	98	99
SP-2	R1905078-007	94	99	100
SP-5-Influent	R1905078-008	94	99	99
SP-5-Effluent	R1905078-009	95	100	99
Trip Blank	R1905078-011	95	97	98
Method Blank	RQ1905779-04	93	98	99
Lab Control Sample	RQ1905779-03	100	101	101

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1905779-04

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)	5.0 U	5.0	0.21	1	06/10/19 12:19	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/10/19 12:19	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.25	1	06/10/19 12:19	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/10/19 12:19	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
2-Butanone (MEK)	10 U	10	0.78	1	06/10/19 12:19	
2-Hexanone	10 U	10	0.20	1	06/10/19 12:19	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/10/19 12:19	
Acetone	10 U	10	2.1	1	06/10/19 12:19	
Benzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/10/19 12:19	
Bromoform	5.0 U	5.0	0.25	1	06/10/19 12:19	
Bromomethane	5.0 U	5.0	0.70	1	06/10/19 12:19	
Carbon Disulfide	10 U	10	0.25	1	06/10/19 12:19	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/10/19 12:19	
Chlorobenzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
Chloroethane	5.0 U	5.0	0.23	1	06/10/19 12:19	
Chloroform	5.0 U	5.0	0.24	1	06/10/19 12:19	
Chloromethane	5.0 U	5.0	0.28	1	06/10/19 12:19	
Cyclohexane	10 U	10	0.26	1	06/10/19 12:19	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/10/19 12:19	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.21	1	06/10/19 12:19	
Dichloromethane	5.0 U	5.0	0.36	1	06/10/19 12:19	
Ethylbenzene	5.0 U	5.0	0.20	1	06/10/19 12:19	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/10/19 12:19	
Methyl Acetate	10 U	10	0.33	1	06/10/19 12:19	
Methyl tert-Butyl Ether	5.0 U	5.0	0.20	1	06/10/19 12:19	
Methylcyclohexane	10 U	10	0.20	1	06/10/19 12:19	
Styrene	5.0 U	5.0	0.20	1	06/10/19 12:19	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/10/19 12:19	
Toluene	5.0 U	5.0	0.20	1	06/10/19 12:19	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/10/19 12:19	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.24	1	06/10/19 12:19	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/10/19 12:19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1905779-04

Service Request: R1905078
Date Collected: NA
Date Received: NA

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
Xylenes, Total	5.0 U	5.0	0.23	1	06/10/19 12:19	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/10/19 12:19	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/10/19 12:19	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/10/19 12:19	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/10/19 12:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/10/19 12:19	
Dibromofluoromethane	98	89 - 119	06/10/19 12:19	
Toluene-d8	99	87 - 121	06/10/19 12:19	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Analyzed: 06/10/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1905779-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.8	20.0	99	75-125
1,1,2,2-Tetrachloroethane	8260C	19.0	20.0	95	78-126
1,1,2-Trichloroethane	8260C	18.5	20.0	92	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	20.7	20.0	104	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.2	20.0	96	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.2	20.0	96	71-118
1,2,4-Trichlorobenzene	8260C	19.6	20.0	98	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.7	20.0	98	55-136
1,2-Dibromoethane	8260C	18.5	20.0	93	82-127
1,2-Dichlorobenzene	8260C	18.7	20.0	93	80-119
1,2-Dichloroethane	8260C	18.8	20.0	94	71-127
1,2-Dichloropropane	8260C	19.0	20.0	95	80-119
1,3-Dichlorobenzene	8260C	18.8	20.0	94	83-121
1,4-Dichlorobenzene	8260C	18.7	20.0	93	79-119
2-Butanone (MEK)	8260C	18.8	20.0	94	61-137
2-Hexanone	8260C	17.5	20.0	87	63-124
4-Methyl-2-pentanone	8260C	18.0	20.0	90	66-124
Acetone	8260C	19.9	20.0	99	40-161
Benzene	8260C	18.8	20.0	94	79-119
Bromodichloromethane	8260C	19.1	20.0	96	81-123
Bromoform	8260C	19.7	20.0	99	65-146
Bromomethane	8260C	24.4	20.0	122	42-166
Carbon Disulfide	8260C	19.3	20.0	96	66-128
Carbon Tetrachloride	8260C	19.2	20.0	96	70-127
Chlorobenzene	8260C	18.5	20.0	93	80-121
Chloroethane	8260C	17.1	20.0	85	62-131
Chloroform	8260C	19.4	20.0	97	79-120
Chloromethane	8260C	18.8	20.0	94	65-135
Cyclohexane	8260C	22.6	20.0	113	69-120
Dibromochloromethane	8260C	18.9	20.0	95	72-128
Dichlorodifluoromethane (CFC 12)	8260C	17.6	20.0	88	59-155
Dichloromethane	8260C	17.8	20.0	89	73-122
Ethylbenzene	8260C	19.2	20.0	96	76-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Analyzed: 06/10/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1905779-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	18.7	20.0	94	77-128
Methyl Acetate	8260C	16.5	20.0	83	40-112
Methyl tert-Butyl Ether	8260C	20.1	20.0	101	75-118
Methylcyclohexane	8260C	23.2	20.0	116	51-129
Styrene	8260C	19.0	20.0	95	80-124
Tetrachloroethene (PCE)	8260C	19.1	20.0	95	72-125
Toluene	8260C	19.0	20.0	95	79-119
Trichloroethene (TCE)	8260C	17.8	20.0	89	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.5	20.0	97	71-136
Vinyl Chloride	8260C	18.4	20.0	92	74-159
cis-1,2-Dichloroethene	8260C	19.4	20.0	97	80-121
cis-1,3-Dichloropropene	8260C	19.4	20.0	97	77-122
trans-1,2-Dichloroethene	8260C	19.7	20.0	99	73-118
trans-1,3-Dichloropropene	8260C	19.7	20.0	99	71-133



Metals

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil

Sample Name: Method Blank
Lab Code: R1905078-MB1

Service Request: R1905078
Date Collected: NA
Date Received: NA

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	20 U	mg/Kg	20	1	06/11/19 18:08	06/07/19	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	1	06/11/19 18:08	06/07/19	
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	06/11/19 18:08	06/07/19	
Barium, Total	6010C	2.0 U	mg/Kg	2.0	1	06/11/19 18:08	06/07/19	
Beryllium, Total	6010C	0.30 U	mg/Kg	0.30	1	06/11/19 18:08	06/07/19	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	1	06/11/19 18:08	06/07/19	
Calcium, Total	6010C	100 U	mg/Kg	100	1	06/11/19 18:08	06/07/19	
Chromium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/11/19 18:08	06/07/19	
Cobalt, Total	6010C	5.0 U	mg/Kg	5.0	1	06/11/19 18:08	06/07/19	
Copper, Total	6010C	2.0 U	mg/Kg	2.0	1	06/11/19 18:08	06/07/19	
Iron, Total	6010C	20 U	mg/Kg	20	1	06/11/19 18:08	06/07/19	
Lead, Total	6010C	2.5 U	mg/Kg	2.5	1	06/11/19 18:08	06/07/19	
Magnesium, Total	6010C	100 U	mg/Kg	100	1	06/11/19 18:08	06/07/19	
Manganese, Total	6010C	2.0 U	mg/Kg	2.0	1	06/11/19 18:08	06/07/19	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	1	06/14/19 12:31	06/13/19	
Nickel, Total	6010C	4.0 U	mg/Kg	4.0	1	06/11/19 18:08	06/07/19	
Potassium, Total	6010C	200 U	mg/Kg	200	1	06/11/19 18:08	06/07/19	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/12/19 15:25	06/07/19	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	1	06/11/19 18:08	06/07/19	
Sodium, Total	6010C	100 U	mg/Kg	100	1	06/11/19 18:08	06/07/19	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/11/19 18:08	06/07/19	
Vanadium, Total	6010C	5.0 U	mg/Kg	5.0	1	06/11/19 18:08	06/07/19	
Zinc, Total	6010C	2.0 U	mg/Kg	2.0	1	06/11/19 18:08	06/07/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1905078-MB2

Service Request: R1905078
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/11/19 23:20	06/10/19	
Antimony, Total	6010C	60 U	ug/L	60	1	06/11/19 23:20	06/10/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Barium, Total	6010C	20 U	ug/L	20	1	06/11/19 23:20	06/10/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/11/19 23:20	06/10/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/11/19 23:20	06/10/19	
Calcium, Total	6010C	1000 U	ug/L	1000	1	06/11/19 23:20	06/10/19	
Chromium, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/11/19 23:20	06/10/19	
Copper, Total	6010C	20 U	ug/L	20	1	06/11/19 23:20	06/10/19	
Iron, Total	6010C	100 U	ug/L	100	1	06/11/19 23:20	06/10/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/11/19 23:20	06/10/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	06/11/19 23:20	06/10/19	
Manganese, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/11/19 11:40	06/10/19	
Nickel, Total	6010C	40 U	ug/L	40	1	06/11/19 23:20	06/10/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/11/19 23:20	06/10/19	
Selenium, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Silver, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Sodium, Total	6010C	1000 U	ug/L	1000	1	06/11/19 23:20	06/10/19	
Thallium, Total	6010C	10 U	ug/L	10	1	06/11/19 23:20	06/10/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/11/19 23:20	06/10/19	
Zinc, Total	6010C	20 U	ug/L	20	1	06/11/19 23:20	06/10/19	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil

Service Request: R1905078
Date Collected: 06/03/19
Date Received: 06/05/19
Date Analyzed: 06/14/19
Date Extracted: 06/13/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: SP-3-Sediment
Lab Code: R1905078-010
Analysis Method: 7471B
Prep Method: Method

Units: mg/Kg
Basis: Dry

Analyte Name	Sample Result	Result	Matrix Spike		Result	Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Mercury, Total	0.049 U	0.261	0.246	106	0.259	0.242	107	80-120	<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: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Soil

Service Request: R1905078
Date Analyzed: 06/11/19 - 06/14/19

Lab Control Sample Summary
Inorganic Parameters

Units:mg/Kg
Basis:Dry

Lab Control Sample
R1905078-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	184	200	92	80-120
Antimony, Total	6010C	46.3	50.0	93	80-120
Arsenic, Total	6010C	3.67	4.0	92	80-120
Barium, Total	6010C	206	200	103	80-120
Beryllium, Total	6010C	4.90	5.00	98	80-120
Cadmium, Total	6010C	5.02	5.00	100	80-120
Calcium, Total	6010C	190	200	93	80-120
Chromium, Total	6010C	20.5	20.0	102	80-120
Cobalt, Total	6010C	51.6	50.0	103	80-120
Copper, Total	6010C	25.1	25.0	100	80-120
Iron, Total	6010C	98	100	98	80-120
Lead, Total	6010C	50.6	50.0	101	80-120
Magnesium, Total	6010C	200	200	98	80-120
Manganese, Total	6010C	50.0	50.0	100	80-120
Mercury, Total	7471B	0.170	0.167	102	80-120
Nickel, Total	6010C	49.8	50.0	100	80-120
Potassium, Total	6010C	1920	2000	96	80-120
Selenium, Total	6010C	94.0	101	93	80-120
Silver, Total	6010C	4.9	5.0	97	80-120
Sodium, Total	6010C	1970	2000	98	80-120
Thallium, Total	6010C	188	200	94	80-120
Vanadium, Total	6010C	50.1	50.0	100	80-120
Zinc, Total	6010C	49.0	50.0	98	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Analyzed: 06/11/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L**Basis:**NA**Lab Control Sample**

R1905078-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury, Total	7470A	1.06	1.00	106	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1905078
Date Analyzed: 06/11/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample R1905078-LCS2					Duplicate Lab Control Sample R1905078-DLCS2					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Total	6010C	1930	2000	97	1940	2000	97	80-120	<1	20
Antimony, Total	6010C	490	500	98	489	500	98	80-120	<1	20
Arsenic, Total	6010C	43	40	108	39	40	99	80-120	9	20
Barium, Total	6010C	2120	2000	106	2120	2000	106	80-120	<1	20
Beryllium, Total	6010C	51.4	50.0	103	51.5	50.0	103	80-120	<1	20
Cadmium, Total	6010C	52.7	50.0	105	52.6	50.0	105	80-120	<1	20
Calcium, Total	6010C	1800	2000	92	1900	2000	96	80-120	5	20
Chromium, Total	6010C	210	200	105	210	200	105	80-120	<1	20
Cobalt, Total	6010C	536	500	107	536	500	107	80-120	<1	20
Copper, Total	6010C	255	250	102	253	250	101	80-120	<1	20
Iron, Total	6010C	1020	1000	102	1020	1000	102	80-120	<1	20
Lead, Total	6010C	531	500	106	531	500	106	80-120	<1	20
Magnesium, Total	6010C	2100	2000	103	2100	2000	104	80-120	<1	20
Manganese, Total	6010C	518	500	104	518	500	104	80-120	<1	20
Nickel, Total	6010C	519	500	104	519	500	104	80-120	<1	20
Potassium, Total	6010C	19700	20000	99	19700	20000	98	80-120	<1	20
Selenium, Total	6010C	1070	1010	106	1070	1010	106	80-120	<1	20
Silver, Total	6010C	51	50	101	51	50	102	80-120	<1	20
Sodium, Total	6010C	19600	20000	98	19600	20000	98	80-120	<1	20
Thallium, Total	6010C	1960	2000	98	1960	2000	98	80-120	<1	20
Vanadium, Total	6010C	510	500	102	510	500	102	80-120	<1	20
Zinc, Total	6010C	524	500	105	522	500	104	80-120	<1	20



September 30, 2019

Service Request No:R1908994

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville LF SW/Seeps/Sed

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory September 17, 2019
For your reference, these analyses have been assigned our service request number **R1908994**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, 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), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

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: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Sediment, Water

Service Request: R1908994
Date Received: 09/17/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven sediment, water samples were received for analysis at ALS Environmental on 09/17/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

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, 09/24/2019: 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.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Approved by

A handwritten signature in black ink, appearing to read "Brady Krutten".

Date

09/30/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: F-6			Lab ID: R1908994-001			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	176				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	42.0				mV	ASTM D1498-00
pH, Field	7.00				pH Units	SM 4500-H+ B
Temperature, Field	11.9				deg C	SM 2550 B
Turbidity, Field	2.6				NTU	180.1
Calcium, Total	18700			1000	ug/L	6010C
Magnesium, Total	4100			1000	ug/L	6010C
Manganese, Total	67			10	ug/L	6010C
Sodium, Total	7400			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.57	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.31	J	0.23	5.0	ug/L	8260C

CLIENT ID: SW-4			Lab ID: R1908994-002			

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.53			0.20	mg/L	SM 4500-O G
Conductivity, Field	168				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	6.00				mV	ASTM D1498-00
pH, Field	6.90				pH Units	SM 4500-H+ B
Temperature, Field	11.4				deg C	SM 2550 B
Turbidity, Field	2				NTU	180.1
Calcium, Total	17200			1000	ug/L	6010C
Magnesium, Total	3800			1000	ug/L	6010C
Manganese, Total	75			10	ug/L	6010C
Sodium, Total	7000			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.92	J	0.20	5.0	ug/L	8260C
Chlorobenzene	0.21	J	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	0.21	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.46	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-4			Lab ID: R1908994-003			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	354				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	-48.0				mV	ASTM D1498-00
pH, Field	6.61				pH Units	SM 4500-H+ B
Temperature, Field	14.3				deg C	SM 2550 B
Turbidity, Field	3.2				NTU	180.1
Arsenic, Total	92			10	ug/L	6010C
Barium, Total	78			20	ug/L	6010C
Calcium, Total	42500			1000	ug/L	6010C
Iron, Total	14600			100	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-4			Lab ID: R1908994-003			

Analyte	Results	Flag	MDL	MRL	Units	Method
Magnesium, Total	7800			1000	ug/L	6010C
Manganese, Total	4630			10	ug/L	6010C
Sodium, Total	7900			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	3.6	J	0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.33	J	0.20	5.0	ug/L	8260C
Acetone	2.1	BJ	2.1	10	ug/L	8260C
Chlorobenzene	4.2	J	0.20	5.0	ug/L	8260C
Chloroethane	2.9	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.49	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.40	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.93	J	0.23	5.0	ug/L	8260C

CLIENT ID: SW-3			Lab ID: R1908994-004			

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.46			0.20	mg/L	SM 4500-O G
Conductivity, Field	163				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	47.0				mV	ASTM D1498-00
pH, Field	6.62				pH Units	SM 4500-H+ B
Temperature, Field	11.5				deg C	SM 2550 B
Turbidity, Field	2.4				NTU	180.1
Calcium, Total	16200			1000	ug/L	6010C
Magnesium, Total	3600			1000	ug/L	6010C
Manganese, Total	56			10	ug/L	6010C
Sodium, Total	6800			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	1.2	J	0.20	5.0	ug/L	8260C
Acetone	3.0	BJ	2.1	10	ug/L	8260C
Chlorobenzene	0.30	J	0.20	5.0	ug/L	8260C
Chloroethane	0.23	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.28	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.43	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-3			Lab ID: R1908994-005			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	235				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	28.0				mV	ASTM D1498-00
pH, Field	6.37				pH Units	SM 4500-H+ B
Temperature, Field	12.3				deg C	SM 2550 B
Turbidity, Field	4.5				NTU	180.1
Barium, Total	26			20	ug/L	6010C
Calcium, Total	28500			1000	ug/L	6010C
Iron, Total	3300			100	ug/L	6010C



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-3			Lab ID: R1908994-005			

Analyte	Results	Flag	MDL	MRL	Units	Method
Magnesium, Total	6500			1000	ug/L	6010C
Manganese, Total	2430			10	ug/L	6010C
Sodium, Total	3800			1000	ug/L	6010C
1,1,2-Trichloroethane	0.46	J	0.20	5.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	18		0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.50	J	0.20	5.0	ug/L	8260C
Acetone	2.1	BJ	2.1	10	ug/L	8260C
Chlorobenzene	8.1		0.20	5.0	ug/L	8260C
Chloroethane	3.3	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	2.8	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	2.5	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	9.3		0.23	5.0	ug/L	8260C

CLIENT ID: SW-2			Lab ID: R1908994-006			

Analyte	Results	Flag	MDL	MRL	Units	Method
Oxygen, Dissolved	9.21			0.20	mg/L	SM 4500-O G
Conductivity, Field	148				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	87.0				mV	ASTM D1498-00
pH, Field	6.37				pH Units	SM 4500-H+ B
Temperature, Field	11.6				deg C	SM 2550 B
Turbidity, Field	2.9				NTU	180.1
Calcium, Total	13700			1000	ug/L	6010C
Magnesium, Total	3200			1000	ug/L	6010C
Sodium, Total	6900			1000	ug/L	6010C

CLIENT ID: SP-2			Lab ID: R1908994-007			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	158				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	-8.00				mV	ASTM D1498-00
pH, Field	6.36				pH Units	SM 4500-H+ B
Temperature, Field	13.2				deg C	SM 2550 B
Turbidity, Field	2.6				NTU	180.1
Arsenic, Total	28			10	ug/L	6010C
Barium, Total	27			20	ug/L	6010C
Calcium, Total	10300			1000	ug/L	6010C
Iron, Total	16100			100	ug/L	6010C
Magnesium, Total	2600			1000	ug/L	6010C
Manganese, Total	4900			10	ug/L	6010C
Sodium, Total	5500			1000	ug/L	6010C
Acetone	3.4	BJ	2.1	10	ug/L	8260C
Trichloroethene (TCE)	0.30	J	0.20	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-5 Influent			Lab ID: R1908994-008			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	481				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	-51.0				mV	ASTM D1498-00
pH, Field	6.32				pH Units	SM 4500-H+ B
Temperature, Field	14.2				deg C	SM 2550 B
Turbidity, Field	27.3				NTU	180.1
Arsenic, Total	161			10	ug/L	6010C
Barium, Total	155			20	ug/L	6010C
Calcium, Total	49600			1000	ug/L	6010C
Iron, Total	27900			100	ug/L	6010C
Lead, Total	18.1			5.0	ug/L	6010C
Magnesium, Total	10900			1000	ug/L	6010C
Manganese, Total	6640			10	ug/L	6010C
Potassium, Total	3500			2000	ug/L	6010C
Sodium, Total	6300			1000	ug/L	6010C
Zinc, Total	2070			20	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	4.5	J	0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.21	J	0.20	5.0	ug/L	8260C
Acetone	5.7	BJ	2.1	10	ug/L	8260C
Benzene	0.60	J	0.20	5.0	ug/L	8260C
Carbon Disulfide	2.5	J	0.25	10	ug/L	8260C
Chlorobenzene	11		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	2.0	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	1.4	J	0.23	5.0	ug/L	8260C

CLIENT ID: SP-5 Effluent			Lab ID: R1908994-009			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	458				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	-40.0				mV	ASTM D1498-00
pH, Field	6.42				pH Units	SM 4500-H+ B
Temperature, Field	14.6				deg C	SM 2550 B
Turbidity, Field	4.1				NTU	180.1
Arsenic, Total	143			10	ug/L	6010C
Barium, Total	167			20	ug/L	6010C
Calcium, Total	47400			1000	ug/L	6010C
Iron, Total	28500			100	ug/L	6010C
Magnesium, Total	11100			1000	ug/L	6010C
Manganese, Total	6720			10	ug/L	6010C
Potassium, Total	3200			2000	ug/L	6010C
Sodium, Total	6400			1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	2.6	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.26	J	0.20	5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: SP-5 Effluent			Lab ID: R1908994-009			

Analyte	Results	Flag	MDL	MRL	Units	Method

CLIENT ID: SP-3 Sed			Lab ID: R1908994-010			

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	70.9				Percent	ALS SOP
Aluminum, Total	6700			260	mg/Kg	6010C
Arsenic, Total	10.3			1.3	mg/Kg	6010C
Barium, Total	41.8			2.6	mg/Kg	6010C
Calcium, Total	270			130	mg/Kg	6010C
Chromium, Total	10.3			1.3	mg/Kg	6010C
Cobalt, Total	7.7			6.4	mg/Kg	6010C
Copper, Total	14.9			2.6	mg/Kg	6010C
Iron, Total	22500			260	mg/Kg	6010C
Lead, Total	14.0			3.2	mg/Kg	6010C
Magnesium, Total	2660			130	mg/Kg	6010C
Manganese, Total	506			2.6	mg/Kg	6010C
Nickel, Total	16.3			5.1	mg/Kg	6010C
Potassium, Total	670			260	mg/Kg	6010C
Vanadium, Total	11.3			6.4	mg/Kg	6010C
Zinc, Total	46.2			2.6	mg/Kg	6010C

CLIENT ID: Trip Blank			Lab ID: R1908994-011			

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.0	BJ	2.1	10	ug/L	8260C



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: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed

Service Request:R1908994

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1908994-001	F-6	9/16/2019	1000
R1908994-002	SW-4	9/16/2019	1015
R1908994-003	SP-4	9/16/2019	1105
R1908994-004	SW-3	9/16/2019	1030
R1908994-005	SP-3	9/16/2019	1035
R1908994-006	SW-2	9/16/2019	1050
R1908994-007	SP-2	9/16/2019	1055
R1908994-008	SP-5 Influent	9/16/2019	1535
R1908994-009	SP-5 Effluent	9/16/2019	1520
R1908994-010	SP-3 Sed	9/16/2019	1045
R1908994-011	Trip Blank	9/16/2019	1000



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

57262

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name Surface Waters/Seeps/Sed Colesville LF					ANALYSIS REQUESTED (Include Method Number and Container Preservative)																			
Project Manager Laurie Haskell					Report CC					PRESERVATIVE														
Company/Address Broome County LF, Colesville, NY					NUMBER OF CONTAINERS	GC/MS VOA's 8260 • 824 • CLP GC/MS SYOA's 8270 • 825 GC VOA's 8021 • 801/802 PESTICIDES 8081 • 808 PCBs 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) Preservative Key 0. NONE 1. HCL 2. HNO₃ 3. H₂SO₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO₄ 8. Other _____																		
Phone #																								
Email																								
Sampler's Signature Brian Mackin																								
Sampler's Printed Name BRIAN MACKIN					REMARKS/ ALTERNATE DESCRIPTION																			
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE		TIME	MATRIX																			
F-6		9/16/19	1000	W	X																			
SW-4			1015	W	X																			
SP-4			1105	W	X																			
SW-3			1030	W	X																			
SP-3			1035	W	X																			
SW-2			1050	W	X																			
SP-2			1055	W	X																			
SP-5 Influent			1535	W	X																			
SP-5 Effluent			1520	W	X																			
SP-3-Sed			1045	S																				
Trip Blank		↓	1000	W	X																			
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 #								
																BILL TO:								
STATE WHERE SAMPLES WERE COLLECTED																								
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY														
Signature Brian Mackin		Signature Kyle Lee		Signature Kyle Lee		Signature Samuel Ward		Signature		Signature														
Printed Name BRIAN MACKIN		Printed Name Kyle Lee		Printed Name Kyle Lee		Printed Name Samuel Ward		Printed Name		Printed Name														
Firm ALS		Firm ALS		Firm ALS		Firm ALS		Firm		Firm														
Date/Time 9/17/19 1315		Date/Time 9/17/19 1315		Date/Time 9/17/19 1620		Date/Time 9/17/19 1620		Date/Time		Date/Time														

R1908994 5
Broome County Division of Solid Waste Management
Colesville LF SW/Seeps/Sed





FIELD MONITORING REPORT

PROJECT Colesville Surface Waters LAB ID 39

SAMPLE POINT ID F-6

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1000 SWL _____

Appearance Clear

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.99	7.00
Myron 6p	Conductivity	µmhos/cm	176	176
Myron 6p	Temperature	Degrees Celsius	11.9	11.9
Myron 6p	Redox	millivolts	42	
Lamotte	Turbidity	NTU	2.6	

Calibration Date/Time 9/16/19 0930 7.00/10.00/4.00
1413 set 1413
0.0/10.0 set

OBSERVATIONS

D.O. = 9.49 mg/l



FIELD MONITORING REPORT

PROJECT Colesville Surface Waters LAB ID 40

SAMPLE POINT ID SW-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1015 SWL _____

Appearance Clear

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.90	6.90
Myron 6p	Conductivity	µmhos/cm	168	168
Myron 6p	Temperature	Degrees Celsius	11.4	11.4
Myron 6p	Redox	millivolts	6	
Lamotte	Turbidity	NTU	2.0	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS

D.O. = 9.53 mg/l



FIELD MONITORING REPORT

PROJECT Colesville Surface Waters LAB ID 41

SAMPLE POINT ID SP-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1105 SWL _____

Appearance Rust tan tint

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.61	6.60
Myron 6p	Conductivity	µmhos/cm	354	353
Myron 6p	Temperature	Degrees Celsius	14.3	14.3
Myron 6p	Redox	millivolts	-48	
Lamotte	Turbidity	NTU	3.2	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Surface Waters/seeps LAB ID 42

SAMPLE POINT ID SW-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1030 SWL _____

Appearance Clear

Weather Conditions Lt Rain, 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.62	6.62
Myron 6p	Conductivity	µmhos/cm	163	163
Myron 6p	Temperature	Degrees Celsius	11.5	11.5
Myron 6p	Redox	millivolts	47	
Lamotte	Turbidity	NTU	2.4	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS

D.O. = 9.46 mg/l



FIELD MONITORING REPORT

PROJECT Colesville Surface Water / Seeps LAB ID 43

SAMPLE POINT ID SP-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1035 SWL _____

Appearance Clear w/ minor rust speck

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.37	6.37
Myron 6p	Conductivity	µmhos/cm	234	235
Myron 6p	Temperature	Degrees Celsius	12.3	12.3
Myron 6p	Redox	millivolts	28	
Lamotte	Turbidity	NTU	4.5	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Surface Waters/Seeps LAB ID 44

SAMPLE POINT ID SW-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1050 SWL _____

Appearance Clear

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.36	6.37
Myron 6p	Conductivity	µmhos/cm	145	150
Myron 6p	Temperature	Degrees Celsius	11.6	11.6
Myron 6p	Redox	millivolts	87	
Lamotte	Turbidity	NTU	2.9	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS D.O. = 9.21 mg/l



FIELD MONITORING REPORT

PROJECT Coleville Surface Waters/Seeps LAB ID 45

SAMPLE POINT ID SP-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal./ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1055 SWL —

Appearance Rust tan tint w/ slight iron bacteria

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.35	6.37
Myron 6p	Conductivity	µmhos/cm	158	158
Myron 6p	Temperature	Degrees Celsius	13.2	13.2
Myron 6p	Redox	millivolts	-8	
Lamotte	Turbidity	NTU	2.6	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville Surface Waters / Seeps LAB ID 47

SAMPLE POINT ID SP-5 Influent

PURGE INFORMATION

Well Depth (ft.) 4.10

Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 0.29

Start Time 1510 Stop Time 1512

Standing Water (ft.) 3.81

Volume Purged gal. 1.8 # casings 3

Well Constant (gal/ft.) 0.163

Observations Tan tint Slightly turbid

Well Volume (gal.) 0.6

SAMPLING INFORMATION

Sample Method Bailer

Date 9/16/19 Time 1535 SWL 0.35 ^{Bpm 9/16/19}

Appearance Very slight yellow - tan tint

Weather Conditions Sun 66°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.31	6.33
Myron 6p	Conductivity	µmhos/cm	482	480
Myron 6p	Temperature	Degrees Celsius	14.2	14.2
Myron 6p	Redox	millivolts	-51	
Lamotte	Turbidity	NTU	27.3	

Calibration Date/Time 9/16/19 0930

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville Surface Water/Seeps LAB ID 46

SAMPLE POINT ID SP-5 Effluent

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1520 SWL _____

Appearance Clear with rust flecks

Weather Conditions Lt Rain, 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.43	6.41
Myron 6p	Conductivity	µmhos/cm	458	477
Myron 6p	Temperature	Degrees Celsius	14.6	14.6
Myron 6p	Redox	millivolts	-40	
Lamotte	Turbidity	NTU	4.1	1

Calibration Date/Time 9/16/19 0930

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Coleville Sediment LAB ID 37

SAMPLE POINT ID SP-3-Sed

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/16/19 Time 1045 SWL _____

Appearance Sandy dark Grey-black

Weather Conditions Lt Rain 60°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mack

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit		
Myron 6p	Conductivity	µmhos/cm		
Myron 6p	Temperature	Degrees Celsius		
Myron 6p	Redox	millivolts		
Lamotte	Turbidity	NTU		

Calibration Date/Time 9/16/19 0930

OBSERVATIONS _____



Cooler Receipt and Preservation Check Form

R1908994 **5**
 Broome County Division of Solid Waste Management
 Colesville LF SW/Seeps/Sed

Project/Client _____ Folder Number _____

Cooler received on 9/17/19 by: DLW

COURIER: ALS UPS FEDEX VELOCITY CLIENT

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

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

8. Temperature Readings Date: 9/17/19 Time: 1645 ID: IR#7 REFD From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>11.9</u>	<u>2.1</u>	<u>5.5</u>	<u>3.4</u>	<u>0.8</u>	<u>0.4</u>	
Correction Factor (°C)	<u>±0.0</u>	<u>±0.0</u>	<u>±0.0</u>	<u>±0.0</u>	<u>±0.0</u>	<u>±0.0</u>	
Corrected Temp (°C)	<u>11.9</u>	<u>2.1</u>	<u>5.5</u>	<u>3.4</u>	<u>0.8</u>	<u>0.4</u>	
Temp from: Type of bottle							
Within 0-6°C?	☒ N	☒ N	☒ N	☒ N	☒ N	☒ 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 Rde
 & Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by DLW on 9/17/19 at 1645
 5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 9/18/19 Time: 0828 by: DLW
 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES
 10. Did all bottle labels and tags agree with custody papers? YES
 11. Were correct containers used for the tests indicated? YES
 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES
 13. Air Samples: Cassettes / Tubes Intact with MS? YES Canisters Pressurized YES 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	Yes No						
≤2	<u>230018</u>	HNO ₃	☒	<u>1118072</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>4/11/10</u>	<u>9/20</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: 19-07-30 9-093-001

Explain all Discrepancies/ Other Comments:

* 2 vials: Colesville SW+SEEPS TB
 3 vials: Colesville Resident TB
 3 vials: TB

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: DLW

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 (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

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed

Service Request: R1908994

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Sediment	Total Solids
ASTM D1498-00	Water	Oxidation-Reduction Potential (ORP), Field
SM 2550 B	Water	Temperature, Field
SM 4500-H+ B	Water	pH, Field
SM 4500-O G	Water	Oxygen, Dissolved

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed/

Service Request: R1908994

Sample Name: F-6
Lab Code: R1908994-001
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SW-4
Lab Code: R1908994-002
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SP-4
Lab Code: R1908994-003
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed/

Service Request: R1908994

Sample Name: SP-4
Lab Code: R1908994-003
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SW-3
Lab Code: R1908994-004
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 4500-O G		JJANSON

Sample Name: SP-3
Lab Code: R1908994-005
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed/

Service Request: R1908994

Sample Name: SP-3
Lab Code: R1908994-005
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
JJANSON
JJANSON

Sample Name: SW-2
Lab Code: R1908994-006
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
6010C
7470A
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 4500-O G

Extracted/Digested By

Analyzed By
JJANSON
JJANSON
KMCLAEN
KMCLAEN
KRUEST
JJANSON
JJANSON
JJANSON
JJANSON

Sample Name: SP-2
Lab Code: R1908994-007
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
6010C
7470A
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
JJANSON
JJANSON
KMCLAEN
KMCLAEN
KRUEST
JJANSON
JJANSON
JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed/

Service Request: R1908994

Sample Name: SP-5 Influent
Lab Code: R1908994-008
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SP-5 Effluent
Lab Code: R1908994-009
Sample Matrix: Water

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
6010C	AKONZEL	KMCLAEN
7470A	AKONZEL	KMCLAEN
8260C		KRUEST
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: SP-3 Sed
Lab Code: R1908994-010
Sample Matrix: Sediment

Date Collected: 09/16/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
7471B	KMCLAEN	KMCLAEN
ALS SOP		GKNIGHT

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Analyst Summary report

Client: Broome County Division of Solid Waste Management

Service Request: R1908994

Project: Colesville LF SW/Seeps/Sed/

Sample Name: Trip Blank

Date Collected: 09/16/19

Lab Code: R1908994-011

Date Received: 09/17/19

Sample Matrix: Water

Analysis Method

Extracted/Digested By

Analyzed By

8260C

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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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Sample Name: F-6
Lab Code: R1908994-001

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)	0.21 U	5.0	0.21	1	09/24/19 16:10	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,1-Dichloroethane (1,1-DCA)	0.57 J	5.0	0.20	1	09/24/19 16:10	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 16:10	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 16:10	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 16:10	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 16:10	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 16:10	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 16:10	
Acetone	2.1 U	10	2.1	1	09/24/19 16:10	
Benzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 16:10	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 16:10	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 16:10	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 16:10	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 16:10	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 16:10	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 16:10	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 16:10	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 16:10	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 16:10	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 16:10	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 16:10	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 16:10	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 16:10	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 16:10	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 16:10	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 16:10	
Styrene	0.20 U	5.0	0.20	1	09/24/19 16:10	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 16:10	
Toluene	0.20 U	5.0	0.20	1	09/24/19 16:10	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	09/24/19 16:10	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 16:10	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 16:10	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Sample Name: F-6
Lab Code: R1908994-001

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 16:10	
cis-1,2-Dichloroethene	0.31 J	5.0	0.23	1	09/24/19 16:10	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 16:10	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 16:10	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 16:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/24/19 16:10	
Dibromofluoromethane	95	89 - 119	09/24/19 16:10	
Toluene-d8	99	87 - 121	09/24/19 16:10	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:15
Date Received: 09/17/19 16:20

Sample Name: SW-4
Lab Code: R1908994-002

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)	0.21 U	5.0	0.21	1	09/24/19 16:31	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,1-Dichloroethane (1,1-DCA)	0.92 J	5.0	0.20	1	09/24/19 16:31	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 16:31	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 16:31	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 16:31	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:31	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:31	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 16:31	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 16:31	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 16:31	
Acetone	2.1 U	10	2.1	1	09/24/19 16:31	
Benzene	0.20 U	5.0	0.20	1	09/24/19 16:31	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 16:31	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 16:31	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 16:31	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 16:31	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 16:31	
Chlorobenzene	0.21 J	5.0	0.20	1	09/24/19 16:31	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 16:31	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 16:31	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 16:31	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 16:31	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 16:31	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 16:31	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 16:31	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 16:31	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 16:31	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 16:31	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 16:31	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 16:31	
Styrene	0.20 U	5.0	0.20	1	09/24/19 16:31	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 16:31	
Toluene	0.20 U	5.0	0.20	1	09/24/19 16:31	
Trichloroethene (TCE)	0.21 J	5.0	0.20	1	09/24/19 16:31	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 16:31	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 16:31	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:15
Date Received: 09/17/19 16:20

Sample Name: SW-4
Lab Code: R1908994-002

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 16:31	
cis-1,2-Dichloroethene	0.46 J	5.0	0.23	1	09/24/19 16:31	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 16:31	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 16:31	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 16:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/24/19 16:31	
Dibromofluoromethane	91	89 - 119	09/24/19 16:31	
Toluene-d8	97	87 - 121	09/24/19 16:31	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 11:05
Date Received: 09/17/19 16:20

Sample Name: SP-4
Lab Code: R1908994-003

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)	0.21 U	5.0	0.21	1	09/24/19 16:53	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,1-Dichloroethane (1,1-DCA)	3.6 J	5.0	0.20	1	09/24/19 16:53	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 16:53	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 16:53	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 16:53	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,2-Dichloroethane	0.33 J	5.0	0.20	1	09/24/19 16:53	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:53	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 16:53	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 16:53	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 16:53	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 16:53	
Acetone	2.1 BJ	10	2.1	1	09/24/19 16:53	
Benzene	0.20 U	5.0	0.20	1	09/24/19 16:53	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 16:53	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 16:53	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 16:53	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 16:53	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 16:53	
Chlorobenzene	4.2 J	5.0	0.20	1	09/24/19 16:53	
Chloroethane	2.9 J	5.0	0.23	1	09/24/19 16:53	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 16:53	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 16:53	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 16:53	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 16:53	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 16:53	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 16:53	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 16:53	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 16:53	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 16:53	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 16:53	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 16:53	
Styrene	0.20 U	5.0	0.20	1	09/24/19 16:53	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 16:53	
Toluene	0.20 U	5.0	0.20	1	09/24/19 16:53	
Trichloroethene (TCE)	0.49 J	5.0	0.20	1	09/24/19 16:53	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 16:53	
Vinyl Chloride	0.40 J	5.0	0.20	1	09/24/19 16:53	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 11:05
Date Received: 09/17/19 16:20

Sample Name: SP-4
Lab Code: R1908994-003

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 16:53	
cis-1,2-Dichloroethene	0.93 J	5.0	0.23	1	09/24/19 16:53	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 16:53	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 16:53	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 16:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/24/19 16:53	
Dibromofluoromethane	93	89 - 119	09/24/19 16:53	
Toluene-d8	98	87 - 121	09/24/19 16:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:30
Date Received: 09/17/19 16:20

Sample Name: SW-3
Lab Code: R1908994-004

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)	0.21 U	5.0	0.21	1	09/24/19 17:15	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,1-Dichloroethane (1,1-DCA)	1.2 J	5.0	0.20	1	09/24/19 17:15	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 17:15	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 17:15	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 17:15	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:15	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:15	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 17:15	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 17:15	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 17:15	
Acetone	3.0 BJ	10	2.1	1	09/24/19 17:15	
Benzene	0.20 U	5.0	0.20	1	09/24/19 17:15	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 17:15	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 17:15	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 17:15	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 17:15	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 17:15	
Chlorobenzene	0.30 J	5.0	0.20	1	09/24/19 17:15	
Chloroethane	0.23 J	5.0	0.23	1	09/24/19 17:15	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 17:15	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 17:15	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 17:15	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 17:15	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 17:15	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 17:15	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 17:15	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 17:15	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 17:15	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 17:15	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 17:15	
Styrene	0.20 U	5.0	0.20	1	09/24/19 17:15	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 17:15	
Toluene	0.20 U	5.0	0.20	1	09/24/19 17:15	
Trichloroethene (TCE)	0.28 J	5.0	0.20	1	09/24/19 17:15	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 17:15	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 17:15	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:30
Date Received: 09/17/19 16:20

Sample Name: SW-3
Lab Code: R1908994-004

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 17:15	
cis-1,2-Dichloroethene	0.43 J	5.0	0.23	1	09/24/19 17:15	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 17:15	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 17:15	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 17:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/24/19 17:15	
Dibromofluoromethane	95	89 - 119	09/24/19 17:15	
Toluene-d8	97	87 - 121	09/24/19 17:15	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:35
Date Received: 09/17/19 16:20

Sample Name: SP-3
Lab Code: R1908994-005

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)	0.21 U	5.0	0.21	1	09/24/19 17:37	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,1,2-Trichloroethane	0.46 J	5.0	0.20	1	09/24/19 17:37	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,1-Dichloroethane (1,1-DCA)	18	5.0	0.20	1	09/24/19 17:37	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 17:37	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 17:37	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 17:37	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,2-Dichloroethane	0.50 J	5.0	0.20	1	09/24/19 17:37	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:37	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:37	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 17:37	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 17:37	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 17:37	
Acetone	2.1 BJ	10	2.1	1	09/24/19 17:37	
Benzene	0.20 U	5.0	0.20	1	09/24/19 17:37	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 17:37	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 17:37	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 17:37	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 17:37	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 17:37	
Chlorobenzene	8.1	5.0	0.20	1	09/24/19 17:37	
Chloroethane	3.3 J	5.0	0.23	1	09/24/19 17:37	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 17:37	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 17:37	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 17:37	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 17:37	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 17:37	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 17:37	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 17:37	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 17:37	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 17:37	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 17:37	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 17:37	
Styrene	0.20 U	5.0	0.20	1	09/24/19 17:37	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 17:37	
Toluene	0.20 U	5.0	0.20	1	09/24/19 17:37	
Trichloroethene (TCE)	2.8 J	5.0	0.20	1	09/24/19 17:37	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 17:37	
Vinyl Chloride	2.5 J	5.0	0.20	1	09/24/19 17:37	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:35
Date Received: 09/17/19 16:20

Sample Name: SP-3
Lab Code: R1908994-005

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 17:37	
cis-1,2-Dichloroethene	9.3	5.0	0.23	1	09/24/19 17:37	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 17:37	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 17:37	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 17:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	09/24/19 17:37	
Dibromofluoromethane	97	89 - 119	09/24/19 17:37	
Toluene-d8	101	87 - 121	09/24/19 17:37	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:50
Date Received: 09/17/19 16:20

Sample Name: SW-2
Lab Code: R1908994-006

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)	0.21 U	5.0	0.21	1	09/24/19 17:58	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 17:58	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 17:58	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 17:58	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 17:58	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 17:58	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 17:58	
Acetone	2.1 U	10	2.1	1	09/24/19 17:58	
Benzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 17:58	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 17:58	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 17:58	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 17:58	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 17:58	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 17:58	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 17:58	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 17:58	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 17:58	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 17:58	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 17:58	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 17:58	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 17:58	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 17:58	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 17:58	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 17:58	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 17:58	
Styrene	0.20 U	5.0	0.20	1	09/24/19 17:58	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 17:58	
Toluene	0.20 U	5.0	0.20	1	09/24/19 17:58	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	09/24/19 17:58	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 17:58	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 17:58	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:50
Date Received: 09/17/19 16:20

Sample Name: SW-2
Lab Code: R1908994-006

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 17:58	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	09/24/19 17:58	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 17:58	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 17:58	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 17:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/24/19 17:58	
Dibromofluoromethane	95	89 - 119	09/24/19 17:58	
Toluene-d8	98	87 - 121	09/24/19 17:58	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:55
Date Received: 09/17/19 16:20

Sample Name: SP-2
Lab Code: R1908994-007

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)	0.21 U	5.0	0.21	1	09/24/19 18:20	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 18:20	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 18:20	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 18:20	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 18:20	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 18:20	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 18:20	
Acetone	3.4 BJ	10	2.1	1	09/24/19 18:20	
Benzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 18:20	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 18:20	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 18:20	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 18:20	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 18:20	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 18:20	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 18:20	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 18:20	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 18:20	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 18:20	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 18:20	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 18:20	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 18:20	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 18:20	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 18:20	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 18:20	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 18:20	
Styrene	0.20 U	5.0	0.20	1	09/24/19 18:20	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 18:20	
Toluene	0.20 U	5.0	0.20	1	09/24/19 18:20	
Trichloroethene (TCE)	0.30 J	5.0	0.20	1	09/24/19 18:20	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 18:20	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 18:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:55
Date Received: 09/17/19 16:20

Sample Name: SP-2
Lab Code: R1908994-007

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 18:20	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	09/24/19 18:20	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 18:20	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 18:20	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 18:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/19 18:20	
Dibromofluoromethane	96	89 - 119	09/24/19 18:20	
Toluene-d8	100	87 - 121	09/24/19 18:20	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 15:35
Date Received: 09/17/19 16:20

Sample Name: SP-5 Influent
Lab Code: R1908994-008

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)	0.21 U	5.0	0.21	1	09/24/19 18:42	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,1-Dichloroethane (1,1-DCA)	4.5 J	5.0	0.20	1	09/24/19 18:42	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 18:42	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 18:42	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 18:42	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,2-Dichloroethane	0.21 J	5.0	0.20	1	09/24/19 18:42	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:42	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 18:42	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 18:42	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 18:42	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 18:42	
Acetone	5.7 BJ	10	2.1	1	09/24/19 18:42	
Benzene	0.60 J	5.0	0.20	1	09/24/19 18:42	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 18:42	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 18:42	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 18:42	
Carbon Disulfide	2.5 J	10	0.25	1	09/24/19 18:42	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 18:42	
Chlorobenzene	11	5.0	0.20	1	09/24/19 18:42	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 18:42	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 18:42	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 18:42	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 18:42	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 18:42	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 18:42	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 18:42	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 18:42	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 18:42	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 18:42	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 18:42	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 18:42	
Styrene	0.20 U	5.0	0.20	1	09/24/19 18:42	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 18:42	
Toluene	0.20 U	5.0	0.20	1	09/24/19 18:42	
Trichloroethene (TCE)	2.0 J	5.0	0.20	1	09/24/19 18:42	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 18:42	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 18:42	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 15:35
Date Received: 09/17/19 16:20

Sample Name: SP-5 Influent
Lab Code: R1908994-008

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 18:42	
cis-1,2-Dichloroethene	1.4 J	5.0	0.23	1	09/24/19 18:42	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 18:42	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 18:42	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 18:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/24/19 18:42	
Dibromofluoromethane	91	89 - 119	09/24/19 18:42	
Toluene-d8	95	87 - 121	09/24/19 18:42	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 15:20
Date Received: 09/17/19 16:20

Sample Name: SP-5 Effluent
Lab Code: R1908994-009

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)	0.21 U	5.0	0.21	1	09/24/19 19:03	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,1-Dichloroethane (1,1-DCA)	2.6 J	5.0	0.20	1	09/24/19 19:03	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 19:03	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 19:03	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 19:03	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 19:03	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 19:03	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 19:03	
Acetone	2.1 U	10	2.1	1	09/24/19 19:03	
Benzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 19:03	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 19:03	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 19:03	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 19:03	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 19:03	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 19:03	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 19:03	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 19:03	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 19:03	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 19:03	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 19:03	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 19:03	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 19:03	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 19:03	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 19:03	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 19:03	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 19:03	
Styrene	0.20 U	5.0	0.20	1	09/24/19 19:03	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 19:03	
Toluene	0.20 U	5.0	0.20	1	09/24/19 19:03	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	09/24/19 19:03	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 19:03	
Vinyl Chloride	0.26 J	5.0	0.20	1	09/24/19 19:03	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 15:20
Date Received: 09/17/19 16:20

Sample Name: SP-5 Effluent
Lab Code: R1908994-009

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 19:03	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	09/24/19 19:03	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 19:03	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 19:03	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 19:03	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/24/19 19:03	
Dibromofluoromethane	96	89 - 119	09/24/19 19:03	
Toluene-d8	99	87 - 121	09/24/19 19:03	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Sample Name: Trip Blank
Lab Code: R1908994-011

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)	0.21 U	5.0	0.21	1	09/24/19 15:48	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 15:48	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 15:48	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 15:48	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 15:48	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 15:48	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 15:48	
Acetone	4.0 BJ	10	2.1	1	09/24/19 15:48	
Benzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 15:48	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 15:48	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 15:48	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 15:48	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 15:48	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 15:48	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 15:48	
Chloromethane	0.28 U	5.0	0.28	1	09/24/19 15:48	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 15:48	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 15:48	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 15:48	
Dichloromethane	0.36 U	5.0	0.36	1	09/24/19 15:48	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 15:48	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 15:48	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 15:48	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 15:48	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 15:48	
Styrene	0.20 U	5.0	0.20	1	09/24/19 15:48	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 15:48	
Toluene	0.20 U	5.0	0.20	1	09/24/19 15:48	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	09/24/19 15:48	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 15:48	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 15:48	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Sample Name: Trip Blank
Lab Code: R1908994-011

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 15:48	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	09/24/19 15:48	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 15:48	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 15:48	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 15:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/24/19 15:48	
Dibromofluoromethane	92	89 - 119	09/24/19 15:48	
Toluene-d8	97	87 - 121	09/24/19 15:48	



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: F-6
Lab Code: R1908994-001

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:40	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:40	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 18:40	09/19/19	
Barium, Total	6010C	20 U	ug/L	20	1	09/20/19 18:40	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:40	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:40	09/19/19	
Calcium, Total	6010C	18700	ug/L	1000	1	09/24/19 18:18	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:40	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:40	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:40	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 18:40	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:40	09/19/19	
Magnesium, Total	6010C	4100	ug/L	1000	1	09/20/19 18:40	09/19/19	
Manganese, Total	6010C	67	ug/L	10	1	09/20/19 18:40	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:19	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:40	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:40	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:40	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:40	09/19/19	
Sodium, Total	6010C	7400	ug/L	1000	1	09/24/19 18:18	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:40	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:40	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:40	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-4
Lab Code: R1908994-002

Service Request: R1908994
Date Collected: 09/16/19 10:15
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:43	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:43	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 18:43	09/19/19	
Barium, Total	6010C	20 U	ug/L	20	1	09/20/19 18:43	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:43	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:43	09/19/19	
Calcium, Total	6010C	17200	ug/L	1000	1	09/24/19 18:21	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:43	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:43	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:43	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 18:43	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:43	09/19/19	
Magnesium, Total	6010C	3800	ug/L	1000	1	09/20/19 18:43	09/19/19	
Manganese, Total	6010C	75	ug/L	10	1	09/20/19 18:43	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:26	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:43	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:43	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:43	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:43	09/19/19	
Sodium, Total	6010C	7000	ug/L	1000	1	09/24/19 18:21	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:43	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:43	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:43	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1908994-003

Service Request: R1908994
Date Collected: 09/16/19 11:05
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:46	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:46	09/19/19	
Arsenic, Total	6010C	92	ug/L	10	1	09/20/19 18:46	09/19/19	
Barium, Total	6010C	78	ug/L	20	1	09/20/19 18:46	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:46	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:46	09/19/19	
Calcium, Total	6010C	42500	ug/L	1000	1	09/24/19 18:24	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:46	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:46	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:46	09/19/19	
Iron, Total	6010C	14600	ug/L	100	1	09/20/19 18:46	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:46	09/19/19	
Magnesium, Total	6010C	7800	ug/L	1000	1	09/20/19 18:46	09/19/19	
Manganese, Total	6010C	4630	ug/L	10	1	09/20/19 18:46	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:29	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:46	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:46	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:46	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:46	09/19/19	
Sodium, Total	6010C	7900	ug/L	1000	1	09/24/19 18:24	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:46	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:46	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:46	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-3
Lab Code: R1908994-004

Service Request: R1908994
Date Collected: 09/16/19 10:30
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:49	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:49	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 18:49	09/19/19	
Barium, Total	6010C	20 U	ug/L	20	1	09/20/19 18:49	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:49	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:49	09/19/19	
Calcium, Total	6010C	16200	ug/L	1000	1	09/24/19 18:27	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:49	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:49	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:49	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 18:49	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:49	09/19/19	
Magnesium, Total	6010C	3600	ug/L	1000	1	09/20/19 18:49	09/19/19	
Manganese, Total	6010C	56	ug/L	10	1	09/20/19 18:49	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:36	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:49	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:49	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:49	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:49	09/19/19	
Sodium, Total	6010C	6800	ug/L	1000	1	09/24/19 18:27	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:49	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:49	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:49	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1908994-005

Service Request: R1908994
Date Collected: 09/16/19 10:35
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:53	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:53	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 18:53	09/19/19	
Barium, Total	6010C	26	ug/L	20	1	09/20/19 18:53	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:53	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:53	09/19/19	
Calcium, Total	6010C	28500	ug/L	1000	1	09/24/19 18:31	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:53	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:53	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:53	09/19/19	
Iron, Total	6010C	3300	ug/L	100	1	09/20/19 18:53	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:53	09/19/19	
Magnesium, Total	6010C	6500	ug/L	1000	1	09/20/19 18:53	09/19/19	
Manganese, Total	6010C	2430	ug/L	10	1	09/20/19 18:53	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:39	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:53	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:53	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:53	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:53	09/19/19	
Sodium, Total	6010C	3800	ug/L	1000	1	09/24/19 18:31	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:53	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:53	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:53	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-2
Lab Code: R1908994-006

Service Request: R1908994
Date Collected: 09/16/19 10:50
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 18:56	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 18:56	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Barium, Total	6010C	20 U	ug/L	20	1	09/20/19 18:56	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 18:56	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:56	09/19/19	
Calcium, Total	6010C	13700	ug/L	1000	1	09/24/19 18:40	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 18:56	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 18:56	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 18:56	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 18:56	09/19/19	
Magnesium, Total	6010C	3200	ug/L	1000	1	09/20/19 18:56	09/19/19	
Manganese, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:42	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 18:56	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 18:56	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Sodium, Total	6010C	6900	ug/L	1000	1	09/24/19 18:40	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 18:56	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 18:56	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 18:56	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1908994-007

Service Request: R1908994
Date Collected: 09/16/19 10:55
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 19:06	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 19:06	09/19/19	
Arsenic, Total	6010C	28	ug/L	10	1	09/20/19 19:06	09/19/19	
Barium, Total	6010C	27	ug/L	20	1	09/20/19 19:06	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 19:06	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 19:06	09/19/19	
Calcium, Total	6010C	10300	ug/L	1000	1	09/24/19 18:44	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:06	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 19:06	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 19:06	09/19/19	
Iron, Total	6010C	16100	ug/L	100	1	09/20/19 19:06	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 19:06	09/19/19	
Magnesium, Total	6010C	2600	ug/L	1000	1	09/20/19 19:06	09/19/19	
Manganese, Total	6010C	4900	ug/L	10	1	09/20/19 19:06	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:44	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 19:06	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 19:06	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:06	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 19:06	09/19/19	
Sodium, Total	6010C	5500	ug/L	1000	1	09/24/19 18:44	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:06	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 19:06	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 19:06	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Influent
Lab Code: R1908994-008

Service Request: R1908994
Date Collected: 09/16/19 15:35
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 19:09	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 19:09	09/19/19	
Arsenic, Total	6010C	161	ug/L	10	1	09/20/19 19:09	09/19/19	
Barium, Total	6010C	155	ug/L	20	1	09/20/19 19:09	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 19:09	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 19:09	09/19/19	
Calcium, Total	6010C	49600	ug/L	1000	1	09/24/19 18:47	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:09	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 19:09	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 19:09	09/19/19	
Iron, Total	6010C	27900	ug/L	100	1	09/20/19 19:09	09/19/19	
Lead, Total	6010C	18.1	ug/L	5.0	1	09/20/19 19:09	09/19/19	
Magnesium, Total	6010C	10900	ug/L	1000	1	09/20/19 19:09	09/19/19	
Manganese, Total	6010C	6640	ug/L	10	1	09/20/19 19:09	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:47	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 19:09	09/19/19	
Potassium, Total	6010C	3500	ug/L	2000	1	09/20/19 19:09	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:09	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 19:09	09/19/19	
Sodium, Total	6010C	6300	ug/L	1000	1	09/24/19 18:47	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:09	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 19:09	09/19/19	
Zinc, Total	6010C	2070	ug/L	20	1	09/20/19 19:09	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Effluent
Lab Code: R1908994-009

Service Request: R1908994
Date Collected: 09/16/19 15:20
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 19:12	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 19:12	09/19/19	
Arsenic, Total	6010C	143	ug/L	10	1	09/20/19 19:12	09/19/19	
Barium, Total	6010C	167	ug/L	20	1	09/20/19 19:12	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 19:12	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 19:12	09/19/19	
Calcium, Total	6010C	47400	ug/L	1000	1	09/24/19 18:50	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:12	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 19:12	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 19:12	09/19/19	
Iron, Total	6010C	28500	ug/L	100	1	09/20/19 19:12	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 19:12	09/19/19	
Magnesium, Total	6010C	11100	ug/L	1000	1	09/20/19 19:12	09/19/19	
Manganese, Total	6010C	6720	ug/L	10	1	09/20/19 19:12	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 14:49	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 19:12	09/19/19	
Potassium, Total	6010C	3200	ug/L	2000	1	09/20/19 19:12	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:12	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 19:12	09/19/19	
Sodium, Total	6010C	6400	ug/L	1000	1	09/24/19 18:50	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 19:12	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 19:12	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 19:12	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Sediment
Sample Name: SP-3 Sed
Lab Code: R1908994-010

Service Request: R1908994
Date Collected: 09/16/19 10:45
Date Received: 09/17/19 16:20

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	6700	mg/Kg	260	10	09/24/19 17:48	09/20/19	
Antimony, Total	6010C	7.7 U	mg/Kg	7.7	1	09/24/19 16:56	09/20/19	
Arsenic, Total	6010C	10.3	mg/Kg	1.3	1	09/24/19 16:56	09/20/19	
Barium, Total	6010C	41.8	mg/Kg	2.6	1	09/24/19 16:56	09/20/19	
Beryllium, Total	6010C	0.38 U	mg/Kg	0.38	1	09/24/19 16:56	09/20/19	
Cadmium, Total	6010C	0.64 U	mg/Kg	0.64	1	09/24/19 16:56	09/20/19	
Calcium, Total	6010C	270	mg/Kg	130	1	09/24/19 16:56	09/20/19	
Chromium, Total	6010C	10.3	mg/Kg	1.3	1	09/24/19 16:56	09/20/19	
Cobalt, Total	6010C	7.7	mg/Kg	6.4	1	09/24/19 16:56	09/20/19	
Copper, Total	6010C	14.9	mg/Kg	2.6	1	09/24/19 16:56	09/20/19	
Iron, Total	6010C	22500	mg/Kg	260	10	09/24/19 17:48	09/20/19	
Lead, Total	6010C	14.0	mg/Kg	3.2	1	09/24/19 16:56	09/20/19	
Magnesium, Total	6010C	2660	mg/Kg	130	1	09/24/19 16:56	09/20/19	
Manganese, Total	6010C	506	mg/Kg	2.6	1	09/24/19 16:56	09/20/19	
Mercury, Total	7471B	0.043 U	mg/Kg	0.043	1	09/19/19 13:14	09/18/19	
Nickel, Total	6010C	16.3	mg/Kg	5.1	1	09/24/19 16:56	09/20/19	
Potassium, Total	6010C	670	mg/Kg	260	1	09/24/19 16:56	09/20/19	
Selenium, Total	6010C	1.3 U	mg/Kg	1.3	1	09/24/19 16:56	09/20/19	
Silver, Total	6010C	1.3 U	mg/Kg	1.3	1	09/24/19 16:56	09/20/19	
Sodium, Total	6010C	130 U	mg/Kg	130	1	09/24/19 16:56	09/20/19	
Thallium, Total	6010C	1.3 U	mg/Kg	1.3	1	09/24/19 16:56	09/20/19	
Vanadium, Total	6010C	11.3	mg/Kg	6.4	1	09/24/19 16:56	09/20/19	
Zinc, Total	6010C	46.2	mg/Kg	2.6	1	09/24/19 16:56	09/20/19	



General Chemistry

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Sediment
Sample Name: SP-3 Sed
Lab Code: R1908994-010

Service Request: R1908994
Date Collected: 09/16/19 10:45
Date Received: 09/17/19 16:20
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	70.9	Percent	-	1	09/19/19 17:40	



Field Data

ALS Environmental—Rochester Laboratory

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

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Sample Name: F-6
Lab Code: R1908994-001

Service Request: R1908994
Date Collected: 09/16/19 10:00
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	176	uMHOS/cm	-	1	09/16/19 10:00	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	42.0	mV	-	1	09/16/19 10:00	
pH, Field	SM 4500-H+ B	7.00	pH Units	-	1	09/16/19 10:00	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	09/16/19 10:00	
Turbidity, Field	180.1	2.6	NTU	-	1	09/16/19 10:00	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-4
Lab Code: R1908994-002

Service Request: R1908994
Date Collected: 09/16/19 10:15
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	168	uMHOS/cm	-	1	09/16/19 10:15	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	6.00	mV	-	1	09/16/19 10:15	
Oxygen, Dissolved	SM 4500-O G	9.53	mg/L	0.20	1	09/16/19 10:15	
pH, Field	SM 4500-H+ B	6.90	pH Units	-	1	09/16/19 10:15	
Temperature, Field	SM 2550 B	11.4	deg C	-	1	09/16/19 10:15	
Turbidity, Field	180.1	2	NTU	-	1	09/16/19 10:15	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1908994-003

Service Request: R1908994
Date Collected: 09/16/19 11:05
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	354	uMHOS/cm	-	1	09/16/19 11:05	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-48.0	mV	-	1	09/16/19 11:05	
pH, Field	SM 4500-H+ B	6.61	pH Units	-	1	09/16/19 11:05	
Temperature, Field	SM 2550 B	14.3	deg C	-	1	09/16/19 11:05	
Turbidity, Field	180.1	3.2	NTU	-	1	09/16/19 11:05	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-3
Lab Code: R1908994-004

Service Request: R1908994
Date Collected: 09/16/19 10:30
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	163	uMHOS/cm	-	1	09/16/19 10:30	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	47.0	mV	-	1	09/16/19 10:30	
Oxygen, Dissolved	SM 4500-O G	9.46	mg/L	0.20	1	09/16/19 10:30	
pH, Field	SM 4500-H+ B	6.62	pH Units	-	1	09/16/19 10:30	
Temperature, Field	SM 2550 B	11.5	deg C	-	1	09/16/19 10:30	
Turbidity, Field	180.1	2.4	NTU	-	1	09/16/19 10:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1908994-005

Service Request: R1908994
Date Collected: 09/16/19 10:35
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	235	uMHOS/cm	-	1	09/16/19 10:35	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	28.0	mV	-	1	09/16/19 10:35	
pH, Field	SM 4500-H+ B	6.37	pH Units	-	1	09/16/19 10:35	
Temperature, Field	SM 2550 B	12.3	deg C	-	1	09/16/19 10:35	
Turbidity, Field	180.1	4.5	NTU	-	1	09/16/19 10:35	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-2
Lab Code: R1908994-006

Service Request: R1908994
Date Collected: 09/16/19 10:50
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	148	uMHOS/cm	-	1	09/16/19 10:50	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	87.0	mV	-	1	09/16/19 10:50	
Oxygen, Dissolved	SM 4500-O G	9.21	mg/L	0.20	1	09/16/19 10:50	
pH, Field	SM 4500-H+ B	6.37	pH Units	-	1	09/16/19 10:50	
Temperature, Field	SM 2550 B	11.6	deg C	-	1	09/16/19 10:50	
Turbidity, Field	180.1	2.9	NTU	-	1	09/16/19 10:50	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1908994-007

Service Request: R1908994
Date Collected: 09/16/19 10:55
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	158	uMHOS/cm	-	1	09/16/19 10:55	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-8.00	mV	-	1	09/16/19 10:55	
pH, Field	SM 4500-H+ B	6.36	pH Units	-	1	09/16/19 10:55	
Temperature, Field	SM 2550 B	13.2	deg C	-	1	09/16/19 10:55	
Turbidity, Field	180.1	2.6	NTU	-	1	09/16/19 10:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Influent
Lab Code: R1908994-008

Service Request: R1908994
Date Collected: 09/16/19 15:35
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	481	uMHOS/cm	-	1	09/16/19 15:35	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-51.0	mV	-	1	09/16/19 15:35	
pH, Field	SM 4500-H+ B	6.32	pH Units	-	1	09/16/19 15:35	
Temperature, Field	SM 2550 B	14.2	deg C	-	1	09/16/19 15:35	
Turbidity, Field	180.1	27.3	NTU	-	1	09/16/19 15:35	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5 Effluent
Lab Code: R1908994-009

Service Request: R1908994
Date Collected: 09/16/19 15:20
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	458	uMHOS/cm	-	1	09/16/19 15:20	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-40.0	mV	-	1	09/16/19 15:20	
pH, Field	SM 4500-H+ B	6.42	pH Units	-	1	09/16/19 15:20	
Temperature, Field	SM 2550 B	14.6	deg C	-	1	09/16/19 15:20	
Turbidity, Field	180.1	4.1	NTU	-	1	09/16/19 15:20	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994

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
F-6	R1908994-001	93	95	99
SW-4	R1908994-002	93	91	97
SP-4	R1908994-003	94	93	98
SW-3	R1908994-004	94	95	97
SP-3	R1908994-005	98	97	101
SW-2	R1908994-006	94	95	98
SP-2	R1908994-007	96	96	100
SP-5 Influent	R1908994-008	89	91	95
SP-5 Effluent	R1908994-009	94	96	99
Trip Blank	R1908994-011	93	92	97
Method Blank	RQ1910829-04	94	95	100
Lab Control Sample	RQ1910829-03	97	94	100
F-6 MS	RQ1910829-05	95	97	99
F-6 DMS	RQ1910829-06	95	99	99

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19
Date Received: 09/17/19
Date Analyzed: 09/24/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: F-6
Lab Code: R1908994-001
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1910829-05			Duplicate Matrix Spike RQ1910829-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	0.21 U	48.8	50.0	98	49.5	50.0	99	74-127	1	30
1,1,2,2-Tetrachloroethane	0.20 U	52.3	50.0	105	51.2	50.0	102	72-122	2	30
1,1,2-Trichloroethane	0.20 U	50.1	50.0	100	50.4	50.0	101	82-121	<1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	48.3	50.0	97	48.5	50.0	97	50-147	<1	30
1,1-Dichloroethane (1,1-DCA)	0.57 J	49.2	50.0	97	49.8	50.0	98	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	0.25 U	50.2	50.0	100	49.2	50.0	98	71-118	2	30
1,2,4-Trichlorobenzene	0.25 U	46.4	50.0	93	47.8	50.0	96	69-122	3	30
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	46.3	50.0	93	45.5	50.0	91	37-150	2	30
1,2-Dibromoethane	0.20 U	47.0	50.0	94	46.9	50.0	94	67-127	<1	30
1,2-Dichlorobenzene	0.20 U	49.1	50.0	98	48.2	50.0	96	77-120	2	30
1,2-Dichloroethane	0.20 U	45.1	50.0	90	46.4	50.0	93	68-130	3	30
1,2-Dichloropropane	0.20 U	48.4	50.0	97	48.1	50.0	96	79-124	<1	30
1,3-Dichlorobenzene	0.20 U	48.8	50.0	98	49.4	50.0	99	83-121	1	30
1,4-Dichlorobenzene	0.20 U	48.9	50.0	98	48.0	50.0	96	82-120	2	30
2-Butanone (MEK)	0.78 U	46.8	50.0	94	45.8	50.0	92	61-137	2	30
2-Hexanone	0.20 U	48.4	50.0	97	47.1	50.0	94	56-132	3	30
4-Methyl-2-pentanone	0.20 U	48.3	50.0	97	48.7	50.0	97	60-141	<1	30
Acetone	2.1 U	41.7	50.0	83	41.2	50.0	82	35-183	1	30
Benzene	0.20 U	50.1	50.0	100	50.4	50.0	101	76-129	<1	30
Bromodichloromethane	0.22 U	50.1	50.0	100	50.8	50.0	102	78-133	1	30
Bromoform	0.25 U	50.7	50.0	101	53.3	50.0	107	58-133	5	30
Bromomethane	0.70 U	48.2	50.0	96	51.2	50.0	102	10-184	6	30
Carbon Disulfide	0.25 U	46.5	50.0	93	47.7	50.0	95	59-140	3	30
Carbon Tetrachloride	0.34 U	50.9	50.0	102	52.1	50.0	104	65-135	2	30
Chlorobenzene	0.20 U	50.4	50.0	101	50.4	50.0	101	76-125	<1	30
Chloroethane	0.23 U	47.9	50.0	96	46.5	50.0	93	48-146	3	30
Chloroform	0.24 U	47.6	50.0	95	47.3	50.0	95	75-130	<1	30
Chloromethane	0.28 U	49.1	50.0	98	49.7	50.0	99	55-160	1	30
Cyclohexane	0.26 U	46.4	50.0	93	46.8	50.0	94	52-145	<1	30
Dibromochloromethane	0.20 U	52.2	50.0	104	51.5	50.0	103	72-128	1	30
Dichlorodifluoromethane (CFC 12)	0.21 U	54.8	50.0	110	55.0	50.0	110	49-154	<1	30
Dichloromethane	0.36 U	44.0	50.0	88	44.4	50.0	89	73-122	<1	30
Ethylbenzene	0.20 U	51.4	50.0	103	50.3	50.0	101	72-134	2	30
Isopropylbenzene (Cumene)	0.20 U	52.4	50.0	105	52.2	50.0	104	77-128	<1	30
Methyl Acetate	0.33 U	43.7	50.0	87	45.2	50.0	90	26-121	3	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

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19
Date Received: 09/17/19
Date Analyzed: 09/24/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: F-6
Lab Code: R1908994-001
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ1910829-05				Duplicate Matrix Spike RQ1910829-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methyl tert-Butyl Ether	0.20 U	47.4	50.0	95	48.5	50.0	97	75-119	2	30
Methylcyclohexane	0.20 U	46.9	50.0	94	47.3	50.0	95	45-146	<1	30
Styrene	0.20 U	51.0	50.0	102	50.4	50.0	101	74-136	1	30
Tetrachloroethene (PCE)	0.21 U	48.8	50.0	98	47.3	50.0	95	72-125	3	30
Toluene	0.20 U	51.8	50.0	104	52.1	50.0	104	79-119	<1	30
Trichloroethene (TCE)	0.20 U	49.5	50.0	99	48.6	50.0	97	74-122	2	30
Trichlorofluoromethane (CFC 11)	0.24 U	50.8	50.0	102	51.0	50.0	102	71-136	<1	30
Vinyl Chloride	0.20 U	48.1	50.0	96	50.1	50.0	100	74-159	4	30
cis-1,2-Dichloroethene	0.31 J	49.9	50.0	99	49.8	50.0	99	77-127	<1	30
cis-1,3-Dichloropropene	0.20 U	47.7	50.0	95	47.6	50.0	95	52-134	<1	30
trans-1,2-Dichloroethene	0.20 U	49.7	50.0	99	50.1	50.0	100	73-118	<1	30
trans-1,3-Dichloropropene	0.23 U	47.1	50.0	94	47.9	50.0	96	71-133	2	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.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1910829-04

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)	0.21 U	5.0	0.21	1	09/24/19 14:07	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	09/24/19 14:07	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	09/24/19 14:07	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	09/24/19 14:07	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
2-Butanone (MEK)	0.78 U	10	0.78	1	09/24/19 14:07	
2-Hexanone	0.20 U	10	0.20	1	09/24/19 14:07	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	09/24/19 14:07	
Acetone	8.6 J	10	2.1	1	09/24/19 14:07	
Benzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
Bromodichloromethane	0.22 U	5.0	0.22	1	09/24/19 14:07	
Bromoform	0.25 U	5.0	0.25	1	09/24/19 14:07	
Bromomethane	0.70 U	5.0	0.70	1	09/24/19 14:07	
Carbon Disulfide	0.25 U	10	0.25	1	09/24/19 14:07	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	09/24/19 14:07	
Chlorobenzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
Chloroethane	0.23 U	5.0	0.23	1	09/24/19 14:07	
Chloroform	0.24 U	5.0	0.24	1	09/24/19 14:07	
Chloromethane	0.54 J	5.0	0.28	1	09/24/19 14:07	
Cyclohexane	0.26 U	10	0.26	1	09/24/19 14:07	
Dibromochloromethane	0.20 U	5.0	0.20	1	09/24/19 14:07	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	09/24/19 14:07	
Dichloromethane	0.68 J	5.0	0.36	1	09/24/19 14:07	
Ethylbenzene	0.20 U	5.0	0.20	1	09/24/19 14:07	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	09/24/19 14:07	
Methyl Acetate	0.33 U	10	0.33	1	09/24/19 14:07	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	09/24/19 14:07	
Methylcyclohexane	0.20 U	10	0.20	1	09/24/19 14:07	
Styrene	0.20 U	5.0	0.20	1	09/24/19 14:07	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	09/24/19 14:07	
Toluene	0.20 U	5.0	0.20	1	09/24/19 14:07	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	09/24/19 14:07	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	09/24/19 14:07	
Vinyl Chloride	0.20 U	5.0	0.20	1	09/24/19 14:07	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1910829-04

Service Request: R1908994
Date Collected: NA
Date Received: NA

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
Xylenes, Total	0.23 U	5.0	0.23	1	09/24/19 14:07	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	09/24/19 14:07	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	09/24/19 14:07	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	09/24/19 14:07	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	09/24/19 14:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/24/19 14:07	
Dibromofluoromethane	95	89 - 119	09/24/19 14:07	
Toluene-d8	100	87 - 121	09/24/19 14:07	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Analyzed: 09/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910829-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	16.3	20.0	81	75-125
1,1,2,2-Tetrachloroethane	8260C	18.4	20.0	92	78-126
1,1,2-Trichloroethane	8260C	18.7	20.0	93	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	16.0	20.0	80	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	17.0	20.0	85	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	16.4	20.0	82	71-118
1,2,4-Trichlorobenzene	8260C	17.6	20.0	88	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	15.7	20.0	79	55-136
1,2-Dibromoethane	8260C	17.1	20.0	85	82-127
1,2-Dichlorobenzene	8260C	18.0	20.0	90	80-119
1,2-Dichloroethane	8260C	16.6	20.0	83	71-127
1,2-Dichloropropane	8260C	16.7	20.0	83	80-119
1,3-Dichlorobenzene	8260C	17.2	20.0	86	83-121
1,4-Dichlorobenzene	8260C	17.2	20.0	86	79-119
2-Butanone (MEK)	8260C	15.2	20.0	76	61-137
2-Hexanone	8260C	16.3	20.0	81	63-124
4-Methyl-2-pentanone	8260C	16.8	20.0	84	66-124
Acetone	8260C	17.1	20.0	86	40-161
Benzene	8260C	17.7	20.0	89	79-119
Bromodichloromethane	8260C	18.5	20.0	93	81-123
Bromoform	8260C	18.7	20.0	94	65-146
Bromomethane	8260C	19.7	20.0	99	42-166
Carbon Disulfide	8260C	18.2	20.0	91	66-128
Carbon Tetrachloride	8260C	17.3	20.0	86	70-127
Chlorobenzene	8260C	17.6	20.0	88	80-121
Chloroethane	8260C	16.5	20.0	83	62-131
Chloroform	8260C	16.8	20.0	84	79-120
Chloromethane	8260C	18.2	20.0	91	65-135
Cyclohexane	8260C	18.4	20.0	92	69-120
Dibromochloromethane	8260C	18.8	20.0	94	72-128
Dichlorodifluoromethane (CFC 12)	8260C	18.9	20.0	95	59-155
Dichloromethane	8260C	17.2	20.0	86	73-122
Ethylbenzene	8260C	16.9	20.0	84	76-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Analyzed: 09/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910829-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	17.7	20.0	89	77-128
Methyl Acetate	8260C	15.6	20.0	78	40-112
Methyl tert-Butyl Ether	8260C	17.4	20.0	87	75-118
Methylcyclohexane	8260C	17.9	20.0	90	51-129
Styrene	8260C	17.7	20.0	89	80-124
Tetrachloroethene (PCE)	8260C	16.1	20.0	81	72-125
Toluene	8260C	17.6	20.0	88	79-119
Trichloroethene (TCE)	8260C	16.8	20.0	84	74-122
Trichlorofluoromethane (CFC 11)	8260C	17.2	20.0	86	71-136
Vinyl Chloride	8260C	16.4	20.0	82	74-159
cis-1,2-Dichloroethene	8260C	17.0	20.0	85	80-121
cis-1,3-Dichloropropene	8260C	17.0	20.0	85	77-122
trans-1,2-Dichloroethene	8260C	17.1	20.0	85	73-118
trans-1,3-Dichloropropene	8260C	17.2	20.0	86	71-133



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Sediment
Sample Name: Method Blank
Lab Code: R1908994-MB1

Service Request: R1908994
Date Collected: NA
Date Received: NA

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	20 U	mg/Kg	20	1	09/24/19 16:43	09/20/19	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	1	09/24/19 16:43	09/20/19	
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	09/24/19 16:43	09/20/19	
Barium, Total	6010C	2.0 U	mg/Kg	2.0	1	09/24/19 16:43	09/20/19	
Beryllium, Total	6010C	0.30 U	mg/Kg	0.30	1	09/24/19 16:43	09/20/19	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	1	09/24/19 16:43	09/20/19	
Calcium, Total	6010C	100 U	mg/Kg	100	1	09/24/19 16:43	09/20/19	
Chromium, Total	6010C	1.0 U	mg/Kg	1.0	1	09/24/19 16:43	09/20/19	
Cobalt, Total	6010C	5.0 U	mg/Kg	5.0	1	09/24/19 16:43	09/20/19	
Copper, Total	6010C	2.0 U	mg/Kg	2.0	1	09/24/19 16:43	09/20/19	
Iron, Total	6010C	20 U	mg/Kg	20	1	09/24/19 16:43	09/20/19	
Lead, Total	6010C	2.5 U	mg/Kg	2.5	1	09/24/19 16:43	09/20/19	
Magnesium, Total	6010C	100 U	mg/Kg	100	1	09/24/19 16:43	09/20/19	
Manganese, Total	6010C	2.0 U	mg/Kg	2.0	1	09/24/19 16:43	09/20/19	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	1	09/19/19 12:25	09/18/19	
Nickel, Total	6010C	4.0 U	mg/Kg	4.0	1	09/24/19 16:43	09/20/19	
Potassium, Total	6010C	200 U	mg/Kg	200	1	09/24/19 16:43	09/20/19	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	1	09/24/19 16:43	09/20/19	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	1	09/24/19 16:43	09/20/19	
Sodium, Total	6010C	100 U	mg/Kg	100	1	09/24/19 16:43	09/20/19	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	1	09/24/19 16:43	09/20/19	
Vanadium, Total	6010C	5.0 U	mg/Kg	5.0	1	09/24/19 16:43	09/20/19	
Zinc, Total	6010C	2.0 U	mg/Kg	2.0	1	09/24/19 16:43	09/20/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1908994-MB2

Service Request: R1908994
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	09/20/19 17:48	09/19/19	
Antimony, Total	6010C	60 U	ug/L	60	1	09/20/19 17:48	09/19/19	
Arsenic, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Barium, Total	6010C	20 U	ug/L	20	1	09/20/19 17:48	09/19/19	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	09/20/19 17:48	09/19/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 17:48	09/19/19	
Calcium, Total	6010C	1000 U	ug/L	1000	1	09/24/19 18:08	09/19/19	
Chromium, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Cobalt, Total	6010C	50 U	ug/L	50	1	09/20/19 17:48	09/19/19	
Copper, Total	6010C	20 U	ug/L	20	1	09/20/19 17:48	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 17:48	09/19/19	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	09/20/19 17:48	09/19/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	09/20/19 17:48	09/19/19	
Manganese, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	09/25/19 13:35	09/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	09/20/19 17:48	09/19/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	09/20/19 17:48	09/19/19	
Selenium, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Silver, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Sodium, Total	6010C	1000 U	ug/L	1000	1	09/24/19 18:08	09/19/19	
Thallium, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	
Vanadium, Total	6010C	50 U	ug/L	50	1	09/20/19 17:48	09/19/19	
Zinc, Total	6010C	20 U	ug/L	20	1	09/20/19 17:48	09/19/19	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Collected: 09/16/19
Date Received: 09/17/19
Date Analyzed: 09/25/19
Date Extracted: 09/24/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: F-6
Lab Code: R1908994-001
Analysis Method: 7470A
Prep Method: Method

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike R1908994-001MS		Result	Duplicate Matrix Spike R1908994-001DMS		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Mercury, Total	0.08 U	0.97	1.00	97	0.99	1.00	99	75-125	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.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Sediment

Service Request: R1908994
Date Analyzed: 09/19/19 - 09/24/19

Lab Control Sample Summary
Inorganic Parameters

Units:mg/Kg
Basis:Dry

Lab Control Sample
R1908994-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	175	200	88	80-120
Antimony, Total	6010C	45.0	50.0	90	80-120
Arsenic, Total	6010C	3.72	4.0	93	80-120
Barium, Total	6010C	202	200	101	80-120
Beryllium, Total	6010C	4.81	5.00	96	80-120
Cadmium, Total	6010C	5.07	5.00	101	80-120
Calcium, Total	6010C	179	200	89	80-120
Chromium, Total	6010C	19.9	20.0	100	80-120
Cobalt, Total	6010C	49.6	50.0	99	80-120
Copper, Total	6010C	23.6	25.0	94	80-120
Iron, Total	6010C	94.9	100	95	80-120
Lead, Total	6010C	49.4	50.0	99	80-120
Magnesium, Total	6010C	189	200	94	80-120
Manganese, Total	6010C	48.8	50.0	98	80-120
Mercury, Total	7471B	0.168	0.167	101	80-120
Nickel, Total	6010C	48.5	50.0	97	80-120
Potassium, Total	6010C	1850	2000	92	80-120
Selenium, Total	6010C	91.3	101	90	80-120
Silver, Total	6010C	4.82	5.0	96	80-120
Sodium, Total	6010C	1940	2000	97	80-120
Thallium, Total	6010C	183	200	91	80-120
Vanadium, Total	6010C	49.1	50.0	98	80-120
Zinc, Total	6010C	48.0	50.0	96	80-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Analyzed: 09/25/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1908994-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury, Total	7470A	0.91	1.00	91	80-120

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville LF SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1908994
Date Analyzed: 09/20/19 - 09/24/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample R1908994-LCS2					Duplicate Lab Control Sample R1908994-DLCS2					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Total	6010C	1680	2000	84	1810	2000	91	80-120	8	20
Antimony, Total	6010C	435	500	87	466	500	93	80-120	7	20
Arsenic, Total	6010C	40	40	100	44	40	110	80-120	10	20
Barium, Total	6010C	1920	2000	96	2080	2000	104	80-120	8	20
Beryllium, Total	6010C	46.0	50.0	92	49.6	50.0	99	80-120	8	20
Cadmium, Total	6010C	48.3	50.0	97	51.8	50.0	104	80-120	7	20
Calcium, Total	6010C	1650	2000	83	1770	2000	88	80-120	7	20
Chromium, Total	6010C	189	200	95	204	200	102	80-120	7	20
Cobalt, Total	6010C	474	500	95	511	500	102	80-120	7	20
Copper, Total	6010C	214	250	86	232	250	93	80-120	8	20
Iron, Total	6010C	900	1000	90	960	1000	96	80-120	7	20
Lead, Total	6010C	469	500	94	507	500	101	80-120	8	20
Magnesium, Total	6010C	1800	2000	90	1900	2000	97	80-120	8	20
Manganese, Total	6010C	465	500	93	501	500	100	80-120	8	20
Nickel, Total	6010C	467	500	93	503	500	101	80-120	8	20
Potassium, Total	6010C	17400	20000	87	18700	20000	94	80-120	7	20
Selenium, Total	6010C	1010	1010	100	1070	1010	106	80-120	6	20
Silver, Total	6010C	45	50	89	48	50	96	80-120	7	20
Sodium, Total	6010C	19200	20000	96	20700	20000	103	80-120	7	20
Thallium, Total	6010C	1730	2000	87	1870	2000	94	80-120	8	20
Vanadium, Total	6010C	463	500	93	499	500	100	80-120	7	20
Zinc, Total	6010C	464	500	93	500	500	100	80-120	8	20



October 02, 2019

Service Request No:R1908993

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville 5th Quarter Wells

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory September 17, 2019
For your reference, these analyses have been assigned our service request number **R1908993**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, 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), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

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

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

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Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Received: 09/17/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Thirty drinking water samples were received for analysis at ALS Environmental on 09/17/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 09/20/2019: The control limits for matrix spike recovery of one or more of the spiked analytes are not applicable and have been flagged with a "#". The concentration of the analyte(s) in the parent sample is more than 4x the spike concentration. No further corrective action was required.

Method 6010C, 09/24/2019: The control limits for matrix spike recovery of one or more of the spiked analytes are not applicable and have been flagged with a "#". The concentration of the analyte(s) in the parent sample is more than 4x the spike concentration. No further corrective action was required.

General Chemistry:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Volatiles by GC/MS:

Method 8260C, 09/21/2019: The Method Blank contained a low level of the following analytes above the Reporting Limit: acetone. All associated sample results less than ten times the level found in the Method Blank are flagged. The samples were not reprepared/reanalyzed because of contaminated vials.

Method 8260C, 09/24/2019: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8260C, 09/24/2019: The Method Blank contained a low level of the following analytes above the Reporting Limit: acetone & chloromethane. All associated sample results less than ten times the level found in the Method Blank are flagged. The samples were not reprepared/reanalyzed because of contaminated vials.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Approved by

A handwritten signature in black ink, appearing to read "Brady Knutson".

Date

10/02/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: PW-3			Lab ID: R1908993-001			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	393				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	160				mV	ASTM D1498-00
pH, Field	7.44				pH Units	SM 4500-H+ B
Sulfate	10.2			2.0	mg/L	300.0
Temperature, Field	14.7				deg C	SM 2550 B
Turbidity, Field	15.2				NTU	180.1
Iron, Total	920			100	ug/L	6010C
Manganese, Total	16			10	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	6.6			5.0	ug/L	8260C
Trichloroethene (TCE)	6.3			5.0	ug/L	8260C

CLIENT ID: PW-4			Lab ID: R1908993-003			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	246				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	141				mV	ASTM D1498-00
pH, Field	6.96				pH Units	SM 4500-H+ B
Sulfate	12.6			2.0	mg/L	300.0
Temperature, Field	11.9				deg C	SM 2550 B
Turbidity, Field	9				NTU	180.1
Iron, Total	560			100	ug/L	6010C
Manganese, Total	129			10	ug/L	6010C
Trichloroethene (TCE)	6.8			5.0	ug/L	8260C

CLIENT ID: PW-4 Dup			Lab ID: R1908993-005			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	247				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	143				mV	ASTM D1498-00
pH, Field	6.97				pH Units	SM 4500-H+ B
Sulfate	12.9			2.0	mg/L	300.0
Temperature, Field	11.9				deg C	SM 2550 B
Turbidity, Field	8.5				NTU	180.1
Iron, Total	900			100	ug/L	6010C
Manganese, Total	194			10	ug/L	6010C

CLIENT ID: W-7			Lab ID: R1908993-007			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	329				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	4.00				mV	ASTM D1498-00
pH, Field	6.35				pH Units	SM 4500-H+ B
Temperature, Field	11.9				deg C	SM 2550 B



SAMPLE DETECTION SUMMARY

CLIENT ID: W-7				Lab ID: R1908993-007		

Analyte	Results	Flag	MDL	MRL	Units	Method
Turbidity, Field	14.8				NTU	180.1

CLIENT ID: PW-7				Lab ID: R1908993-009		

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	217				uMHOS/c m	120.1
Nitrate as Nitrogen	1.9			1.0	mg/L	300.0
Oxidation-Reduction Potential (ORP), Field	1.00				mV	ASTM D1498-00
pH, Field	6.97				pH Units	SM 4500-H+ B
Sulfate	8.2			2.0	mg/L	300.0
Temperature, Field	11.9				deg C	SM 2550 B
Turbidity, Field	18				NTU	180.1
Iron, Total	35500			100	ug/L	6010C
Manganese, Total	6340			10	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	76			5.0	ug/L	8260C
Chlorobenzene	21			5.0	ug/L	8260C
Chloroethane	36			5.0	ug/L	8260C
Trichloroethene (TCE)	9.1			5.0	ug/L	8260C
Vinyl Chloride	16			5.0	ug/L	8260C
cis-1,2-Dichloroethene	56			5.0	ug/L	8260C

CLIENT ID: PW-7 Diss				Lab ID: R1908993-010		

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	3960			100	ug/L	6010C

CLIENT ID: GMMW-7				Lab ID: R1908993-011		

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	374				uMHOS/c m	120.1
Oxidation-Reduction Potential (ORP), Field	85.0				mV	ASTM D1498-00
pH, Field	6.79				pH Units	SM 4500-H+ B
Sulfate	12.1			2.0	mg/L	300.0
Temperature, Field	12.1				deg C	SM 2550 B
Turbidity, Field	7.7				NTU	180.1
Iron, Total	100			100	ug/L	6010C
Manganese, Total	2790			10	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	110			5.0	ug/L	8260C
Chlorobenzene	11			5.0	ug/L	8260C
Chloroethane	53			5.0	ug/L	8260C
Trichloroethene (TCE)	23			5.0	ug/L	8260C
Vinyl Chloride	40			5.0	ug/L	8260C
cis-1,2-Dichloroethene	77			5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: GMMW-5	Lab ID: R1908993-013

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	367				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	-89.0				mV	ASTM D1498-00
pH, Field	6.79				pH Units	SM 4500-H+ B
Sulfate	2.2			2.0	mg/L	300.0
Temperature, Field	11.4				deg C	SM 2550 B
Turbidity, Field	8.2				NTU	180.1
Iron, Total	19700			100	ug/L	6010C
Manganese, Total	4030			10	ug/L	6010C
Chlorobenzene	14			5.0	ug/L	8260C
Chloroethane	69			5.0	ug/L	8260C

CLIENT ID: GMMW-5 Diss	Lab ID: R1908993-014

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	17000			100	ug/L	6010C

CLIENT ID: PW-5	Lab ID: R1908993-017

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	280				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	90.0				mV	ASTM D1498-00
pH, Field	8.11				pH Units	SM 4500-H+ B
Temperature, Field	13.4				deg C	SM 2550 B
Turbidity, Field	49.6				NTU	180.1

CLIENT ID: GMPW-4	Lab ID: R1908993-019

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	651				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	107				mV	ASTM D1498-00
pH, Field	6.45				pH Units	SM 4500-H+ B
Temperature, Field	12.7				deg C	SM 2550 B
Turbidity, Field	3.3				NTU	180.1
1,1-Dichloroethane (1,1-DCA)	18			5.0	ug/L	8260C
Chlorobenzene	8.7			5.0	ug/L	8260C
Chloroethane	6.2			5.0	ug/L	8260C
Trichloroethene (TCE)	21			5.0	ug/L	8260C
cis-1,2-Dichloroethene	8.3			5.0	ug/L	8260C

CLIENT ID: GMMW-2	Lab ID: R1908993-021

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	513				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	100				mV	ASTM D1498-00
pH, Field	6.23				pH Units	SM 4500-H+ B



SAMPLE DETECTION SUMMARY

CLIENT ID: GMMW-2			Lab ID: R1908993-021			

Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	13.8			2.0	mg/L	300.0
Temperature, Field	10.9				deg C	SM 2550 B
Turbidity, Field	2				NTU	180.1
Iron, Total	120			100	ug/L	6010C
Manganese, Total	6160			10	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	26			5.0	ug/L	8260C
Chlorobenzene	16			5.0	ug/L	8260C
Chloroethane	8.0			5.0	ug/L	8260C
Trichloroethene (TCE)	8.7			5.0	ug/L	8260C
cis-1,2-Dichloroethene	7.5			5.0	ug/L	8260C

CLIENT ID: GMMW-6			Lab ID: R1908993-023			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	875				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	-31.0				mV	ASTM D1498-00
pH, Field	6.45				pH Units	SM 4500-H+ B
Sulfate	3.5			2.0	mg/L	300.0
Temperature, Field	11.0				deg C	SM 2550 B
Turbidity, Field	9.2				NTU	180.1
Iron, Total	17800			100	ug/L	6010C
Manganese, Total	10400			100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	51			5.0	ug/L	8260C
Chlorobenzene	22			5.0	ug/L	8260C
Chloroethane	110			5.0	ug/L	8260C
Vinyl Chloride	12			5.0	ug/L	8260C
cis-1,2-Dichloroethene	9.0			5.0	ug/L	8260C

CLIENT ID: GMMW-6 Diss			Lab ID: R1908993-024			

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	12600			100	ug/L	6010C

CLIENT ID: W-16S			Lab ID: R1908993-025			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	477				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	34.0				mV	ASTM D1498-00
pH, Field	6.27				pH Units	SM 4500-H+ B
Sulfate	10.9			2.0	mg/L	300.0
Temperature, Field	14.1				deg C	SM 2550 B
Turbidity, Field	4				NTU	180.1
Iron, Total	440			100	ug/L	6010C
Manganese, Total	11900			100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	11			5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: W-16S **Lab ID: R1908993-025**

Analyte	Results	Flag	MDL	MRL	Units	Method
Chlorobenzene	24			5.0	ug/L	8260C

CLIENT ID: W-16S Diss **Lab ID: R1908993-026**

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	240			100	ug/L	6010C

CLIENT ID: W-18 **Lab ID: R1908993-027**

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	444				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	94.0				mV	ASTM D1498-00
pH, Field	6.27				pH Units	SM 4500-H+ B
Sulfate	8.7			2.0	mg/L	300.0
Temperature, Field	15.8				deg C	SM 2550 B
Turbidity, Field	2.9				NTU	180.1
Iron, Total	250			100	ug/L	6010C
Manganese, Total	42			10	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	6.0			5.0	ug/L	8260C
Trichloroethene (TCE)	9.2			5.0	ug/L	8260C
cis-1,2-Dichloroethene	5.7			5.0	ug/L	8260C

CLIENT ID: Equipment Blank **Lab ID: R1908993-029**

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	2				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	154				mV	ASTM D1498-00
pH, Field	6.40				pH Units	SM 4500-H+ B
Temperature, Field	17.4				deg C	SM 2550 B
Turbidity, Field	0.9				NTU	180.1

CLIENT ID: W-17S **Lab ID: R1908993-030**

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	188				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	167				mV	ASTM D1498-00
pH, Field	6.31				pH Units	SM 4500-H+ B
Temperature, Field	15.6				deg C	SM 2550 B
Turbidity, Field	9.2				NTU	180.1

CLIENT ID: W-20S **Lab ID: R1908993-032**

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	134				uMHOS/cm	120.1
Oxidation-Reduction Potential (ORP), Field	183				mV	ASTM D1498-00
pH, Field	6.22				pH Units	SM 4500-H+ B



SAMPLE DETECTION SUMMARY

CLIENT ID: W-20S		Lab ID: R1908993-032				
Analyte	Results	Flag	MDL	MRL	Units	Method
Sulfate	9.8			2.0	mg/L	300.0
Temperature, Field	13.6				deg C	SM 2550 B
Turbidity, Field	13.9				NTU	180.1
Iron, Total	3980			100	ug/L	6010C
Manganese, Total	3140			10	ug/L	6010C



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: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells

Service Request:R1908993

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1908993-001	PW-3	9/17/2019	1020
R1908993-002	PW-3 Diss	9/17/2019	1020
R1908993-003	PW-4	9/17/2019	1055
R1908993-004	PW-4 Diss	9/17/2019	1055
R1908993-005	PW-4 Dup	9/17/2019	1055
R1908993-006	PW-4 Dup Diss	9/17/2019	1055
R1908993-007	W-7	9/17/2019	1110
R1908993-009	PW-7	9/17/2019	1140
R1908993-010	PW-7 Diss	9/17/2019	1140
R1908993-011	GMMW-7	9/17/2019	1205
R1908993-012	GMMW-7 Diss	9/17/2019	1205
R1908993-013	GMMW-5	9/17/2019	1225
R1908993-014	GMMW-5 Diss	9/17/2019	1225
R1908993-015	Trip Blank 1	9/17/2019	1020
R1908993-016	Trip Blank 2	9/17/2019	1020
R1908993-017	PW-5	9/17/2019	1020
R1908993-019	GMPW-4	9/17/2019	1035
R1908993-021	GMMW-2	9/17/2019	1055
R1908993-022	GMMW-2 Diss	9/17/2019	1055
R1908993-023	GMMW-6	9/17/2019	1110
R1908993-024	GMMW-6 Diss	9/17/2019	1110
R1908993-025	W-16S	9/17/2019	1120
R1908993-026	W-16S Diss	9/17/2019	1120
R1908993-027	W-18	9/17/2019	1130
R1908993-028	W-18 Diss	9/17/2019	1130
R1908993-029	Equipment Blank	9/17/2019	1145
R1908993-030	W-17S	9/17/2019	1220
R1908993-032	W-20S	9/17/2019	1240
R1908993-033	W-20S Diss	9/17/2019	1240
R1908993-034	Equipment Blank Diss	9/17/2019	1145

Project Name <i>Colesville 5th Quarter Wells</i>						ANALYSIS REQUESTED (Include Method Number and Container Preservative)																								
Project Manager <i>Laurie Haskell</i>			Report CC			PRESERVATIVE																								
Company/Address <i>Broom County / Colesville LF Colesville NY</i>						NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 824 • CLP • 8270 • SVOAs • 825 GC VOAs • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) <i>Dissolved Fe NO₃, NO₃-S04 TOC, RSK</i>																		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 _____					
Phone #			Email																						REMARKS/ ALTERNATE DESCRIPTION					
Sampler's Signature <i>Brian Mackin</i>			Sampler's Printed Name <i>BRIAN MACKIN</i>																											
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID	SAMPLING DATE		TIME		MATRIX																							
PW-3		001/002	9/17/19		1020	W 12	X																			48				
PW-4		003/004	↓		1055	W 12	X																			49				
PW-4 DUPLICATE		005/006	↓		1055	W 12	X																			50				
W-7		007/008	↓		1110	W 3	X																			64				
PW-7		009/010	↓		1140	W 12	X																			51				
GMM W-7		011/012	↓		1205	W 12	X																			52				
GMM W-5		013/014	↓		1225	W 12	X																			53				
Trip Blank		GIS	↓		1020	W 3	X																			Trip Blank				
SPECIAL INSTRUCTIONS/COMMENTS Metals <i>samples for soluble metals filtered in field w/ 0.45µ filter</i>												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 Editra ____ Yes ____ No						INVOICE INFORMATION PO # BILL TO: 						
STATE WHERE SAMPLES WERE COLLECTED																														
RELINQUISHED BY				RECEIVED BY				RELINQUISHED BY				RECEIVED BY				RELINQUISHED BY				RECEIVED BY										
Signature <i>Brian Mackin</i>				Signature <i>Kyle Lee</i>				Signature <i>Kyle Lee</i>				Signature <i>Suzanne Mac</i>				Signature				Signature										
Printed Name <i>BRIAN MACKIN</i>				Printed Name <i>Kyle Lee</i>				Printed Name <i>Kyle Lee</i>				Printed Name <i>Suzanne Mac</i>				Printed Name				Printed Name										
Firm <i>ALS</i>				Firm <i>ALS</i>				Firm <i>ALS</i>				Firm <i>ALS</i>				Firm				Firm										
Date/Time <i>9/17/19 1315</i>				Date/Time <i>9/17/19 1315</i>				Date/Time <i>9/17/19 1620</i>				Date/Time <i>9/17/19 1620</i>				Date/Time				Date/Time										



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter wells LAB ID 48

SAMPLE POINT ID PW-3

PURGE INFORMATION

Well Depth (ft.) 30.90

Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 12.83

Start Time 12¹⁰ Stop Time 12²⁰

Standing Water (ft.) 18.07

Volume Purged gal. 7.5 # casings 2.5 today

Well Constant (gal/ft.) 0.163

Observations Extremely turbid brown

Well Volume (gal.) 3.0

to turbid brown

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 10²⁰ SWL 17.22

Appearance Slightly turbid, tan tint

Weather Conditions Sun

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	7.45	7.42
Myron 6p	Conductivity	µmhos/cm	393	393
Myron 6p	Temperature	Degrees Celsius	14.7	14.7
Myron 6p	Redox	millivolts	160	
Lamotte	Turbidity	NTU	15.2	

Calibration Date/Time 9/17/19 0700 7.00/10.00/4.00
1413 set 1413
0.0/10.0

OBSERVATIONS

Sol metals filtered in field w/0.45 µm filter
many ants in annulus outside of riser. (i plug in well)
some ants were in well upon purge start

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter wells LAB ID 49+50 DUP

SAMPLE POINT ID PW-4

PURGE INFORMATION

Well Depth (ft.) 23.13

Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 17.83

Start Time 1230 Stop Time 1236

Standing Water (ft.) 5.30

Volume Purged gal. 2.4 # casings 3 to dry

Well Constant (gal/ft.) 0.163

Observations Turbid, tan tint

Well Volume (gal.) 0.8

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1055 SWL 17.83

Appearance Clear

Weather Conditions Sun, 63°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	<u>6.96</u>	<u>6.97</u>
Myron 6p	Conductivity	µmhos/cm	<u>246</u>	<u>247</u>
Myron 6p	Temperature	Degrees Celsius	<u>11.9</u>	<u>11.9</u>
Myron 6p	Redox	millivolts	<u>141</u>	<u>143</u>
Lamotte	Turbidity	NTU	<u>9.0</u>	<u>8.5</u>

Calibration Date/Time 9/17/19 0700

OBSERVATIONS

Soluble metals filtered in field w/ 0.45µ filter



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter wells LAB ID 64 (VOA only)

SAMPLE POINT ID W-7

PURGE INFORMATION

Well Depth (ft.) 51.35 Purge Date 9/16/19 Purge Method Bailer
SWL (ft.) 42.65 Start Time 1245 Stop Time 1255
Standing Water (ft.) 8.70 Volume Purged gal. 2.25 # casings 1.5 today
Well Constant (gal/ft.) 0.163 Observations Turbid, not orange
Well Volume (gal.) 1.5

SAMPLING INFORMATION

Sample Method Bailer
Date 9/17/19 Time 1110 SWL 42.65
Appearance Slightly cloudy, tan
Weather Conditions Sun 63°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.35	6.34
Myron 6p	Conductivity	µmhos/cm	329	329
Myron 6p	Temperature	Degrees Celsius	11.9	11.9
Myron 6p	Redox	millivolts	4	
Lamotte	Turbidity	NTU	14.8	

Calibration Date/Time 9/17/19 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville 5th Quarter Wells LAB ID 51

SAMPLE POINT ID PW-7

PURGE INFORMATION

Well Depth (ft.) 64.25 Purge Date 9/16/19 Purge Method Pump
SWL (ft.) 40.83 Start Time 1306 Stop Time 1330
Standing Water (ft.) 23.42 Volume Purged gal. 10.0 # casings ~2.5 to dry
Well Constant (gal/ft.) 0.163 Observations Extremely turbid, orange
Well Volume (gal.) 3.8 to turbid orange to slightly turbid orange

SAMPLING INFORMATION

Sample Method Bailer
Date 9/17/19 Time 1130 SWL 40.83
Appearance Slightly turbid, orange tint
Weather Conditions Sun 63°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.98	6.96
Myron 6p	Conductivity	µmhos/cm	217	217
Myron 6p	Temperature	Degrees Celsius	11.9	11.9
Myron 6p	Redox	millivolts	1	
Lamotte	Turbidity	NTU	18.0	

Calibration Date/Time 9/17/19 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville 5th Quarter Wells LAB ID 52

SAMPLE POINT ID GMM W-7

PURGE INFORMATION

Well Depth (ft.) 71.93 Purge Date 9/16/19 Purge Method Pump

SWL (ft.) 47.32 Start Time 1339 Stop Time 1420

Standing Water (ft.) 24.61 Volume Purged gal. 12 # casings 3

Well Constant (gal/ft.) 0.163 Observations Turbid black to black tint

Well Volume (gal.) 4.0 to clear

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1205 SWL 47.32

Appearance Clean

Weather Conditions Sun 66°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.79	6.78
Myron 6p	Conductivity	µmhos/cm	372	375
Myron 6p	Temperature	Degrees Celsius	12.1	12.0
Myron 6p	Redox	millivolts	85	
Lamotte	Turbidity	NTU	7.7	

Calibration Date/Time 9/17/19 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter wells LAB ID 53

SAMPLE POINT ID GMMW-5

PURGE INFORMATION

Well Depth (ft.) 70.31

Purge Date 9/16/19 Purge Method Pump

SWL (ft.) 48.94

Start Time 1508 Stop Time 1515

Standing Water (ft.) 21.37

Volume Purged gal. 3.5 # casings 1 vol

Well Constant (gal/ft.) 0.163

Observations Black, slightly turbid

Well Volume (gal.) 3.5

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1225 SWL 48.95

Appearance Clear

Weather Conditions Sun, 66°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.79	6.79
Myron 6p	Conductivity	µmhos/cm	367	367
Myron 6p	Temperature	Degrees Celsius	11.4	11.4
Myron 6p	Redox	millivolts	-89	
Lamotte	Turbidity	NTU	8.2	

Calibration Date/Time 9/17/19 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter Wells LAB ID not only 61

SAMPLE POINT ID PW-5

PURGE INFORMATION

Well Depth (ft.) 26.95 Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 0.90 Start Time 1211 Stop Time 1223

Standing Water (ft.) 26.05 Volume Purged gal. 12.6 # casings 3

Well Constant (gal/ft.) 0.163 Observations Tan tint to turbid

Well Volume (gal.) 4.2 light brown

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1020 SWL 0.90

Appearance Turbid light brown

Weather Conditions Sun 53

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	8.11	8.11
Myron 6p	Conductivity	µmhos/cm	280	280
Myron 6p	Temperature	Degrees Celsius	13.4	13.4
Myron 6p	Redox	millivolts	90	
Lamotte	Turbidity	NTU	49.6	

Calibration Date/Time 9/17/19 1000 pH 7.00 4.00 10.00
SC 1413 Set 1413

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville 5th quarter Wells LAB ID VOA only 602

SAMPLE POINT ID GMPW-4

PURGE INFORMATION

Well Depth (ft.) 27.20 Purge Date 9/16/19 Purge Method Elec. Pump

SWL (ft.) 15.64 Start Time 1239 Stop Time 1245

Standing Water (ft.) 11.56 Volume Purged gal. 17.0 # casings 2.3 today

Well Constant (gal/ft.) 0.65 Observations Tan tint

Well Volume (gal.) 7.5

SAMPLING INFORMATION

Sample Method Boiler

Date 9/17/19 Time 1035 SWL 15.64

Appearance Tan tint

Weather Conditions Sun 55°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.45	6.45
Myron 6p	Conductivity	µmhos/cm	651	651
Myron 6p	Temperature	Degrees Celsius	12.7	12.7
Myron 6p	Redox	millivolts	107	
Lamotte	Turbidity	NTU	3.3	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Cokeville 5th Quarter Wells LAB ID Fun list 55

SAMPLE POINT ID GMMW-2

PURGE INFORMATION

Well Depth (ft.) 56.05

Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 36.39

Start Time 1254 Stop Time 1301

Standing Water (ft.) 19.66

Volume Purged gal. 3.2 # casings 1 today

Well Constant (gal/ft.) 0.163

Observations Clear to slight tan tint

Well Volume (gal.) 3.2

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1055 SWL 36.39

Appearance Clear

Weather Conditions Sun 57°

Sampling Technician (Print) Kyle Lee

Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.23	6.23
Myron 6p	Conductivity	µmhos/cm	513	513
Myron 6p	Temperature	Degrees Celsius	10.9	10.9
Myron 6p	Redox	millivolts	100	
Lamotte	Turbidity	NTU	2.0	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Coleville 5th Quarter Wells LAB ID Full list 56+57
SAMPLE POINT ID GMMW-6 QC

PURGE INFORMATION

Well Depth (ft.) 56.17 Purge Date 9/16/19 Purge Method Bailer
SWL (ft.) 38.50 Start Time 1439 Stop Time 1449
Standing Water (ft.) 17.67 Volume Purged gal. 5.0 # casings 1.7 today
Well Constant (gal./ft.) 0.163 Observations Clear to tan tint
Well Volume (gal.) 2.9

SAMPLING INFORMATION

Sample Method Bailer
Date 9/17/19 Time 1110 SWL 39.70
Appearance Tan tint slightly turbid
Weather Conditions Sun 50°
Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.45	6.45
Myron 6p	Conductivity	µmhos/cm	875	875
Myron 6p	Temperature	Degrees Celsius	11.0	11.0
Myron 6p	Redox	millivolts	-31	
Lamotte	Turbidity	NTU	9.2	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville 5th Quarter Wells LAB ID Full List 54
not only to 3

SAMPLE POINT ID W-16 S

PURGE INFORMATION

Well Depth (ft.) 22.17 Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 9.93 Start Time 1313 Stop Time 1317

Standing Water (ft.) 12.24 Volume Purged gal. 2.0 # casings 1 today

Well Constant (gal/ft.) 0.163 Observations Brown turbid w/

Well Volume (gal.) 2.0 Suspended iron Bacteria

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1120 SWL 10.06

Appearance Tan tint w/ slight iron bacteria

Weather Conditions Sun 60°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.27	6.27
Myron 6p	Conductivity	µmhos/cm	477	477
Myron 6p	Temperature	Degrees Celsius	14.1	14.1
Myron 6p	Redox	millivolts	34	
Lamotte	Turbidity	NTU	4.0	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Coleville 5th Quarter Wells LAB ID Full 1.9-537 M ⁵⁸

SAMPLE POINT ID W-18

PURGE INFORMATION

Well Depth (ft.) 22.00 Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 11.42 Start Time 1328 Stop Time 1338

Standing Water (ft.) 10.58 Volume Purged gal. 5.1 # casings 3

Well Constant (gal/ft.) 0.163 Observations Rust brown tint to

Well Volume (gal.) 1.7 rust brown turbid

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1130 SWL 11.42

Appearance Clear to turbid rust brown

Weather Conditions Sun 62°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.27	6.27
Myron 6p	Conductivity	µmhos/cm	444	444
Myron 6p	Temperature	Degrees Celsius	15.8	15.8
Myron 6p	Redox	millivolts	94	
Lamotte	Turbidity	NTU	2.9	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Coleville 5th Quarter Wells LAB ID 59 Full Lst

SAMPLE POINT ID Equipment Blank

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 9/17/19 Time 1145 SWL —

Appearance Clear

Weather Conditions Full Sun 63°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.40	6.40
Myron 6p	Conductivity	µmhos/cm	2	2
Myron 6p	Temperature	Degrees Celsius	17.4	17.4
Myron 6p	Redox	millivolts	154	
Lamotte	Turbidity	NTU	0.9	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville 5th Quarter Wells LAB ID VOT only 100

SAMPLE POINT ID W-17S

PURGE INFORMATION

Well Depth (ft.) 21.72 Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 11.03 Start Time 1353 Stop Time 1401

Standing Water (ft.) 10.69 Volume Purged gal. 5.1 # casings 3

Well Constant (gal/ft.) 0.163 Observations Rust brown turbid

Well Volume (gal.) 1.7

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1220 ^{hr} 9/17 SWL 11.03

Appearance Tan tint very slightly turbid

Weather Conditions Full Sun 62°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.31	6.31
Myron 6p	Conductivity	µmhos/cm	188	188
Myron 6p	Temperature	Degrees Celsius	15.6	15.6
Myron 6p	Redox	millivolts	167	
Lamotte	Turbidity	NTU	9.2	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Coleville 5th Quarter Wells LAB ID 60 Full List - 537M

SAMPLE POINT ID W-20 S

PURGE INFORMATION

Well Depth (ft.) 21.82 Purge Date 9/16/19 Purge Method Bailer

SWL (ft.) 11.62 Start Time 1410 Stop Time 1413

Standing Water (ft.) 10.20 Volume Purged gal. 1.7 # casings 1 today

Well Constant (gal/ft.) 0.163 Observations Rust brown turbid

Well Volume (gal.) 1.7

SAMPLING INFORMATION

Sample Method Bailer

Date 9/17/19 Time 1240 SWL 11.62

Appearance Rust tan slightly turbid

Weather Conditions Full Sun 66

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.22	6.22
Myron 6p	Conductivity	µmhos/cm	134	134
Myron 6p	Temperature	Degrees Celsius	13.6	13.6
Myron 6p	Redox	millivolts	183	
Lamotte	Turbidity	NTU	13.9	

Calibration Date/Time 9/17/19 1000

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



Cooler Receipt and Preservation Check For

R1908993

5

Broome County Division of Solid Waste Management
Colesville 6th Quarter Wells

Project/Client

Broome County

Folder Number

Cooler received on

9/17/19

by: DLWCOURIER: ALS UPS FEDEX VELOCITY CLIENT

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

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

8. Temperature Readings

Date:

9/17/19

Time:

16:45

ID:

IR#7 REF ID

From: Temp Blank

Sample Bottle

Observed Temp (°C)	11.9	2.1	5.5	3.4	0.8	0.4	
Correction Factor (°C)	±0.0	±0.0	±0.0	±0.0	±0.0	±0.0	
Corrected Temp (°C)	11.9	2.1	5.5	3.4	0.8	0.4	
Temp from: Type of bottle							
Within 0-6°C?	☒ N	☒ N	☒ N	☒ N	☒ N	☒ 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 Rate
 & Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Room by DLW on 9/17/19 at 16:45
 5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 9/18/19 Time: 07:40 by: HZ
 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	Yes No						
≤2	<u>230018</u>	HNO ₃	<u>X</u>	<u>1118012</u>	<u>9/1/20</u>				
≤2	<u>↓</u>	H ₂ SO ₄	<u>X</u>	<u>2HL6227</u>					
<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>911810</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: 9-093-001, 9-143-002, 19-07-30

Explain all Discrepancies/ Other Comments:

*2 vials: Colesville SW+SEEPS TB
 3 vials: Colesville Resident TB
 3 vials: TB

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: ATC

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 (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

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells

Service Request: R1908993

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
300.0	Drinking Water	Nitrate as Nitrogen
300.0	Drinking Water	Nitrite as Nitrogen
6010C	Drinking Water	Iron, Dissolved
6010C	Drinking Water	Iron, Total
6010C	Drinking Water	Manganese, Total
8260C	Drinking Water	1,1,1-Trichloroethane (TCA)
8260C	Drinking Water	1,1,2,2-Tetrachloroethane
8260C	Drinking Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C	Drinking Water	1,1,2-Trichloroethane
8260C	Drinking Water	1,1-Dichloroethane (1,1-DCA)
8260C	Drinking Water	1,1-Dichloroethene (1,1-DCE)
8260C	Drinking Water	1,2,4-Trichlorobenzene
8260C	Drinking Water	1,2-Dibromo-3-chloropropane (DBCP)
8260C	Drinking Water	1,2-Dibromoethane
8260C	Drinking Water	1,2-Dichlorobenzene
8260C	Drinking Water	1,2-Dichloroethane
8260C	Drinking Water	1,2-Dichloropropane
8260C	Drinking Water	1,3-Dichlorobenzene
8260C	Drinking Water	1,4-Dichlorobenzene
8260C	Drinking Water	2-Butanone (MEK)
8260C	Drinking Water	2-Hexanone
8260C	Drinking Water	4-Methyl-2-pentanone
8260C	Drinking Water	Acetone
8260C	Drinking Water	Benzene
8260C	Drinking Water	Bromodichloromethane
8260C	Drinking Water	Bromoform
8260C	Drinking Water	Bromomethane
8260C	Drinking Water	Carbon Disulfide
8260C	Drinking Water	Carbon Tetrachloride
8260C	Drinking Water	Chlorobenzene
8260C	Drinking Water	Chloroethane
8260C	Drinking Water	Chloroform
8260C	Drinking Water	Chloromethane
8260C	Drinking Water	Cyclohexane
8260C	Drinking Water	Dibromochloromethane
8260C	Drinking Water	Dichlorodifluoromethane (CFC 12)
8260C	Drinking Water	Dichloromethane
8260C	Drinking Water	Ethylbenzene
8260C	Drinking Water	Isopropylbenzene (Cumene)
8260C	Drinking Water	Methyl Acetate
8260C	Drinking Water	Methyl tert-Butyl Ether
8260C	Drinking Water	Methylcyclohexane
8260C	Drinking Water	Styrene
8260C	Drinking Water	Tetrachloroethene (PCE)
8260C	Drinking Water	Toluene
8260C	Drinking Water	Trichloroethene (TCE)
8260C	Drinking Water	Trichlorofluoromethane (CFC 11)

ALS Group USA, Corp.
dba ALS Environmental

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells

Service Request: R1908993

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
8260C	Drinking Water	Vinyl Chloride
8260C	Drinking Water	Xylenes, Total
8260C	Drinking Water	cis-1,2-Dichloroethene
8260C	Drinking Water	cis-1,3-Dichloropropene
8260C	Drinking Water	trans-1,2-Dichloroethene
8260C	Drinking Water	trans-1,3-Dichloropropene
ASTM D1498-00	Drinking Water	Oxidation-Reduction Potential (ORP), Field
SM 2550 B	Drinking Water	Temperature, Field
SM 4500-H+ B	Drinking Water	pH, Field

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: PW-3
Lab Code: R1908993-001
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
300.0		KMENGS
6010C	AKONZEL	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: PW-3 Diss
Lab Code: R1908993-002
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: PW-4
Lab Code: R1908993-003
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
300.0		KMENGS
6010C	AKONZEL	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: PW-4 Diss
Lab Code: R1908993-004
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: PW-4 Dup
Lab Code: R1908993-005
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
300.0
6010C
8260C

Extracted/Digested By

AKONZEL

Analyzed By
JJANSON
JJANSON
KMENG
KMCLAEN
FNAEGLER

ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

JJANSON
JJANSON
JJANSON
SMEDBURY

Sample Name: PW-4 Dup Diss
Lab Code: R1908993-006
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: W-7
Lab Code: R1908993-007
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1

Extracted/Digested By

Analyzed By
JJANSON
JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: W-7
Lab Code: R1908993-007
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
FNAEGLER
JJANSON
JJANSON
JJANSON

Sample Name: PW-7
Lab Code: R1908993-009
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
300.0
6010C
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

Extracted/Digested By

Analyzed By
JJANSON
JJANSON
KMENGs
KMCLAEN
FNAEGLER
JJANSON
JJANSON
JJANSON
SMEDBURY

Sample Name: PW-7 Diss
Lab Code: R1908993-010
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: GMMW-7
Lab Code: R1908993-011
Sample Matrix: Drinking Water

Date Collected: 09/17/19

Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1	AKONZEL	JJANSON
180.1		JJANSON
300.0		KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: GMMW-7 Diss
Lab Code: R1908993-012
Sample Matrix: Drinking Water

Date Collected: 09/17/19

Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: GMMW-5
Lab Code: R1908993-013
Sample Matrix: Drinking Water

Date Collected: 09/17/19

Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1	AKONZEL	JJANSON
180.1		JJANSON
300.0		KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: GMMW-5 Diss
Lab Code: R1908993-014
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: Trip Blank 1
Lab Code: R1908993-015
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: Trip Blank 2
Lab Code: R1908993-016
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: PW-5
Lab Code: R1908993-017
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
JJANSON
JJANSON
FNAEGLER
JJANSON
JJANSON
JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: GMPW-4
Lab Code: R1908993-019
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: GMMW-2
Lab Code: R1908993-021
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
300.0		KMENGS
6010C	AKONZEL	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: GMMW-2 Diss
Lab Code: R1908993-022
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: GMMW-6
Lab Code: R1908993-023
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1	AKONZEL	JJANSON
180.1		JJANSON
300.0		KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: GMMW-6 Diss
Lab Code: R1908993-024
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

Sample Name: W-16S
Lab Code: R1908993-025
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1	AKONZEL	JJANSON
180.1		JJANSON
300.0		KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: W-16S Diss
Lab Code: R1908993-026
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: W-18
Lab Code: R1908993-027
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1
300.0
6010C
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

Extracted/Digested By

AKONZEL

Analyzed By
JJANSON
JJANSON
KMENGs
KMCLAEN
FNAEGLER
JJANSON
JJANSON
JJANSON
SMEDBURY

Sample Name: W-18 Diss
Lab Code: R1908993-028
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: Equipment Blank
Lab Code: R1908993-029
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
120.1
180.1

Extracted/Digested By

Analyzed By
JJANSON
JJANSON

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: Equipment Blank
Lab Code: R1908993-029
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
300.0	AKONZEL	KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON
SM 5310 C-2000(2011)		SMEDBURY

Sample Name: W-17S
Lab Code: R1908993-030
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1		JJANSON
180.1		JJANSON
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON
SM 4500-H+ B		JJANSON

Sample Name: W-20S
Lab Code: R1908993-032
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method	Extracted/Digested By	Analyzed By
120.1	AKONZEL	JJANSON
180.1		JJANSON
300.0		KMENGS
6010C		KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		JJANSON
SM 2550 B		JJANSON

ALS Group USA, Corp.
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Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells/

Service Request: R1908993

Sample Name: W-20S
Lab Code: R1908993-032
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
SM 4500-H+ B
SM 5310 C-2000(2011)

Extracted/Digested By

Analyzed By
JJANSON
SMEDBURY

Sample Name: W-20S Diss
Lab Code: R1908993-033
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN

Sample Name: Equipment Blank Diss
Lab Code: R1908993-034
Sample Matrix: Drinking Water

Date Collected: 09/17/19
Date Received: 09/17/19

Analysis Method
6010C

Extracted/Digested By
AKONZEL

Analyzed By
KMCLAEN



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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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Sample Name: PW-3
Lab Code: R1908993-001

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)	5.0 U	5.0	1	09/21/19 01:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 01:45	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 01:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 01:45	
1,1-Dichloroethane (1,1-DCA)	6.6	5.0	1	09/21/19 01:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 01:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 01:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 01:45	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 01:45	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:45	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 01:45	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 01:45	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:45	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:45	
2-Butanone (MEK)	10 U	10	1	09/21/19 01:45	
2-Hexanone	10 U	10	1	09/21/19 01:45	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 01:45	
Acetone	10 U	10	1	09/21/19 01:45	
Benzene	5.0 U	5.0	1	09/21/19 01:45	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 01:45	
Bromoform	5.0 U	5.0	1	09/21/19 01:45	
Bromomethane	5.0 U	5.0	1	09/21/19 01:45	
Carbon Disulfide	10 U	10	1	09/21/19 01:45	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 01:45	
Chlorobenzene	5.0 U	5.0	1	09/21/19 01:45	
Chloroethane	5.0 U	5.0	1	09/21/19 01:45	
Chloroform	5.0 U	5.0	1	09/21/19 01:45	
Chloromethane	5.0 U	5.0	1	09/21/19 01:45	
Cyclohexane	10 U	10	1	09/21/19 01:45	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 01:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 01:45	
Dichloromethane	5.0 U	5.0	1	09/21/19 01:45	
Ethylbenzene	5.0 U	5.0	1	09/21/19 01:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 01:45	
Methyl Acetate	10 U	10	1	09/21/19 01:45	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 01:45	
Methylcyclohexane	10 U	10	1	09/21/19 01:45	
Styrene	5.0 U	5.0	1	09/21/19 01:45	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 01:45	
Toluene	5.0 U	5.0	1	09/21/19 01:45	
Trichloroethene (TCE)	6.3	5.0	1	09/21/19 01:45	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 01:45	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 01:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-3
Lab Code: R1908993-001

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 01:45	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 01:45	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 01:45	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 01:45	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 01:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 01:45	
Dibromofluoromethane	98	89 - 119	09/21/19 01:45	
Toluene-d8	99	87 - 121	09/21/19 01:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Sample Name: PW-4
Lab Code: R1908993-003

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)	5.0 U	5.0	1	09/21/19 02:07	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 02:07	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 02:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 02:07	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 02:07	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 02:07	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 02:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 02:07	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 02:07	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:07	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 02:07	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 02:07	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:07	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:07	
2-Butanone (MEK)	10 U	10	1	09/21/19 02:07	
2-Hexanone	10 U	10	1	09/21/19 02:07	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 02:07	
Acetone	10 U	10	1	09/21/19 02:07	
Benzene	5.0 U	5.0	1	09/21/19 02:07	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 02:07	
Bromoform	5.0 U	5.0	1	09/21/19 02:07	
Bromomethane	5.0 U	5.0	1	09/21/19 02:07	
Carbon Disulfide	10 U	10	1	09/21/19 02:07	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 02:07	
Chlorobenzene	5.0 U	5.0	1	09/21/19 02:07	
Chloroethane	5.0 U	5.0	1	09/21/19 02:07	
Chloroform	5.0 U	5.0	1	09/21/19 02:07	
Chloromethane	5.0 U	5.0	1	09/21/19 02:07	
Cyclohexane	10 U	10	1	09/21/19 02:07	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 02:07	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 02:07	
Dichloromethane	5.0 U	5.0	1	09/21/19 02:07	
Ethylbenzene	5.0 U	5.0	1	09/21/19 02:07	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 02:07	
Methyl Acetate	10 U	10	1	09/21/19 02:07	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 02:07	
Methylcyclohexane	10 U	10	1	09/21/19 02:07	
Styrene	5.0 U	5.0	1	09/21/19 02:07	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 02:07	
Toluene	5.0 U	5.0	1	09/21/19 02:07	
Trichloroethene (TCE)	6.8	5.0	1	09/21/19 02:07	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 02:07	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 02:07	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-4
Lab Code: R1908993-003

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 02:07	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:07	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:07	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:07	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/21/19 02:07	
Dibromofluoromethane	98	89 - 119	09/21/19 02:07	
Toluene-d8	99	87 - 121	09/21/19 02:07	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Sample Name: PW-4 Dup
Lab Code: R1908993-005

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)	5.0 U	5.0	1	09/21/19 02:29	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 02:29	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 02:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 02:29	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 02:29	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 02:29	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 02:29	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 02:29	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 02:29	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:29	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 02:29	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 02:29	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:29	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:29	
2-Butanone (MEK)	10 U	10	1	09/21/19 02:29	
2-Hexanone	10 U	10	1	09/21/19 02:29	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 02:29	
Acetone	10 U	10	1	09/21/19 02:29	
Benzene	5.0 U	5.0	1	09/21/19 02:29	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 02:29	
Bromoform	5.0 U	5.0	1	09/21/19 02:29	
Bromomethane	5.0 U	5.0	1	09/21/19 02:29	
Carbon Disulfide	10 U	10	1	09/21/19 02:29	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 02:29	
Chlorobenzene	5.0 U	5.0	1	09/21/19 02:29	
Chloroethane	5.0 U	5.0	1	09/21/19 02:29	
Chloroform	5.0 U	5.0	1	09/21/19 02:29	
Chloromethane	5.0 U	5.0	1	09/21/19 02:29	
Cyclohexane	10 U	10	1	09/21/19 02:29	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 02:29	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 02:29	
Dichloromethane	5.0 U	5.0	1	09/21/19 02:29	
Ethylbenzene	5.0 U	5.0	1	09/21/19 02:29	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 02:29	
Methyl Acetate	10 U	10	1	09/21/19 02:29	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 02:29	
Methylcyclohexane	10 U	10	1	09/21/19 02:29	
Styrene	5.0 U	5.0	1	09/21/19 02:29	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 02:29	
Toluene	5.0 U	5.0	1	09/21/19 02:29	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 02:29	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 02:29	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 02:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-4 Dup
Lab Code: R1908993-005

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 02:29	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:29	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:29	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:29	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	09/21/19 02:29	
Dibromofluoromethane	97	89 - 119	09/21/19 02:29	
Toluene-d8	99	87 - 121	09/21/19 02:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

Sample Name: W-7
Lab Code: R1908993-007

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)	5.0 U	5.0	1	09/21/19 02:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 02:52	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 02:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 02:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 02:52	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 02:52	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 02:52	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 02:52	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 02:52	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:52	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 02:52	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 02:52	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:52	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 02:52	
2-Butanone (MEK)	10 U	10	1	09/21/19 02:52	
2-Hexanone	10 U	10	1	09/21/19 02:52	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 02:52	
Acetone	10 U	10	1	09/21/19 02:52	
Benzene	5.0 U	5.0	1	09/21/19 02:52	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 02:52	
Bromoform	5.0 U	5.0	1	09/21/19 02:52	
Bromomethane	5.0 U	5.0	1	09/21/19 02:52	
Carbon Disulfide	10 U	10	1	09/21/19 02:52	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 02:52	
Chlorobenzene	5.0 U	5.0	1	09/21/19 02:52	
Chloroethane	5.0 U	5.0	1	09/21/19 02:52	
Chloroform	5.0 U	5.0	1	09/21/19 02:52	
Chloromethane	5.0 U	5.0	1	09/21/19 02:52	
Cyclohexane	10 U	10	1	09/21/19 02:52	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 02:52	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 02:52	
Dichloromethane	5.0 U	5.0	1	09/21/19 02:52	
Ethylbenzene	5.0 U	5.0	1	09/21/19 02:52	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 02:52	
Methyl Acetate	10 U	10	1	09/21/19 02:52	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 02:52	
Methylcyclohexane	10 U	10	1	09/21/19 02:52	
Styrene	5.0 U	5.0	1	09/21/19 02:52	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 02:52	
Toluene	5.0 U	5.0	1	09/21/19 02:52	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 02:52	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 02:52	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 02:52	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-7
Lab Code: R1908993-007

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 02:52	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:52	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:52	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 02:52	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 02:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 02:52	
Dibromofluoromethane	96	89 - 119	09/21/19 02:52	
Toluene-d8	98	87 - 121	09/21/19 02:52	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20

Sample Name: PW-7
Lab Code: R1908993-009

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)	5.0 U	5.0	1	09/21/19 03:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 03:14	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 03:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 03:14	
1,1-Dichloroethane (1,1-DCA)	76	5.0	1	09/21/19 03:14	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 03:14	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 03:14	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 03:14	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 03:14	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:14	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 03:14	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 03:14	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:14	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:14	
2-Butanone (MEK)	10 U	10	1	09/21/19 03:14	
2-Hexanone	10 U	10	1	09/21/19 03:14	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 03:14	
Acetone	10 U	10	1	09/21/19 03:14	
Benzene	5.0 U	5.0	1	09/21/19 03:14	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 03:14	
Bromoform	5.0 U	5.0	1	09/21/19 03:14	
Bromomethane	5.0 U	5.0	1	09/21/19 03:14	
Carbon Disulfide	10 U	10	1	09/21/19 03:14	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 03:14	
Chlorobenzene	21	5.0	1	09/21/19 03:14	
Chloroethane	36	5.0	1	09/21/19 03:14	
Chloroform	5.0 U	5.0	1	09/21/19 03:14	
Chloromethane	5.0 U	5.0	1	09/21/19 03:14	
Cyclohexane	10 U	10	1	09/21/19 03:14	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 03:14	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 03:14	
Dichloromethane	5.0 U	5.0	1	09/21/19 03:14	
Ethylbenzene	5.0 U	5.0	1	09/21/19 03:14	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 03:14	
Methyl Acetate	10 U	10	1	09/21/19 03:14	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 03:14	
Methylcyclohexane	10 U	10	1	09/21/19 03:14	
Styrene	5.0 U	5.0	1	09/21/19 03:14	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 03:14	
Toluene	5.0 U	5.0	1	09/21/19 03:14	
Trichloroethene (TCE)	9.1	5.0	1	09/21/19 03:14	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 03:14	
Vinyl Chloride	16	5.0	1	09/21/19 03:14	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-7
Lab Code: R1908993-009

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 03:14	
cis-1,2-Dichloroethene	56	5.0	1	09/21/19 03:14	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:14	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 03:14	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/21/19 03:14	
Dibromofluoromethane	99	89 - 119	09/21/19 03:14	
Toluene-d8	99	87 - 121	09/21/19 03:14	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20

Sample Name: GMMW-7
Lab Code: R1908993-011

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)	5.0 U	5.0	1	09/21/19 03:36	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 03:36	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 03:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 03:36	
1,1-Dichloroethane (1,1-DCA)	110	5.0	1	09/21/19 03:36	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 03:36	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 03:36	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 03:36	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 03:36	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:36	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 03:36	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 03:36	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:36	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:36	
2-Butanone (MEK)	10 U	10	1	09/21/19 03:36	
2-Hexanone	10 U	10	1	09/21/19 03:36	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 03:36	
Acetone	10 U	10	1	09/21/19 03:36	
Benzene	5.0 U	5.0	1	09/21/19 03:36	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 03:36	
Bromoform	5.0 U	5.0	1	09/21/19 03:36	
Bromomethane	5.0 U	5.0	1	09/21/19 03:36	
Carbon Disulfide	10 U	10	1	09/21/19 03:36	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 03:36	
Chlorobenzene	11	5.0	1	09/21/19 03:36	
Chloroethane	53	5.0	1	09/21/19 03:36	
Chloroform	5.0 U	5.0	1	09/21/19 03:36	
Chloromethane	5.0 U	5.0	1	09/21/19 03:36	
Cyclohexane	10 U	10	1	09/21/19 03:36	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 03:36	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 03:36	
Dichloromethane	5.0 U	5.0	1	09/21/19 03:36	
Ethylbenzene	5.0 U	5.0	1	09/21/19 03:36	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 03:36	
Methyl Acetate	10 U	10	1	09/21/19 03:36	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 03:36	
Methylcyclohexane	10 U	10	1	09/21/19 03:36	
Styrene	5.0 U	5.0	1	09/21/19 03:36	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 03:36	
Toluene	5.0 U	5.0	1	09/21/19 03:36	
Trichloroethene (TCE)	23	5.0	1	09/21/19 03:36	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 03:36	
Vinyl Chloride	40	5.0	1	09/21/19 03:36	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20

Sample Name: GMMW-7
Lab Code: R1908993-011

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 03:36	
cis-1,2-Dichloroethene	77	5.0	1	09/21/19 03:36	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:36	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 03:36	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/21/19 03:36	
Dibromofluoromethane	101	89 - 119	09/21/19 03:36	
Toluene-d8	100	87 - 121	09/21/19 03:36	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20

Sample Name: GMMW-5
Lab Code: R1908993-013

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)	5.0 U	5.0	1	09/21/19 03:58	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 03:58	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 03:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 03:58	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 03:58	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 03:58	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 03:58	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 03:58	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 03:58	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:58	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 03:58	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 03:58	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:58	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 03:58	
2-Butanone (MEK)	10 U	10	1	09/21/19 03:58	
2-Hexanone	10 U	10	1	09/21/19 03:58	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 03:58	
Acetone	10 U	10	1	09/21/19 03:58	
Benzene	5.0 U	5.0	1	09/21/19 03:58	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 03:58	
Bromoform	5.0 U	5.0	1	09/21/19 03:58	
Bromomethane	5.0 U	5.0	1	09/21/19 03:58	
Carbon Disulfide	10 U	10	1	09/21/19 03:58	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 03:58	
Chlorobenzene	14	5.0	1	09/21/19 03:58	
Chloroethane	69	5.0	1	09/21/19 03:58	
Chloroform	5.0 U	5.0	1	09/21/19 03:58	
Chloromethane	5.0 U	5.0	1	09/21/19 03:58	
Cyclohexane	10 U	10	1	09/21/19 03:58	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 03:58	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 03:58	
Dichloromethane	5.0 U	5.0	1	09/21/19 03:58	
Ethylbenzene	5.0 U	5.0	1	09/21/19 03:58	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 03:58	
Methyl Acetate	10 U	10	1	09/21/19 03:58	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 03:58	
Methylcyclohexane	10 U	10	1	09/21/19 03:58	
Styrene	5.0 U	5.0	1	09/21/19 03:58	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 03:58	
Toluene	5.0 U	5.0	1	09/21/19 03:58	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 03:58	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 03:58	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 03:58	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: GMMW-5
Lab Code: R1908993-013

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 03:58	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 03:58	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:58	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 03:58	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 03:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/21/19 03:58	
Dibromofluoromethane	97	89 - 119	09/21/19 03:58	
Toluene-d8	100	87 - 121	09/21/19 03:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Sample Name: Trip Blank 1
Lab Code: R1908993-015

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)	5.0 U	5.0	1	09/21/19 04:20	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 04:20	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 04:20	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 04:20	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 04:20	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 04:20	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 04:20	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 04:20	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 04:20	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:20	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 04:20	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 04:20	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:20	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:20	
2-Butanone (MEK)	10 U	10	1	09/21/19 04:20	
2-Hexanone	10 U	10	1	09/21/19 04:20	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 04:20	
Acetone	10 U	10	1	09/21/19 04:20	
Benzene	5.0 U	5.0	1	09/21/19 04:20	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 04:20	
Bromoform	5.0 U	5.0	1	09/21/19 04:20	
Bromomethane	5.0 U	5.0	1	09/21/19 04:20	
Carbon Disulfide	10 U	10	1	09/21/19 04:20	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 04:20	
Chlorobenzene	5.0 U	5.0	1	09/21/19 04:20	
Chloroethane	5.0 U	5.0	1	09/21/19 04:20	
Chloroform	5.0 U	5.0	1	09/21/19 04:20	
Chloromethane	5.0 U	5.0	1	09/21/19 04:20	
Cyclohexane	10 U	10	1	09/21/19 04:20	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 04:20	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 04:20	
Dichloromethane	5.0 U	5.0	1	09/21/19 04:20	
Ethylbenzene	5.0 U	5.0	1	09/21/19 04:20	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 04:20	
Methyl Acetate	10 U	10	1	09/21/19 04:20	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 04:20	
Methylcyclohexane	10 U	10	1	09/21/19 04:20	
Styrene	5.0 U	5.0	1	09/21/19 04:20	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 04:20	
Toluene	5.0 U	5.0	1	09/21/19 04:20	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 04:20	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 04:20	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 04:20	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Trip Blank 1
Lab Code: R1908993-015

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 04:20	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 04:20	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 04:20	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 04:20	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 04:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/21/19 04:20	
Dibromofluoromethane	95	89 - 119	09/21/19 04:20	
Toluene-d8	98	87 - 121	09/21/19 04:20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Sample Name: Trip Blank 2
Lab Code: R1908993-016

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)	5.0 U	5.0	1	09/21/19 04:43	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 04:43	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 04:43	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 04:43	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 04:43	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 04:43	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 04:43	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 04:43	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 04:43	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:43	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 04:43	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 04:43	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:43	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 04:43	
2-Butanone (MEK)	10 U	10	1	09/21/19 04:43	
2-Hexanone	10 U	10	1	09/21/19 04:43	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 04:43	
Acetone	10 U	10	1	09/21/19 04:43	
Benzene	5.0 U	5.0	1	09/21/19 04:43	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 04:43	
Bromoform	5.0 U	5.0	1	09/21/19 04:43	
Bromomethane	5.0 U	5.0	1	09/21/19 04:43	
Carbon Disulfide	10 U	10	1	09/21/19 04:43	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 04:43	
Chlorobenzene	5.0 U	5.0	1	09/21/19 04:43	
Chloroethane	5.0 U	5.0	1	09/21/19 04:43	
Chloroform	5.0 U	5.0	1	09/21/19 04:43	
Chloromethane	5.0 U	5.0	1	09/21/19 04:43	
Cyclohexane	10 U	10	1	09/21/19 04:43	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 04:43	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 04:43	
Dichloromethane	5.0 U	5.0	1	09/21/19 04:43	
Ethylbenzene	5.0 U	5.0	1	09/21/19 04:43	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 04:43	
Methyl Acetate	10 U	10	1	09/21/19 04:43	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 04:43	
Methylcyclohexane	10 U	10	1	09/21/19 04:43	
Styrene	5.0 U	5.0	1	09/21/19 04:43	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 04:43	
Toluene	5.0 U	5.0	1	09/21/19 04:43	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 04:43	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 04:43	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 04:43	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Trip Blank 2
Lab Code: R1908993-016

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 04:43	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 04:43	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 04:43	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 04:43	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 04:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/21/19 04:43	
Dibromofluoromethane	95	89 - 119	09/21/19 04:43	
Toluene-d8	97	87 - 121	09/21/19 04:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Sample Name: PW-5
Lab Code: R1908993-017

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)	5.0 U	5.0	1	09/21/19 05:05	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 05:05	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 05:05	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 05:05	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 05:05	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 05:05	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 05:05	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 05:05	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 05:05	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:05	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 05:05	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 05:05	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:05	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:05	
2-Butanone (MEK)	10 U	10	1	09/21/19 05:05	
2-Hexanone	10 U	10	1	09/21/19 05:05	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 05:05	
Acetone	10 U	10	1	09/21/19 05:05	
Benzene	5.0 U	5.0	1	09/21/19 05:05	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 05:05	
Bromoform	5.0 U	5.0	1	09/21/19 05:05	
Bromomethane	5.0 U	5.0	1	09/21/19 05:05	
Carbon Disulfide	10 U	10	1	09/21/19 05:05	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 05:05	
Chlorobenzene	5.0 U	5.0	1	09/21/19 05:05	
Chloroethane	5.0 U	5.0	1	09/21/19 05:05	
Chloroform	5.0 U	5.0	1	09/21/19 05:05	
Chloromethane	5.0 U	5.0	1	09/21/19 05:05	
Cyclohexane	10 U	10	1	09/21/19 05:05	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 05:05	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 05:05	
Dichloromethane	5.0 U	5.0	1	09/21/19 05:05	
Ethylbenzene	5.0 U	5.0	1	09/21/19 05:05	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 05:05	
Methyl Acetate	10 U	10	1	09/21/19 05:05	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 05:05	
Methylcyclohexane	10 U	10	1	09/21/19 05:05	
Styrene	5.0 U	5.0	1	09/21/19 05:05	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 05:05	
Toluene	5.0 U	5.0	1	09/21/19 05:05	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 05:05	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 05:05	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 05:05	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-5
Lab Code: R1908993-017

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 05:05	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 05:05	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:05	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 05:05	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 05:05	
Dibromofluoromethane	99	89 - 119	09/21/19 05:05	
Toluene-d8	98	87 - 121	09/21/19 05:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:35
Date Received: 09/17/19 16:20

Sample Name: GMPW-4
Lab Code: R1908993-019

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)	5.0 U	5.0	1	09/21/19 05:27	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 05:27	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 05:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 05:27	
1,1-Dichloroethane (1,1-DCA)	18	5.0	1	09/21/19 05:27	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 05:27	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 05:27	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 05:27	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 05:27	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:27	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 05:27	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 05:27	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:27	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:27	
2-Butanone (MEK)	10 U	10	1	09/21/19 05:27	
2-Hexanone	10 U	10	1	09/21/19 05:27	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 05:27	
Acetone	10 U	10	1	09/21/19 05:27	
Benzene	5.0 U	5.0	1	09/21/19 05:27	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 05:27	
Bromoform	5.0 U	5.0	1	09/21/19 05:27	
Bromomethane	5.0 U	5.0	1	09/21/19 05:27	
Carbon Disulfide	10 U	10	1	09/21/19 05:27	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 05:27	
Chlorobenzene	8.7	5.0	1	09/21/19 05:27	
Chloroethane	6.2	5.0	1	09/21/19 05:27	
Chloroform	5.0 U	5.0	1	09/21/19 05:27	
Chloromethane	5.0 U	5.0	1	09/21/19 05:27	
Cyclohexane	10 U	10	1	09/21/19 05:27	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 05:27	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 05:27	
Dichloromethane	5.0 U	5.0	1	09/21/19 05:27	
Ethylbenzene	5.0 U	5.0	1	09/21/19 05:27	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 05:27	
Methyl Acetate	10 U	10	1	09/21/19 05:27	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 05:27	
Methylcyclohexane	10 U	10	1	09/21/19 05:27	
Styrene	5.0 U	5.0	1	09/21/19 05:27	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 05:27	
Toluene	5.0 U	5.0	1	09/21/19 05:27	
Trichloroethene (TCE)	21	5.0	1	09/21/19 05:27	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 05:27	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 05:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:35
Date Received: 09/17/19 16:20

Sample Name: GMPW-4
Lab Code: R1908993-019

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 05:27	
cis-1,2-Dichloroethene	8.3	5.0	1	09/21/19 05:27	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:27	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 05:27	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/21/19 05:27	
Dibromofluoromethane	97	89 - 119	09/21/19 05:27	
Toluene-d8	98	87 - 121	09/21/19 05:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Sample Name: GMMW-2
Lab Code: R1908993-021

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)	5.0 U	5.0	1	09/21/19 05:49	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 05:49	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 05:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 05:49	
1,1-Dichloroethane (1,1-DCA)	26	5.0	1	09/21/19 05:49	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 05:49	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 05:49	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 05:49	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 05:49	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:49	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 05:49	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 05:49	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:49	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 05:49	
2-Butanone (MEK)	10 U	10	1	09/21/19 05:49	
2-Hexanone	10 U	10	1	09/21/19 05:49	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 05:49	
Acetone	10 U	10	1	09/21/19 05:49	
Benzene	5.0 U	5.0	1	09/21/19 05:49	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 05:49	
Bromoform	5.0 U	5.0	1	09/21/19 05:49	
Bromomethane	5.0 U	5.0	1	09/21/19 05:49	
Carbon Disulfide	10 U	10	1	09/21/19 05:49	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 05:49	
Chlorobenzene	16	5.0	1	09/21/19 05:49	
Chloroethane	8.0	5.0	1	09/21/19 05:49	
Chloroform	5.0 U	5.0	1	09/21/19 05:49	
Chloromethane	5.0 U	5.0	1	09/21/19 05:49	
Cyclohexane	10 U	10	1	09/21/19 05:49	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 05:49	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 05:49	
Dichloromethane	5.0 U	5.0	1	09/21/19 05:49	
Ethylbenzene	5.0 U	5.0	1	09/21/19 05:49	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 05:49	
Methyl Acetate	10 U	10	1	09/21/19 05:49	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 05:49	
Methylcyclohexane	10 U	10	1	09/21/19 05:49	
Styrene	5.0 U	5.0	1	09/21/19 05:49	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 05:49	
Toluene	5.0 U	5.0	1	09/21/19 05:49	
Trichloroethene (TCE)	8.7	5.0	1	09/21/19 05:49	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 05:49	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 05:49	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Sample Name: GMMW-2
Lab Code: R1908993-021

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 05:49	
cis-1,2-Dichloroethene	7.5	5.0	1	09/21/19 05:49	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:49	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 05:49	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 05:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/21/19 05:49	
Dibromofluoromethane	99	89 - 119	09/21/19 05:49	
Toluene-d8	100	87 - 121	09/21/19 05:49	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

Sample Name: GMMW-6
Lab Code: R1908993-023

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)	5.0 U	5.0	1	09/24/19 19:15	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/24/19 19:15	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/24/19 19:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/24/19 19:15	
1,1-Dichloroethane (1,1-DCA)	51	5.0	1	09/24/19 19:15	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/24/19 19:15	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/24/19 19:15	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/24/19 19:15	
1,2-Dibromoethane	5.0 U	5.0	1	09/24/19 19:15	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/24/19 19:15	
1,2-Dichloroethane	5.0 U	5.0	1	09/24/19 19:15	
1,2-Dichloropropane	5.0 U	5.0	1	09/24/19 19:15	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/24/19 19:15	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/24/19 19:15	
2-Butanone (MEK)	10 U	10	1	09/24/19 19:15	
2-Hexanone	10 U	10	1	09/24/19 19:15	
4-Methyl-2-pentanone	10 U	10	1	09/24/19 19:15	
Acetone	10 U	10	1	09/24/19 19:15	
Benzene	5.0 U	5.0	1	09/24/19 19:15	
Bromodichloromethane	5.0 U	5.0	1	09/24/19 19:15	
Bromoform	5.0 U	5.0	1	09/24/19 19:15	
Bromomethane	5.0 U	5.0	1	09/24/19 19:15	
Carbon Disulfide	10 U	10	1	09/24/19 19:15	
Carbon Tetrachloride	5.0 U	5.0	1	09/24/19 19:15	
Chlorobenzene	22	5.0	1	09/24/19 19:15	
Chloroethane	110	5.0	1	09/24/19 19:15	
Chloroform	5.0 U	5.0	1	09/24/19 19:15	
Chloromethane	5.0 U	5.0	1	09/24/19 19:15	
Cyclohexane	10 U	10	1	09/24/19 19:15	
Dibromochloromethane	5.0 U	5.0	1	09/24/19 19:15	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/24/19 19:15	
Dichloromethane	5.0 U	5.0	1	09/24/19 19:15	
Ethylbenzene	5.0 U	5.0	1	09/24/19 19:15	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/24/19 19:15	
Methyl Acetate	10 U	10	1	09/24/19 19:15	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/24/19 19:15	
Methylcyclohexane	10 U	10	1	09/24/19 19:15	
Styrene	5.0 U	5.0	1	09/24/19 19:15	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/24/19 19:15	
Toluene	5.0 U	5.0	1	09/24/19 19:15	
Trichloroethene (TCE)	5.0 U	5.0	1	09/24/19 19:15	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/24/19 19:15	
Vinyl Chloride	12	5.0	1	09/24/19 19:15	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

Sample Name: GMMW-6
Lab Code: R1908993-023

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
Xylenes, Total	5.0 U	5.0	1	09/24/19 19:15	
cis-1,2-Dichloroethene	9.0	5.0	1	09/24/19 19:15	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/24/19 19:15	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/24/19 19:15	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/24/19 19:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	09/24/19 19:15	
Dibromofluoromethane	99	89 - 119	09/24/19 19:15	
Toluene-d8	100	87 - 121	09/24/19 19:15	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20

Sample Name: W-16S
Lab Code: R1908993-025

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)	5.0 U	5.0	1	09/21/19 06:33	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 06:33	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 06:33	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 06:33	
1,1-Dichloroethane (1,1-DCA)	11	5.0	1	09/21/19 06:33	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 06:33	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 06:33	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 06:33	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 06:33	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:33	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 06:33	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 06:33	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:33	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:33	
2-Butanone (MEK)	10 U	10	1	09/21/19 06:33	
2-Hexanone	10 U	10	1	09/21/19 06:33	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 06:33	
Acetone	10 U	10	1	09/21/19 06:33	
Benzene	5.0 U	5.0	1	09/21/19 06:33	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 06:33	
Bromoform	5.0 U	5.0	1	09/21/19 06:33	
Bromomethane	5.0 U	5.0	1	09/21/19 06:33	
Carbon Disulfide	10 U	10	1	09/21/19 06:33	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 06:33	
Chlorobenzene	24	5.0	1	09/21/19 06:33	
Chloroethane	5.0 U	5.0	1	09/21/19 06:33	
Chloroform	5.0 U	5.0	1	09/21/19 06:33	
Chloromethane	5.0 U	5.0	1	09/21/19 06:33	
Cyclohexane	10 U	10	1	09/21/19 06:33	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 06:33	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 06:33	
Dichloromethane	5.0 U	5.0	1	09/21/19 06:33	
Ethylbenzene	5.0 U	5.0	1	09/21/19 06:33	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 06:33	
Methyl Acetate	10 U	10	1	09/21/19 06:33	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 06:33	
Methylcyclohexane	10 U	10	1	09/21/19 06:33	
Styrene	5.0 U	5.0	1	09/21/19 06:33	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 06:33	
Toluene	5.0 U	5.0	1	09/21/19 06:33	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 06:33	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 06:33	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 06:33	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-16S
Lab Code: R1908993-025

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 06:33	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 06:33	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 06:33	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 06:33	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 06:33	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 06:33	
Dibromofluoromethane	97	89 - 119	09/21/19 06:33	
Toluene-d8	98	87 - 121	09/21/19 06:33	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20

Sample Name: W-18
Lab Code: R1908993-027

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)	5.0 U	5.0	1	09/21/19 06:55	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 06:55	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 06:55	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 06:55	
1,1-Dichloroethane (1,1-DCA)	6.0	5.0	1	09/21/19 06:55	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 06:55	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 06:55	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 06:55	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 06:55	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:55	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 06:55	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 06:55	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:55	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 06:55	
2-Butanone (MEK)	10 U	10	1	09/21/19 06:55	
2-Hexanone	10 U	10	1	09/21/19 06:55	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 06:55	
Acetone	10 U	10	1	09/21/19 06:55	
Benzene	5.0 U	5.0	1	09/21/19 06:55	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 06:55	
Bromoform	5.0 U	5.0	1	09/21/19 06:55	
Bromomethane	5.0 U	5.0	1	09/21/19 06:55	
Carbon Disulfide	10 U	10	1	09/21/19 06:55	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 06:55	
Chlorobenzene	5.0 U	5.0	1	09/21/19 06:55	
Chloroethane	5.0 U	5.0	1	09/21/19 06:55	
Chloroform	5.0 U	5.0	1	09/21/19 06:55	
Chloromethane	5.0 U	5.0	1	09/21/19 06:55	
Cyclohexane	10 U	10	1	09/21/19 06:55	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 06:55	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 06:55	
Dichloromethane	5.0 U	5.0	1	09/21/19 06:55	
Ethylbenzene	5.0 U	5.0	1	09/21/19 06:55	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 06:55	
Methyl Acetate	10 U	10	1	09/21/19 06:55	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 06:55	
Methylcyclohexane	10 U	10	1	09/21/19 06:55	
Styrene	5.0 U	5.0	1	09/21/19 06:55	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 06:55	
Toluene	5.0 U	5.0	1	09/21/19 06:55	
Trichloroethene (TCE)	9.2	5.0	1	09/21/19 06:55	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 06:55	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 06:55	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20

Sample Name: W-18
Lab Code: R1908993-027

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 06:55	
cis-1,2-Dichloroethene	5.7	5.0	1	09/21/19 06:55	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 06:55	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 06:55	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 06:55	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/21/19 06:55	
Dibromofluoromethane	98	89 - 119	09/21/19 06:55	
Toluene-d8	98	87 - 121	09/21/19 06:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20

Sample Name: Equipment Blank
Lab Code: R1908993-029

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)	5.0 U	5.0	1	09/21/19 07:18	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 07:18	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 07:18	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 07:18	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 07:18	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 07:18	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 07:18	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 07:18	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 07:18	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:18	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 07:18	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 07:18	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:18	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:18	
2-Butanone (MEK)	10 U	10	1	09/21/19 07:18	
2-Hexanone	10 U	10	1	09/21/19 07:18	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 07:18	
Acetone	10 U	10	1	09/21/19 07:18	
Benzene	5.0 U	5.0	1	09/21/19 07:18	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 07:18	
Bromoform	5.0 U	5.0	1	09/21/19 07:18	
Bromomethane	5.0 U	5.0	1	09/21/19 07:18	
Carbon Disulfide	10 U	10	1	09/21/19 07:18	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 07:18	
Chlorobenzene	5.0 U	5.0	1	09/21/19 07:18	
Chloroethane	5.0 U	5.0	1	09/21/19 07:18	
Chloroform	5.0 U	5.0	1	09/21/19 07:18	
Chloromethane	5.0 U	5.0	1	09/21/19 07:18	
Cyclohexane	10 U	10	1	09/21/19 07:18	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 07:18	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 07:18	
Dichloromethane	5.0 U	5.0	1	09/21/19 07:18	
Ethylbenzene	5.0 U	5.0	1	09/21/19 07:18	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 07:18	
Methyl Acetate	10 U	10	1	09/21/19 07:18	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 07:18	
Methylcyclohexane	10 U	10	1	09/21/19 07:18	
Styrene	5.0 U	5.0	1	09/21/19 07:18	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 07:18	
Toluene	5.0 U	5.0	1	09/21/19 07:18	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 07:18	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 07:18	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 07:18	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Equipment Blank
Lab Code: R1908993-029

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 07:18	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 07:18	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 07:18	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 07:18	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 07:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 07:18	
Dibromofluoromethane	98	89 - 119	09/21/19 07:18	
Toluene-d8	97	87 - 121	09/21/19 07:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:20
Date Received: 09/17/19 16:20

Sample Name: W-17S
Lab Code: R1908993-030

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)	5.0 U	5.0	1	09/21/19 07:40	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 07:40	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 07:40	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 07:40	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 07:40	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 07:40	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 07:40	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 07:40	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 07:40	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:40	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 07:40	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 07:40	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:40	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 07:40	
2-Butanone (MEK)	10 U	10	1	09/21/19 07:40	
2-Hexanone	10 U	10	1	09/21/19 07:40	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 07:40	
Acetone	10 U	10	1	09/21/19 07:40	
Benzene	5.0 U	5.0	1	09/21/19 07:40	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 07:40	
Bromoform	5.0 U	5.0	1	09/21/19 07:40	
Bromomethane	5.0 U	5.0	1	09/21/19 07:40	
Carbon Disulfide	10 U	10	1	09/21/19 07:40	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 07:40	
Chlorobenzene	5.0 U	5.0	1	09/21/19 07:40	
Chloroethane	5.0 U	5.0	1	09/21/19 07:40	
Chloroform	5.0 U	5.0	1	09/21/19 07:40	
Chloromethane	5.0 U	5.0	1	09/21/19 07:40	
Cyclohexane	10 U	10	1	09/21/19 07:40	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 07:40	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 07:40	
Dichloromethane	5.0 U	5.0	1	09/21/19 07:40	
Ethylbenzene	5.0 U	5.0	1	09/21/19 07:40	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 07:40	
Methyl Acetate	10 U	10	1	09/21/19 07:40	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 07:40	
Methylcyclohexane	10 U	10	1	09/21/19 07:40	
Styrene	5.0 U	5.0	1	09/21/19 07:40	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 07:40	
Toluene	5.0 U	5.0	1	09/21/19 07:40	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 07:40	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 07:40	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 07:40	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:20
Date Received: 09/17/19 16:20

Sample Name: W-17S
Lab Code: R1908993-030

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 07:40	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 07:40	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 07:40	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 07:40	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 07:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/21/19 07:40	
Dibromofluoromethane	98	89 - 119	09/21/19 07:40	
Toluene-d8	100	87 - 121	09/21/19 07:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20

Sample Name: W-20S
Lab Code: R1908993-032

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)	5.0 U	5.0	1	09/21/19 08:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 08:02	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 08:02	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 08:02	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 08:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 08:02	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 08:02	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 08:02	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 08:02	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 08:02	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 08:02	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 08:02	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 08:02	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 08:02	
2-Butanone (MEK)	10 U	10	1	09/21/19 08:02	
2-Hexanone	10 U	10	1	09/21/19 08:02	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 08:02	
Acetone	10 U	10	1	09/21/19 08:02	
Benzene	5.0 U	5.0	1	09/21/19 08:02	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 08:02	
Bromoform	5.0 U	5.0	1	09/21/19 08:02	
Bromomethane	5.0 U	5.0	1	09/21/19 08:02	
Carbon Disulfide	10 U	10	1	09/21/19 08:02	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 08:02	
Chlorobenzene	5.0 U	5.0	1	09/21/19 08:02	
Chloroethane	5.0 U	5.0	1	09/21/19 08:02	
Chloroform	5.0 U	5.0	1	09/21/19 08:02	
Chloromethane	5.0 U	5.0	1	09/21/19 08:02	
Cyclohexane	10 U	10	1	09/21/19 08:02	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 08:02	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 08:02	
Dichloromethane	5.0 U	5.0	1	09/21/19 08:02	
Ethylbenzene	5.0 U	5.0	1	09/21/19 08:02	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 08:02	
Methyl Acetate	10 U	10	1	09/21/19 08:02	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 08:02	
Methylcyclohexane	10 U	10	1	09/21/19 08:02	
Styrene	5.0 U	5.0	1	09/21/19 08:02	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 08:02	
Toluene	5.0 U	5.0	1	09/21/19 08:02	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 08:02	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 08:02	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 08:02	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-20S
Lab Code: R1908993-032

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 08:02	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 08:02	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 08:02	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 08:02	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 08:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	09/21/19 08:02	
Dibromofluoromethane	97	89 - 119	09/21/19 08:02	
Toluene-d8	98	87 - 121	09/21/19 08:02	



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-3
Lab Code: R1908993-001

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	920	ug/L	100	1	09/20/19 19:48	09/19/19	
Manganese, Total	6010C	16	ug/L	10	1	09/20/19 19:48	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-3 Diss
Lab Code: R1908993-002

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 19:51	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4
Lab Code: R1908993-003

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	560	ug/L	100	1	09/20/19 19:54	09/19/19	
Manganese, Total	6010C	129	ug/L	10	1	09/20/19 19:54	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4 Diss
Lab Code: R1908993-004

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 19:58	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4 Dup
Lab Code: R1908993-005

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	900	ug/L	100	1	09/20/19 20:01	09/19/19	
Manganese, Total	6010C	194	ug/L	10	1	09/20/19 20:01	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4 Dup Diss
Lab Code: R1908993-006

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 20:04	09/19/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-7
Lab Code: R1908993-009

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	35500	ug/L	100	1	09/20/19 20:07	09/19/19	
Manganese, Total	6010C	6340	ug/L	10	1	09/20/19 20:07	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-7 Diss
Lab Code: R1908993-010

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	3960	ug/L	100	1	09/20/19 20:11	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-7
Lab Code: R1908993-011

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	100	ug/L	100	1	09/20/19 20:20	09/19/19	
Manganese, Total	6010C	2790	ug/L	10	1	09/20/19 20:20	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-7 Diss
Lab Code: R1908993-012

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 20:24	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-5
Lab Code: R1908993-013

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	19700	ug/L	100	1	09/20/19 20:27	09/19/19	
Manganese, Total	6010C	4030	ug/L	10	1	09/20/19 20:27	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-5 Diss
Lab Code: R1908993-014

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	17000	ug/L	100	1	09/20/19 20:30	09/19/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-2
Lab Code: R1908993-021

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	120	ug/L	100	1	09/20/19 20:33	09/19/19	
Manganese, Total	6010C	6160	ug/L	10	1	09/20/19 20:33	09/19/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-2 Diss
Lab Code: R1908993-022

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 20:37	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1908993-023

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	17800	ug/L	100	1	09/20/19 20:40	09/19/19	
Manganese, Total	6010C	10400	ug/L	100	10	09/25/19 01:49	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-6 Diss
Lab Code: R1908993-024

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	12600	ug/L	100	1	09/20/19 21:03	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-16S
Lab Code: R1908993-025

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	440	ug/L	100	1	09/20/19 21:19	09/19/19	
Manganese, Total	6010C	11900	ug/L	100	10	09/25/19 02:06	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-16S Diss
Lab Code: R1908993-026

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	240	ug/L	100	1	09/20/19 21:22	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-18
Lab Code: R1908993-027

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	250	ug/L	100	1	09/20/19 21:25	09/19/19	
Manganese, Total	6010C	42	ug/L	10	1	09/20/19 21:25	09/19/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-18 Diss
Lab Code: R1908993-028

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 21:29	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1908993-029

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 18:27	09/19/19	
Manganese, Total	6010C	10 U	ug/L	10	1	09/20/19 18:27	09/19/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-20S
Lab Code: R1908993-032

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	3980	ug/L	100	1	09/20/19 18:30	09/19/19	
Manganese, Total	6010C	3140	ug/L	10	1	09/20/19 18:30	09/19/19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-20S Diss
Lab Code: R1908993-033

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 18:33	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Equipment Blank Diss
Lab Code: R1908993-034

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	09/20/19 18:36	09/19/19	



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-3
Lab Code: R1908993-001

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20
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	09/17/19 18:11	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:11	
Sulfate	300.0	10.2	mg/L	2.0	10	09/17/19 18:11	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4
Lab Code: R1908993-003

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
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	09/17/19 18:17	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:17	
Sulfate	300.0	12.6	mg/L	2.0	10	09/17/19 18:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4 Dup
Lab Code: R1908993-005

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
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	09/17/19 18:23	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:23	
Sulfate	300.0	12.9	mg/L	2.0	10	09/17/19 18:23	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-7
Lab Code: R1908993-009

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.9	mg/L	1.0	10	09/17/19 18:29	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:29	
Sulfate	300.0	8.2	mg/L	2.0	10	09/17/19 18:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-7
Lab Code: R1908993-011

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20
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	09/17/19 18:46	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:46	
Sulfate	300.0	12.1	mg/L	2.0	10	09/17/19 18:46	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-5
Lab Code: R1908993-013

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20
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	09/17/19 18:52	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:52	
Sulfate	300.0	2.2	mg/L	2.0	10	09/17/19 18:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-2
Lab Code: R1908993-021

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
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	09/17/19 18:58	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 18:58	
Sulfate	300.0	13.8	mg/L	2.0	10	09/17/19 18:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1908993-023

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20
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	09/17/19 19:16	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 19:16	
Sulfate	300.0	3.5	mg/L	2.0	10	09/17/19 19:16	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-16S
Lab Code: R1908993-025

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20
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	09/17/19 19:34	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 19:34	
Sulfate	300.0	10.9	mg/L	2.0	10	09/17/19 19:34	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-18
Lab Code: R1908993-027

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20
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	09/17/19 19:40	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 19:40	
Sulfate	300.0	8.7	mg/L	2.0	10	09/17/19 19:40	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1908993-029

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20

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	09/17/19 19:46	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 19:46	
Sulfate	300.0	2.0 U	mg/L	2.0	10	09/17/19 19:46	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-20S
Lab Code: R1908993-032

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20
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	09/17/19 19:52	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	09/17/19 19:52	
Sulfate	300.0	9.8	mg/L	2.0	10	09/17/19 19:52	



Field Data

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-3
Lab Code: R1908993-001

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	393	uMHOS/cm	-	1	09/17/19 10:20	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	160	mV	-	1	09/17/19 10:20	
pH, Field	SM 4500-H+ B	7.44	pH Units	-	1	09/17/19 10:20	
Temperature, Field	SM 2550 B	14.7	deg C	-	1	09/17/19 10:20	
Turbidity, Field	180.1	15.2	NTU	-	1	09/17/19 10:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-4
Lab Code: R1908993-003

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	246	uMHOS/cm	-	1	09/17/19 10:55	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	141	mV	-	1	09/17/19 10:55	
pH, Field	SM 4500-H+ B	6.96	pH Units	-	1	09/17/19 10:55	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	09/17/19 10:55	
Turbidity, Field	180.1	9	NTU	-	1	09/17/19 10:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-4 Dup
Lab Code: R1908993-005

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	247	uMHOS/cm	-	1	09/17/19 10:55	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	143	mV	-	1	09/17/19 10:55	
pH, Field	SM 4500-H+ B	6.97	pH Units	-	1	09/17/19 10:55	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	09/17/19 10:55	
Turbidity, Field	180.1	8.5	NTU	-	1	09/17/19 10:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-7
Lab Code: R1908993-007

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	329	uMHOS/cm	-	1	09/17/19 11:10	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	4.00	mV	-	1	09/17/19 11:10	
pH, Field	SM 4500-H+ B	6.35	pH Units	-	1	09/17/19 11:10	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	09/17/19 11:10	
Turbidity, Field	180.1	14.8	NTU	-	1	09/17/19 11:10	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: PW-7
Lab Code: R1908993-009

Service Request: R1908993
Date Collected: 09/17/19 11:40
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	217	uMHOS/cm	-	1	09/17/19 11:30	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	1.00	mV	-	1	09/17/19 11:30	
pH, Field	SM 4500-H+ B	6.97	pH Units	-	1	09/17/19 11:30	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	09/17/19 11:30	
Turbidity, Field	180.1	18	NTU	-	1	09/17/19 11:30	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: GMMW-7
Lab Code: R1908993-011

Service Request: R1908993
Date Collected: 09/17/19 12:05
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	374	uMHOS/cm	-	1	09/17/19 12:05	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	85.0	mV	-	1	09/17/19 12:05	
pH, Field	SM 4500-H+ B	6.79	pH Units	-	1	09/17/19 12:05	
Temperature, Field	SM 2550 B	12.1	deg C	-	1	09/17/19 12:05	
Turbidity, Field	180.1	7.7	NTU	-	1	09/17/19 12:05	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: GMMW-5
Lab Code: R1908993-013

Service Request: R1908993
Date Collected: 09/17/19 12:25
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	367	uMHOS/cm	-	1	09/17/19 12:25	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-89.0	mV	-	1	09/17/19 12:25	
pH, Field	SM 4500-H+ B	6.79	pH Units	-	1	09/17/19 12:25	
Temperature, Field	SM 2550 B	11.4	deg C	-	1	09/17/19 12:25	
Turbidity, Field	180.1	8.2	NTU	-	1	09/17/19 12:25	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: PW-5
Lab Code: R1908993-017

Service Request: R1908993
Date Collected: 09/17/19 10:20
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	280	uMHOS/cm	-	1	09/17/19 10:20	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	90.0	mV	-	1	09/17/19 10:20	
pH, Field	SM 4500-H+ B	8.11	pH Units	-	1	09/17/19 10:20	
Temperature, Field	SM 2550 B	13.4	deg C	-	1	09/17/19 10:20	
Turbidity, Field	180.1	49.6	NTU	-	1	09/17/19 10:20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: GMPW-4
Lab Code: R1908993-019

Service Request: R1908993
Date Collected: 09/17/19 10:35
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	651	uMHOS/cm	-	1	09/17/19 10:35	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	107	mV	-	1	09/17/19 10:35	
pH, Field	SM 4500-H+ B	6.45	pH Units	-	1	09/17/19 10:35	
Temperature, Field	SM 2550 B	12.7	deg C	-	1	09/17/19 10:35	
Turbidity, Field	180.1	3.3	NTU	-	1	09/17/19 10:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-2
Lab Code: R1908993-021

Service Request: R1908993
Date Collected: 09/17/19 10:55
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	513	uMHOS/cm	-	1	09/17/19 10:55	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	100	mV	-	1	09/17/19 10:55	
pH, Field	SM 4500-H+ B	6.23	pH Units	-	1	09/17/19 10:55	
Temperature, Field	SM 2550 B	10.9	deg C	-	1	09/17/19 10:55	
Turbidity, Field	180.1	2	NTU	-	1	09/17/19 10:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1908993-023

Service Request: R1908993
Date Collected: 09/17/19 11:10
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	875	uMHOS/cm	-	1	09/17/19 11:10	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	-31.0	mV	-	1	09/17/19 11:10	
pH, Field	SM 4500-H+ B	6.45	pH Units	-	1	09/17/19 11:10	
Temperature, Field	SM 2550 B	11.0	deg C	-	1	09/17/19 11:10	
Turbidity, Field	180.1	9.2	NTU	-	1	09/17/19 11:10	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: W-16S
Lab Code: R1908993-025

Service Request: R1908993
Date Collected: 09/17/19 11:20
Date Received: 09/17/19 16:20
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	477	uMHOS/cm	-	1	09/17/19 11:20	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	34.0	mV	-	1	09/17/19 11:20	
pH, Field	SM 4500-H+ B	6.27	pH Units	-	1	09/17/19 11:20	
Temperature, Field	SM 2550 B	14.1	deg C	-	1	09/17/19 11:20	
Turbidity, Field	180.1	4	NTU	-	1	09/17/19 11:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-18
Lab Code: R1908993-027

Service Request: R1908993
Date Collected: 09/17/19 11:30
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	444	uMHOS/cm	-	1	09/17/19 11:30	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	94.0	mV	-	1	09/17/19 11:30	
pH, Field	SM 4500-H+ B	6.27	pH Units	-	1	09/17/19 11:30	
Temperature, Field	SM 2550 B	15.8	deg C	-	1	09/17/19 11:30	
Turbidity, Field	180.1	2.9	NTU	-	1	09/17/19 11:30	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1908993-029

Service Request: R1908993
Date Collected: 09/17/19 11:45
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	2	uMHOS/cm	-	1	09/17/19 11:45	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	154	mV	-	1	09/17/19 11:45	
pH, Field	SM 4500-H+ B	6.40	pH Units	-	1	09/17/19 11:45	
Temperature, Field	SM 2550 B	17.4	deg C	-	1	09/17/19 11:45	
Turbidity, Field	180.1	0.9	NTU	-	1	09/17/19 11:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-17S
Lab Code: R1908993-030

Service Request: R1908993
Date Collected: 09/17/19 12:20
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	188	uMHOS/cm	-	1	09/17/19 12:20	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	167	mV	-	1	09/17/19 12:20	
pH, Field	SM 4500-H+ B	6.31	pH Units	-	1	09/17/19 12:20	
Temperature, Field	SM 2550 B	15.6	deg C	-	1	09/17/19 12:20	
Turbidity, Field	180.1	9.2	NTU	-	1	09/17/19 12:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: W-20S
Lab Code: R1908993-032

Service Request: R1908993
Date Collected: 09/17/19 12:40
Date Received: 09/17/19 16:20

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	134	uMHOS/cm	-	1	09/17/19 12:40	
Oxidation-Reduction Potential (ORP), Field	ASTM D1498-00	183	mV	-	1	09/17/19 12:40	
pH, Field	SM 4500-H+ B	6.22	pH Units	-	1	09/17/19 12:40	
Temperature, Field	SM 2550 B	13.6	deg C	-	1	09/17/19 12:40	
Turbidity, Field	180.1	13.9	NTU	-	1	09/17/19 12:40	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993

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
PW-3	R1908993-001	94	98	99
PW-4	R1908993-003	96	98	99
PW-4 Dup	R1908993-005	99	97	99
W-7	R1908993-007	94	96	98
PW-7	R1908993-009	95	99	99
GMMW-7	R1908993-011	96	101	100
GMMW-5	R1908993-013	96	97	100
Trip Blank 1	R1908993-015	95	95	98
Trip Blank 2	R1908993-016	93	95	97
PW-5	R1908993-017	94	99	98
GMPW-4	R1908993-019	95	97	98
GMMW-2	R1908993-021	95	99	100
GMMW-6	R1908993-023	97	99	100
W-16S	R1908993-025	94	97	98
W-18	R1908993-027	93	98	98
Equipment Blank	R1908993-029	94	98	97
W-17S	R1908993-030	95	98	100
W-20S	R1908993-032	93	97	98
Method Blank	RQ1910751-04	94	98	99
Method Blank	RQ1910888-07	96	100	101
Lab Control Sample	RQ1910751-03	98	99	100
Lab Control Sample	RQ1910888-03	99	105	103
GMMW-6 MS	RQ1910888-11	100	102	102
GMMW-6 DMS	RQ1910888-12	101	104	103

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19
Date Received: 09/17/19
Date Analyzed: 09/24/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: GMMW-6
Lab Code: R1908993-023
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1910888-11			Duplicate Matrix Spike RQ1910888-12			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	0.21 U	52.2	50.0	104	53.8	50.0	108	74-127	3	30
1,1,2,2-Tetrachloroethane	0.20 U	60.0	50.0	120	61.4	50.0	123 *	72-122	2	30
1,1,2-Trichloroethane	0.20 U	51.6	50.0	103	51.7	50.0	103	82-121	<1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	48.8	50.0	98	50.4	50.0	101	50-147	3	30
1,1-Dichloroethane (1,1-DCA)	51	103	50.0	104	105	50.0	109	74-132	2	30
1,1-Dichloroethene (1,1-DCE)	0.25 U	51.3	50.0	103	52.2	50.0	104	71-118	2	30
1,2,4-Trichlorobenzene	0.25 U	49.0	50.0	98	50.9	50.0	102	69-122	4	30
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	50.8	50.0	102	53.0	50.0	106	37-150	4	30
1,2-Dibromoethane	0.20 U	50.8	50.0	102	51.2	50.0	102	67-127	<1	30
1,2-Dichlorobenzene	0.20 U	50.1	50.0	100	50.8	50.0	102	77-120	1	30
1,2-Dichloroethane	0.20 U	52.4	50.0	105	53.6	50.0	107	68-130	2	30
1,2-Dichloropropane	0.20 U	52.2	50.0	104	54.6	50.0	109	79-124	5	30
1,3-Dichlorobenzene	0.20 U	49.2	50.0	98	51.1	50.0	102	83-121	4	30
1,4-Dichlorobenzene	0.20 U	48.9	50.0	98	50.0	50.0	100	82-120	2	30
2-Butanone (MEK)	0.78 U	52.2	50.0	104	52.7	50.0	105	61-137	1	30
2-Hexanone	0.20 U	56.6	50.0	113	57.3	50.0	115	56-132	1	30
4-Methyl-2-pentanone	0.20 U	57.1	50.0	114	57.7	50.0	115	60-141	1	30
Acetone	2.1 U	46.7	50.0	93	47.0	50.0	94	35-183	<1	30
Benzene	0.20 U	56.7	50.0	113	58.1	50.0	116	76-129	2	30
Bromodichloromethane	0.22 U	51.0	50.0	102	52.2	50.0	104	78-133	2	30
Bromoform	0.25 U	47.9	50.0	96	49.5	50.0	99	58-133	3	30
Bromomethane	0.70 U	35.7	50.0	71	38.8	50.0	78	10-184	8	30
Carbon Disulfide	0.25 U	46.3	50.0	93	49.4	50.0	99	59-140	6	30
Carbon Tetrachloride	0.34 U	48.4	50.0	97	50.4	50.0	101	65-135	4	30
Chlorobenzene	22	72.1	50.0	101	73.4	50.0	103	76-125	2	30
Chloroethane	110	161	50.0	105	158	50.0	98	48-146	2	30
Chloroform	0.24 U	50.0	50.0	100	50.9	50.0	102	75-130	2	30
Chloromethane	0.28 U	64.8	50.0	130	62.6	50.0	125	55-160	3	30
Cyclohexane	0.26 U	46.5	50.0	93	48.7	50.0	97	52-145	5	30
Dibromochloromethane	0.20 U	51.2	50.0	102	52.2	50.0	104	72-128	2	30
Dichlorodifluoromethane (CFC 12)	0.21 U	58.4	50.0	117	59.4	50.0	119	49-154	2	30
Dichloromethane	0.36 U	53.3	50.0	107	53.9	50.0	108	73-122	1	30
Ethylbenzene	0.20 U	52.1	50.0	104	52.3	50.0	105	72-134	<1	30
Isopropylbenzene (Cumene)	0.20 U	52.0	50.0	104	52.7	50.0	105	77-128	1	30
Methyl Acetate	0.33 U	47.2	50.0	94	48.3	50.0	97	26-121	2	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.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19
Date Received: 09/17/19
Date Analyzed: 09/24/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: GMMW-6
Lab Code: R1908993-023
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ1910888-11				Duplicate Matrix Spike RQ1910888-12					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methyl tert-Butyl Ether	0.20 U	51.8	50.0	104	52.5	50.0	105	75-119	1	30
Methylcyclohexane	0.20 U	44.8	50.0	90	47.4	50.0	95	45-146	6	30
Styrene	0.20 U	52.0	50.0	104	52.5	50.0	105	74-136	1	30
Tetrachloroethene (PCE)	0.21 U	48.6	50.0	97	49.4	50.0	99	72-125	2	30
Toluene	0.20 U	52.6	50.0	105	53.3	50.0	107	79-119	1	30
Trichloroethene (TCE)	0.20 U	46.8	50.0	94	48.4	50.0	97	74-122	3	30
Trichlorofluoromethane (CFC 11)	0.24 U	51.1	50.0	102	53.1	50.0	106	71-136	4	30
Vinyl Chloride	12	65.7	50.0	107	66.8	50.0	109	74-159	2	30
cis-1,2-Dichloroethene	9.0	61.2	50.0	104	62.3	50.0	106	77-127	2	30
cis-1,3-Dichloropropene	0.20 U	49.2	50.0	98	50.7	50.0	101	52-134	3	30
trans-1,2-Dichloroethene	0.20 U	51.2	50.0	102	52.7	50.0	105	73-118	3	30
trans-1,3-Dichloropropene	0.23 U	48.4	50.0	97	49.9	50.0	100	71-133	3	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.

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1910751-04

Service Request: R1908993
Date Collected: NA
Date Received: NA

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)	5.0 U	5.0	1	09/21/19 01:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/21/19 01:23	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/21/19 01:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/21/19 01:23	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/21/19 01:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/21/19 01:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/21/19 01:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/21/19 01:23	
1,2-Dibromoethane	5.0 U	5.0	1	09/21/19 01:23	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:23	
1,2-Dichloroethane	5.0 U	5.0	1	09/21/19 01:23	
1,2-Dichloropropane	5.0 U	5.0	1	09/21/19 01:23	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:23	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/21/19 01:23	
2-Butanone (MEK)	10 U	10	1	09/21/19 01:23	
2-Hexanone	10 U	10	1	09/21/19 01:23	
4-Methyl-2-pentanone	10 U	10	1	09/21/19 01:23	
Acetone	11	10	1	09/21/19 01:23	
Benzene	5.0 U	5.0	1	09/21/19 01:23	
Bromodichloromethane	5.0 U	5.0	1	09/21/19 01:23	
Bromoform	5.0 U	5.0	1	09/21/19 01:23	
Bromomethane	5.0 U	5.0	1	09/21/19 01:23	
Carbon Disulfide	10 U	10	1	09/21/19 01:23	
Carbon Tetrachloride	5.0 U	5.0	1	09/21/19 01:23	
Chlorobenzene	5.0 U	5.0	1	09/21/19 01:23	
Chloroethane	5.0 U	5.0	1	09/21/19 01:23	
Chloroform	5.0 U	5.0	1	09/21/19 01:23	
Chloromethane	5.0 U	5.0	1	09/21/19 01:23	
Cyclohexane	10 U	10	1	09/21/19 01:23	
Dibromochloromethane	5.0 U	5.0	1	09/21/19 01:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/21/19 01:23	
Dichloromethane	5.0 U	5.0	1	09/21/19 01:23	
Ethylbenzene	5.0 U	5.0	1	09/21/19 01:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/21/19 01:23	
Methyl Acetate	10 U	10	1	09/21/19 01:23	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/21/19 01:23	
Methylcyclohexane	10 U	10	1	09/21/19 01:23	
Styrene	5.0 U	5.0	1	09/21/19 01:23	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/21/19 01:23	
Toluene	5.0 U	5.0	1	09/21/19 01:23	
Trichloroethene (TCE)	5.0 U	5.0	1	09/21/19 01:23	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/21/19 01:23	
Vinyl Chloride	5.0 U	5.0	1	09/21/19 01:23	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1910751-04

Service Request: R1908993
Date Collected: NA
Date Received: NA

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
Xylenes, Total	5.0 U	5.0	1	09/21/19 01:23	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 01:23	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 01:23	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/21/19 01:23	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/21/19 01:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	09/21/19 01:23	
Dibromofluoromethane	98	89 - 119	09/21/19 01:23	
Toluene-d8	99	87 - 121	09/21/19 01:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1910888-07

Service Request: R1908993
Date Collected: NA
Date Received: NA

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)	5.0 U	5.0	1	09/24/19 14:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	09/24/19 14:04	
1,1,2-Trichloroethane	5.0 U	5.0	1	09/24/19 14:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	09/24/19 14:04	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	09/24/19 14:04	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	09/24/19 14:04	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	09/24/19 14:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	09/24/19 14:04	
1,2-Dibromoethane	5.0 U	5.0	1	09/24/19 14:04	
1,2-Dichlorobenzene	5.0 U	5.0	1	09/24/19 14:04	
1,2-Dichloroethane	5.0 U	5.0	1	09/24/19 14:04	
1,2-Dichloropropane	5.0 U	5.0	1	09/24/19 14:04	
1,3-Dichlorobenzene	5.0 U	5.0	1	09/24/19 14:04	
1,4-Dichlorobenzene	5.0 U	5.0	1	09/24/19 14:04	
2-Butanone (MEK)	10 U	10	1	09/24/19 14:04	
2-Hexanone	10 U	10	1	09/24/19 14:04	
4-Methyl-2-pentanone	10 U	10	1	09/24/19 14:04	
Acetone	16	10	1	09/24/19 14:04	
Benzene	5.0 U	5.0	1	09/24/19 14:04	
Bromodichloromethane	5.0 U	5.0	1	09/24/19 14:04	
Bromoform	5.0 U	5.0	1	09/24/19 14:04	
Bromomethane	5.0 U	5.0	1	09/24/19 14:04	
Carbon Disulfide	10 U	10	1	09/24/19 14:04	
Carbon Tetrachloride	5.0 U	5.0	1	09/24/19 14:04	
Chlorobenzene	5.0 U	5.0	1	09/24/19 14:04	
Chloroethane	5.0 U	5.0	1	09/24/19 14:04	
Chloroform	5.0 U	5.0	1	09/24/19 14:04	
Chloromethane	5.0 U	5.0	1	09/24/19 14:04	
Cyclohexane	10 U	10	1	09/24/19 14:04	
Dibromochloromethane	5.0 U	5.0	1	09/24/19 14:04	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	09/24/19 14:04	
Dichloromethane	5.0 U	5.0	1	09/24/19 14:04	
Ethylbenzene	5.0 U	5.0	1	09/24/19 14:04	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	09/24/19 14:04	
Methyl Acetate	10 U	10	1	09/24/19 14:04	
Methyl tert-Butyl Ether	5.0 U	5.0	1	09/24/19 14:04	
Methylcyclohexane	10 U	10	1	09/24/19 14:04	
Styrene	5.0 U	5.0	1	09/24/19 14:04	
Tetrachloroethene (PCE)	5.0 U	5.0	1	09/24/19 14:04	
Toluene	5.0 U	5.0	1	09/24/19 14:04	
Trichloroethene (TCE)	5.0 U	5.0	1	09/24/19 14:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	09/24/19 14:04	
Vinyl Chloride	5.0 U	5.0	1	09/24/19 14:04	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1910888-07

Service Request: R1908993
Date Collected: NA
Date Received: NA

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
Xylenes, Total	5.0 U	5.0	1	09/24/19 14:04	
cis-1,2-Dichloroethene	5.0 U	5.0	1	09/24/19 14:04	
cis-1,3-Dichloropropene	5.0 U	5.0	1	09/24/19 14:04	
trans-1,2-Dichloroethene	5.0 U	5.0	1	09/24/19 14:04	
trans-1,3-Dichloropropene	5.0 U	5.0	1	09/24/19 14:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/19 14:04	
Dibromofluoromethane	100	89 - 119	09/24/19 14:04	
Toluene-d8	101	87 - 121	09/24/19 14:04	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/21/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910751-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.7	20.0	93	75-125
1,1,2,2-Tetrachloroethane	8260C	24.8	20.0	124	78-126
1,1,2-Trichloroethane	8260C	20.7	20.0	103	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	16.8	20.0	84	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.3	20.0	102	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.5	20.0	92	71-118
1,2,4-Trichlorobenzene	8260C	20.2	20.0	101	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.5	20.0	97	55-136
1,2-Dibromoethane	8260C	20.6	20.0	103	82-127
1,2-Dichlorobenzene	8260C	19.9	20.0	99	80-119
1,2-Dichloroethane	8260C	21.3	20.0	106	71-127
1,2-Dichloropropane	8260C	20.1	20.0	101	80-119
1,3-Dichlorobenzene	8260C	18.9	20.0	95	83-121
1,4-Dichlorobenzene	8260C	19.4	20.0	97	79-119
2-Butanone (MEK)	8260C	21.0	20.0	105	61-137
2-Hexanone	8260C	21.6	20.0	108	63-124
4-Methyl-2-pentanone	8260C	21.7	20.0	109	66-124
Acetone	8260C	23.7	20.0	118	40-161
Benzene	8260C	19.6	20.0	98	79-119
Bromodichloromethane	8260C	19.8	20.0	99	81-123
Bromoform	8260C	18.3	20.0	91	65-146
Bromomethane	8260C	15.8	20.0	79	42-166
Carbon Disulfide	8260C	15.5	20.0	77	66-128
Carbon Tetrachloride	8260C	16.4	20.0	82	70-127
Chlorobenzene	8260C	19.0	20.0	95	80-121
Chloroethane	8260C	19.1	20.0	95	62-131
Chloroform	8260C	19.4	20.0	97	79-120
Chloromethane	8260C	23.4	20.0	117	65-135
Cyclohexane	8260C	20.7	20.0	104	69-120
Dibromochloromethane	8260C	19.6	20.0	98	72-128
Dichlorodifluoromethane (CFC 12)	8260C	21.2	20.0	106	59-155
Dichloromethane	8260C	20.2	20.0	101	73-122
Ethylbenzene	8260C	17.9	20.0	89	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/21/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910751-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	17.7	20.0	89	77-128
Methyl Acetate	8260C	21.6	20.0	108	40-112
Methyl tert-Butyl Ether	8260C	21.6	20.0	108	75-118
Methylcyclohexane	8260C	20.1	20.0	101	51-129
Styrene	8260C	19.1	20.0	96	80-124
Tetrachloroethene (PCE)	8260C	16.5	20.0	82	72-125
Toluene	8260C	19.1	20.0	95	79-119
Trichloroethene (TCE)	8260C	16.1	20.0	81	74-122
Trichlorofluoromethane (CFC 11)	8260C	18.3	20.0	91	71-136
Vinyl Chloride	8260C	19.0	20.0	95	74-159
cis-1,2-Dichloroethene	8260C	20.0	20.0	100	80-121
cis-1,3-Dichloropropene	8260C	18.6	20.0	93	77-122
trans-1,2-Dichloroethene	8260C	18.7	20.0	93	73-118
trans-1,3-Dichloropropene	8260C	19.0	20.0	95	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910888-03

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	29.2	20.0	146 *	78-126
1,1,2-Trichloroethane	8260C	22.4	20.0	112	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.1	20.0	91	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.3	20.0	102	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.9	20.0	94	71-118
1,2,4-Trichlorobenzene	8260C	21.2	20.0	106	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	22.5	20.0	113	55-136
1,2-Dibromoethane	8260C	21.8	20.0	109	82-127
1,2-Dichlorobenzene	8260C	21.6	20.0	108	80-119
1,2-Dichloroethane	8260C	21.7	20.0	109	71-127
1,2-Dichloropropane	8260C	20.9	20.0	105	80-119
1,3-Dichlorobenzene	8260C	20.5	20.0	102	83-121
1,4-Dichlorobenzene	8260C	20.8	20.0	104	79-119
2-Butanone (MEK)	8260C	22.2	20.0	111	61-137
2-Hexanone	8260C	23.7	20.0	118	63-124
4-Methyl-2-pentanone	8260C	24.2	20.0	121	66-124
Acetone	8260C	22.8	20.0	114	40-161
Benzene	8260C	20.4	20.0	102	79-119
Bromodichloromethane	8260C	20.8	20.0	104	81-123
Bromoform	8260C	21.2	20.0	106	65-146
Bromomethane	8260C	15.8	20.0	79	42-166
Carbon Disulfide	8260C	19.9	20.0	100	66-128
Carbon Tetrachloride	8260C	17.8	20.0	89	70-127
Chlorobenzene	8260C	20.2	20.0	101	80-121
Chloroethane	8260C	19.4	20.0	97	62-131
Chloroform	8260C	19.4	20.0	97	79-120
Chloromethane	8260C	23.7	20.0	119	65-135
Cyclohexane	8260C	19.5	20.0	98	69-120
Dibromochloromethane	8260C	21.7	20.0	108	72-128
Dichlorodifluoromethane (CFC 12)	8260C	21.4	20.0	107	59-155
Dichloromethane	8260C	20.4	20.0	102	73-122
Ethylbenzene	8260C	19.2	20.0	96	76-120

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dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1910888-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	18.3	20.0	91	77-128
Methyl Acetate	8260C	21.0	20.0	105	40-112
Methyl tert-Butyl Ether	8260C	21.5	20.0	108	75-118
Methylcyclohexane	8260C	19.5	20.0	97	51-129
Styrene	8260C	20.2	20.0	101	80-124
Tetrachloroethene (PCE)	8260C	17.7	20.0	88	72-125
Toluene	8260C	19.9	20.0	99	79-119
Trichloroethene (TCE)	8260C	17.0	20.0	85	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.3	20.0	97	71-136
Vinyl Chloride	8260C	19.2	20.0	96	74-159
cis-1,2-Dichloroethene	8260C	20.1	20.0	100	80-121
cis-1,3-Dichloropropene	8260C	20.2	20.0	101	77-122
trans-1,2-Dichloroethene	8260C	19.1	20.0	96	73-118
trans-1,3-Dichloropropene	8260C	20.6	20.0	103	71-133



Metals

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1908993-MB1

Service Request: R1908993
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	6010C	100 U	ug/L	100	1	09/20/19 19:41	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 19:41	09/19/19	
Manganese, Total	6010C	10 U	ug/L	10	1	09/20/19 19:41	09/19/19	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1908993-MB2

Service Request: R1908993
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	6010C	100 U	ug/L	100	1	09/20/19 17:48	09/19/19	
Iron, Total	6010C	100 U	ug/L	100	1	09/20/19 17:48	09/19/19	
Manganese, Total	6010C	10 U	ug/L	10	1	09/20/19 17:48	09/19/19	

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dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19
Date Received: 09/17/19
Date Analyzed: 09/20/19 - 09/25/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: GMMW-6 **Units:** ug/L
Lab Code: R1908993-023 **Basis:** NA

Matrix Spike R1908993-023MS						Duplicate Matrix Spike R1908993-023DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron, Total	6010C	17800	17800	1000	-4 #	17000	1000	-83 #	75-125	5	20
Manganese, Total	6010C	10400	10900	500	94 #	11100	500	134 #	75-125	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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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19
Date Received: 09/17/19
Date Analyzed: 09/20/19
Date Extracted: 09/19/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: GMMW-6 Diss
Lab Code: R1908993-024
Analysis Method: 6010C
Prep Method: EPA 3005A/3010A

Units: ug/L
Basis: NA

Matrix Spike R1908993-024MS					Duplicate Matrix Spike R1908993-024DMS					
Analyte Name	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron, Dissolved	12600	13700	1000	117 #	13300	1000	69 #	75-125	4	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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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/20/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L**Basis:**NA**Lab Control Sample**

R1908993-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	880	1000	88	80-120
Iron, Total	6010C	880	1000	88	80-120
Manganese, Total	6010C	459	500	92	80-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/20/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
R1908993-LCS1					R1908993-DLCS1					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron, Dissolved	6010C	900	1000	90	960	1000	96	80-120	7	20
Iron, Total	6010C	900	1000	90	960	1000	96	80-120	7	20
Manganese, Total	6010C	465	500	93	501	500	100	80-120	8	20



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: R1908993-MB

Service Request: R1908993
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	09/17/19 13:01	
Nitrite as Nitrogen	300.0	0.10 U	mg/L	0.10	1	09/17/19 13:01	
Sulfate	300.0	0.20 U	mg/L	0.20	1	09/17/19 13:01	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Collected: 09/17/19
Date Received: 09/17/19
Date Analyzed: 9/17/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: PW-7 **Units:** mg/L
Lab Code: R1908993-009 **Basis:** NA

Matrix Spike R1908993-009MS						Duplicate Matrix Spike R1908993-009DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	1.9	11.7	10.0	98	11.6	10.0	97	90-110	1	20
Sulfate	300.0	8.2	28.5	20.0	102	28.3	20.0	100	90-110	<1	20
Nitrite as Nitrogen	300.0	0.2 U	10.0	10.0	100	9.9	10.0	99	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.

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request:R1908993
Date Collected:09/17/19
Date Received:09/17/19
Date Analyzed:9/17/19

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: GMMW-6 **Units:**mg/L
Lab Code: R1908993-023 **Basis:**NA

Matrix Spike R1908993-023MS						Duplicate Matrix Spike R1908993-023DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	0.2 U	9.9	10.0	99	10	10.0	100	90-110	1	20
Sulfate	300.0	3.5	23.8	20.0	102	23.8	20.0	102	90-110	<1	20
Nitrite as Nitrogen	300.0	0.2 U	9.9	10.0	99	10.0	10.0	100	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.

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville 5th Quarter Wells
Sample Matrix: Drinking Water

Service Request: R1908993
Date Analyzed: 09/17/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1908993-LCS

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	1.01	1.00	101	90-110
Sulfate	300.0	2.11	2.00	105	90-110



Subcontracted Analytical Parameters

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September 26, 2019

Brady Kalkman
ALS Environmental
1565 Jefferson Rd
Building 300
Rochester, NY 14623

RE: **R1908993**

Pace Workorder: 31489

Dear Brady Kalkman:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, September 20, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ruth Welsh".

Ruth Welsh 09/26/2019
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 26

Report ID: 31489 - 1206804

Page 1 of 21



CERTIFICATE OF ANALYSIS

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).



SAMPLE SUMMARY

Workorder: 31489 R1908993

Lab ID	Sample ID	Matrix	Date Collected	Date Received
314890001	PW-3	Water	9/17/2019 10:20	9/20/2019 14:00
314890002	PW-4	Water	9/17/2019 10:55	9/20/2019 14:00
314890003	PW-4 DUP	Water	9/17/2019 10:55	9/20/2019 14:00
314890004	PW-7	Water	9/17/2019 11:40	9/20/2019 14:00
314890005	GMMW-7	Water	9/17/2019 12:05	9/20/2019 14:00
314890006	GMMW-5	Water	9/17/2019 12:25	9/20/2019 14:00
314890007	GMMW-2	Water	9/17/2019 10:55	9/20/2019 14:00
314890008	GMMW-6	Water	9/17/2019 11:10	9/20/2019 14:00
314890009	GMMW-6 MS	Water	9/17/2019 11:10	9/20/2019 14:00
314890010	GMMW-6 MSD	Water	9/17/2019 11:10	9/20/2019 14:00
314890011	W-16S	Water	9/17/2019 11:20	9/20/2019 14:00
314890012	W-18	Water	9/17/2019 11:30	9/20/2019 14:00
314890013	EQUIPMENT BLANK	Water	9/17/2019 11:45	9/20/2019 14:00
314890014	W-20S	Water	9/17/2019 12:40	9/20/2019 14:00



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PROJECT SUMMARY

Workorder: 31489 R1908993

Workorder Comments

The samples 31489 (0001-0014) were collected in a container type, not assigned to PAES method RSK175. The container specified in the method is preserved with TSP and capped with butyl septa, however the sample container provided was HCL preserved and capped with silicone septa.

Batch Comments

Batch: DISG/7789 - RSK175 QC

The following comments may not be applicable to all projects in this analytical batch.

The relative percent difference between the sample and sample duplicate exceeded laboratory control limits; reference sample 314890004. Analyte Propane, iso-Butane and n-Butane. Results for original and duplicate samples were below reporting limits.

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the reference sample 314890008. Analyte Methane and n-Butane. Batch acceptance based on laboratory control sample recovery.

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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890001**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **PW-3**

Date Collected: 9/17/2019 10:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	30	ug/l	0.50	0.067	1	9/23/2019 08:52	AK	M3,M5
Ethane	0.0060U	ug/l	0.20	0.0060	1	9/23/2019 08:52	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 08:52	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890002**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **PW-4**

Date Collected: 9/17/2019 10:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.15J	ug/l	0.50	0.067	1	9/23/2019 09:03	AK	M3,M5
Ethane	0.0060U	ug/l	0.20	0.0060	1	9/23/2019 09:03	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 09:03	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890003**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **PW-4 DUP**

Date Collected: 9/17/2019 10:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.13J	ug/l	0.50	0.067	1	9/23/2019 09:13	AK	M3,M5
Ethane	0.0060U	ug/l	0.20	0.0060	1	9/23/2019 09:13	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 09:13	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890004**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **PW-7**

Date Collected: 9/17/2019 11:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	180	ug/l	0.50	0.067	1	9/23/2019 09:24	AK	M3,M5
Ethane	0.20	ug/l	0.20	0.0060	1	9/23/2019 09:24	AK	
Ethene	0.68	ug/l	0.20	0.012	1	9/23/2019 09:24	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890005**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **GMMW-7**

Date Collected: 9/17/2019 12:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	500	ug/l	0.50	0.067	1	9/23/2019 09:34	AK	M3,M5
Ethane	0.70	ug/l	0.20	0.0060	1	9/23/2019 09:34	AK	
Ethene	2.8	ug/l	0.20	0.012	1	9/23/2019 09:34	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890006**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **GMMW-5**

Date Collected: 9/17/2019 12:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	1400	ug/l	5.0	0.67	10	9/23/2019 13:24	AK	d,M3,M5
Ethane	12	ug/l	0.20	0.0060	1	9/23/2019 09:44	AK	
Ethene	0.67	ug/l	0.20	0.012	1	9/23/2019 09:44	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890007**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **GMMW-2**

Date Collected: 9/17/2019 10:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	600	ug/l	0.50	0.067	1	9/23/2019 09:55	AK	M3,M5
Ethane	0.60	ug/l	0.20	0.0060	1	9/23/2019 09:55	AK	
Ethene	0.42	ug/l	0.20	0.012	1	9/23/2019 09:55	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890008**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **GMMW-6**

Date Collected: 9/17/2019 11:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	610	ug/l	0.50	0.067	1	9/23/2019 10:05	AK	M3,M5
Ethane	3.1	ug/l	0.20	0.0060	1	9/23/2019 10:05	AK	
Ethene	2.6	ug/l	0.20	0.012	1	9/23/2019 10:05	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890009** Date Received: 9/20/2019 14:00 Matrix: Water
Sample ID: **GMMW-6 MS** Date Collected: 9/17/2019 11:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175 Analytical Method: EPA RSK175

Methane	540	ug/l	0.50	0.067	1	9/23/2019 10:16	AK	M3,M5
Ethane	63	ug/l	0.20	0.0060	1	9/23/2019 10:16	AK	
Ethene	63	ug/l	0.20	0.012	1	9/23/2019 10:16	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890010** Date Received: 9/20/2019 14:00 Matrix: Water
Sample ID: **GMMW-6 MSD** Date Collected: 9/17/2019 11:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175 Analytical Method: EPA RSK175

Methane	480	ug/l	0.50	0.067	1	9/23/2019 10:26	AK	M3,M5
Ethane	62	ug/l	0.20	0.0060	1	9/23/2019 10:26	AK	
Ethene	61	ug/l	0.20	0.012	1	9/23/2019 10:26	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890011**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **W-16S**

Date Collected: 9/17/2019 11:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	2000	ug/l	5.0	0.67	10	9/23/2019 13:34	AK	d,M3,M5
Ethane	0.10J	ug/l	0.20	0.0060	1	9/23/2019 10:57	AK	
Ethene	0.048J	ug/l	0.20	0.012	1	9/23/2019 10:57	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890012**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **W-18**

Date Collected: 9/17/2019 11:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.43J	ug/l	0.50	0.067	1	9/23/2019 11:08	AK	M3,M5
Ethane	0.0060U	ug/l	0.20	0.0060	1	9/23/2019 11:08	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 11:08	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890013**
Sample ID: **EQUIPMENT BLANK**

Date Received: 9/20/2019 14:00 Matrix: Water
Date Collected: 9/17/2019 11:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.094J	ug/l	0.50	0.067	1	9/23/2019 11:18	AK	M3,M5
Ethane	0.012J	ug/l	0.20	0.0060	1	9/23/2019 11:18	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 11:18	AK	



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ANALYTICAL RESULTS

Workorder: 31489 R1908993

Lab ID: **314890014**

Date Received: 9/20/2019 14:00 Matrix: Water

Sample ID: **W-20S**

Date Collected: 9/17/2019 12:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.11J	ug/l	0.50	0.067	1	9/23/2019 11:29	AK	M3,M5
Ethane	0.0060U	ug/l	0.20	0.0060	1	9/23/2019 11:29	AK	
Ethene	0.012U	ug/l	0.20	0.012	1	9/23/2019 11:29	AK	



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 31489 R1908993

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
d	The analyte concentration was determined from a dilution.
M5	The matrix spike duplicate sample recovery was outside laboratory control limits.
M3	The matrix spike sample recovery was outside laboratory control limits.

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**QUALITY CONTROL DATA**

Workorder: 31489 R1908993

QC Batch: DISG/7789

Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 314890001, 314890002, 314890003, 314890004, 314890005, 314890006, 314890007, 314890008, 314890009, 314890010, 314890011, 314890012, 314890013, 314890014

METHOD BLANK: 63305

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.067U	0.067	M3,M5
Ethane	ug/l	0.0060U	0.0060	
Ethene	ug/l	0.012U	0.012	

LABORATORY CONTROL SAMPLE & LCSD: 63306 63307

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	44	43	43	96	96	85-115	0.44	20	M3,M5
Ethane	ug/l	83	79	79	95	95	85-115	0.4	20	
Ethene	ug/l	78	77	77	99	99	85-115	0.11	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63308 63309 Original: 314890008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	610	44	540	480	-161	-290	70-130	11	20	M3,M5
Ethane	ug/l	3.1	83	63	62	72	71	70-130	1.2	20	
Ethene	ug/l	2.6	78	63	61	77	76	70-130	2.3	20	

SAMPLE DUPLICATE: 63312 Original: 314890004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	180	190	4.7	20	M3,M5
Ethane	ug/l	.2	.21	4.9	20	
Ethene	ug/l	.68	.7	2.9	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 31489 R1908993

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
314890001	PW-3			EPA RSK175	DISG/7789
314890002	PW-4			EPA RSK175	DISG/7789
314890003	PW-4 DUP			EPA RSK175	DISG/7789
314890004	PW-7			EPA RSK175	DISG/7789
314890005	GMMW-7			EPA RSK175	DISG/7789
314890006	GMMW-5			EPA RSK175	DISG/7789
314890007	GMMW-2			EPA RSK175	DISG/7789
314890008	GMMW-6			EPA RSK175	DISG/7789
314890009	GMMW-6 MS			EPA RSK175	DISG/7789
314890010	GMMW-6 MSD			EPA RSK175	DISG/7789
314890011	W-16S			EPA RSK175	DISG/7789
314890012	W-18			EPA RSK175	DISG/7789
314890013	EQUIPMENT BLANK			EPA RSK175	DISG/7789
314890014	W-20S			EPA RSK175	DISG/7789



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ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Brady Kalkman

Project Number: R1908993
Project Manager: Brady Kalkman
QAP: LAB QAP

31489

NBL's needed:

Methane - 0.5 ug/L
Ethane - 0.162 ug/L
Ethene - 0.138 ug/L

Lab Code	Sample ID	# of Cont.	Matrix	Sample		Lab ID	Gases RSK 175
				Date	Time		
R1908993-001	PW-3	3	Drinking Water	9/17/19	1020	Pace PA	X
R1908993-003	PW-4		Drinking Water	9/17/19	1055	Pace PA	X
R1908993-005	PW-4 Dup		Drinking Water	9/17/19	1055	Pace PA	X
R1908993-009	PW-7		Drinking Water	9/17/19	1140	Pace PA	X
R1908993-011	GMMW-7		Drinking Water	9/17/19	1205	Pace PA	X
R1908993-013	GMMW-5		Drinking Water	9/17/19	1225	Pace PA	X
R1908993-021	GMMW-2		Drinking Water	9/17/19	1055	Pace PA	X
R1908993-023	GMMW-6		Drinking Water	9/17/19	1110	Pace PA	X
R1908993-025	W-16S		Drinking Water	9/17/19	1120	Pace PA	X
R1908993-027	W-18		Drinking Water	9/17/19	1130	Pace PA	X
R1908993-029	Equipment Blank		Drinking Water	9/17/19	1145	Pace PA	X
R1908993-032	W-20S		Drinking Water	9/17/19	1240	Pace PA	X

Special Instructions/Comments H - Test is On Hold P - Test is Authorized for Prep Only	Turnaround Requirements RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 STANDARD Requested FAX Date: 09/27/19 Requested Report Date: 09/27/19	Report Requirements I. Results Only II. Results + QC Summaries III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data POL (MDL/J) ☒ EDD ☒ Arcadis (see 8-15-12 Excel)	Invoice Information PO# 58R1908993 Bill to

Relinquished By: John W. 9/18/19 12:50 Received By: see 9-20-19 12:50 Airbill Number: see 9-20-19 1400

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Brady Kalkman

Project Manager: Brady Kalkman

Gases - RSK 175

Folder Comments:

MDL Use send HC invoices, Field filter MN Dissolved and Ferrous Fe Cont. Matrix Date Sample Lab ID
Run QC on sample R1908993-023 for RSK 175/Gases
Run QC on sample R1908993-023 for RSK 175/Gases

31489

Special Instructions/Comments	Turnaround Requirements _____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 _____ STANDARD	Report Requirements _____ I. Results Only _____ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data PQL/MDL/J <u> N </u> EDD <u> Y </u>	Invoice Information
			PO# 58R1908993 Bill to
H - Test is On Hold	P - Test is Authorized for Prep Only	Requested FAX Date: _____ Requested Report Date: <u>09/27/19</u>	

Relinquished By: 	Received By: 	Airbill Number: 7-20-9 930
9/18/10/1250		

Cooler Receipt Form

Client Name: ALS Project: R1908993 Lab Work Order: 31489

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Pace Air bill Present: Yes No
Courier

Tracking Number: _____

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: 0.1°C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected		✓		
Sufficient volume provided	✓			
PAES containers used		✓		
Are containers properly preserved for the requested testing? (as labeled)		✓		
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments: _____

Cooler contents examined/received by: LG Date: 9.20.19

Project Manager Review: ERP Date: 9/20/19

NON-CONFORMANCE FORM

PAES Work Order #: 31489

Date: 9.20.19 Time of Receipt: 14:00 Receiver: LY

Client: ALS

REASON FOR NON-CONFORMANCE:

1. Received samples in sets. No vial was labeled.
Applied labels on ziploc bag to each set of vials
by Lab.
2. Samples were in HCL vials with clear septa.

ACTION TAKEN:

Client name: ALS Date: 9/20/19 Time: _____

Emailed client to notify

Customer Service Initials: EPF

Date: 9/20/19

Emma Louis - R1908993 Samples

From: Emma Louis
To: brady.kalkman@alsglobal.com
Subject: R1908993 Samples

Hi Brady,

We received the samples in sets without the vials labeled. I wanted to notify you that sample receiving applied labels onto the ziploc bags to each set of vials. The vials were also received with a clear septa. We recommend using a butyl septa, as the clear silicon septa's can affect the stability of the concentrations within the vial over time. There may be a narration on the report stating the samples were received in an alternate container.

Thank you

Emma Louis

Project Coordinator

Pace Analytical Energy Services, LLC

220 William Pitt Way

Pittsburgh, PA 15238

Emma.Louis@pacelabs.com

412-826-2378 (Direct) | 412-826-5245 (Main)

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Check out our latest article on the use of CSIA in Groundwater Forensics!

Hold down your Ctrl key and click the link below:

<https://doi.org/10.1002/rem.21588>

APPENDIX B

Molasses Solution Injection Volumes



Table B-1
Injection of Molasses Solution, August 2019
Colesville Landfill
Broome County, New York.

Injection Start Date =		8/27/2019
Injection Completion Date =		8/29/2019
Molasses to Water Ratio (%) =		4.0
	Molasses	
Injection	Solution Injection	
Well ID	Quantity	
	(gal.)	
PW-6	100	
IW-3	100	
IW-1	100	
IW-2	100	
GMMW-1	750	
IW-4	1,176	
IW-5	1,170	
IW-6	757	
IW-7	100	
IW-8 ⁴	100	
IW-9	100	
Totals (gal.) =	4,553	

Notes:

gal.

Gallons.

APPENDIX C

Inspection and Certification Form



**COLESVILLE LANDFILL
BROOME COUNTY, NEW YORK
SITE NO. 704010**

INSPECTION AND CERTIFICATION FORM

Site Addresses: Colesville Landfill, 1538 East Windsor Road, Harpursville, New York 13787

Date and Time of Inspection: October 3, 2019 10:00 AM

Inspector (Name, Title, and Affiliation): Laurie Haskell, Broome County Solid Waste Management Specialist

Weather Conditions: 45 F showers

Describe inspection observations: The landfill cap and perimeter fence were inspected on March 29, 2019 by Richard Hand, Landfill Supervisor and it was noted that a tree was down and resting on the fence. This was repaired later in the spring while a crew was on site to mow. On October 3, 2019 an inspection was completed during the 5-year review site visit with EPA, DEC and the County. The cap, fence, drainage features and monitoring wells were all satisfactory. One of the gas vents was disconnected and on the ground.

During the year, the landfill and adjacent properties with environmental easements were observed for any prohibited activity such as residential or groundwater use. There was no such activity. In May of 2019 two vacant residences were demolished; the dilapidated Smith house at 1470 East Windsor Road and the Scott River mobile home at 19 Centerville Loop Road were the two demolished residences.

These activities were conducted in connection with IC/EC requirements and compliance.

ATTACH PHOTOGRAPHS OF AREAS OR ITEMS INSTALLED, REPAIRED, OR REPLACED

General Site Conditions:

	<u>Acceptable</u>	<u>Unacceptable</u>
Perimeter Fence	☒	☐
Monitoring Wells	☒	☐
Methane Vents	☒	☐
Cap Vegetative Cover and Drainage	☒	☐

INSPECTION AND CERTIFICATION FORM

Site Cover System:

Any signs/evidence of soil disturbance such as, erosion, settlement, or if applicable, bare or sparsely vegetated areas?

☒ No ☐ Yes; describe: _____

ATTACH PHOTOGRAPHS OF AREAS OF DISTURBANCE

Any signs/evidence of use of the Site in a manner inconsistent with the previous Site uses?

☒ No ☐ Yes; describe: _____

ATTACH PHOTOGRAPHS OF AREAS OF NON-COMPLIANCE

Describe any repairs, maintenance, or corrective actions required to correct observed deficiencies: _____

A section of fence was repaired where a fallen tree caused minor damage.

In May of 2019 two vacant residences were demolished: the dilapidated Smith house at 1470 East Windsor Road and the Scott River mobile home at 19 Centerville Loop Road were the two demolished residences.

ATTACH PHOTOGRAPHS OF DEFICIENT AREAS OR ITEMS OBSERVED DURING THE INSPECTION

Inspector's Signature:

Signature: Laurie Haskell Date: 2/18/2020

INSPECTION AND CERTIFICATION FORM

APPENDIX D

O&M Plan Compliance Form



**COLESVILLE LANDFILL
BROOME COUNTY, NEW YORK
SITE NO. 704010**

O&M PLAN COMPLIANCE FORM

Site Addresses: Colesville Landfill, 1538 East Windsor Road, Harpursville, New York 13787

Compliance Period: January 1, 2019 through December 31, 2019

Compliance Evaluator (Name, Title, and Affiliation): Laurie Haskell, Broome County Solid Waste Management Specialist

Describe O&M Plan Compliance:

A. Components of O&M Plan

The Operation and Maintenance portion of the SMP, contained in Section 4, primarily covers O&M aspect for the Automated Reagent Injection System and the Groundwater Pump and Treat System should either of those be placed in operation. One molasses injection was completed in 2019 and O&M completed in association with that system is included below.

Other maintenance items included in Section 4 are:

- Operational performance monitoring of the SP-5 spring remedy is conducted on a semiannual basis and includes routine visual inspection, recording system field parameters, and maintenance of system equipment (as necessary, such as clearing deposited material from the discharge pipe, carbon media change-out).
- During semi-annual maintenance events the springs along the North Stream will be checked for iron oxide staining on the ground and in the streambank sediments. If present, the top layer of soil/sediment will be collected and taken to the Broome County Landfill for disposal.
- Landfill cap and fencing maintenance

B. Summary of O&M Completed During 2019 Period

- On 7/31/2020 and 8/1/2020 eleven injection wells were inspected and redeveloped, if possible. Injection wells redeveloped: PW-6, IW-1, IW-2, IW-3, IW-8, and IW-9. GMMW-1 and IW-4 thru IW-7 were sealed with pit-less adapters and couldn't be opened.
- Following injections through the hose apparatus originating in the treatment building, the hoses were rinsed to remove the molasses solution.
- The landfill cap was mowed in May and August.
- Trees were removed from the perimeter fence of the landfill as needed and the fence was straightened.
- On October 24, 2019 all the landfill gas vents were checked. A total of eleven vents were repaired at that time. A report documenting the repairs was sent to EPA and DEC.
- Some surface sediment was removed in the area of SP-3 in May.
- Deposited material was cleaned out of the SP-5 drainage pipe during monitoring.

C. Evaluation of Remedial Systems

Maintenance required for next year:

- Mow landfill cap
- Snake and clean SP-5 drainage pipe and remove deposited material at the outfall
- Remove surface sediment by SP-3

INSPECTION AND CERTIFICATION FORM

D. O&M Deficiencies

There were no deficiencies in O&M during this period.

E. Conclusions and Recommendations for Improvements

O&M activities were successfully completed on the Site and in compliance with the SMP. There is no known need for improvements at this time.

O&M COMPLIANCE FORM