Hall, Lisa

From: Theobald, Charlotte B (DEC) <charlotte.theobald@dec.ny.gov>
Sent: Thursday, June 20, 2019 1:35 PM
To: Hall, Lisa
Subject: [EXT]RE: GLD 001 Seneca Falls - Cobalt Site Annual GWM Report and Annual PRR

Lisa:

Sorry about the delay in getting back to you. You can combine the documents but if either of these events get off schedule then the documents will have to be split out again. You can put this e-mail in the front of the SMP to document the change.

Charlotte

From: Hall, Lisa <Lisa.Hall@itt.com>
Sent: Friday, June 14, 2019 2:54 PM
To: Theobald, Charlotte B (DEC) <charlotte.theobald@dec.ny.gov>
Subject: GLD 001 Seneca Falls - Cobalt Site Annual GWM Report and Annual PRR

Hi Charlotte,

I wanted to provide more information than I left on your voicemail and I thought that email may be the easiest way.

We are currently conducting annual GWM at the Cobalt site (this is the second year for annual sampling, we switched from sampling every 3 years to annual during 2018). Last week I received from our consultant, Arcadis, a draft Annual GWM report and a draft PRR, both due June 30th. At first glance, I saw the same sections in both reports about the site inspection (pavement areas, riprap areas, etc.) and a short section on GWM in the PRR. My initial thought is why not combine the two. Just add more detail to the GWM section in the PRR. And that is when I left you that voice mail.

I have now since reviewed the PRR and was reminded that in the past we have appended the 2Q GWM report (which is now the annual GWM report) to the PRR, per NYSDEC request some many years ago. We can certainly continue to do the same – append the annual GWM report to the PRR – or we could combine them into one report ("Annual 2019 Groundwater Monitoring and Sampling Event and Periodic Review Report") which would discuss the GWM in the body of the PRR and have as individual appendices the purge logs, analytical data, DUSR, etc. (And of course the IC/EC Certification would be in an appendix as well.)

I've spoken with the PM at Arcadis and both of us are good either way. I just figured it might be easier for you to review one report (that does not have a second report in an appendix), and if we made this into one report it would reduce duplication as well.

If you have a preference, please let me know. We will be getting you these no later than June 26th. If you have any questions, please feel free to give me a call.

Thanks! And have a great weekend!

Lisa A. Hall, P.E.
Environmental Affairs Technical Manager

ITT Inc.

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ARCADIS Design & Consultancy for natural and built assets

New York State Department of Environmental Conservation

ANNUAL 2019 GROUNDWATER MONITORING AND SAMPLING AND PERIODIC REVIEW REPORT

Goulds Pumps Cobalt Site – Site No. C850012

June 26, 2019

GOULDS PUMPS COBALT SITE

ANNUAL 2019 GROUNDWATER MONITORING AND SAMPLING AND PERIODIC REVIEW REPORT

Site Number C850012

Matthew C. Yonkin, PE, BCEE

Associate Vice President

Prepared for:

Ms. Charlotte Theobald

Site Manager

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Our Ref.:

01257CBT.2019

Date:

June 26, 2019

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APPENDICES

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
BCP	Brownfield Cleanup Program
CLP	Contract Laboratory Protocol
COC	Certificate of Completion
DUSR	Data Usability Summary Report
EC	Engineering Control
ELAP	Environmental Lab Approval Program
EWP	Excavation Work Plan
ft bgs	Feet below ground surface
IC	Institutional Control
NWSA	Northwest Storage Area
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated biphenyl
PRR	Periodic Review Report
RI	Remedial Investigation
SCO	Site Cleanup Objective
Site	Goulds Pumps Cobalt Site (NYSDEC Site Number: C850012)
SMP	Site Management Plan
SVOC	Semi-volatile Organic Compound
TCL	Target Compound List
TIC	Tentatively Identified Compound
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This document for the Goulds Pumps Cobalt Site (the Site) (NYSDEC Site Number C850012) has been developed by Arcadis of New York, Inc. (Arcadis) on behalf of ITT and in accordance with the Site Management Plan (SMP) (O'Brien & Gere Engineers, Inc., 2014) prepared as part of the remedial program implemented at the Cobalt Site under the New York State (NYS) Brownfield Cleanup Program (BCP) and administered by the New York State Department of Environmental Conservation (NYSDEC). This document combines the Annual 2019 Groundwater Monitoring and Sampling Report with the Periodic Review Report (PRR).

This combined report documents the annual groundwater monitoring results and the findings and observations associated with the monitoring program for the Site for the reporting period June 1, 2018 to May 31, 2019.

2019 ANNUAL GROUNDWATER MONITORING AND SAMPLING

The SMP requires that the Cobalt Site and its groundwater monitoring well network be inspected on an annual basis. Additionally, groundwater monitoring was implemented on a semi-annual basis for the first three years following the approval of the COC (2015, 2016, and 2017), and is now conducted annually. This report represents the annual 2019 sampling event, conducted on April 15, 16, and 17, 2019.

No significant changes in groundwater conditions were observed during the 2019 groundwater monitoring and inspection event. The next groundwater sampling event for the Cobalt Site is anticipated to occur in April 2020.

PERIODIC REVIEW REPORT

Based on previous investigations, the soil and groundwater at the Site were found to have been impacted with volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), inorganics, pesticides, and polychlorinated biphenyls (PCBs). As a result of the Remedial Investigation (RI) conducted in 2014 and 2015, the SMP (O'Brien & Gere Engineers, Inc., 2014) summarizes the following remedial actions that were performed:

- Multiple soil excavation events performed in an effort to remove impacted soils that exceeded Site Cleanup Objectives (SCOs).
- Placement of supplemental cover over impacted soils and fill materials subsequent to new building construction.
- Construction and maintenance of a soil cover system.
- Restriction of land use with an Environmental Easement.
- Inspections, maintenance, and reporting associated with the installed covers.
- Development and implementation of the SMP.

The SMP has established measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate impacts at the Site (O'Brien & Gere Engineers, Inc., 2014). The following summarizes these measures:

- Soil cover system monitoring
- Groundwater monitoring
- Site-wide inspection

This PRR provides details on the monitoring and inspection activities performed between June 1, 2018 and May 31, 2019 as well as providing conclusions and recommendations for moving forward with management of this Site.

At the time of this PRR, no changes to the SMP are recommended and these management measures should be continued.

1 SITE OVERVIEW

1.1 Location and Features

The Site is an 11.4-acre parcel located at 240 Fall Street, Seneca Falls, NY 13148. This is a rural area in Seneca County and adjacent to the Village of Seneca Falls. New York State Department of Environmental Conservation (NYSDEC) (2016) has a detailed Site Record for this Site. The Seneca County Tax Map has this property Section, Block, and Lot defined as 09-1-04.11 (O'Brien & Gere Engineers, Inc. 2014). A description of the neighboring properties/land types is as follows:

- North: New York State Electric and Gas substation
- South: Residential/Commercial structures and the Seneca River
- West: former ITT Goulds Pumps closed landfill (Inactive Hazardous Waste Disposal Site Number: 850002)
- East: Goulds Pumps Facility (Brownfield Cleanup Program ID Number C850013)

Key features of the Site area are:

- Building 900 – known as the Project Cobalt building
- Building 605
- Hazardous Waste Storage Area – known as the Northwest Storage Area (NWSA)
- Parking lot
- Chip Storage Building (Building 318)

Figure 1 presents the Site, neighboring boundaries, and features.

1.2 Site History and Remediation

According to the Site Record (NYSDEC, 2016), Goulds Pumps began operation in the mid-19th century as a manufacturer of industrial, agricultural, and consumer pumps. Goulds purchased the current Site property in 1898 and manufacturing began at the Site in 1904. In 1997, Goulds Pumps was acquired by ITT.

The remediation history at this Site is summarized below from the Site Record (NYSDEC, 2016):

- Property-wide Phase I Environmental Site Assessment was conducted in 1999.
- Property-wide Phase II groundwater survey was conducted between 2006 and 2007.
- A Brownfield Cleanup Agreement (BCA) was originally executed in October 2004 for the NWSA. A BCA amendment was executed in June 2014 which established the Goulds Pumps Cobalt Site (C850012).
- NWSA Soil Removal.
- Project Cobalt Soil Remediation.
- Implementation of Engineering Controls (ECs), consisting of a protective cover system.
- The Certificate of Completion (COC) for the Site was executed on December 30, 2014 and leaves the Site under Site Management.

Following the completion of the remedial actions, the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc. 2014) was developed to guide the monitoring of the Site.

2 REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The purpose of the remedial actions conducted at the Site, is to protect human health and the environment from any remaining impacted soil and groundwater beneath the Site, as described in the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc., 2014).

Exposure to the remaining impact is prevented by the ECs consisting of a Site-wide soil cover system. This soil cover system includes a variety of surface media, including asphalt (pavement), topsoil/grass, riprap, concrete, gravel, and a cap comprised of various stone, granular fill and geotextile demarcation layer for the NWSA cap. This cover system also includes the buildings and sidewalk areas that have been developed for the facility operations.

The NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc., 2014) specifies three Institutional Controls (ICs) that are required to be met:

- Implement, maintain, and monitor EC systems.
- Prevent future exposure to remaining impact by controlling disturbances of the subsurface impact.
- Limit the use and development of the Site to industrial purposes only.

As noted above, ECs were implemented as part of the remedy. The inspections and groundwater monitoring that are actively taking place fulfill the maintenance and monitoring aspects of the first requirement.

The prevention of future exposure by controlling disturbances of the subsurface impact is established with the Excavation Work Plan (EWP) developed as part of the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc., 2014). The SMP states:

> "*any work that will penetrate the soil cover/cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in accordance with the Excavation Work Plan that is attached as Appendix E to this SMP" (*O'Brien & Gere Engineers, Inc., 2014)

Lastly, the limitation of use and development at the Site is controlled by the Environmental Easement that was placed on the Site deed for current and future owners. This action fulfills the third requirement established by the NYSDEC-approved SMP.

Based on current Site management practices, including inspections, groundwater monitoring, and the Environmental Easement that has been put in place for the Site, it appears that the remedies have withstood the Site conditions (weather, etc.) and have been performing as they were intended.

The following sections provide details and documentation associated with the Site inspections and groundwater monitoring program during the reporting period.

3 OPERATION AND MAINTENANCE / SITE INSPECTION

The ECs and ICs that have been implemented for the Site are required to protect human health as well as the environment. This section describes the EC/IC at the Site and the monitoring/inspection activities taking place to verify their continued effectiveness.

Since investigations and remedial actions began at the Site, the areas/caps/covers have had various identifiers. Table 1 below presents a list of the ECs installed at the Site and references the areas and past identifiers. A visual representation of the specific areas was included as Figure 2-1 in the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc. 2014).

Table 1. Engineering Controls

Inspection Form Cap/Cover Area	Cap/Cover Type	Description
A1	Pavement	Parking lot south of Building 900
A2		Heavy Duty pavement north of Building 900
A3		Pavement along southeast of Building 318 (SGW-14 Cover)
B1	Topsoil/Grass	Stormwater Filtration and Management System topsoil/grass area
B2		Topsoil/grass area bordering Building 900 on south side
C1	Riprap Spillway	Riprap that is part of the Stormwater Filtration and Management System
C2		
C3		
C4		
C5		Riprap slope protection area on the southeastern side of Building 900
D1 – D12	Concrete	Concrete pads located around Building 900
E1	Gravel	Gravel area west of Building 900
E2		Gravel area east of Building 900
E3		Gravel area north of Building 900/southwest of Building 318
E4		Gravel area south of Building 605 (B-02/SB-T3D and SB-T3F Cover)
E5		Gravel area between NWSA and northwest of Building 318 (SBRI-17 Cover)
F	NWSA Cap	NWSA Cap Area

The following subsections discuss the observations during inspections conducted at the Site during the reporting period June 1, 2018 to May 31, 2019. The inspections monitor the cap/cover types listed above and the Site Fence that borders the neighboring landfill area (west of the Site), as well as providing for a general inspection of the conditions of the monitoring well network.

Site inspection forms are included in Appendix A of this report. In general, the condition of the Cobalt Site is acceptable and well maintained. Specific areas of the Site inspection are outlined below.

3.1 Pavement Areas

No significant settlement, cracking, or areas of ponded water were observed on the pavement areas during the April 2019 inspection event. Overall conditions are acceptable.

3.2 Topsoil/Grass Areas

During the April 2019 inspection, the overall conditions were acceptable for the topsoil/grass areas, which continue to be well-maintained. Conditions were satisfactory with no apparent missing cap or cover material, and no significant unwanted vegetation or damage from burrowing animals observed.

3.3 Riprap Areas

The riprap spillway areas located southwest of Building 900 and east of the closed landfill were inspected in April 2019 and were in acceptable condition. No evidence of significant erosion, missing cover material, areas of settlement or ponded water, or damage from burrowing animals was observed. Some minor vegetation was observed in this area, but routine maintenance of vegetation prevents excessive vegetation growth. The riprap slope protection area on the southeastern side of Building 900 was also inspected and found to be in acceptable condition.

3.4 Concrete Areas

Concrete areas surrounding Building 900 were inspected in April 2019 and found to be in good condition. Some minor cracks similar to those observed in the past were noted, but no extensive cracking that would compromise the functionality of the concrete areas was observed. No significant areas of ponded water were observed in the concrete area adjacent to Building 900 during the Site inspection.

3.5 Gravel Areas

During the April 2019 inspection event, the gravel areas were found to be in satisfactory condition. A small amount of fabric was showing near the catch basin in Areas E1 and E2, but the catch basin appeared to be working effectively as designed.

3.6 Northwest Storage Area Cap

The NWSA Cap was inspected in April 2019 for evidence of erosion, cap integrity, excessive or unwanted vegetation, areas of ponded water and settlement, and damage from burrowing animals. In general, the NWSA Cap was in satisfactory condition.

3.7 Site Fence

The Site fence along the western portion of the Cobalt Site adjacent to the Closed Landfill was inspected during the April 2019 inspection event and found to be in acceptable condition with no major maintenance items observed.

3.8 Monitoring Well Network

In general, the monitoring well network is in acceptable condition, with groundwater sampling and groundwater level measurement activities able to be effectively performed. The well and Site inspection forms that were completed during the annual 2019 groundwater monitoring and inspection event are included as Appendix A. As indicated in the well inspection forms, no maintenance is needed at this time.

4 GROUNDWATER MONITORING PROGRAM

The NYSDEC-approved SMP required that a groundwater monitoring program be implemented on a semi-annual basis for the first three years following the approval of the COC, and annually thereafter. Semi-annual monitoring occurred in 2015, 2016 and 2017. Since 2018, the Site monitoring program has been conducted on a once per year basis.

The groundwater monitoring program is conducted in an effort to monitor the continued reduction of localized residual impact in the groundwater around the NWSA of the Site. Additionally, this monitoring provides an understanding of the flow potentials at the Site (O'Brien & Gere Engineers, Inc., 2014).

The groundwater monitoring network is comprised of 18 wells, generally focused on monitoring the shallow silt and clay up to 20 feet below ground surface (ft bgs). There is also a cluster of three wells that monitor the shallow silt and clay, the intermediate sandy silt layer (53 to 58 ft bgs) and the bedrock (87.5 to 89.5 ft bgs) (O'Brien & Gere Engineers, Inc., 2014). Figure 2 presents the monitoring well locations for the Site.

4.1 Water Levels and Hydraulic Gradients

Depths to groundwater were measured at 17 monitoring wells at the Cobalt Site (Table 2 and Figure 2) on April 15, 2019. These water level measurements are consistent with previous monitoring events. A potentiometric contour map was generated with the shallow (overburden) wells and is included as Figure 2. As shown in Figure 2, groundwater in the vicinity of the Cobalt Site generally flows south and southwest towards Fall Street which is consistent with previous potentiometric maps prepared for the Cobalt Site using shallow groundwater levels.

4.2 Groundwater Sampling

The NYSDEC-approved SMP requires 9 groundwater monitoring wells (MW-18SR, MW-19SR, MW-24S, MW-26S, MW-34, MW-35, MW-36, TW-BRW-01R, and TW-BRW-01S) to be sampled once per year starting in 2018 for analysis of Target Compound List (TCL) volatile organic compounds (VOCs) by EPA

Method 8260C plus tentatively identified compounds (TICs) and polychlorinated biphenyls (PCBs) by EPA Method 8082A. All 9 wells were sampled during the 2019 annual groundwater monitoring event.

Groundwater samples were submitted under routine chain-of-custody protocols to Alpha Analytical, a New York State Department of Health Environmental Lab Approval Program Contract Laboratory Protocol (NYSDOH ELAP CLP) certified laboratory in Westborough, MA for analysis. The laboratory report and chains of custody are included in Appendix B. The TCL VOCs by EPA Method 8260C plus TICs and PCBs by EPA Method 8082A analytical data from the sampling event are summarized in Table 3 and Table 4, respectively. Field parameters were measured during sampling of the monitoring wells. These parameters are shown on the field sampling logs included in Appendix C.

4.3 Groundwater Sampling Results

Groundwater sampling was conducted on April 16 and 17, 2019.

Table 5 below summarizes the well locations and compounds that were detected above NYSDEC Class GA groundwater standards during this reporting period.

Table 5. Groundwater Exceedances Summary

Monitoring Well	April 2019
MW-18SR	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene
TW/BRW-01R	1,1-dichloroethane; 1,1-dichloroethene
TW/BRW-01S	Total PCBs
MW-24S	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene

A figure illustrating compounds detected in groundwater samples is included as Figure 3. An estimated concentration of 1,4-dichlorobenzene below NYSDEC Class GA groundwater standards was the only detected constituent in well MW-19SR. VOCs and PCBs were not detected in wells MW-26S, MW-34, MW-35, and MW-36. With the exception of the elevated detected levels of 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene at MW-18SR, these results are generally consistent with recent

sampling events at the Site. The 2019 groundwater sampling results at MW-18SR are still within the range of historical values at this location. Compounds detected above NYSDEC Class GA standards are in a limited area within the NWSA.

In accordance with the NYSDEC-approved SMP, the next groundwater sampling event for the Cobalt Site will be conducted during the second quarter of 2020.

4.4 Data Validation

A data usability summary report (DUSR) was prepared by Data Validation Services of North Creek, New York and is included in Appendix D. In general, the data are usable as reported or with minor qualifications. These qualifications, where applicable, have been incorporated in Tables 3 and 4 and on Figure 3.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

In general, the NYSDEC-approved SMP is working effectively at the Cobalt Site. Site conditions have been generally consistent and have only required minimal maintenance. The groundwater conditions have also been generally consistent between the monitoring events. Concentrations of commonly detected VOCs at MW-18SR were higher during the April 2019 sampling event; however, were within the range of historical values at this location (Table 1-8c, O'Brien & Gere Engineers, Inc., 2014). Accordingly, the detections do not warrant changing the frequency of groundwater monitoring. Increasing the monitoring and reporting frequency would be considered if the concentration of commonly detected VOCs in groundwater at MW-18SR is consistently observed to be higher than historical values in future groundwater sampling events. There does not appear to be observations or sampling results indicating it is necessary to change Site management activities at this time.

5.2 Recommendations

The recommendation is to proceed with the inspections and monitoring as specified in the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc., 2014). In accordance with the NYSDEC-approved SMP beginning in 2018, the groundwater sampling event is now conducted once per year. The 2019 PRR and annual report follows the same submission structure. If there are no changes in Site conditions that warrant a change in the groundwater monitoring and Site inspection frequency described in the NYSDEC-approved SMP (O'Brien & Gere Engineers, Inc., 2014), ITT will continue to combine the Annual Groundwater Monitoring and Sampling and PRR report due to the NYSDEC by June 30th each year.

6 SUMMARY AND CERTIFICATION

See Appendix E for the completed NYSDEC Certifications.

7 REFERENCES

New York State Department of Environmental Conservation. 2016. Environmental Site Remediation Database Search Details. Site Number C850012. Available online at: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3.

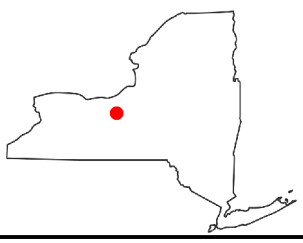
O'Brien & Gere Engineers, Inc. 2014. Site Management Plan: Goulds Pumps Cobalt Site. NYSDEC Site Number: C850012. Prepared for ITT Corporation.

FIGURES

0 90 180 360 540 720 Feet

Legend

- Closed Landfill
- Approximate NWSA Boundary
- Approximate Site Boundary



N

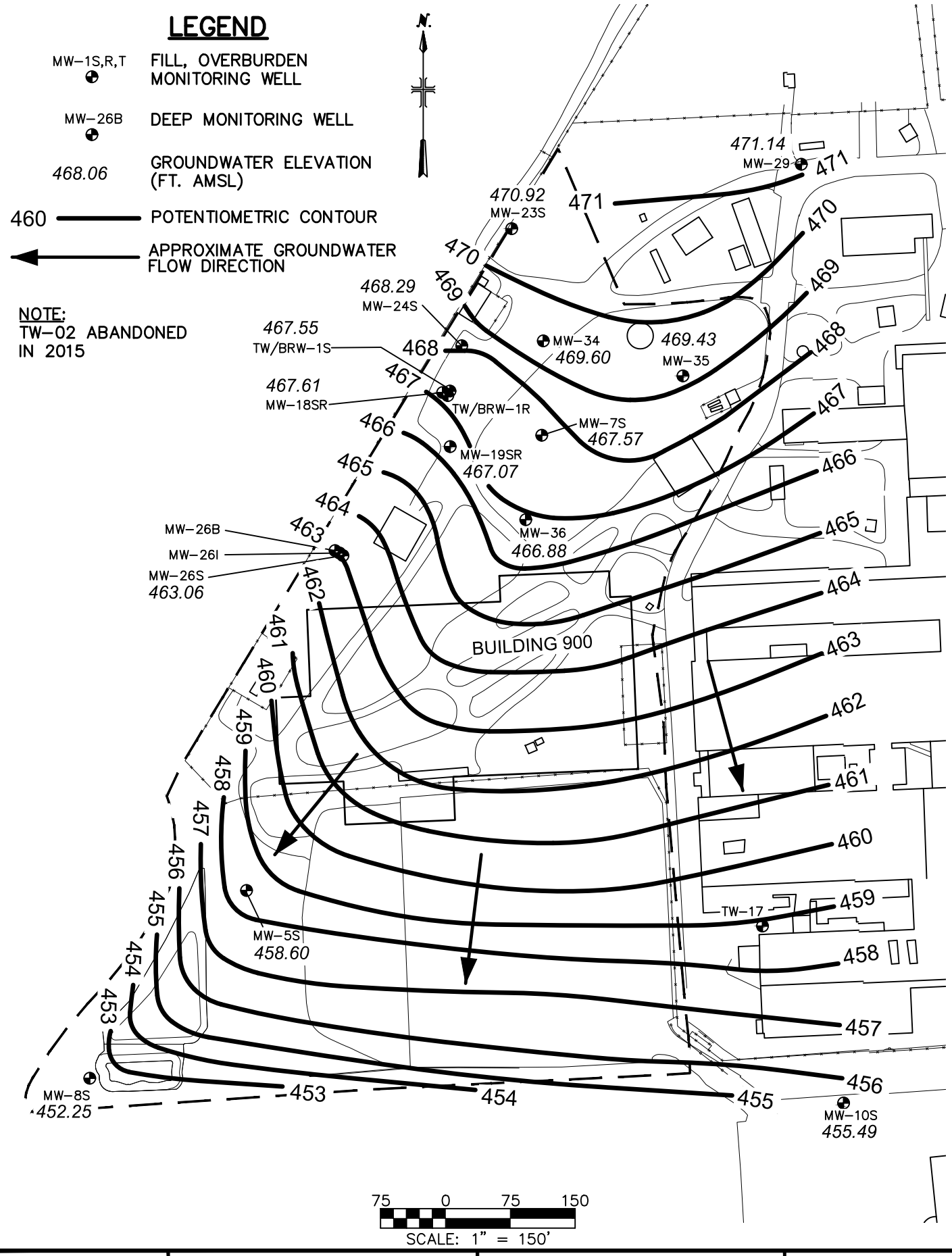
GOULDS PUMPS COBALT SITE
240 FALL STREET
SENECA FALLS, NEW YORK
NYSDEC SITE NO. C850012

SITE LOCATION AND FEATURES

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

Document Path: G:\GISMOD\01257117.0000\SiteMap_NoWells.mxd



ARCADIS	GOULDS PUMPS COBALT SITE 240 FALL STREET SENECA FALLS, NEW YORK NYSDEC SITE NO. C850012	SITE PLAN & POTENTIOMETRIC MAP SCALE: AS SHOWN	APRIL 2019 FIGURE 2

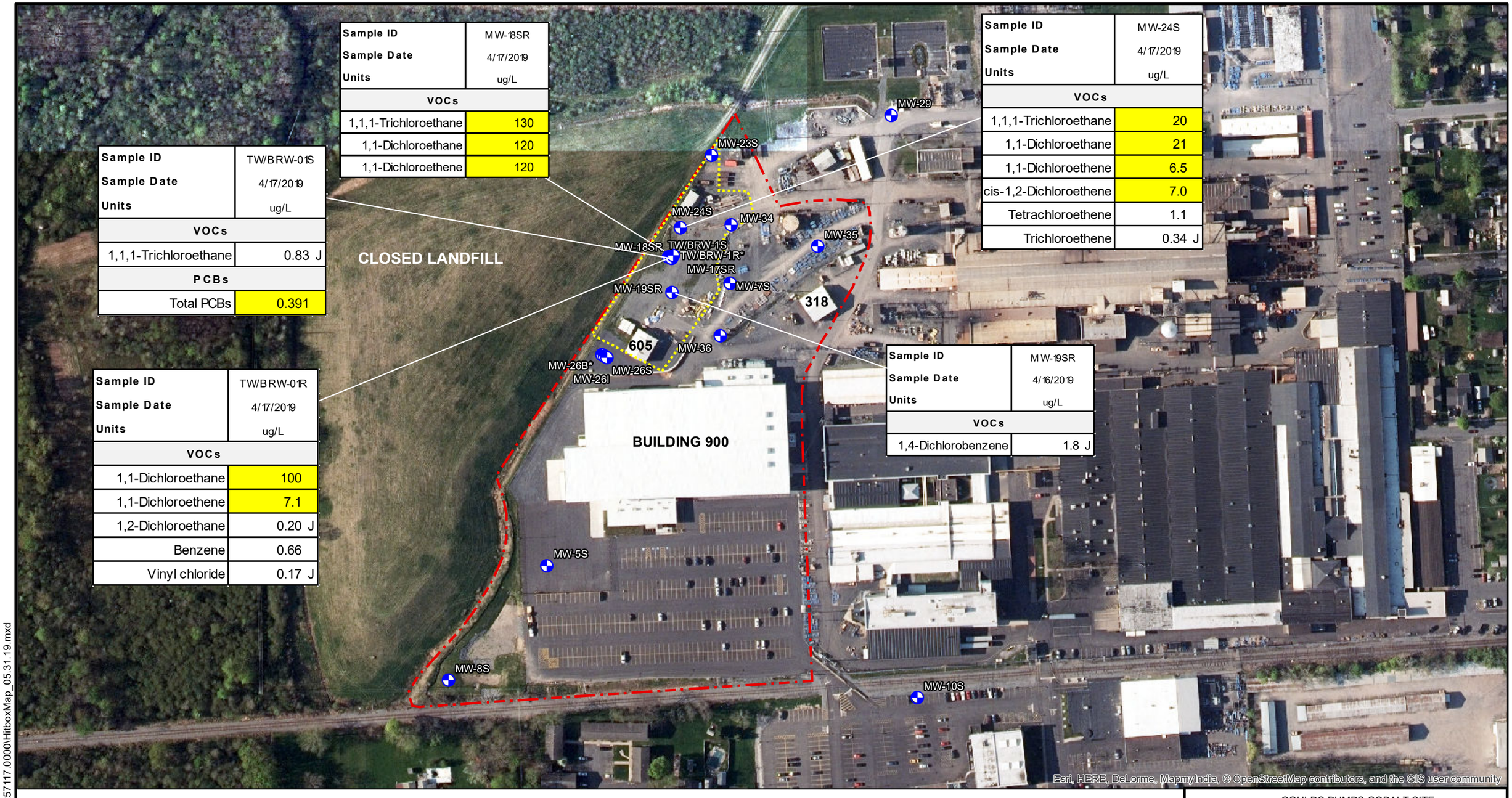
Sample ID	TW/BRW-01S
Sample Date	4/17/2019
Units	ug/L
VOCs	
1,1,1-Trichloroethane	0.83 J
PCBs	
Total PCBs	0.391

Sample ID	MW-18SR
Sample Date	4/17/2019
Units	ug/L
VOCs	
1,1,1-Trichloroethane	130
1,1-Dichloroethane	120
1,1-Dichloroethene	120

Sample ID	MW-24S
Sample Date	4/17/2019
Units	ug/L
VOCs	
1,1,1-Trichloroethane	20
1,1-Dichloroethane	21
1,1-Dichloroethene	6.5
cis-1,2-Dichloroethene	7.0
Tetrachloroethene	1.1
Trichloroethene	0.34 J

Sample ID	TW/BRW-01R
Sample Date	4/17/2019
Units	ug/L
VOCs	
1,1-Dichloroethane	100
1,1-Dichloroethene	7.1
1,2-Dichloroethane	0.20 J
Benzene	0.66
Vinyl chloride	0.17 J

Sample ID	MW-19SR
Sample Date	4/16/2019
Units	ug/L
VOCs	
1,4-Dichlorobenzene	1.8 J



0 150 300 600 900 1,200 Feet

Legend

- Monitoring Well
- NWSA (Approximate)
- Approximate Site Boundary

Note: J - Estimated below laboratory reporting limit.
Highlighted concentrations exceed NYSDEC Class GA Standard

N

GOULDS PUMPS COBALT SITE
240 FALL STREET
SENECA FALLS, NEW YORK
NYSDEC SITE NO. C850012

SUMMARY OF VALIDATED VOC & PCB DETECTIONS IN GROUNDWATER

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

Document Path: G:\GISMOD\01257117.0000\HitboxMap_05.31.19.mxd

TABLES

Table 2
Summary of Water Levels
Goulds Pumps - Cobalt Site
Seneca Falls, NY

Well ID	Northing	Easting	Ground Elevation (ft amsl)	Top of Riser Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	Hydrogeologic Screen Interval	Groundwater Level 5/26/2015		Groundwater Level 11/11/2015		Groundwater Level 5/10/2016		Groundwater Level 12/05/2016		Groundwater Level 4/03/2017		Groundwater Level 12/04/2017		Groundwater Level 4/23/2018		Groundwater Level 4/15/2019	
							(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)	(ft btoc)	(ft amsl)
MW-5S	1061227.0	758514.8	463.5	466.1	462.98	Silt & Clay	4.77	458.21	5.02	457.96	4.92	458.06	4.76	458.22	4.32	458.66	5.22	457.76	4.79	458.19	4.38	458.60
MW-7S	1061753.4	758856.1	469.4	471.8	471.77	Silt & Clay	4.52	467.25	4.51	467.26	4.4	467.37	4.04	467.73	2.90	468.87	4.59	467.18	4.23	467.54	4.20	467.57
MW-8S	1061009.8	759205.1	458.4	460.9	460.85	Silt & Clay	DRY	NA	8.81	452.04	8.85	452.00	8.79	452.06	8.24	452.61	8.75	452.10	8.59	452.26	8.60	452.25
MW-10S	1060981.2	759205.1	458.1	458.09	457.42	Silt & Clay	1.77	455.65	1.92	455.50	1.88	455.54	1.68	455.74	0.69	456.73	2.38	455.04	1.6	455.82	1.93	455.49
MW-18SR	1061802.7	758741.5	470.9	470.5	470.54	Silt & Clay	2.78	467.76	2.73	467.81	2.75	467.79	2.59	467.95	2.08	468.46	3.41	467.13	3.00	467.54	2.93	467.61
MW-19SR	1061736.6	758747.7	470.2	469.7	469.66	Silt & Clay	2.60	467.06	2.91	466.75	2.63	467.03	2.18	467.48	1.76	467.90	4.83	464.83	2.33	467.33	2.59	467.07
MW-23S	1061992.2	758821.4	473.2	475.4	475.36	Silt & Clay	6.27	469.09	4.45	470.91	5.74	469.62	4.85	470.51	4.32	471.04	5.81	469.55	4.86	470.50	4.44	470.92
MW-24S	1061856.9	758763.6	471.5	471.1	471.11	Silt & Clay	3.05	468.06	2.93	468.18	2.9	468.21	2.71	468.40	1.14	469.97	3.23	467.88	2.90	468.21	2.82	468.29
MW-26B*	1061620	758617.1	467.1	469.4	469.35	Bedrock	22.36	446.99	23.31	446.04	22.6	446.75	24.45	444.90	21.88	447.47	22.93	446.42	22.03	447.32	23.72	445.63
MW-26I	1061617.3	758622.2	467.3	469.2	469.22	Sand & Silt	23.25	445.97	24.08	445.14	23.41	445.81	25.06	444.16	22.89	446.33	23.77	445.45	22.99	446.23	22.63	446.59
MW-26S	1061614.3	758626.3	467.6	469.5	469.52	Silt & Clay	7.46	462.06	6.62	462.90	6.73	462.79	6.74	462.78	6.24	463.28	6.68	462.84	6.47	463.05	6.46	463.06
MW-29	1062066.7	759156.3	474.9	474.9	474.6	Silt & Clay	4.64	469.96	4.41	470.19	4.28	470.32	3.78	470.82	3.26	471.34	4.28	470.32	3.7	470.90	3.46	471.14
MW-34	1061862.504	758857.8706	471.57	471.10	471.55	Silt & Clay	1.94	NA	2.00	469.55	2.04	469.51	1.90	469.65	1.84	469.71	2.17	469.38	1.93	469.62	1.95	469.60
MW-35	1061821.951	759019.4162	471.12	470.95	471.18	Silt & Clay	1.68	NA	1.88	469.30	1.69	469.49	1.81	469.37	1.10	470.08	1.86	469.32	1.57	469.61	1.75	469.43
MW-36	1061655.772	758837.6341	469.58	469.25	469.56	Silt & Clay	7.00	NA	6.56	463.00	3.71	465.85	1.58	467.98	3.05	466.51	3.30	466.26	2.01	467.55	2.68	466.88
TW/BRW-1S	1061799.3	758747.5	470.7	470.5	470.49	Silt & Clay	NM***	NM	3.18	467.31	NM***	NA	NM***	NA	1.90	468.59	1.98	468.51	3.06	467.43	2.94	467.55
TW/BRW-1R*	1061804.5	758750	470.7	470.4	470.39	Bedrock	23.20	447.19	24.17	446.22	23.4	446.99	25.38	445.01	22.71	447.68	23.79	446.60	22.9	447.49	22.61	447.78

Notes:

Horizontal Datum: NAD83(CORS) - NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE

Vertical Datum: North American Vertical Datum of 1988 (NAVD88)

TW-02 was abandoned in 2015

CNL - Could Not Locate

ft amsl - feet above mean sea level ft btoc - feet below top of casing ID - identification

NA - Not Available

NM - Not Measured

* Bedrock screened well

** Well is destroyed

*** Monitoring well is 1/2" diameter - water level probe would not fit down well

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID Sample Date Units	NYSDEC Class GA Standard (ug/L)	MW-18SR 5/27/2015 ug/L	MW-18SR 11/11/2015 ug/L	MW-18SR 5/10/2016 ug/L	MW-18SR 12/6/2016 ug/L	MW-18SR 4/3/2017 ug/L	MW-18SR 12/5/2017 ug/L	MW-18SR 4/24/2018 ug/L	MW-18SR 4/16/2019 ug/L	MW-19SR 5/27/2015 ug/L	MW-19SR 11/12/2015 ug/L	MW-19SR 5/10/2016 ug/L	MW-19SR 12/6/2016 ug/L	MW-19SR 4/3/2017 ug/L	MW-19SR 12/5/2017 ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	**14**	**8.2**	**9.2**	**8.6**	**9.5**	**34**	**8.8**	**130**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	**8.5**	**5.4**	**5.2**	**5.4**	**8.5**	**34**	**5.2**	**120**	1.4 J	1.3 J	0.84 J	0.81 J	2.5 U	2.5 U
1,1-Dichloroethene	5	**11**	**6.1 J**	**5**	**7.4**	**9.4**	**35**	4.0	**120**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 J	1.4 J	1.5 J	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**4.0**	**4.0**	**4.6**	1.6 J	1.6 J	2.3 J
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	5.0 U	5.0 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 J	1.6 J	1.6 J	2.5 U	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	0.12 J	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	1.3 J	5.86 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-19SR	MW-19SR	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-35	MW-35	MW-35	MW-35
Sample Date	Class GA Standard (ug/L)	4/24/2018	4/16/2019	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/4/2017	12/5/2017	4/24/2018	4/16/2019	5/27/2015	11/12/2015	5/10/2016	12/6/2016
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	1.6 J	1.8 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U
Bromomethane	5	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.0 J	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	ND	ND	1.2 J	3.61 J	ND	ND	ND	ND	ND	ND	ND	3.4 J	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-35	MW-35	MW-35	MW-35	DUP-X	DUP-X	DUPLICATE	DUPLICATE	DUPLICATE	DUP-MW-X	DUP-MW-X	DUP	MW-36	MW-36
Sample Date	Class GA Standard	4/3/2017	12/5/2017	4/24/2018	4/16/2019	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/16/2019	5/27/2015	11/12/2015
Units	(ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ
Bromomethane	5	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	1.0 J	1.8 J	1.0 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-36	MW-36	MW-36	MW-36	MW-36	MW-36	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S
Sample Date	Class GA Standard	5/10/2016	12/5/2016	4/3/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/13/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/17/2019
Units	(ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.86 J	1.8 J	0.73 J	2.5 U	2.5 U	1.8 J	1.5 J	0.83 J
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 J	2.0 J	1.4 J	1.8 J	1.4 J	2.5	1.1 J	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.54	0.4 J	0.14 J	0.47 J	0.5 U	0.68	0.41 J	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.9	1.8 J	2.5 U	1 J	1.7 J	0.71 J	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.81 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.59	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.9 J	1.1 J	1.6 J	1.2 J	1.2 J	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**3.2**	2.3 J	**3.5**	2.7	2.4 J	1.4 J	0.73 J	2.5 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 J	1.1 J	1.4 J	1.5 J	1.2 J	0.9 J	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.58	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.22 J	ND	--	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S
Sample Date	Class GA Standard (ug/L)	5/27/2015	11/11/2015	5/10/2016	12/6/2016	4/4/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/12/2015	5/10/2016	12/7/2016	4/4/2017	12/5/2017
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	**92**	**36**	**95**	0.74 J	2.5 U	**92**	**14**	**20**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	3.0 U	1.5 U	3.0 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	**86**	**24**	**82**	2.5 U	2.5 U	**54**	**9.5**	**21**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	**33**	**9.8 J**	**37**	0.24 J	0.5 U	**27**	4.2	**6.5**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene		5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	5.0 U	2.5 UJ	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	1.0 U	0.5 U	0.32 J	0.5 U	0.5 U	0.23 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	50	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	9.5 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	4.0 U	2.0 UJ	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	5.0 U	2.5 U	5.0 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ
Carbon disulfide		10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	**29**	**8.0**	**37**	2.5 U	2.5 U	**25**	3.7	**7.0**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		20 U	10 U	20 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		20 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	4.0	1.2	4.9	0.27 J	0.50 U	4.5	0.78	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	1.1	0.28 J	1.6	0.5 U	0.5 U	1.2	0.5 U	0.34 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 U	0.89 J	1.0 U	1.0 U	0.12 J-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	2.8 J	1.1 J	ND	ND	ND	ND	ND	ND	ND	3.1 J	ND	ND	ND	--

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-26S	MW-26S	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	Field Blank	Field Blank	Field Blank	Field Blank
Sample Date	Class GA	4/24/2018	4/16/2019	5/27/2015	11/13/2015	5/10/2016	12/7/2016	4/4/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/13/2015	5/10/2016	12/7/2016
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds															
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	1.6 J	**78**	2.5 U	**67**	**63**	2.5 U	2.5 U	**100**	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	4.0	0.5 U	2.8	3.0	0.5 U	0.5 U	**7.1**	0.5 U	0.5 UJ	0.5 U	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 J
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.15 J	0.5 U	0.5 U	0.5 U	0.20 J	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.3 J	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.4 J	5.0 U	10 U	5.0 U	3.7 J	3.7 J	3.2 J
Benzene	1	0.5 U	0.5 U	0.5 U	0.42 J	0.5 U	0.54	0.51	0.5 U	0.5 U	0.66	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 J
Bromomethane	5	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	2	1.0 U	1.0 U	2.0 U	1.0 UJ	2.0 U	2.0 U	1.1	2.0 U	2.0 U	0.17 J	1.0 U	1.0 UJ	1.0 U	1.0 U
Total TIC Compounds	--	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	2.87 J	4.27 J

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 3
Summary of Validated Analytical Results - VOCs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	Field Blank	Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Sample Date	Class GA Standard (ug/L)	4/4/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	5/28/2015	11/12/2015	5/10/2016	12/6/2016	4/3/2017	4/24/2018	4/17/2019
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds													
1,1,1-Trichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 J	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	50*	7.4	5.0 U	5.8 J+	5.8	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2 J
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 J	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 UJ	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U
Bromomethane	5	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 J	2.5 U	2.5 U	2.5 U
Chloromethane		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	10 U	10 U	10 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total TIC Compounds	--	6.25 J	--	4.24 J	10.3 J	ND	ND	ND	ND	ND	3.39 J	3.39 J	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

UJ = Compound not detected; associated reported quantitation limit is approximate and may be inaccurate or imprecise.

J = Estimated concentration less than laboratory reporting limit

J- = Associated value is estimated and may be biased low

J+ = Associated value is estimated and may be biased high

ND = Not Detected

= Concentration exceeds NYSDEC Class GA Standard

DUP-MW-X, DUPLICATE collected at MW-35

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-24S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S	MW-26S
Sample Date	Class GA	5/27/2015	11/11/2015	5/10/2016	12/6/2016	4/4/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/12/2015	5/10/2016	12/7/2016	4/4/2017	12/5/2017	4/24/2018	4/16/2019
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PCBs																	
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	TW/BRW-01R	MW-18SR	MW-18SR	MW-18SR	MW-18SR	MW-18SR	MW-18SR	MW-18SR	MW-18SR
Sample Date	Class GA	5/27/2015	11/13/2015	5/10/2016	12/7/2016	4/4/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/11/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/17/2019	
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
PCBs																		
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1254	0.09*	0.083 U	0.083 UJ	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Total PCBs	0.09*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-19SR	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34
Sample Date	Class GA	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/16/2019	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/4/2017	12/5/2017	4/24/2018	4/16/2019	
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
PCBs																		
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1254	0.09*	**0.346**	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	
Total PCBs	0.09*	**0.346**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	DUP-X	DUP-X	DUPLICATE	DUPLICATE	DUPLICATE	DUPLICATE	DUPLICATE	DUPLICATE
Sample Date	Class GA	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/16/2019	5/27/2015	11/12/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/16/2019
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PCBs																	
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	MW-36	MW-36	MW-36	MW-36	MW-36	MW-36	MW-36	MW-36	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S	TW/BRW-01S
Sample Date	Class GA	5/27/2015	11/12/2015	5/10/2016	12/5/2016	4/3/2017	12/5/2017	4/24/2018	4/17/2019	5/27/2015	11/13/2015	5/10/2016	12/6/2016	4/3/2017	12/5/2017	4/24/2018	4/17/2019
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PCBs																	
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	**0.493**	**0.88 J**	**0.650**	0.083 U	0.083 U	**0.294 J**	**0.321**	**0.391**
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	**0.21**	**0.22**	**0.272**	**1.65**	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND	ND	ND	ND	ND	ND	**0.703**	**1.1**	**0.922**	**1.65**	0.083 U	**0.294 J**	**0.321**	**0.391**

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 4
Summary of Validated Analytical Results - PCBs in Groundwater
Goulds Pumps Administration - Cobalt Site
Seneca Falls, NY

Sample ID	NYSDEC	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank	Field Blank
Sample Date	Class GA	5/27/2015	11/13/2015	5/10/2016	12/7/2016	4/4/2017	12/5/2017	4/24/2018	4/17/2019
Units	Standard (ug/L)	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PCBs									
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

*Appies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

APPENDIX A

Second Quarter 2019 Site and Well Inspection Forms

Site Inspection Form

Date Performed: 4/15/19
Site Name: Goulds Pumps Cobalt Site (No. C850012)
Site Location: Seneca Falls, NY

Weather: Cloudy 43°F
Inspector Name: Emmanuel Sousa
Inspector Signature: [signature]

Cap/Cover Inspection					
Cap/Cover Area (see Figure 2-1)	**Cap/Cover Type (e.g. gravel, pavement)**	**Inspected (Y/N)**	**Acceptable (Y/N)**	**Maintenance Required (Y/N)**	**Description of Required Maintenance or Comments *(attach photographs for documentation as appropriate)***
A1	Pavement	Y	Y	N	OK
A2	Pavement	Y	Y	N	OK
A3	Pavement	Y	Y	N	OK
B1	Top Soil/Grass	Y	Y	N	OK
B2	Top Soil/Grass	Y	Y	N	OK
C1	Rip Rap Spillway	Y	Y	N	Some vegetation growing in Rip rap
C2	↓	Y	Y	N	↓
C3	↓	Y	Y	N	↓
C4	↓	Y	Y	N	↓
C5	Rip Rap Slope Protection	Y	Y	N	OK
D1	Concrete	Y	Y	N	OK
D2	Concrete	Y	Y	N	OK

Site Inspection Form

D3	Concrete	Y	Y	N	OK
D4	Concrete	Y	Y	N	OK
D5	Concrete	Y	Y	N	OK
D6	Concrete	Y	Y	N	OK
D7	Concrete	Y	Y	N	OK
D8	Concrete	Y	Y	N	OK
D9	Concrete	Y	Y	N	OK
D10	Concrete	Y	Y	N	OK
D11	Concrete	Y	Y	N	OK
D12	Concrete	Y	Y	N	OK
E1	Gravel	Y	Y	N	Some fabric showing @ North end near drain " " " North of D2
E2	Gravel	Y	Y	N	Some fabric showing @ North and Near D11
E3	Gravel	Y	Y	N	OK
E4	Gravel	Y	Y	N	OK
E5	Gravel	Y	Y	N	OK
F	NWSA Cap	Y	Y	N	OK

Conditions to Review

a. erosion
b. missing cap/cover material
c. vegetation growing through cap/cover (excluding vegetated covers)
d. areas of ponded water
e. areas of settlement
f. damage from burrowing animals

Site Fence Inspection			
Inspected (Y/N)	Acceptable (Y/N)	Maintenance Required	Description of Required Maintenance or Comments
Y	Y	N	OK

Well Inspection Form

Date Performed: 4/15/19
Site Name: Goulds Pumps Cobalt Site (No. C850012)
Site Location: Seneca Falls, NY

Weather: 39°F Rain
Inspector Name: J Duquette
Inspector Signature:

Well Integrity Inspection				
Well ID	**Inspected (Y/N)**	**Acceptable (Y/N)**	**Maintenance Required (Y/N)**	**Description of Required Maintenance or Comments**
MW-08D	Y	Y	N	
MW-08R	Y	Y	N	
MW-10S	Y	Y	N	
MW-18SR	Y	Y	N	
MW-19SR	Y	Y	N	
MW-23S	Y	Y	N	
MW-24S	Y	Y	N	
MW-26B	Y	Y	N	
MW-26I	Y	Y	N	
MW-26S	Y	Y	N	
MW-29	Y	Y	N	
MW-34	Y	Y	N	
MW-35	Y	Y	N	
MW-36	Y	Y	N	
MW-5S	Y	Y	N	
MW-8S	Y	Y	N	
TW/BRW-01R	Y	Y	N	
TW/BRW-01S	Y	Y	N	
TW-02	Y	Y	N	
TW-17	Y	Y	N	

Conditions to Review

a. depth Sounding matches construction
b. well pad is not broken or falling apart
c. lock functions properly
d. well cap is functional and properly preventing water infiltration
e. well casing or flush mount protective cover is protective the well

APPENDIX B

Summary Data Package – Alpha Analytical

ANALYTICAL REPORT

Lab Number:	L1915848
Client:	Arcadis U.S, Inc. 855 Route 146, Suite 210 Clifton Park, NY 12065
ATTN:	Elias Moskal
Phone:	(518) 250-7300
Project Name:	GOULDS COBALT SITE
Project Number:	01257117.2019
Report Date:	04/25/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1915848-01	MW-35	WATER	SENECA FALLS, NY	04/16/19 17:35	04/17/19
L1915848-02	DUP	WATER	SENECA FALLS, NY	04/16/19 00:00	04/17/19
L1915848-03	MW-34	WATER	SENECA FALLS, NY	04/16/19 16:20	04/17/19
L1915848-04	MW-19SR	WATER	SENECA FALLS, NY	04/16/19 17:25	04/17/19
L1915848-05	MW-26S	WATER	SENECA FALLS, NY	04/16/19 16:15	04/17/19
L1915848-06	TWBRW-01R	WATER	SENECA FALLS, NY	04/17/19 09:20	04/17/19
L1915848-07	TWBRW-01S	WATER	SENECA FALLS, NY	04/17/19 08:15	04/17/19
L1915848-08	MW-18SR	WATER	SENECA FALLS, NY	04/17/19 10:05	04/17/19
L1915848-09	MW-36	WATER	SENECA FALLS, NY	04/17/19 08:55	04/17/19
L1915848-10	MW-24S	WATER	SENECA FALLS, NY	04/17/19 07:30	04/17/19
L1915848-11	FIELD BLANK	WATER	SENECA FALLS, NY	04/17/19 10:00	04/17/19
L1915848-12	TRIP BLANK	WATER	SENECA FALLS, NY	04/17/19 00:00	04/17/19

Project Name:	GOULDS COBALT SITE	**Lab Number:**	L1915848
Project Number:	01257117.2019	**Report Date:**	04/25/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	GOULDS COBALT SITE	**Lab Number:**	L1915848
Project Number:	01257117.2019	**Report Date:**	04/25/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1915848-11: A sample identified as "FIELD BLANK" was received but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

L1915848-12: A sample identified as "TRIP BLANK" was received but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

Volatile Organics

L1915848-11: The Field Blank has a result for acetone present above the reporting limit. The sample vial was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Amita Naik

Title: Technical Director/Representative Date: 04/25/19

ORGANICS

VOLATILES

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-01
Client ID: MW-35
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 17:35
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 15:53
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE
Lab Number: L1915848
Project Number: 01257117.2019
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-01
Client ID: MW-35
Sample Location: SENECA FALLS, NY
Date Collected: 04/16/19 17:35
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-02
Client ID: DUP
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 00:00
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 16:23
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-02 Date Collected: 04/16/19 00:00

Client ID: DUP Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-03
Client ID: MW-34
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 16:20
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 16:52
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-03
Client ID: MW-34
Sample Location: SENECA FALLS, NY
Date Collected: 04/16/19 16:20
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-04
Client ID: MW-19SR
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 17:25
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 17:22
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-04
Client ID: MW-19SR
Sample Location: SENECA FALLS, NY
Date Collected: 04/16/19 17:25
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	1.8	J	ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-05
Client ID: MW-26S
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 16:15
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 13:28
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-05 Date Collected: 04/16/19 16:15

Client ID: MW-26S Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-06
Client ID: TWBRW-01R
Sample Location: SENECA FALLS, NY
Date Collected: 04/17/19 09:20
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 13:56
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	100		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	0.20	J	ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.66		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.17	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	7.1		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-06 Date Collected: 04/17/19 09:20

Client ID: TWBRW-01R Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	10		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	120	J	ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-07
Client ID: TWBRW-01S
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 08:15
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 14:24
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	0.83	J	ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-07
Client ID: TWBRW-01S
Sample Location: SENECA FALLS, NY
Date Collected: 04/17/19 08:15
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-08
Client ID: MW-18SR
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 10:05
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 14:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	120		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	130		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	120		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-08 Date Collected: 04/17/19 10:05

Client ID: MW-18SR Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	120	J	ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	107		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-09
Client ID: MW-36
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 08:55
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 15:20
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-09 Date Collected: 04/17/19 08:55

Client ID: MW-36 Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-10
Client ID: MW-24S
Sample Location: SENECA FALLS, NY
Date Collected: 04/17/19 07:30
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/22/19 15:48
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	21		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	1.1		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	20		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	6.5		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.34	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-10 Date Collected: 04/17/19 07:30

Client ID: MW-24S Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	7.0		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-11
Client ID: FIELD BLANK
Sample Location: SENECA FALLS, NY
Date Collected: 04/17/19 10:00
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/24/19 11:01
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-11 Date Collected: 04/17/19 10:00

Client ID: FIELD BLANK Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.8		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds						
Total TIC Compounds	10.3	J	ug/l			1
Isobutane	10.3	NJ	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	108		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-12
Client ID: TRIP BLANK
Sample Location: SENECA FALLS, NY
Date Collected: 04/17/19 00:00
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/24/19 11:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOULDS COBALT SITE **Lab Number:** L1915848

Project Number: 01257117.2019 **Report Date:** 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-12 Date Collected: 04/17/19 00:00

Client ID: TRIP BLANK Date Received: 04/17/19

Sample Location: SENECA FALLS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	106		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:48
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-10 Batch: WG1229093-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:48
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-10 Batch: WG1229093-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:48
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-10 Batch: WG1229093-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	104		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1229353-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1229353-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/22/19 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1229353-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/24/19 09:10
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG1229801-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/24/19 09:10
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG1229801-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/24/19 09:10
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-12 Batch: WG1229801-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 Batch: WG1229093-3 WG1229093-4								
Methylene chloride	95		92		70-130	3		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	98		97		70-130	1		20
Carbon tetrachloride	92		92		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	98		98		63-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	91		89		70-130	2		20
Chlorobenzene	98		96		75-130	2		20
Trichlorofluoromethane	87		86		62-150	1		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	93		92		67-130	1		20
Bromodichloromethane	95		94		67-130	1		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	98		98		70-130	0		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	120		110		67-130	9		20
Benzene	100		98		70-130	2		20
Toluene	97		96		70-130	1		20
Ethylbenzene	100		98		70-130	2		20
Chloromethane	100		97		64-130	3		20
Bromomethane	94		94		39-139	0		20
Vinyl chloride	90		87		55-140	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 Batch: WG1229093-3 WG1229093-4								
Chloroethane	89		88		55-138	1		20
1,1-Dichloroethene	89		88		61-145	1		20
trans-1,2-Dichloroethene	92		89		70-130	3		20
Trichloroethene	93		92		70-130	1		20
1,2-Dichlorobenzene	99		98		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	98		98		70-130	0		20
Methyl tert butyl ether	99		99		63-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	93		93		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	60		56		36-147	7		20
Acetone	130		130		58-148	0		20
Carbon disulfide	93		91		51-130	2		20
2-Butanone	120		130		63-138	8		20
4-Methyl-2-pentanone	120		120		59-130	0		20
2-Hexanone	**140**	Q	130		57-130	7		20
Bromochloromethane	95		96		70-130	1		20
1,2-Dibromoethane	98		98		70-130	0		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Isopropylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	95		95		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE

Project Number: 01257117.2019

Lab Number: L1915848

Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 Batch: WG1229093-3 WG1229093-4								
1,2,4-Trichlorobenzene	92		93		70-130	1		20
Methyl Acetate	130		**140**	Q	70-130	7		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	82		90		56-162	9		20
Freon-113	90		87		70-130	3		20
Methyl cyclohexane	92		89		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	120		117		70-130
Toluene-d8	108		107		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	103		104		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1229353-3 WG1229353-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		97		62-150	3		20
1,2-Dichloroethane	100		99		70-130	1		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	96		96		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	70		70		64-130	0		20
Bromomethane	**32**	Q	**35**	Q	39-139	9		20
Vinyl chloride	110		100		55-140	10		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1229353-3 WG1229353-4								
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	99		98		70-130	1		20
Methyl tert butyl ether	98		98		63-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	94		89		36-147	5		20
Acetone	100		100		58-148	0		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	75		72		63-138	4		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	91		90		57-130	1		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	97		100		41-144	3		20
Isopropylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	93		94		70-130	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1229353-3 WG1229353-4								
1,2,4-Trichlorobenzene	97		98		70-130	1		20
Methyl Acetate	79		74		70-130	7		20
Cyclohexane	120		110		70-130	9		20
1,4-Dioxane	84		90		56-162	7		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	110		100		70-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		95		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	99		101		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG1229801-3 WG1229801-4								
Methylene chloride	94		95		70-130	1		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	96		95		63-132	1		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	99		98		63-130	1		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	88		88		70-130	0		20
Chlorobenzene	97		97		75-130	0		20
Trichlorofluoromethane	87		86		62-150	1		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	94		94		67-130	0		20
Bromodichloromethane	99		97		67-130	2		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	98		100		70-130	2		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	97		97		70-130	0		20
Ethylbenzene	98		98		70-130	0		20
Chloromethane	110		100		64-130	10		20
Bromomethane	91		79		39-139	14		20
Vinyl chloride	88		85		55-140	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG1229801-3 WG1229801-4								
Chloroethane	88		85		55-138	3		20
1,1-Dichloroethene	88		89		61-145	1		20
trans-1,2-Dichloroethene	93		92		70-130	1		20
Trichloroethene	95		95		70-130	0		20
1,2-Dichlorobenzene	96		96		70-130	0		20
1,3-Dichlorobenzene	96		97		70-130	1		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	95		95		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	57		55		36-147	4		20
Acetone	140		140		58-148	0		20
Carbon disulfide	92		92		51-130	0		20
2-Butanone	**140**	Q	**140**	Q	63-138	0		20
4-Methyl-2-pentanone	120		110		59-130	9		20
2-Hexanone	130		130		57-130	0		20
Bromochloromethane	96		94		70-130	2		20
1,2-Dibromoethane	98		96		70-130	2		20
1,2-Dibromo-3-chloropropane	99		94		41-144	5		20
Isopropylbenzene	100		99		70-130	1		20
1,2,3-Trichlorobenzene	92		91		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE

Project Number: 01257117.2019

Lab Number: L1915848

Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-12 Batch: WG1229801-3 WG1229801-4								
1,2,4-Trichlorobenzene	90		90		70-130	0		20
Methyl Acetate	**140**	Q	**140**	Q	70-130	0		20
Cyclohexane	110		110		70-130	0		20
1,4-Dioxane	86		78		56-162	10		20
Freon-113	89		88		70-130	1		20
Methyl cyclohexane	93		91		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	120		123		70-130
Toluene-d8	106		107		70-130
4-Bromofluorobenzene	105		105		70-130
Dibromofluoromethane	104		107		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE

Project Number: 01257117.2019

Lab Number: L1915848

Report Date: 04/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 QC Batch ID: WG1229093-6 WG1229093-7 QC Sample: L1915848-06 Client ID: TWBRW-01R												
Methylene chloride	ND	10	10	100		11	110		70-130	10		20
1,1-Dichloroethane	100	10	110	100		110	100		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	10	100		12	120		63-132	18		20
1,2-Dichloropropane	ND	10	11	110		12	120		70-130	9		20
Dibromochloromethane	ND	10	10	100		11	110		63-130	10		20
1,1,2-Trichloroethane	ND	10	11	110		11	110		70-130	0		20
Tetrachloroethene	ND	10	9.3	93		10	100		70-130	7		20
Chlorobenzene	ND	10	10	100		11	110		75-130	10		20
Trichlorofluoromethane	ND	10	10	100		11	110		62-150	10		20
1,2-Dichloroethane	0.20J	10	12	120		12	120		70-130	0		20
1,1,1-Trichloroethane	ND	10	11	110		12	120		67-130	9		20
Bromodichloromethane	ND	10	10	100		11	110		67-130	10		20
trans-1,3-Dichloropropene	ND	10	11	110		11	110		70-130	0		20
cis-1,3-Dichloropropene	ND	10	9.7	97		10	100		70-130	3		20
Bromoform	ND	10	10	100		11	110		54-136	10		20
1,1,2,2-Tetrachloroethane	ND	10	12	120		12	120		67-130	0		20
Benzene	0.66	10	12	113		12	113		70-130	0		20
Toluene	ND	10	10	100		11	110		70-130	10		20
Ethylbenzene	ND	10	10	100		11	110		70-130	10		20
Chloromethane	ND	10	12	120		13	130		64-130	8		20
Bromomethane	ND	10	9.8	98		11	110		39-139	12		20
Vinyl chloride	0.17J	10	10	100		11	110		55-140	10		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 QC Batch ID: WG1229093-6 WG1229093-7 QC Sample: L1915848-06 Client ID: TWBRW-01R												
Chloroethane	ND	10	10	100		11	110		55-138	10		20
1,1-Dichloroethene	7.1	10	17	99		18	109		61-145	6		20
trans-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Trichloroethene	ND	10	10	100		11	110		70-130	10		20
1,2-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,3-Dichlorobenzene	ND	10	9.9	99		10	100		70-130	1		20
1,4-Dichlorobenzene	ND	10	9.8	98		10	100		70-130	2		20
Methyl tert butyl ether	ND	10	10	100		11	110		63-130	10		20
p/m-Xylene	ND	20	20	100		22	110		70-130	10		20
o-Xylene	ND	20	20	100		22	110		70-130	10		20
cis-1,2-Dichloroethene	ND	10	9.8	98		11	110		70-130	12		20
Styrene	ND	20	20	100		21	105		70-130	5		20
Dichlorodifluoromethane	ND	10	6.8	68		7.3	73		36-147	7		20
Acetone	10	10	23	130		24	140		58-148	4		20
Carbon disulfide	ND	10	10	100		11	110		51-130	10		20
2-Butanone	ND	10	14	**140**	Q	14	**140**	Q	63-138	0		20
4-Methyl-2-pentanone	ND	10	12	120		12	120		59-130	0		20
2-Hexanone	ND	10	14	**140**	Q	15	**150**	Q	57-130	7		20
Bromochloromethane	ND	10	10	100		11	110		70-130	10		20
1,2-Dibromoethane	ND	10	10	100		11	110		70-130	10		20
1,2-Dibromo-3-chloropropane	ND	10	10	100		10	100		41-144	0		20
Isopropylbenzene	ND	10	10	100		11	110		70-130	10		20
1,2,3-Trichlorobenzene	ND	10	9.3	93		10	100		70-130	7		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-10 QC Batch ID: WG1229093-6 WG1229093-7 QC Sample: L1915848-06 Client ID: TWBRW-01R												
1,2,4-Trichlorobenzene	ND	10	9.2	92		9.6	96		70-130	4		20
Methyl Acetate	ND	10	14	**140**	Q	14	**140**	Q	70-130	0		20
Cyclohexane	ND	10	12	120		13	130		70-130	8		20
1,4-Dioxane	120J	500	470	94		340	68		56-162	**32**	Q	20
Freon-113	ND	10	9.9	99		11	110		70-130	11		20
Methyl cyclohexane	ND	10	9.4J	94		10	100		70-130	6		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		122		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	105		106		70-130
Toluene-d8	106		105		70-130

PCBS

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-01
Client ID: MW-35
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 17:35
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 15:07
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	97		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-02
Client ID: DUP
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 00:00
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 15:21
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	95		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-03
Client ID: MW-34
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 16:20
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 15:34
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	97		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-04
Client ID: MW-19SR
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 17:25
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 15:48
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	115		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-05
Client ID: MW-26S
Sample Location: SENECA FALLS, NY

Date Collected: 04/16/19 16:15
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 16:01
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	88		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-06
Client ID: TWBRW-01R
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 09:20
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 13:46
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	100		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	99		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-07
Client ID: TWBRW-01S
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 08:15
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 16:15
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	0.391		ug/l	0.083	0.039	1	B
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	0.391		ug/l	0.083	0.032	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	92		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-08
Client ID: MW-18SR
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 10:05
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 16:28
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 08:20
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	105		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-09
Client ID: MW-36
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 08:55
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 16:42
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 08:20
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-10
Client ID: MW-24S
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 07:30
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/23/19 16:55
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 08:21
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	99		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

SAMPLE RESULTS

Lab ID: L1915848-11
Client ID: FIELD BLANK
Sample Location: SENECA FALLS, NY

Date Collected: 04/17/19 10:00
Date Received: 04/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 04/24/19 18:41
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/23/19 20:01
Cleanup Method: EPA 3665A
Cleanup Date: 04/24/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/24/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 04/23/19 13:05
Analyst: JW

Extraction Method: EPA 3510C
Extraction Date: 04/21/19 07:39
Cleanup Method: EPA 3665A
Cleanup Date: 04/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/23/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-10 Batch: WG1228660-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	98		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019
Lab Number: L1915848
Report Date: 04/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 04/24/19 18:55
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/23/19 20:01
Cleanup Method: EPA 3665A
Cleanup Date: 04/24/19
Cleanup Method: EPA 3660B
Cleanup Date: 04/24/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG1229523-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	103		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE

Project Number: 01257117.2019

Lab Number: L1915848

Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-10 Batch: WG1228660-2 WG1228660-3									
Aroclor 1016	75		77		40-140	3		50	A
Aroclor 1260	68		70		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		79		30-150	A
Decachlorobiphenyl	100		101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		80		30-150	B
Decachlorobiphenyl	96		97		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG1229523-2 WG1229523-3									
Aroclor 1016	67		67		40-140	0		50	A
Aroclor 1260	66		65		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		79		30-150	A
Decachlorobiphenyl	95		96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		83		30-150	B
Decachlorobiphenyl	100		109		30-150	B

Matrix Spike Analysis

Batch Quality Control

Project Name: GOULDS COBALT SITE

Project Number: 01257117.2019

Lab Number: L1915848

Report Date: 04/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1228660-4 WG1228660-5 QC Sample: L1915848-06 Client ID: TWBRW-01R													
Aroclor 1016	ND	1.78	1.35	76		1.46	82		40-140	8		50	A
Aroclor 1260	ND	1.78	1.22	68		1.24	69		40-140	2		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		84		30-150	A
Decachlorobiphenyl	96		89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		82		30-150	B
Decachlorobiphenyl	98		103		30-150	B

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1915848-01A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-01B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-01C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-01D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-01E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-01F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-01G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-02A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-02B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-02C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-02D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-02E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-02F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-02G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-03A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-03B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-03C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-03D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-03E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-03F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-03G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-04A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1915848-04B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-04C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-04D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-04E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-04F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-04G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-05A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-05B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-05C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-05D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-05E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-05F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-05G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06A1	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06A2	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06B1	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06B2	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06C1	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06C2	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-06D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-06D1	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-06D2	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-06E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-06E1	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-06E2	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)

*Values in parentheses indicate holding time in days

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1915848-06F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06F1	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06F2	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06G1	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-06G2	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-07A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-07B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-07C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-07D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-07E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-07F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-07G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-08A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-08B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-08C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-08D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-08E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-08F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-08G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-09A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-09B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-09C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-09D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-09E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-09F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-09G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-10A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1915848-10B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-10C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-10D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-10E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-10F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-10G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-11A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-11B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-11C	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-11D	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-11E	Amber 120ml unpreserved	A	7	7	2.0	Y	Absent		FILTER-EXT(1)
L1915848-11F	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-11G	Amber 500ml unpreserved Filtrates	A	NA		2.0	Y	Absent		NYTCL-8082-LVI(7)
L1915848-12A	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)
L1915848-12B	Vial HCl preserved	A	NA		2.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	GOULDS COBALT SITE	**Lab Number:**	L1915848
Project Number:	01257117.2019	**Report Date:**	04/25/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	GOULDS COBALT SITE	**Lab Number:**	L1915848
Project Number:	01257117.2019	**Report Date:**	04/25/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	GOULDS COBALT SITE	**Lab Number:**	L1915848
Project Number:	01257117.2019	**Report Date:**	04/25/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/18/19

ALPHA Job #: L1915848

Client Information

Client: Arcadis
Address: 855 Route 146
Suite 210 Clifton Park 12065
Phone: (518) 250-7300
Fax:
Email: Elias.Moskal@arcadis.com

Project Information

Project Name: Goulds Cobalt Site
Project Location: Seneca Falls, NY
Project # 01257117.2019
(Use Project name as Project #)
Project Manager: Elias Moskal
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☒ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☒ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Analyze Samples and Report Data Comparable to Dec '18 Results

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 + TIC	6010							Sample Specific Comments	Total Bottle
1915848-01	MW-35	4/16/19	1735	W	JD	✓	✓								5
-02	DUP	4/16/19	—	W	JD	✓	✓								5
-03	MW-34	4/16/19	1620	W	JD	✓	✓								5
-04	MW-19SR	4/16/19	1725	W	ES	✓	✓								5
-05	MW-26S	4/16/19	1615	W	ES	✓	✓								5
-06	TW BRW-01R	4/17/19	0920	W	JD	✓	✓							MS/MSD taken	15
-07	TW BRW-01S	4/17/19	0815	W	JD	✓	✓								5
-08	MW-18SR	4/17/19	1005	W	ES	✓	✓								5
-09	MW-36	4/17/19	0855	W	ES	✓	✓								5
-10	MW-24S	4/17/19	0730	W	ES	✓	✓								5

Container Type: V A
Preservative: B A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
J. Duquette	4/17/19 1515	Robert Haine AAL	4-17-19 1515
Robert Haine	4-17-19 1515		4/18/19 00:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX C

Groundwater Monitoring Field Purge Logs

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: TW/BRW-01R
Northing:
Easting:

Site Name: Cobalt Site, Goulds
Site Location: Seneca Falls, NY
Project #: 01257117.2019

Sampling Method: Low flow
Equipment Used: Bladder
Pump/Controller ID#: MP-50-[illegible]36

Field Personnel: J. Duquette
Date: 4/17/19
Weather: 34° F Overcast

Well Information:

Installed Depth of Well*: 89.5 ft. bmp.
Measured Depth of Well*: 89.64 ft. bmp.
Depth to Water*: 22.61 ft. bmp.
Length of Water Column (LWC): 67.03 ft.
Well Diameter: 4 in.

Well Volume Multipliers:

- ☐ 1 in. = 0.041 gal/ft
- ☐ 2 in. = 0.163 gal/ft
- ☑ 4 in. = 0.653 gal/ft
- ☐ 6 in. = 1.469 gal/ft
- ☐ 8 in. = 2.611 gal/ft

* Measurement Point:

- ☑ Well Casing
- ☐ Protective Casing
- ☐ Other:

Well Volume: 43.8 gal.
Pump Intake Depth*: 80. ft. bmp.

Start Purge Time: 0844
Initial Observations: Color Clear Odor NO Sheen/Free Product NO

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0845	22.65	10.15	12.50	3.09	-197	8.30	6.7	300	
0850	22.88	11.15	12.55	3.20	-141	7.01	4.5	300	
0855	22.96	11.36	12.56	3.27	-117	6.88	0.4	300	
0900	22.99	11.41	12.50	3.30	-108	6.71	0.0	300	
0905	22.99	11.46	12.57	3.32	-98	6.77	0.0	300	
0910	22.99	11.47	12.52	3.32	-97	6.74	0.0	300	
0915	22.99	11.58	12.50	3.32	-91	6.72	0.0	300	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 0917
DO Titrataion = NM mg/L
Total volume of groundwater purged: 13 gal.
Final Observations: Color Clear Odor NO Sheen/Free Product NO
Specific Gravity NM

Analytical Sample ID: TW/BRW-01R Date: 4/17/19 Time: 0920

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
40 mL	VOA	9	NO	HCl	ALPHA
120mL	Amber	6	NO	None	ALPHA

Notes: NM = not measured
Sampled @ 0920
MS/MSD taken

Well Integrity Inspection Notes

Acceptable

0-375
9:65

11

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: TW-BRW-01S
Northing:
Easting:

Site Name: Cobalt Site, Goulds
Site Location: Seneca Falls, NY
Project #: 01257117.2019

Sampling Method: Low Flow
Equipment Used: Pesi Pump
Pump/Controller ID#: FAD1205

Field Personnel: J. Duquette
Date: 4/17/19
Weather: 34°F Cloudy

Well Information:

Installed Depth of Well*: 11 ft. bmp.
Measured Depth of Well*: 11.11 ft. bmp.
Depth to Water*: 2.94 ft. bmp.
Length of Water Column (LWC): 8.17 ft.
Well Diameter: 3/4" in.

Well Volume Multipliers:

☐ 1 in. = 0.041 gal/ft
☐ 2 in. = 0.163 gal/ft
☐ 4 in. = 0.653 gal/ft
☐ 6 in. = 1.469 gal/ft
☐ 8 in. = 2.611 gal/ft

* Measurement Point:
☑ Well Casing
☐ Protective Casing
☐ Other:

Well Volume: — gal.
Pump Intake Depth*: 8.5 ft. bmp.

Start Purge Time: 0736
Initial Observations: Color Clear Odor no Sheen/Free Product no

indicate units

~~Elapsed~~ Time (~~minutes~~)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0740	—	6.30	6.43	1.00	91	2.91	142	200	
0745	—	6.93	7.24	0.947	-33	1.32	125	200	
0750	—	7.16	7.42	0.926	-80	0.78	64.4	200	
0755	—	7.34	7.49	0.917	-111	0.88	39.9	200	
0800	—	7.52	7.50	0.912	-129	0.76	28.8	200	
0805	—	7.47	7.54	0.910	-130	0.75	25.5	200	
0810	—	7.51	7.51	0.908	-136	0.74	26.6	200	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 0811
DO Titrataion = NM mg/L
Total volume of groundwater purged: 2 gal.
Final Observations: Color Clear Odor no Sheen/Free Product no
Specific Gravity NM

Analytical Sample ID: ~~MW~~-BRW-01S Date: 4/17/19 Time: 0815

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
40 mL	VOA	3	NO	HCl	Alpha
120 mL	Amber	2	NO	None	Alpha

Notes: NM- not measured
Sampled @ 0815

Well Integrity Inspection Notes

Acceptable

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-18SR
Northing: —
Easting: —

Site Name: Goulds Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019

Sampling Method: Low Flow
Equipment Used: Peri Pump
Pump/Controller ID#: Geo Pump

Field Personnel: ES
Date: 4/17/19
Weather: Partly Cloudy 33°F

Well information:

Installed Depth of Well*: 15 ft. bmp.
Measured Depth of Well*: 14.07 ft. bmp.
Depth to Water*: 2.82 ft. bmp.
Length of Water Column (LWC): 11.25 ft.
Well Diameter: 2 in.

Well Volume Multipliers:

- ☐ 1 in. = 0.041 gal/ft
- ☑ 2 in. = 0.163 gal/ft
- ☐ 4 in. = 0.653 gal/ft
- ☐ 6 in. = 1.469 gal/ft
- ☐ 8 in. = 2.611 gal/ft

* Measurement Point:

- ☑ Well Casing
- ☐ Protective Casing
- ☐ Other:

Well Volume: 1.80 gal.
Pump Intake Depth*: ~13.5 ft. bmp.

Start Purge Time: 0925
Initial Observations: Color None Odor None Sheen/Free Product None

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0930	2.92	8.53	7.60	1.25	136	6.48	107	250	
0930	2.92	8.46	7.59	1.25	137	3.46	57.9		
0935	2.92	8.45	7.58	1.25	137	2.73	40.3		
0940	2.92	8.42	7.58	1.25	136	2.53	34.5		
0945	2.92	8.43	7.57	1.25	135	2.41	32.2		
0950	2.92	8.51	7.57	1.25	133	2.29	31.7		
0955	2.92	8.54	7.57	1.25	132	2.22	30.9		
1000	2.92	8.57	7.57	1.24	130	2.15	30.4		
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 1010
DO Titrataion = NM mg/L
Total volume of groundwater purged: ~2.0 gal.
Final Observations: Color None Odor None Sheen/Free Product None
Specific Gravity NM

Analytical Sample ID: MW-18SR Date: 4/17/19 Time: 1005

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
120mL	Amber	2	No	None	Alpha
40mL	Vom	3	No	HCl	Alpha

Notes: NM= Not Measured
Sampled for 8260 + TICs and 8082 LVI

Well Integrity Inspection Notes
Good

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-19SR
Northing: —
Easting: —

Site Name: Gould's Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019

Sampling Method: Low Flow
Equipment Used: Peri Pump
Pump/Controller ID#: Geopump

Field Personnel: ES
Date: 4/16/19
Weather: Cloudy 37°F

Well information:

Installed Depth of Well*: 15 ft. bmp.
Measured Depth of Well*: 14.25 ft. bmp.
Depth to Water*: 2.49 ft. bmp.
Length of Water Column (LWC): 11.76 ft.
Well Diameter: 2 in.

Well Volume Multipliers:

- ☐ 1 in. = 0.041 gal/ft
- ☑ 2 in. = 0.163 gal/ft
- ☐ 4 in. = 0.653 gal/ft
- ☐ 6 in. = 1.469 gal/ft
- ☐ 8 in. = 2.611 gal/ft

* Measurement Point:

- ☑ Well Casing
- ☐ Protective Casing
- ☐ Other:

Well Volume: 1.88 gal.
Pump Intake Depth*: ~13.5 ft. bmp.

Start Purge Time: 1630
Initial Observations: Color None Odor None Sheen/Free Product None

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (MS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1635	2.86	8.64	7.52	1.22	112	3.80	5.0	250	
1640	2.86	8.43	7.46	1.22	106	2.73	5.1		
1645	2.86	8.37	7.54	0.845	102	3.20	10.0		
1650	2.86	8.36	7.82	0.627	-26	2.86	4.2		
1655	2.86	8.35	7.88	0.654	-58	2.61	0		
1700	2.86	8.35	7.91	0.668	-72	3.09	0		
1705	2.86	8.36	7.93	0.690	-86	3.60	0		
1710	2.86	8.36	7.93	0.704	-94	3.86	0		
1715	2.86	8.36	7.94	0.707	-97	3.97	0		
1720	2.86	8.35	7.94	0.712	-10	4.05	0		
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 1730
DO Titration = NM mg/L
Total volume of groundwater purged: ~3.0 gal.
Final Observations: Color None Odor None Sheen/Free Product None
Specific Gravity NM

Analytical Sample ID: MW-19SR Date: 4/16/19 Time: 1725

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
120 mL	Amber	2	No	None	Alpha
40 mL	VOA	3	No	HCl	Alpha

Notes: NM = Not Measured
Sampled for 8260 + TICs
and 8082 - ~~PCBs~~ LVI

Well Integrity Inspection Notes
Good

* Sampled @ 1725 *

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-24S
Northing: —
Easting: —

Site Name: Goulds Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019

Sampling Method: Low Flow
Equipment Used: ~~Geopump peripump~~
Pump/Controller ID#: Geo pump

Field Personnel: ES
Date: 4/17/19
Weather: Partly Cloudy 38°F

Well information:

Installed Depth of Well*: 15 ft. bmp.
Measured Depth of Well*: 14.16 ft. bmp.
Depth to Water*: 2.73 ft. bmp.
Length of Water Column (LWC): 11.43 ft.
Well Diameter: 2 in.

Well Volume Multipliers:

☐ 1 in. = 0.041 gal/ft
☑ 2 in. = 0.163 gal/ft
☐ 4 in. = 0.653 gal/ft
☐ 6 in. = 1.469 gal/ft
☐ 8 in. = 2.611 gal/ft

* Measurement Point:
☑ Well Casing
☐ Protective Casing
☐ Other:

Well Volume: 1.82 gal.
Pump Intake Depth*: ~13.5 ft. bmp.

Start Purge Time: 0650
Initial Observations: Color None Odor None Sheen/Free Product None

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0655	2.94	6.31	6.94	1.09	262	4.36	11.2	250	
0700	2.94	6.36	7.36	1.08	241	3.14	15.0		
0705	2.94	6.56	7.48	1.08	231	2.52	11.3		
0710	2.94	6.67	7.53	1.06	225	2.18	6.2		
0715	2.94	6.69	7.54	1.04	219	1.98	2.8		
0720	2.94	6.71	7.55	1.02	215	2.00	2.6		
0725	2.94	6.75	7.57	1.01	212	1.99	2.3		
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 0735
DO Titration = NM mg/L
Total volume of groundwater purged: ~2.0 gal.
Final Observations: Color None Odor None Sheen/Free Product None
Specific Gravity NM

Analytical Sample ID: MW-24S **Date:** 4/17/19 **Time:** 0730

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
120mL	~~Amber 250mL~~	2	No	No	Alpha
~~40~~ 40mL	~~VOA 40mL~~	3	No	HCl	Alpha

Notes: NM = Not Measured
Sampled for 8260 + TICs and 8082 - LVI

Well Integrity Inspection Notes
Good

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-26S
Northing:
Easting:

Site Name: Gould's Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019

Sampling Method: Low Flow
Equipment Used: Peri Pump
Pump/Controller ID#: Geopump

Field Personnel: ES
Date: 4/16/19
Weather: Cloudy 37°F

Well information:

Installed Depth of Well*: 15 ft. bmp.
Measured Depth of Well*: 16.79 ft. bmp.
Depth to Water*: 6.35 ft. bmp.
Length of Water Column (LWC): 10.44 ft.
Well Diameter: 2 in.

Well Volume Multipliers:

- ☐ 1 in. = 0.041 gal/ft
- ☑ 2 in. = 0.163 gal/ft
- ☐ 4 in. = 0.653 gal/ft
- ☐ 6 in. = 1.469 gal/ft
- ☐ 8 in. = 2.611 gal/ft

* Measurement Point:

- ☑ Well Casing
- ☐ Protective Casing
- ☐ Other:

Well Volume: 1.67 gal.
Pump Intake Depth*: ~16 ft. bmp.

Start Purge Time: 1530
Initial Observations: Color None Odor None Sheen/Free Product None

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1535	7.33	9.82	7.66	0.938	2	4.60	44.3	250	
1540	7.33	9.58	7.61	0.938	3	3.44	0.4		
1545	7.42	9.47	7.59	0.939	12	2.31	0		
1550	7.52	9.42	7.58	0.942	19	2.12	0		
1555	7.70	9.39	7.57	0.942	26	1.91	0		
1600	7.81	9.40	7.56	0.942	32	1.78	0		
1605	7.92	9.42	7.56	0.943	37	1.65	0		
1610	8.01	9.44	7.55	0.943	39	1.59	0	↓	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 1620
DO Titrataion = NM mg/L
Total volume of groundwater purged: ~2.5 gal.
Final Observations: Color None Odor None Sheen/Free Product None
Specific Gravity NM

Analytical Sample ID: MW-26S Date: 4/16/19 Time: 1615

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
120 mL	Amber	2	No	None	Alpha
40 mL	Voa	3	No	HCl	Alpha

Notes: NM = Not Measured
Sampled for 8260 + TICs and 8082 - LVI

Well Integrity Inspection Notes
Good

* Sampled @ 1615 *

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-34
Northing:
Easting:

Site Name: Goulds Pumps, Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019
Sampling Method: Low flow
Equipment Used: Peri Pump
Pump/Controller ID#: FA01205
Field Personnel: J. Duquette
Date: 4/16/19
Weather: 54°F Cloudy

Well Information:
Installed Depth of Well*: 13 ft. bmp.
Measured Depth of Well*: 12.81 ft. bmp.
Depth to Water*: 1.95 ft. bmp.
Length of Water Column (LWC): 10.86 ft.
Well Diameter: 2 in.

Well Volume Multipliers:
☐ 1 in. = 0.041 gal/ft
☑ 2 in. = 0.163 gal/ft
☐ 4 in. = 0.653 gal/ft
☐ 6 in. = 1.469 gal/ft
☐ 8 in. = 2.611 gal/ft

* Measurement Point:
☑ Well Casing
☐ Protective Casing
☐ Other:
Well Volume: 1.77 gal.
Pump Intake Depth*: 12.5 ft. bmp.

Start Purge Time: 1338
Initial Observations: Color Black Odor NO Sheen/Free Product NO

~~Elapsed~~ Time ~~(minutes)~~	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (ms/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1540	1.99			Not taken due to very high level of					mud
1545	2.73	9.93	7.50	1.32	72	2.86	165	200	
1550	3.11	9.33	7.47	1.22	75	2.86	149	200	
1555	3.33	9.31	7.43	1.06	81	2.33	118	200	
1600	3.59	9.10	7.47	1.02	87	2.36	74.8	200	
1605	3.91	9.10	7.39	1.06	84	2.41	49.6	200	
1610	4.01	9.10	7.36	1.07	80	2.41	42.5	200	
1615	4.21	9.10	7.35	1.07	82	2.46	49.2	200	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 1615
DO Titration = NM mg/L
Total volume of groundwater purged: 1.6 gal.
Final Observations: Color Clear Odor NO Sheen/Free Product NO
Specific Gravity NM

Analytical Sample ID: MW-34 **Date:** 4/16/19 **Time:** 1620

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
40mL	VOA	3	NO	HCl	8260 + TIC Alpha
120mL	Amber	2	NO	None	8082 Alpha

Notes: NM = Not measured
Sampled @ 1620

Well Integrity Inspection Notes
Acceptable

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-35
Northing:
Easting:

Site Name: Goulds Pumps, Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CST.2019
Sampling Method: Low flow
Equipment Used: Peri pump
Pump/Controller ID#: FAC205
Field Personnel: J. Duquette
Date: 4/16/19
Weather: 50°F Cloudy

Well Information:
Installed Depth of Well*: 13 ft. bmp.
Measured Depth of Well*: 11.20 ft. bmp.
Depth to Water*: 1.75 ft. bmp.
Length of Water Column (LWC): 9.45 ft.
Well Diameter: 2 in.

Well Volume Multipliers:
☐ 1 in. = 0.041 gal/ft
☑ 2 in. = 0.163 gal/ft
☐ 4 in. = 0.653 gal/ft
☐ 6 in. = 1.469 gal/ft
☐ 8 in. = 2.611 gal/ft

* Measurement Point:
☑ Well Casing
☐ Protective Casing
☐ Other:
Well Volume: 1.54 gal.
Pump Intake Depth*: 10.5 ft. bmp.

Start Purge Time: 1705
Initial Observations: Color Clear Odor no Sheen/Free Product no

indicate units

~~Elapsed~~ Time (~~minutes~~)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1710	2.15	9.94	7.07	1.50	-21	4.06	42.1	200	
1715	2.53	9.17	6.95	1.52	-46	1.36	30.5	200	
1720	2.86	9.01	6.93	1.53	-52	0.87	30.6	200	
1725	3.24	8.91	6.95	1.54	-54	0.79	30.7	200	
1730	3.44	8.90	6.95	1.54	-55	0.79	30.6	200	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 1730
DO Titrataion = NM mg/L
Total volume of groundwater purged: _____ gal.
Final Observations: Color Clear Odor no Sheen/Free Product no
Specific Gravity NM

Analytical Sample ID: MW-35 / Dup Date: 4/16/19 Time: 1735

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
40mL	VOA	3	NO	HCl	Alpha
120	Amber	2	NO	None	Alpha

Notes: NM - Not measured
Dup Collected
Samples Collected @ 1735

Well Integrity Inspection Notes

ARCADIS

Low Flow Groundwater Sampling Log

Well ID: MW-36
Northing:
Easting:

Site Name: Gould's Cobalt
Site Location: Seneca Falls, NY
Project #: 01257CBT.2019
Sampling Method: Low Flow
Equipment Used: Geopump Peristaltic Pump
Pump/Controller ID#: Geopump
Field Personnel: ES
Date: 4/17/19
Weather: Partly Cloudy 33 °F

Well Information:
Installed Depth of Well*: 13 ft. bmp.
Measured Depth of Well*: 12.53 ft. bmp.
Depth to Water*: 2.62 ft. bmp.
Length of Water Column (LWC): 9.91 ft.
Well Diameter: 2 in.

Well Volume Multipliers:
☐ 1 in. = 0.041 gal/ft
☑ 2 in. = 0.163 gal/ft
☐ 4 in. = 0.653 gal/ft
☐ 6 in. = 1.469 gal/ft
☐ 8 in. = 2.611 gal/ft

* Measurement Point:
☑ Well Casing
☐ Protective Casing
☐ Other:

Well Volume: 1.58 gal.
Pump Intake Depth*: ~12 ft. bmp.

Start Purge Time: 0745
Initial Observations: Color Slightly Tan Odor None Sheen/Free Product None

indicate units

Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0750	3.05	6.76	7.29	0.925	21	4.55	77.2	250	
0755	3.10	6.79	7.26	0.919	21	2.80	58.6		
0800	3.22	6.85	7.26	0.770	43	3.99	63.2		
0805	3.44	6.76	7.31	0.725	86	5.55	38.1		
0810	3.60	6.80	7.34	0.719	98	5.56	27.6		
0815	3.78	6.82	7.34	0.745	104	5.21	19.3		
0820	3.95	6.87	7.32	0.772	96	4.53	15.6		
0825	4.15	6.83	7.31	0.797	82	3.76	12.1		
0830	4.35	6.91	7.29	0.830	67	2.81	13.2		
0835	4.55	6.95	7.27	0.847	55	2.28	8.7		
0840	4.70	7.02	7.25	0.863	47	1.93	8.9		
0845	4.88	7.17	7.24	0.872	43	1.70	9.3		
0850	5.02	7.09	7.24	0.878	39	1.68	8.1	↓	
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	

End Purge Time: 0900
DO Titrataion = NM mg/L
Total volume of groundwater purged: ~3.25 gal.
Final Observations: Color Slightly Tan Odor None Sheen/Free Product None
Specific Gravity NM

Analytical Sample ID: MW-36 Date: 4/17/19 Time: 0855

Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory
120mL	Amber	2	No	None	Alpha
40 mL	Voa	3	No	HCl	Alpha

Notes: NM = Not Measured
Sampled for 8260 + TICs
and 8082 - LVI

Well Integrity Inspection Notes
Good

APPENDIX D

Data Usability Summary Report – Data Validation Services

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

May 30, 2018

Elias Moskal
ARCADIS, Inc.
855 Route 146 Suite 210
Clifton Park, NY 12065

RE: Validation of the ITT Goulds Cobalt Site Sample Analytical Laboratory Data
Data Usability Summary Report (DUSR)
Alpha SDG Nos. L1915848

Dear Mr. Moskal:

Review has been completed for the data package generated by Alpha Analytical that pertains to aqueous samples collected 04/16/19 and 04/17/19 at the ITT Goulds Cobalt site. Nine samples and a field duplicate were analyzed for Target Compound List (TCL) volatiles, volatile Tentatively Identified Compounds (TICs), and TCL Aroclor PCBs. A field blank and a trip blank were also processed. The analytical methodologies are those of the USEPA SW846 methods 8260C and 8082A.

The data packages submitted contain full deliverables for validation, and this DUSR is generated from review of the summary form information, with review of sample raw data, and limited review of associated QC raw data. The reported summary forms have been reviewed for application of validation qualifiers, using guidance from the USEPA Region 2 validation SOPs HW-24 and HW-27, the specific laboratory methodology, and professional judgment, as affect the usability of the data. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate and Internal Standard Recoveries
* Method and Preparation Blanks
* Blind Field Duplicate Correlations
* Laboratory Control Samples (LCSs)
* Instrumental Tunes
* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c) DUSR description. The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data package.

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with project requirements.

In summary, most of the field sample results are usable either as reported or with minor qualification. The exception is that the results for 1,4-dioxane are rejected in seven of the samples.

Data completeness, accuracy, precision, sensitivity, reproducibility, and comparability are acceptable

The client and laboratory sample identifications are attached to this text. Also included in this report are the validation qualifier definitions, and the client EQuIS EDD, qualified to reflect the qualifications/edits recommended in this report.

Blind Field Duplicate Correlation

The field duplicate correlations of MW-35 are within validation guidelines.

TCL Volatile Analyses by USEPA Method 8260C

Due to presence in the associated field and trip blanks, the detection of acetone in TWBRW-01R is considered external contamination and edited to reflect non-detection.

Sample surrogate and internal standard recoveries are within acceptance ranges.

Matrix spike accuracy and precision evaluations were performed on TWBRW-01R. Recoveries and duplicate correlations are within the validation guidelines.

Results for bromomethane in MW-34, MW-35, MW-19SR, and DUP are qualified as estimated due to low recoveries (32% and 35%) in the associated LCSs.

Due to very low instrument response in the calibration standards, the results for 1,4-dioxane that report no detection are rejected and those reporting detection are qualified as estimated in value. Other calibration standards show responses within the validation guidelines.

TCL PCB Analyses by USEPA Method 8082A

Matrix spike accuracy and precision evaluations were performed for Aroclor mixtures 1016 and 1260 on TW-BRW-01R. Recoveries and duplicate correlations are within the recommended ranges and limits.

Holding time requirements were met, and the blanks show no contamination. Surrogate standard recoveries are within acceptance ranges.

Calibration standards show responses within the USEPA analytical and validation guidelines.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Att: Validation Qualifier Definitions
Sample Identifications
Qualified EQuIS EDD

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample IDs

Project Name: GOULDS COBALT SITE
Project Number: 01257117.2019

Lab Number: L1915848
Report Date: 04/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1915848-01	MW-35	WATER	SENECA FALLS, NY	04/16/19 17:35	04/17/19
L1915848-02	DUP	WATER	SENECA FALLS, NY	04/16/19 00:00	04/17/19
L1915848-03	MW-34	WATER	SENECA FALLS, NY	04/16/19 16:20	04/17/19
L1915848-04	MW-19SR	WATER	SENECA FALLS, NY	04/16/19 17:25	04/17/19
L1915848-05	MW-26S	WATER	SENECA FALLS, NY	04/16/19 16:15	04/17/19
L1915848-06	TWBRW-01R	WATER	SENECA FALLS, NY	04/17/19 09:20	04/17/19
L1915848-07	TWBRW-01S	WATER	SENECA FALLS, NY	04/17/19 08:15	04/17/19
L1915848-08	MW-18SR	WATER	SENECA FALLS, NY	04/17/19 10:05	04/17/19
L1915848-09	MW-36	WATER	SENECA FALLS, NY	04/17/19 08:55	04/17/19
L1915848-10	MW-24S	WATER	SENECA FALLS, NY	04/17/19 07:30	04/17/19
L1915848-11	FIELD BLANK	WATER	SENECA FALLS, NY	04/17/19 10:00	04/17/19
L1915848-12	TRIP BLANK	WATER	SENECA FALLS, NY	04/17/19 00:00	04/17/19

APPENDIX E

NYSDEC Certifications

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C850012**

Site Name Goulds Pumps Cobalt Site

Site Address: 240 FALL STREET Zip Code: 13148
City/Town: Seneca Falls
County: Seneca
Site Acreage: 11.400

Reporting Period: ~~May 31~~ June 1, 2018 to May 31, 2019

	YES	NO
1. Is the information above correct?	☐	☑
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative _____ Date _____

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C850012 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
09-01-4.11	Goulds Pumps Administration, Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan

Institutional Control: Imposition of an institutional control in the form of an environmental easement for the controlled property that:
* Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
* Allows the use and development of the controlled property for industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
* Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
* Requires compliance with the Department approved Site Management Plan.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
09-01-4.11	Cover System

Cover System: A site cover system will be required to allow for industrial use of the site. The cover system will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil/fill material cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the cover system is required it will be a minimum of one foot of soil/fill material, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for industrial use. If a vegetation layer is needed the upper six inches of the soil of the cover system will be of sufficient quality to maintain the vegetation layer.Any soil/fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C850012

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jeff Stanek at 56 Technology Dr., Irvine, CA 92618,
print name print business address

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Jeff Stanek 6/21/19
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MATTHEW YONKIN at 855 ROUTE 146, SUITE 210, CLIFTON PARK, NY 12065
print name print business address

am certifying as a Professional Engineer for the RENEGADE PARTY
(Owner or Remedial Party)

Matthew C Yonkin
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

6/26/19
Date

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