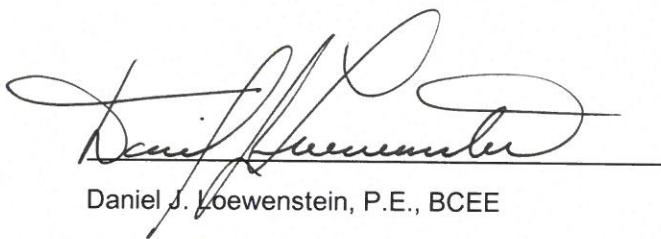


New York State Department of Environmental  
Conservation

## PERIODIC REVIEW REPORT

Goulds Pumps Cobalt Site – Site No. C850012

June 2016



Daniel J. Loewenstein, P.E., BCEE  
Senior Vice President

## GOULDS PUMPS COBALT SITE PERIODIC REVIEW REPORT

Site Number C850012

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Our Ref.:  
01257CBT.2016  
Date:  
June 2016

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## ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
EC	Engineering Control
EWP	Excavation Work Plan
ft bgs	Feet below ground surface
IC	Institutional Control
ITT	ITT Inc.
NWSA	Northwest Storage Area
NYSDEC	New York State Department of Environmental Conservation
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 Periodic Review Report (PRR) for the Goulds Pumps Cobalt Site (the Site) (NYSDCE Site Number C850012) has been developed by Arcadis of New York, Inc. (Arcadis) on behalf of ITT Inc. (ITT) and in accordance with the Site Management Plan (SMP) (O'Brien & Gere Engineers, Inc., 2014). This PRR documents the findings and observations associated with the monitoring program for the Site for the reporting period December 30, 2014 to May 31, 2016.

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 2015 and 2016 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 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
- Hazardous Waste Storage Area – known as the Northwest Storage Area (NWSA)
- Parking lot
- Chip Storage Building

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-19<sup>th</sup> century as a manufacturer of industrial, agricultural, and consumer pumps. The Site was historically an open area with a parking lot and several small storage buildings located in the southeast area of the property. 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 was originally executed in October 2004 for the NWSA.
  - Amendments were developed to divide portions of the property into their own separate areas
  - The Certificate of Completion for the Site was executed on December 30, 2014 and leaves the Site under Site Management
- NWSA Soil Removal
- Project Cobalt Building Soil Removal

Following the completion of the remedial actions, the 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 SMP (O'Brien & Gere Engineers, Inc., 2014).

Exposure to the remaining impact is prevented by the Site-wide soil cover system that was installed. 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 SMP (O'Brien & Gere Engineers, Inc., 2014) specifies three Institutional Controls (ICs) that are required to be met:

- Implement, maintain, and monitor Engineering Control (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

The inspections and groundwater monitoring that are actively taking place fulfill 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 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 fulfilled 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 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

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 presents a list of the ECs installed at the Site and references the areas and past identifiers. Please refer to Figure 2-1 in the SMP (O'Brien & Gere Engineers, Inc. 2014) for a visual representation of the specific areas.

**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 December 30, 2014 to May 31, 2016. 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. Appendix A includes the three semi-annual reports prepared during the reporting period. The reports present the field forms with complete notes and details for the completed inspections.

### **3.1 Pavement Areas**

Inspections of the pavement areas conducted in May 2015, November 2015 and May 2016 resulted in acceptable conditions overall. At Pavement Area A2 there was an observation during the 2015 inspections of some seepage from a storm drain with an orange-rust-coloured staining on the asphalt; although this was not observed during the May 2016 inspection. The May 2016 inspection observed some loose stone around the outside of Area A2 and also some minor scoring from pallet storage at Area A3. Both of which were simply commented on and did not require any maintenance at this time.

### **3.2 Topsoil/Grass Areas**

During the May 2015 inspections, the overall conditions were acceptable for the topsoil/grass areas, but had some minor vegetation growth taking place, as well as some dead grass/patches in a few small areas near Building 900.

At the November 2015 inspection, these vegetative growth/dead grass/bare patch conditions were not observed anymore, however at area B1, some minor animal burrowing was observed and noted as potentially requiring minor filling, grading, or reseeding work to repair. During the May 2016 inspection, all topsoil/grass areas were determined to be in acceptable condition.

### **3.3 Riprap Areas**

All inspections (May 2015, November 2015 and May 2016) of the riprap areas indicated acceptable conditions. During the May 2015 inspection it was noted that there was some minor vegetation/weed growth in the C3 and C4 area, but not a condition that required maintenance.

### **3.4 Concrete Areas**

There were not any concerns or observations noted during the inspections conducted during May 2015 or November 2015 for any of the concrete areas. The May 2016 inspections had some minor observations:

- Hairline cracking off main access road at Area D4
- Stone and minor debris present at Area D5
- Minor chipping on edges, corners at Areas D7 and D8, respectively.

None of the observations during the May 2016 inspection required any maintenance actions.

These areas were all determined to be in acceptable condition.

### **3.5 Gravel Areas**

During the May 2015 inspection, some vegetation/weeds were observed growing up through the gravel, but were not a major concern. The November 2015 inspection revealed that Gravel Area E2 had some erosion of the gravel into a nearby storm drain and Gravel Area E3 had some irregularities in the surface, possibly requiring some tamping or evening out with a roller. Neither of these observations was considered major and the conditions were still deemed acceptable with some maintenance. A small

amount of debris (pieces of pallet wood, plastic wrap, pieces of paper) was observed during the May 2016 inspection, but did not require any maintenance action and conditions were determined to be acceptable.

### **3.6 Northwest Storage Area Cap**

Both the May 2015 and November 2015 inspections indicated that conditions were acceptable for the NWSA Cap Area. It was observed that some vegetation was growing, but no substantial or woody vegetation was observed. The May 2016 inspection resulted in similar conditions, with a small amount of debris observed (pieces of pallet wood, plastic wrap, pieces of paper). There was not any need for maintenance action and conditions remain acceptable.

### **3.7 Site Fence**

Following the May 2015 inspection, a hole in fence near MW-26 was observed. This was noted as requiring maintenance. The hole was repaired and the November 2015 and May 2016 inspections resulted in acceptable conditions and no further maintenance was required.

### **3.8 Monitoring Well Network**

During the May 2015 inspection, some well locations required maintenance. There was a great level of improvement in the November 2015 inspection with only some minor items noted for possible improvement or to check following the winter months.

The May 2016 inspection of the monitoring well network resulted in the wells being found in acceptable condition with only some minor observations noted. However, the following wells were noted as requiring new locks:

- MW-23S
- MW-26B
- MW-26I
- MW-26S

The locks will be replaced during the next monitoring event.

## **4 GROUNDWATER MONITORING PROGRAM**

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 will also provide an understanding of the flow potentials at the Site (O'Brien & Gere Engineers, Inc., 2014).

### **4.1 Groundwater Sampling**

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.

The SMP specifies that groundwater sampling at 9 locations (MW-18SR, MW-19SR, MW-24S, MW-26S, MW-34, MW-35, MW-36, TW-BRW-01R, and TW-BRW-01S) will be conducted twice per year for the first three years, followed by a transition to annual sampling after three years with NYSDEC approval. The locations, well construction specifications, required actions, and the analyses to be performed are all described in the SMP (O'Brien & Gere Engineers, Inc., 2014).

The sampled well locations will be analyzed for Target Compound List (TCL) VOCs by U.S. Environmental Protection Agency (USEPA) Method 8260, plus tentatively identified compounds (TIC) and PCBs by USEPA Method 8082.

## 4.2 Groundwater Sampling Results

Groundwater sampling was conducted:

- May 2015
- November 2015
- May 2016

Appendix A presents the reports generated from the events that were submitted to NYSDEC. At the request of the NYSDEC, this report serves as the mechanism to submit the 2016 First Semi-Annual Groundwater Monitoring and Sampling Event and is included in Appendix A. Table 2 summarizes the well locations, sampling event, and compounds that were detected above NYSDEC Class GA groundwater standards.

Table 2. Groundwater Exceedances Summary

Monitoring Well	May 2015	November 2015	May 2016
MW-18SR	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene
MW-19SR	1,4-dichlorobenzene; Total PCBs	1,4-dichlorobenzene	1,4-dichlorobenzene
TW-BRW-01S	Total PCBs	Total PCBs	1,4-dichlorobenzene, Total PCBs
MW-24S	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene	1,1,1-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; cis-1,2-dichloroethene
TW-BRW-01R	No exceedance	1,1-dichloroethane	No exceedance

## **5 OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

In general, the NYSDEC-approved SMP is working effectively at the Site. Site conditions have been generally consistent and have only required minimal maintenance on the cover system. The groundwater conditions have also been generally consistent between the monitoring events.

There does not appear to be any observation or sampling result indicating necessity to change Site management at this time.

### **5.2 Recommendations**

At the time of this report, the recommendation is to proceed with the inspections and monitoring as specified in the SMP.

## **6 SUMMARY AND CERTIFICATION**

See Appendix B 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

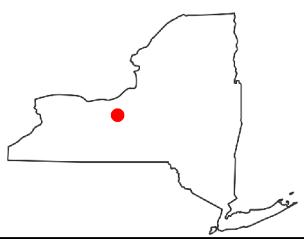




0 80 160 320 480 640 Feet

**Legend**

- Approximate NWSA Boundary
- Approximate Site Boundary



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\Wells.mxd

0 120 240 480 720 960 Feet

#### Legend

- Abandoned Well
- Monitoring Well
- Approximate Site Boundary



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

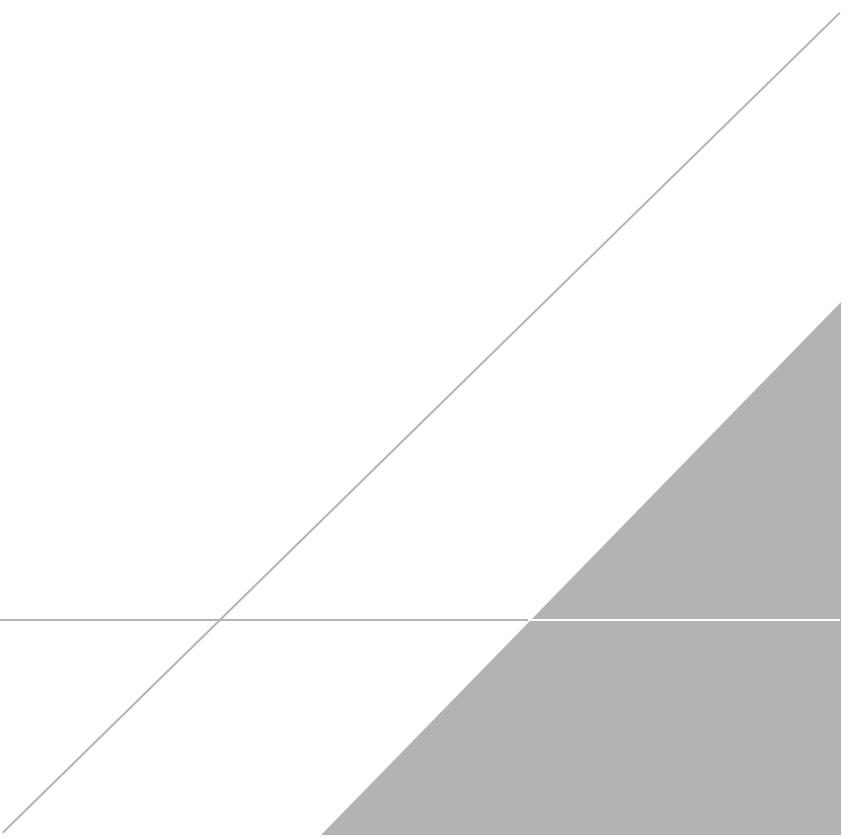
#### MONITORING WELL LOCATIONS

**ARCADIS** | Design & Consultancy  
for natural and built assets

FIGURE  
2

# APPENDIX A

## Monitoring Reports





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Ms. Charlotte Theobald  
New York State Department of Environmental Conservation – Region 8  
6274 East Avon-Lima Road  
Avon, New York 14414

Environment

Subject: First Semi-Annual 2015 Groundwater Monitoring and Sampling Event and 2015 Annual Site Inspection Report  
NYSDEC Site No. C850012 – Goulds Pumps Administration Inc.  
Cobalt Site  
Seneca Falls, NY 13148

Date:  
August 4, 2015

Dear Ms. Theobald:

On May 26<sup>th</sup> and 27<sup>th</sup>, 2015 ARCADIS personnel conducted the first semi-annual 2015 groundwater monitoring and sampling event and the 2015 annual site inspection on behalf of ITT Corporation (ITT) for the Goulds Pump Cobalt Site (Cobalt Site) located at 240-250 Fall Street, Seneca Falls, NY.

This report is required as an element of the Site Management Plan (SMP) prepared as part of the remedial program being 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). The Cobalt Site is designated as BCP Site Number C850012 and was issued a Certificate of Completion (COC) on December 30, 2014. The NYSDEC approved the SMP (December 19, 2014) and requires that the Cobalt Site and its groundwater monitoring well network be inspected on an annual basis. Additionally, a groundwater monitoring program is to be implemented on a semi-annually basis for the first three years following the approval of the COC, and annually thereafter. The well and site inspection forms that were completed during the first semi-annual 2015 groundwater monitoring and inspection event are included in Attachment 1. The results of these activities are summarized below.

Contact:  
Elias J. Moskal  
Phone:  
518.250.7333  
Our ref:  
01257CBT.2015

## 1.0 2015 ANNUAL SITE INSPECTION

### 1.1 Pavement

Overall, the pavement portions of the site are in good condition. At the time of inspection, no evidence of erosion or settlement was apparent. Pavement was intact with no significant cracking, and there were no areas of ponded water or damage. During the inspection event, rust-colored liquid (presumably storm water in the

Imagine the result

presence of iron) was observed on the north side of Building 900. An absorbent sock had been previously placed at this location to minimize the potential for the rust-colored storm water to enter the storm drain, indicating best management practices for storm water runoff were being implemented at the Site.

#### 1.2 Topsoil and Grass

Areas of topsoil and grass were inspected for evidence of erosion, areas of ponded water, settlement, and damage from burrowing animals. During the inspection event, the condition of topsoil and grass was acceptable and no areas of ponded water, settlement or animal burrows were observed.

#### 1.3 Riprap Spillway

The riprap spillway areas located southwest of Building 900 and east of the adjacent Closed Landfill were inspected and appeared to be in satisfactory condition. There was no evidence of erosion, missing cover material, areas of settlement or ponding water, or damage from burrowing animals. There was some minor vegetation growing in these areas. However, the amount of vegetation was not significant as facility staff regularly maintains vegetation in this area to minimize vegetative growth. The riprap slope protection area on the southeastern side of Building 900 was inspected and found to be in good condition.

#### 1.4 Concrete

Concrete areas surrounding Building 900 were inspected and found to be in good condition. There was no evidence of cracking or settlement, and no vegetation was observed to be growing in these areas.

#### 1.5 Gravel

Gravel areas surrounding Building 900 were inspected and found to be in satisfactory condition. There was some minor vegetation growing up through the gravel in areas located east and northeast of Building 900. However, the amount of vegetation was not significant or widespread.

#### 1.6 Northwest Storage Area (NWSA) Cap

The NWSA Cap was inspected for evidence of erosion, cap integrity, vegetation, areas of ponded water and settlement, and damage from burrowing animals. Some minor vegetation was observed growing on the cap. However, the amount of vegetation growth was not excessive or woody. In general, the NWSA Cap is in satisfactory condition.

### 1.7 Site Fence

The fence bordering the Cobalt Site and Closed Landfill to the west was inspected. A small hole (approximately 1 foot in diameter) in the fence was observed at ground level near the MW-26 monitoring well cluster. This hole scheduled to be repaired in August, 2015. Other portions of the fence appeared to be in good condition.

### 1.8 Monitoring Well Network

Overall, the monitoring well network is in acceptable condition. Several well locks were found to be significantly rusted. ARCADIS observed well TW-02 as damaged and was unable to measure the depth to water at this location (this well is not specified for sampling under the SMP). TW-02 will be further evaluated prior to the next SMP monitoring event. The lock on monitoring well MW-8S was rusted and unable to be opened. This lock was cut off and replaced with a new lock. Rusted locks were also observed on monitoring wells MW-23S and MW-26B but function properly. These locks will be replaced during the next sampling event as a part of proper maintenance activities. The lock on monitoring well MW-26S will also be replaced during the next sampling event since it is not functioning properly.

Monitoring wells MW-5S, MW-8S, and MW-26I were missing well caps. Well caps will be replaced at these wells during the second semi-annual 2015 monitoring and sampling event. The protective curb box for monitoring wells MW-34S and MW-35 had a significant amount of bentonite present. Some bentonite was removed to facilitate measuring groundwater levels and groundwater sampling. The top of the PVC casing for monitoring well MW-24S was damaged but still functional. The protective steel cover for monitoring well MW-29 was missing a bolt. The well cover is still functional and the missing bolt will be replaced during the next groundwater sampling event. Monitoring well MW-36 was covered by approximately 10 inches gravel. The gravel was removed from the top of this well during the inspection event.

## 2.0 GROUNDWATER MONITORING AND SAMPLING

### 2.1 Water Levels and Hydraulic Gradients

Depths to groundwater were measured at 16 monitoring wells at the Cobalt Site (Table 1). Well TW/BRW-01S could not be measured because the well diameter was too small for the water level probe. Well TW-02 could also not be measured due to damage. The second quarter (2Q) 2015 Cobalt Site water level measurements are generally consistent with recent values. A potentiometric contour map was generated with the shallow (overburden) wells and is included as Figure 1. As shown in Figure 1, groundwater in the vicinity of the Cobalt Site generally flows south-southwest towards Fall Street.

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 twice per year for analysis of TCL volatile organic compounds (VOCs) by EPA 8260 plus tentatively identified compounds (TICs) and polychlorinated biphenyls (PCBs) by EPA Method 8082. All 9 wells were sampled during the 2Q 2015 monitoring event.

Groundwater samples were submitted under routine chain-of-custody protocols to Alpha Analytical, a NYDOH ELAP CLP certified laboratory in Westborough, MA for analysis. The laboratory report and chains of custody are included in Attachment 3. The TCL VOCs by EPA 8260 plus TICs and PCBs by EPA Method 8082 analytical data from the 2Q 2015 sampling event are summarized in Table 2 and Table 3, respectively. Field parameters were measured during sampling of the monitoring wells. These parameters are shown on the field sampling logs included in Attachment 3.

As shown in Tables 2 and 3, groundwater sampled from the following Cobalt Site monitoring wells exceeded NYSDEC Class GA groundwater standards:

- MW-18SR for 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene;
- MW-19SR for 1,4-dichlorobenzene and total PCBs;
- TW/BRW-01S for total PCBs; and,
- MW-24S for 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and cis-1,2-dichloroethene.

A figure illustrating compounds detected or estimated above reporting limits is included as Figure 2. VOCs and PCBs were not detected above reporting limits in wells MW-26S, MW-34, MW-35, and MW-36. These results are generally consistent with recent sampling events at the Site; compounds detected above NYSDEC Class GA standards are in a limited area within the NWSA.

The next groundwater sampling event for the Cobalt Site will be conducted during the fourth quarter of 2015.

## DATA VALIDATION

A data usability summary report (DUSR) was prepared by Data Validation Services of North Creek, New York and is included in Attachment 4. In general, the data are usable as reported or with minor qualifications. These qualifications, where applicable, have been incorporated in Tables 2 and 3.

## RECOMMENDATIONS AND CONCLUSIONS

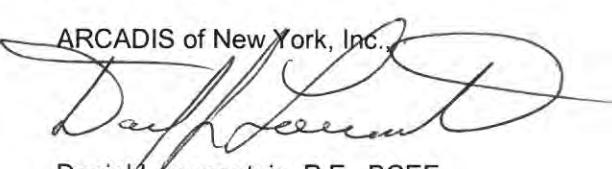
In general, the NYSDEC-approved Site Management Plan is working effectively at the Cobalt Site. No significant changes in groundwater conditions were observed during the 2Q 2015 monitoring and inspection event. Future monitoring and maintenance activities at the Cobalt Site include:

- Surveying measuring point elevations on monitoring wells MW-34, MW-35 and MW-36 so that groundwater level measurements collected at these locations can be included in potentiometric maps prepared for the site.
- Evaluating the condition and viability of TW-02 for future groundwater level monitoring. Based on the evaluation, ARCADIS will make a recommendation for future monitoring. Recommendations may include the abandonment, repair or replacement of TW-02, or the substitution of TW-03R as a water level monitoring well and the abandonment of TW-02. The screened interval of TW-03R (5 – 15 feet bgs) encompasses a similar groundwater interval as TW-02 (screened from 7.5 – 13.5 feet bgs) and is located approximately 50 feet away. The recommendation will be made to NYSDEC prior to the next SMP monitoring event.

If you have any questions or comments regarding the monitoring event results, please do not hesitate to call Jeff Stanek (914) 304-1672 with ITT Environmental Affairs.

Very truly yours,

ARCADIS of New York, Inc.,



Daniel Loewenstein, P.E., BCEE  
Senior Vice President

I certify that I have reviewed the Second Quarter 2015 Inspection and Monitoring Event dated August 4, 2015 and that the document meets the requirements of the *Site Management Plan (SMP)* dated December 2014. This report also conforms to applicable state, federal, and local regulations, generally accepted practices in the environmental profession and ARCADIS standards.

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Attachment 2 – Groundwater Monitoring Field Purge Logs  
Attachment 3 – Summary Data Packages – Alpha Analytical  
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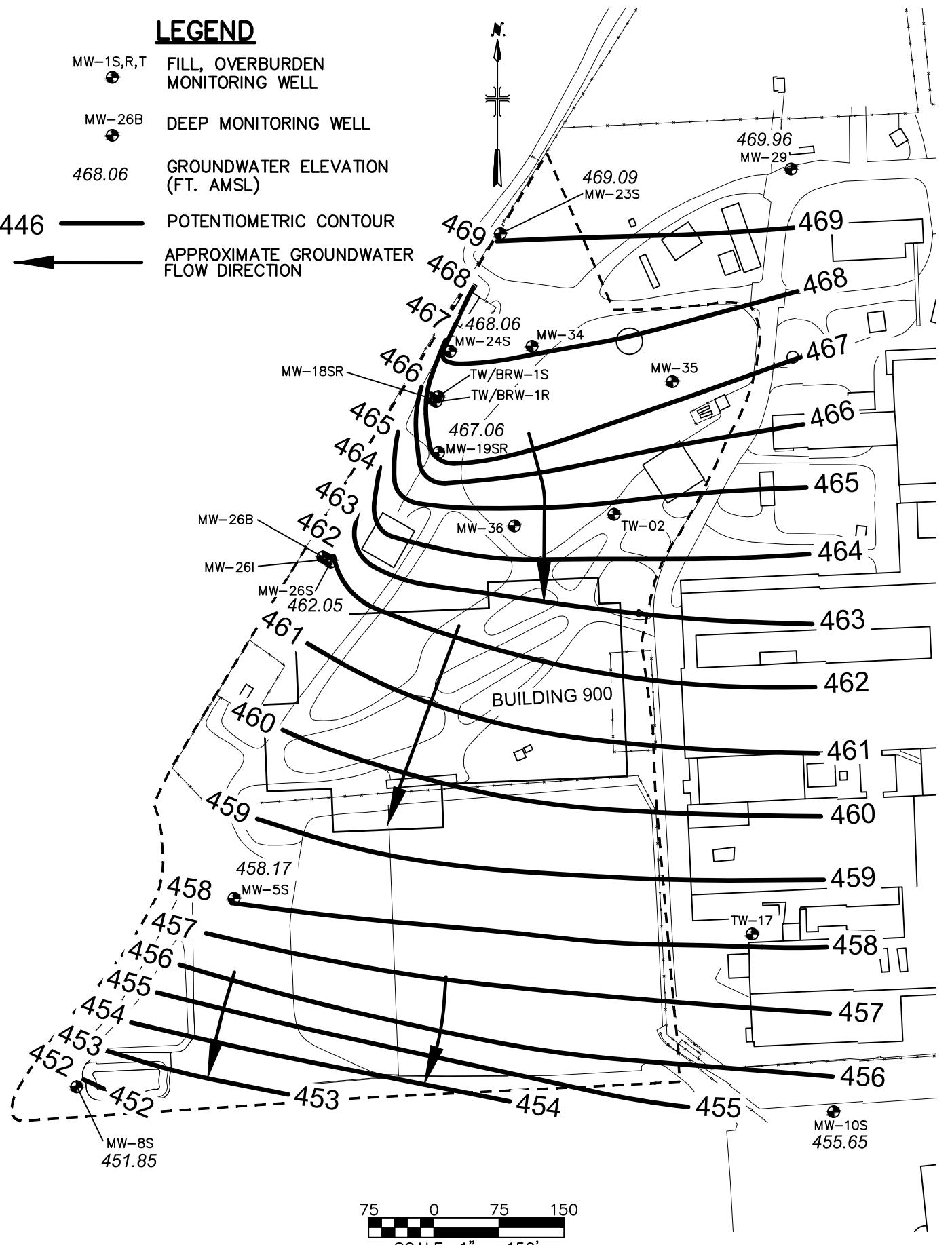
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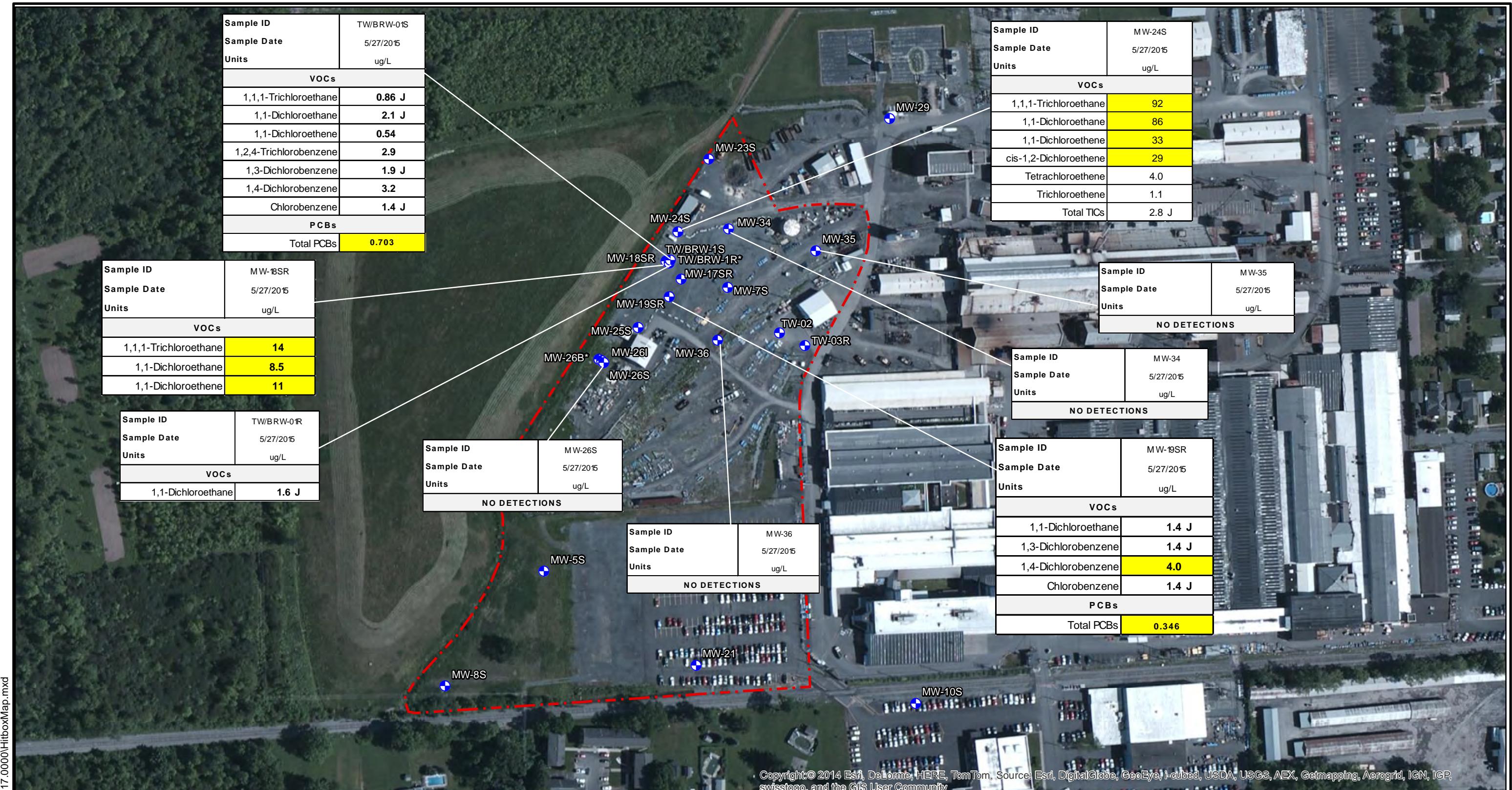
Jeff Stanek – ITT Corporation

## **FIGURES**

## LEGEND

- MW-1S,R,T FILL, OVERTBURDEN MONITORING WELL
- MW-26B DEEP MONITORING WELL
- 468.06 GROUNDWATER ELEVATION (FT. AMSL)
- 446 — POTENIOMETRIC CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION





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

### Legend

● Monitoring Well

■ Approximate Site Boundary

Note: J - Estimated below laboratory reporting limit.

Highlighted concentrations exceed NYSDEC Class GA Standard

0 120 240 480 720 960 Feet

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

### SUMMARY OF VALIDATED VOC & PCB DETECTIONS IN GROUNDWATER



FIGURE

2

## **TABLES**

Table 1

Summary of Water Levels

Goulds Pumps - Cobalt Site

Seneca Falls, NY

Well ID	Northing	Easting	Ground Elevation (ft amsl)	Top of Riser Elevation	Measuring Point Elevation (ft amsl)	Hydrogeologic Screen Interval	Groundwater Level	
							5/26/2015	
							(ft btoc)	(ft amsl)
MW-5S	1061227.0	758514.8	463.5	466.1	462.98	Silt & Clay	4.77	458.21
MW-7S	1061753.4	758856.1	469.4	471.8	471.77	Silt & Clay	4.52	467.25
MW-8S	1061009.8	759205.1	458.4	460.9	460.85	Silt & Clay	DRY	NA
MW-10S	1060981.2	759205.1	458.1	458.09	457.42	Silt & Clay	1.77	455.65
MW-18SR	1061802.7	758741.5	470.9	470.5	470.54	Silt & Clay	2.78	467.76
MW-19SR	1061736.6	758747.7	470.2	469.7	469.66	Silt & Clay	2.60	467.06
MW-23S	1061992.2	758821.4	473.2	475.4	475.36	Silt & Clay	6.27	469.09
MW-24S	1061856.9	758763.6	471.5	471.1	471.11	Silt & Clay	3.05	468.06
MW-26B*	1061620	758617.1	467.1	469.4	469.35	Bedrock	22.36	446.99
MW-26I	1061617.3	758622.2	467.3	469.2	469.22	Sand & Silt	23.25	445.97
MW-26S	1061614.3	758626.3	467.6	469.5	469.52	Silt & Clay	7.46	462.06
MW-29	1062066.7	759156.3	474.9	474.9	474.6	Silt & Clay	4.64	469.96
MW-34	1061862.504	758857.8706	471.4	471.1	NA	Silt & Clay	1.94	NA
MW-35	1061821.951	759019.4162	471.1	470.9	NA	Silt & Clay	1.68	NA
MW-36	1061655.772	758837.6341	469.6	469.3	NA	Silt & Clay	7.00	NA
TW-02	1061669.1	758952.2	466.6	466.3	466.34	Silt & Clay	NM**	NA
TW-22	NA	NA	NA	461.8	NA	Silt & Clay	CNL	CNL
TW/BRW-1S	1061799.3	758747.5	470.7	470.5	470.49	Silt & Clay	NM***	NM
TW/BRW-1R*	1061804.5	758750	470.7	470.4	470.39	Bedrock	23.20	447.19

**Notes:**

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

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

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 2

Summary of Validated Analytical Results - Detected 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-19SR 5/27/2015 ug/L	MW-34 5/27/2015 ug/L	MW-35 5/27/2015 ug/L	DUP-X 5/27/2015 ug/L	MW-36 5/27/2015 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	14	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
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	8.5	1.4 J	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	11	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	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
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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	2.5 U	1.4 J	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	4.0	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane		250 R	250 R	250 R	250 R	250 R	250 R
2-Butanone	50	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
4-Methyl-2-pentanone		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
Benzene	1	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
Bromodichloromethane	50	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
Bromomethane	5	2.5 U	2.5 U	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
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	1.4 J	2.5 U	2.5 U	1.0 J	2.5 U
Chloroethane	5	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
Chlormethane		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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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
Ethylbenzene	5	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
Isopropylbenzene	5	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
Methyl cyclohexane		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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethylene	5	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
trans-1,2-Dichloroethene	5	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
Trichloroethene	5	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
Vinyl chloride	2	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

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response  
in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X collected at MW-35

Table 2

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

Sample ID	NYSDEC Class GA Standard (ug/L)	TW/BRW-01S 5/27/2015 ug/L	MW-24S 5/27/2015 ug/L	MW-26S 5/27/2015 ug/L	TW/BRW-01R 5/27/2015 ug/L	Field Blank 5/27/2015 ug/L	Trip Blank 5/27/2015 ug/L	Trip Blank 5/28/2015 ug/L
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	5	0.86 J	92	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	3.0 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.1 J	86	2.5 U	1.6 J	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.54	33	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene		2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,2,4-Trichlorobenzene	5	2.9	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,2-Dibromoethane	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U
1,2-Dichlorobenzene	3	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,2-Dichloroethane	0.6	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	1.9 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,4-Dichlorobenzene	3	3.2	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,4-Dioxane		250 R	500 R	250 R	250 R	250 R	250 R	0.5 R
2-Butanone	50	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
2-Hexanone	50*	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
4-Methyl-2-pentanone		5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
Acetone	50*	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
Benzene	1	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Bromodichloromethane	50	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U
Bromomethane	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Carbon disulfide		5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
Carbon tetrachloride	5	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	1.4 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chloroethane	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chloroform	7	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chlormethane		2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
cis-1,2-Dichloroethene	5	2.5 U	29	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	20 U	10 U	10 U	10 U	10 U	0.5 U
Dibromochloromethane	50	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
Ethylbenzene	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Freon-113		2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Isopropylbenzene	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Methyl Acetate		2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U
Methyl cyclohexane		10 U	20 U	10 U	10 U	10 U	10 U	0.5 U
Methyl tert butyl ether	10	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Methylene chloride	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
o-Xylene	*	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
p/m-Xylene	*	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Styrene	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Tetrachloroethene	5	0.5 U	4.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
trans-1,2-Dichloroethene	5	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	1.1	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	5.0 U	2.5 U	2.5 U	0.5 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	0.5 U
Total TIC Compounds	--	ND	2.8 J	ND	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response  
in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X collected at MW-35

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-24S 5/27/2015 ug/L	MW-26S 5/27/2015 ug/L	TW/BRW-01R 5/27/2015 ug/L	MW-18SR 5/27/2015 ug/L	MW-19SR 5/27/2015 ug/L	MW-34 5/27/2015 ug/L	MW-35 5/27/2015 ug/L	DUP-X 5/27/2015 ug/L	MW-36 5/27/2015 ug/L	TW/BRW-01S 5/27/2015 ug/L	Field Blank 5/27/2015 ug/L
<b>PCBs</b>												
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
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
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
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
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
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.346	0.083 U	0.083 U	0.083 U	0.083 U	0.493	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	0.21	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
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
Total PCBs	0.09*	ND	ND	ND	ND	0.346	ND	ND	ND	ND	0.703	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

\* Apples to the sum of these compounds.

ND = Not Detected

DUP-X collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

## **ATTACHMENT 1**

**Second Quarter 2015 Site and Well Inspection Forms**

## Well Inspection Form

Date Performed: 5/26/15  
 Site Name: Goulds Pumps Cobalt Site (No. C850012)  
 Site Location: Seneca Falls, NY

Weather: mostly cloudy, hum 60, 80's  
 Inspector Name: A. Boden  
 Inspector Signature: Audrey Boden

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	Y	Rusted lock - need to cut off lock missing cap for PVC, lock was rusted - may need replacement
MW-08R	Y	Y	Y	
MW-10S	Y	Y	Y	
MW-18SR	Y	Y	Y	
MW-19SR	Y	Y	Y	
MW-23S	Y	Y	Y	lock rusted - need to be replaced, missing casing good
MW-24S	Y	Y	Y	lock rusted (very want to replace lock)
MW-26B	Y	Y	Y	cap missing on PVC, casing good
MW-26I	Y	Y	Y	rock strike in lock - cannot lock, casing good
MW-26S	Y	Y	Y	Missing lock - steel concert door handle bolt is missing *
MW-29	Y	Y	Y	Door off set of PVC, broken well floor board vent + water
MW-34 S?	Y	Y	Y	flooded with bentonite buried under dirt and gravel upon arrival
MW-35	Y	Y	Y	missing cap on PVC
MW-36	Y	Y	Y	lock missing - need to cut lock, no cap for PVC
MW-55	Y	Y	Y	
MW-8S	Y	Y	Y	
TW/BRW-01R	Y	Y	Y	
TW/BRW-01S	Y	Y	Y	
TW-02	Y	Y	Y	completely damaged
TW-17	Y	Y	Y	

### 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

\* Photo taken in

## Site Inspection Form

Date Performed: 05/27/15  
 Site Name: Goulds Pumps Cobalt Site (No. C850012)  
 Site Location: Seneca Falls, NY

Weather: 80's, partly cloudy  
 Inspector Name: Angela (Dodge) Emmanuel Sosa  
 Inspector Signature: Angela (Dodge) Emmanuel Sosa

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	
A2	Pavement	Y	Y	?	Some type of Seepage from storm drain ↳ orange rust colored
A3	Pavement	Y	Y	N	
B1	Topsoil and Grass	Y	Y	?	Vegetation growing in *
B2	Topsoil and Grass	Y	Y	N	Dead grass next to building (sw corner). A few small patches of no grass.
C1	Riprap Spillway	Y	Y	N	Minor vegetation growing in *
C2	Riprap Spillway	Y	Y	N	
C3	Riprap Spillway	Y	Y	N	Minor vegetation growing in *
C4	Riprap Spillway	Y	Y	N	Minor weeds growing in *
C5	Riprap Slope Protection	Y	Y	?	
D1	Concrete	Y	Y	N	
D2	Concrete	Y	Y	N	

\* Photo taken

## Site Inspection Form

D3	Concrete
D4	Concrete
D5	Concrete
D6	Concrete
D7	Concrete
D8	Concrete
D9	Concrete
D10	Concrete
D11	Concrete
D12	Concrete
E1	Gravel
E2	Gravel
E3	Gravel
E4	Gravel
E5	Gravel
F	NWSA cap

### 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	<del>OK</del> Y	Hole in fence toward bottom near NW -> cluster

## **ATTACHMENT 2**

**Groundwater Monitoring Field Purge Logs**

Low Flow Groundwater Sampling Log								Well ID: TW/BRW-01R	Northing:	Easting:	
Site Name: Cobalt Site		Sampling Method: Pump/Low Flow		Field Personnel: A. Goodrich							
Site Location: Seneca Falls, NY		Equipment Used: Bladder Pump						Date: 5/27/15			
Project #: 01257117.2015		Pump/Controller ID#: —						Weather: 80's, cloudy			
Well information:											
Installed Depth of Well*: 89.5 ft. bmp.		Well Volume Multipliers:		* Measurement Point: <input checked="" type="checkbox"/> Well Casing <input type="checkbox"/> Protective Casing <input type="checkbox"/> Other:							
Measured Depth of Well*: 89.35 ft. bmp.		<input type="checkbox"/> 1 in. = 0.041 gal/ft <input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft <input checked="" type="checkbox"/> 4 in. = 0.653 gal/ft <input type="checkbox"/> 6 in. = 1.469 gal/ft <input type="checkbox"/> 8 in. = 2.611 gal/ft									
Depth to Water*: 23.20 ft. bmp.											
Length of Water Column (LWC): 66.15 ft.				Well Volume: 43.2 gal.							
Well Diameter: 4 in.				Pump Intake Depth*: ~88 ft. bmp.							
Start Purge Time: 05:30											
Initial Observations: Color slightly brown		Odor none		Sheen/Free Product none							
indicate units											
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )		
17:35	23.42	18.04	11.00	1.17	-119	7.57	0.0	225			
17:40	23.50	14.78	11.19	1.30	-133	6.81	376	225			
17:45	23.50	14.67	11.20	1.24	-151	6.26	314	225			
17:50	23.50	14.25	8.45	1.19	-80	2.73	202	225			
18:00	23.50	14.15	7.83	1.30	-130	2.43	130	225			
18:05	23.51	13.93	7.40	1.35	-104	2.28	98.2	225			
18:10	23.51	14.05	7.11	1.37	-82	2.18	82.7	225			
18:15	23.49	13.910	6.95	1.38	-76	2.05	74.3	225			
18:20	23.50	14.00	6.80	1.40	-72	1.98	65.7	225			
18:25	23.50	14.20	6.67	1.42	-71	1.89	56.3	225			
18:30	23.50	14.10	6.65	1.43	-67	1.43	53.5	225			
18:37	23.50	14.06	6.57	1.44	-70	1.44	49.3	225			
18:42	23.50	14.21	6.49	1.44	-69	1.45	45.7	225			
18:47	23.50	14.24	6.49	1.45	-67	1.45	42.9	225			
18:52	23.50	13.99	6.43	1.45	-67	1.45	41.8	225			
						*1.78					
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$			
End Purge Time: _____					DO Titrataion = _____ mg/L						
Total volume of groundwater purged: _____ gal.											
Final Observations: Color clear		Odor none		Sheen/Free Product none							
Specific Gravity _____											
Analytical Sample ID: TW/BRW-01R-052715 Date: 05/27/15 Time: 18:54											
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
4L	Amber VWR	2	NO	None HCL		Alpha Alpha					
40mL vials		3	NO								
Notes: * DO readings read off conductivity meter by mistake from 18:47 - 18:52. DO stable. w/ 18:25 reading 18:30							**Well Integrity Inspection Notes**				

Low Flow Groundwater Sampling Log									Well ID: MW-265	Northing:	Easting:	
Site Name: Goulds Pumps Cobalt	Sampling Method: Low flow	Field Personnel: ES										
Site Location: Seneca Falls, NY	Equipment Used: Hori-ban peristaltic	Date: 5/27/15										
Project #: 01257117.2015	Pump/Controller ID#: 21065/11071	Weather: Cloudy 82°F										
<b>Well information:</b>												
Installed Depth of Well*: 15 ft. bmp.	Well Volume Multipliers:								* Measurement Point:			
Measured Depth of Well*: 16.100 ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> 6 in. = 1.469 gal/ft	<input type="checkbox"/> 8 in. = 2.611 gal/ft	<input checked="" type="checkbox"/> Well Casing	<input type="checkbox"/> Protective Casing	<input type="checkbox"/> Other:				
Depth to Water*: 7.46 ft. bmp.												
Length of Water Column (LWC): 9.14 ft.	Well Volume: 1.49 gal.											
Well Diameter: 2" in.	Pump Intake Depth*: 16 ft. bmp.											
Start Purge Time: 1710												
Initial Observations: Color Brown Odor None Sheen/Free Product None												
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other			
1715	7.84	14.80	7.22	0.901	-27	12.47	52.5	200				
1720	8.01	13.13	7.16	0.933	-24	10.95	33.6					
1725	8.16	12.47	7.14	0.942	-21	9.55	20.3					
1730	8.28	12.28	7.14	0.945	-19	8.75	12.6					
1735	8.39	12.22	7.13	0.941	-14	8.05	9.0					
1740	8.47	12.30	7.13	0.931	-6	7.49	10.5					
1745	8.56	11.89	7.13	0.943	+4	7.20	11.8					
1750	8.62	11.78	7.13	0.954	10	6.95	12.4					
1755	8.70	11.81	7.12	0.969	14	6.68	11.3					
7800												
Stabilization	$\Delta \leq 0.3^\circ$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$				
End Purge Time: 1755												
DO Titrataion = mg/L												
Total volume of groundwater purged: 2 gal.												
Final Observations: Color Clear Odor None Sheen/Free Product None												
Specific Gravity												
Analytical Sample ID: MW-265-052715	Date: 5/27/15	Time: 18:05										
Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory							
1 L	amber	2	no	None	Alpha							
40 mL	Vac	3	↓	HCl								
Notes: Tubing left in well												
**Well Integrity Inspection Notes**												

Low Flow Groundwater Sampling Log								Well ID: MW-245	Northing:	Easting:	
Site Name: <u>Cobalt Site</u>	Sampling Method: <u>LOW-FLOW</u>	Field Personnel: <u>A. Goodrich</u>									
Site Location: <u>Seneca Falls, NY</u>	Equipment Used: <u>Peristaltic</u>	Date: <u>05/27/15</u>									
Project #: <u>01257117.2015</u>	Pump/Controller ID#:	Weather: <u>Partly cloudy</u>									
Well information:											
Installed Depth of Well*: <u>15</u>	ft. bmp.	Well Volume Multipliers:	* Measurement Point:								
Measured Depth of Well*: <u>13.85</u>	ft. bmp.	<input checked="" type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing								
Depth to Water*: <u>3.05</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing								
Length of Water Column (LWC): <u>10.80</u>	ft.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:								
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.76</u> gal.								
		<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: <u>13.25</u> ft. bmp.								
Start Purge Time: <u>13:41</u>											
Initial Observations: Color <u>Brown</u> Odor <u>none</u> Sheen/Free Product <u>none</u>											
indicate units											
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other		
13:48	4.20	20.21	6.46	0.611	45	2.40	>1,000	200			
13:53	4.52	20.36	6.47	0.625	36	2.07	71,000	200			
13:58	4.78	19.16	6.47	0.637	29	2.07	>1,000	200			
14:03	5.08	19.37	6.47	0.627	12	1.89	>1,000	200			
14:08	5.37	18.87	6.45	0.601	-17	1.89	>1,000	200			
14:13	5.80	18.40	6.42	0.589	-23	1.85	>1,000	200			
14:18	6.24	18.36	6.38	0.580	-18	1.81	918	200			
14:23	6.05	18.29	6.33	0.589	-5	1.80	807	200			
14:28	7.07	18.42	6.28	0.594	2	1.79	677	200			
14:33	7.30	18.25	6.26	0.603	3	1.85	587	200			
14:38	7.68	17.88	6.25	0.622	3	1.92	522	200			
14:43	8.00	17.98	6.24	0.629	6	1.95	451	200			
14:48	8.18	17.79	6.27	0.634	3	2.01	420	200			
14:53	8.42	17.71	6.29	0.649	2	2.06	367	200			
15:00	8.64	17.54	6.33	0.653	6	2.12	349	200			
15:05	8.86	17.46	6.34	0.655	-19	2.08	379	200			
15:10	9.03	16.90	6.38	0.665	-3	2.17	354	200			
15:15	9.26	17.19	6.40	0.665	12	2.14	327	200			
15:20	9.40	17.35	6.41	0.668	21	2.13	304	200			
Stabilization	$\Delta \leq 0.3^\circ$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$			
End Purge Time: <u>15:36</u>											
DO Titrataion = _____ mg/L											
Total volume of groundwater purged: <u>~7</u> gal.											
Final Observations: Color <u>Brown</u> Odor <u>none</u> Sheen/Free Product <u>none</u>											
Specific Gravity _____											
Analytical Sample ID: <u>MW-245-052715</u> Date: <u>5/27/15</u> Time: <u>15:40</u>											
Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory						
1 L	Amber VOA	2	No	None	Alpha						
40 mL		3	No	HCL	Alpha						
Notes:											
**Well Integrity Inspection Notes**											

*continued*

2 of 2

Low Flow Groundwater Sampling Log								Well ID: MW-19SR	Northing:	Easting:	
Site Name: <u>Goulds Pumps Cobalt</u>	Sampling Method: <u>low flow</u>	Field Personnel: <u>ES</u>									
Site Location: <u>Seneca Falls, NY</u>	Equipment Used: <u>Haniba / Peristaltic</u>	Date: <u>5/27/15</u>									
Project #: <u>21065/A01703</u>	Pump/Controller ID#:	Weather: <u>Fair 79°F</u>									
<b>Well Information:</b>											
Installed Depth of Well*: <u>15</u>	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	* Measurement Point:								
Measured Depth of Well*: <u>14.04</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	Well Casing								
Depth to Water*: <u>2.60</u>	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	Protective Casing								
Length of Water Column (LWC): <u>4.11.44</u>		<input type="checkbox"/> 6 in. = 1.469 gal/ft	Other								
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Well Volume: <u>1.86</u> gal.								
Pump Intake Depth*: <u>13.54</u> ft. bmp.											
Start Purge Time: <u>1435</u>											
Initial Observations: Color <u>Brown cloudy</u> Odor <u>None</u> Sheen/Free Product <u>None</u>											
indicate units											
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other		
1440	3.03	23.60	7.18	0.998	57	2.93	82.1	250			
1445	3.05	21.28	7.11	1.05	52	3.20	71.3				
1450	3.00	20.45	7.08	1.07	48	2.81	59.3				
1455	3.00	20.15	7.04	1.07	46	2.55	51.6				
1500	3.05	20.15	7.00	1.05	48	2.38	32.0				
1505	3.01	19.29	7.04	0.887	49	2.57	58.6				
1510	3.03	18.11	7.29	0.641	-5	2.76	175				
1515	3.03	18.81	7.37	0.610	-45	2.56	159				
1520	3.05	19.21	7.38	0.603	-73	2.70	98.0				
1525	3.05	19.34	7.45	0.604	-89	2.36	73.0				
1530	3.06	19.14	7.47	0.606	-102	2.29	45.6				
1535	3.06	18.54	7.48	0.618	-110	2.27	36.1				
1540	3.06	18.55	7.48	0.620	-116	2.18	27.9				
1545	3.08	18.61	7.48	0.623	-120	2.15	26.8				
1550	3.08	18.73	7.48	0.623	-124	2.05	26.3	↓			
1555											
1600											
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500			
End Purge Time: <u>1550</u> DO Titrataion = _____ mg/L											
Total volume of groundwater purged: <u>4</u> gal.											
Final Observations: Color <u>Clear</u> Odor <u>None</u> Sheen/Free Product <u>None</u>											
Specific Gravity _____											
Analytical Sample ID: <u>MW-19SR-052715</u>				Date: <u>5/27/15</u>	Time: _____						
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
1L	amber	2	No	None		Alpha					
40 mL	Voa	3	Y	HCl							
Notes: <u>Tubing left in well</u>							**Well Integrity Inspection Notes**				

Low Flow Groundwater Sampling Log									Well ID: MW-34	Northing:	Easting:
Site Name: Goulds Pumps Cobalt	Sampling Method: Low flow	Field Personnel: ES									
Site Location: Seneca Falls, NY	Equipment Used: Horiiba Peristaltic	Date: 5/27/15									
Project #: 01257117.2015	Pump/Controller ID#: 21065/A01709	Weather: Fair 77°F									
Well Information:		Well Volume Multipliers:				* Measurement Point:					
Installed Depth of Well*: 13	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing	Measured Depth of Well*: 12.61	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing	Depth to Water*: 1.94	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:
Length of Water Column (LWC):	ft. 10.67	<input type="checkbox"/> 6 in. = 1.469 gal/ft		Well Diameter: 2	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft		Pump Intake Depth*:	ft. bmp.	Well Volume: 1.74 gal.	
Start Purge Time: 1325		indicate units									
Initial Observations: Color Cloudy Odor Slight Sulfur Sheen/Free Product None											
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other		
1325	2.77	15.96	7.19	1.18	33	5.84	31.5	225			
1330	3.22	13.30	7.12	1.25	-18	5.27	8.5				
1335	3.50	13.26	7.09	1.23	-29	4.40	0.0				
1340	3.70	13.55	7.04	1.19	-30	3.95	0.0				
1345	3.90	13.61	7.00	1.18	-33	3.75	0.0				
1350	4.10	13.73	6.99	1.18	-37	3.59	0.0				
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500			
End Purge Time: 1350		DO Titration = mg/L									
Total volume of groundwater purged: 1.5 gal.											
Final Observations: Color Clear Odor None Sheen/Free Product No											
Analytical Sample ID: MW-34-052715		Date: 5/27/15		Time: 1400							
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
1 L	Amber	2	No	None		Alpha					
40 mL	Von	3	↓	HCl		↓					
Notes: Tubing left in well						**Well Integrity Inspection Notes**					

Low Flow Groundwater Sampling Log								Well ID: MW-18SR	Northing:	Easting:		
Groundumps Cobalt Site		Sampling Method: Low Flow		Field Personnel: A. Goodrich								
Site Location: Seneca Falls		Equipment Used: Peristaltic		Date: 5/27/15								
Project #: 01257117.2015		Pump/Controller ID#: -		Weather: 70's, cloudy								
Well information:												
Installed Depth of Well*: 15 ft. bmp.		Well Volume Multipliers:		* Measurement Point: <input checked="" type="checkbox"/> Well Casing <input type="checkbox"/> Protective Casing <input type="checkbox"/> Other:								
Measured Depth of Well*: 13.87 ft. bmp.		<input type="checkbox"/> 1 in. = 0.041 gal/ft <input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft <input type="checkbox"/> 4 in. = 0.653 gal/ft <input type="checkbox"/> 6 in. = 1.469 gal/ft <input type="checkbox"/> 8 in. = 2.611 gal/ft										
Depth to Water*: 2.78 ft. bmp.												
Length of Water Column (LWC): 11.09 ft.				Tubing Well Volume: 1.8 gal.								
Well Diameter: 2 in.				Pump Intake Depth*: 13.80 ft. bmp.								
Start Purge Time: 10:40												
Initial Observations: Color slightly brown		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			
10:50	2.98	16.23	6.26	0.761	64	2.69	217	200				
10:55	2.98	14.97	6.25	0.764	63	2.52	113	200				
11:00	2.98	14.73	6.20	0.724	71	2.53	91.4	200				
11:05	2.98	15.14	6.16	0.658	33	2.63	56.9	200				
11:10	2.98	15.37	6.15	0.626	-6	2.49	46.7	200				
11:15	3.00	15.38	6.14	0.567	-32	2.32	27.3	200				
11:20	3.00	15.42	6.15	0.525	-48	2.18	10.5	200				
11:25	3.00	15.44	6.17	0.497	-57	2.07	6.7	200				
11:30	3.01	15.51	6.18	0.481	-61	2.00	3.5	200				
11:35	3.01	15.60	6.19	0.468	-63	1.95	1.1	200				
11:40	3.01	15.65	6.19	0.460	-64	1.90	0.5	200				
11:45	3.01	15.70	6.19	0.453	-64	1.87	0.4	200				
11:50	3.01	15.84	6.19	0.448	-63	1.83	0.0	200				
Stabilization $\Delta \leq 0.3'$ $\pm 3\%$ $\pm 0.1$ $\pm 3\%$ $\pm 10 \text{ mV}$ $\pm 10\%$ $200 \leq X \leq 500$												
End Purge Time: 11:52 DO Titrataion = mg/L												
Total volume of groundwater purged: 24.5 gal.												
Final Observations: Color clear		Odor none		Sheen/Free Product none								
Specific Gravity _____												
Analytical Sample ID: MW-18SR-05/27/15				Date: 05/27/15		Time: 12:00						
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory						
1L 40 mL	Amber VDA	2 3	NO NO	None HCL		Alpha Alpha						
Notes: 11:05 Horiba turned off Filtering test in well. Tubing taken out of well - had to insert PDB flowless MS/MSD collected								**Well Integrity Inspection Notes**				

Low Flow Groundwater Sampling Log							Well ID: TW/BRW-01S	Northing:	Easting:
Site Name: Goulds Pump's Cobalt	Sampling Method: Low Flow	Field Personnel: ES							
Site Location: Seneca Falls, NY	Equipment Used: Horiba Peristaltic	Date: 5/27/15							
Project #: 01257117.2015	Pump/Controller ID#: 21065 / 11071	Weather: cloudy 73°F							
Well information:		Well Volume Multipliers:					* Measurement Point:		
Installed Depth of Well*: 11	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft						<input checked="" type="checkbox"/> Well Casing	
Measured Depth of Well*: 11.25	ft. bmp.	<input type="checkbox"/> 2 in. = 0.163 gal/ft						<input type="checkbox"/> Protective Casing	
Depth to Water*: 	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft						<input type="checkbox"/> Other: _____	
Length of Water Column (LWC): 	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft						Well Volume: _____ gal.	
Well Diameter: 1/2	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft						Pump Intake Depth*: 10.75 ft. bmp.	
Start Purge Time: 1040									
Initial Observations: Color Brown	Odor None	Sheen/Free Product None							
indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1045	—	15.31	7.28	0.635	-126	5.37	428	+	200
1050	—	14.86	7.26	0.623	-133	4.38	130	+	
1055	—	14.76	7.25	0.616	-134	3.91	66.0	+	
1100	—	14.80	7.24	0.613	-135	3.72	40.3	+	
1105	—	14.85	7.24	0.608	-134	3.64	30.6	+	
1110	—	14.86	7.23	0.605	-134	3.63	25.7	+	
1115	—	14.89	7.23	0.601	-134	3.53	25.7	+	
1120	—	14.89	7.23	0.598	-134	3.49	26.1	+	
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$	
End Purge Time: 1120		DO Titrataion = _____ mg/L							
Total volume of groundwater purged: 1.75 gal.									
Final Observations: Color Clear	Odor None	Sheen/Free Product None							
Specific Gravity _____									
Analytical Sample ID: _____				Date: _____	Time: _____				
Container Size	Container Type	# Collected	Field Filtered?	Preservative			Laboratory		
1 L	Amber	2	None	None			Alpha		
40 mL	Vac	3	↓	HCl			↓		
Notes: 1/2" well → unable to get DTW DTB collected using tubing or measuring tape Tubing left in well				**Well Integrity Inspection Notes**					

Low Flow Groundwater Sampling Log								Well ID: MW-36	Northing:	Easting:
Goulds Pumps		Site Name: <u>Cobalt Site</u>		Sampling Method: <u>LOW FLOW</u>		Field Personnel: <u>A. Grondon</u>				
Site Location: <u>Seneca Falls NY</u>		Equipment Used: <u>PERISTALTIC</u>		Project #: <u>0125711T.2015</u>		Pump/Controller ID#:		Date: <u>5/27/15</u>	Weather: <u>72°, cloudy</u>	
Well information:				Well Volume Multipliers:				* Measurement Point:		
Installed Depth of Well*: <u>13</u>		ft. bmp.		<input type="checkbox"/> 1 in. = 0.041 gal/ft		<input checked="" type="checkbox"/> Well Casing				
Measured Depth of Well*: <u>12.48</u>		ft. bmp.		<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft		<input type="checkbox"/> Protective Casing				
Depth to Water*: <u>7.00</u>		ft. bmp.		<input type="checkbox"/> 4 in. = 0.653 gal/ft		<input type="checkbox"/> Other:				
Length of Water Column (LWC): <u>5.48</u>		ft.		<input type="checkbox"/> 6 in. = 1.469 gal/ft		Well Volume:	<u>0.90</u> gal.			
Well Diameter: <u>2</u>		in.		<input type="checkbox"/> 8 in. = 2.611 gal/ft		Pump Intake Depth*: <u>N/A</u>	ft. bmp.			
Start Purge Time: <u>08:40</u>										
Initial Observations: Color <u>clear</u>		Odor <u>none</u>		Sheen/Free Product <u>none</u>		indicate units				
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other	
08:45	7.62	18.73	5.58	0.759	-94	4.14	1.5	250		
08:50	7.89	16.59	5.58	0.775	-95	3.36	1.7	250		
08:55	8.18	15.74	5.55	0.775	-90	2.97	8.0	250		
09:00	8.48	15.37	5.51	0.758	-87	2.74	4.8	250		
09:05	8.78	15.16	5.49	0.755	-84	2.62	2.62	250		
09:12	9.15	15.04	5.51	0.755	-81	2.52	2.52	250		
09:17	9.42	14.94	5.49	0.765	-79	2.45	2.45	250		
09:22	10.04	14.82	5.48	0.759	-77	2.39	2.39	250		
09:27	9.98	14.69	5.48	0.765	-71	2.30	2.30	250		
09:32	10.17	14.53	5.48	0.769	-71	2.25	2.25	250		
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$		
End Purge Time: <u>09:35</u>										
DO Titrataion = _____ mg/L										
Total volume of groundwater purged: <u>~3.5</u> gal.										
Final Observations: Color <u>clear</u>		Odor <u>none</u>		Sheen/Free Product <u>none</u>		Specific Gravity _____				
Analytical Sample ID: <u>MW-310-052715</u>		Date: <u>05/27/15</u>		Time: <u>09:40</u>						
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory				
1L 40mL	Amber VOA	2	NO NO	None HCL		Alpha Alpha				
Notes: <u>Tubing left in well (had to use new tubing none in well prior)</u>						**Well Integrity Inspection Notes**				



## **ATTACHMENT 3**

**Summary Data Packages – Alpha Analytical**



## ANALYTICAL REPORT

Lab Number:	L1511616
Client:	Arcadis U.S, Inc. 855 Route 146, Suite 210 Clifton Park, NY 12065
ATTN:	Daniel Lang
Phone:	(518) 250-7300
Project Name:	GOULDS COBALT SITE
Project Number:	01257117.2015
Report Date:	06/03/15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1511616-01	MW-18SR-052715	WATER	SENECA FALLS, NY	05/27/15 12:00	05/27/15
L1511616-02	MW-19SR-052715	WATER	SENECA FALLS, NY	05/27/15 16:00	05/27/15
L1511616-03	MW-34-052715	WATER	SENECA FALLS, NY	05/27/15 14:00	05/27/15
L1511616-04	MW-35-052715	WATER	SENECA FALLS, NY	05/27/15 09:20	05/27/15
L1511616-05	MW-36-052715	WATER	SENECA FALLS, NY	05/27/15 09:40	05/27/15
L1511616-06	TW/BRW-01S-052715	WATER	SENECA FALLS, NY	05/27/15 11:30	05/27/15
L1511616-07	DUP-X-052715	WATER	SENECA FALLS, NY	05/27/15 00:00	05/27/15
L1511616-08	FIELD BLANK-052715	WATER	SENECA FALLS, NY	05/27/15 14:50	05/27/15
L1511616-09	TRIP BLANK	WATER	SENECA FALLS, NY	05/27/15 00:00	05/27/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

### Case Narrative (continued)

#### Report Submission

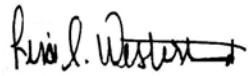
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Sample Receipt

A Trip Blank was received in the laboratory but not listed on the Chain of Custody. At the client's request, the Trip Blank was analyzed.

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:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 06/03/15

# ORGANICS



# VOLATILES



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-01	Date Collected:	05/27/15 12:00
Client ID:	MW-18SR-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 13:47		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.5	0.70	1	
1,1-Dichloroethane	8.5	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	0.13	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	14	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	0.14	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	11	ug/l	0.50	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-01	Date Collected:	05/27/15 12:00
Client ID:	MW-18SR-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	88		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	103		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-02	Date Collected:	05/27/15 16:00
Client ID:	MW-19SR-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 14:17		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	1.4	J	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	0.13	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	1.4	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	1.4	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	4.0		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-02	Date Collected:	05/27/15 16:00
Client ID:	MW-19SR-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	87		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	105		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-03	Date Collected:	05/27/15 14:00
Client ID:	MW-34-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 14:47		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-03	Date Collected:	05/27/15 14:00
Client ID:	MW-34-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	85		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	103		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-04	Date Collected:	05/27/15 09:20
Client ID:	MW-35-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 15:16		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	1.1	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



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Lab Number: L1511616

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Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-04	Date Collected:	05/27/15 09:20
Client ID:	MW-35-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	88		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	104		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-05	Date Collected:	05/27/15 09:40
Client ID:	MW-36-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 15:46		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

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**SAMPLE RESULTS**

Lab ID:	L1511616-05	Date Collected:	05/27/15 09:40
Client ID:	MW-36-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	89		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	106		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-06	Date Collected:	05/27/15 11:30
Client ID:	TW/BRW-01S-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 16:16		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	2.1	J	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	0.13	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	1.4	J	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	0.86	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	0.14	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	0.54		ug/l	0.50	0.14	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
1,3-Dichlorobenzene	1.9	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	3.2		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

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**SAMPLE RESULTS**

Lab ID:	L1511616-06	Date Collected:	05/27/15 11:30
Client ID:	TW/BRW-01S-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	2.9	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	41.	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	92		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	105		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-07	Date Collected:	05/27/15 00:00
Client ID:	DUP-X-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 16:46		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	1.0	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-07	Date Collected:	05/27/15 00:00
Client ID:	DUP-X-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	90		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	106		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-08	Date Collected:	05/27/15 14:50
Client ID:	FIELD BLANK-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 17:15		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-08	Date Collected:	05/27/15 14:50
Client ID:	FIELD BLANK-052715	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	87		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	106		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-09	Date Collected:	05/27/15 00:00
Client ID:	TRIP BLANK	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/01/15 13:17		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID:	L1511616-09	Date Collected:	05/27/15 00:00
Client ID:	TRIP BLANK	Date Received:	05/27/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	86		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	103		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/01/15 12:48  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG789764-3					
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	0.13	
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	0.14	
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	0.14	
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:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 06/01/15 12:48  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG789764-3					
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	41.	
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:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/01/15 12:48  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG789764-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	102		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG789764-1 WG789764-2								
Methylene chloride	104		94		70-130	10		20
1,1-Dichloroethane	100		93		70-130	7		20
Chloroform	107		98		70-130	9		20
2-Chloroethylvinyl ether	77		70		70-130	10		20
Carbon tetrachloride	111		103		63-132	7		20
1,2-Dichloropropane	97		90		70-130	7		20
Dibromochloromethane	100		92		63-130	8		20
1,1,2-Trichloroethane	92		82		70-130	11		20
Tetrachloroethene	114		104		70-130	9		20
Chlorobenzene	106		96		75-130	10		20
Trichlorofluoromethane	106		100		62-150	6		20
1,2-Dichloroethane	93		84		70-130	10		20
1,1,1-Trichloroethane	107		99		67-130	8		20
Bromodichloromethane	103		94		67-130	9		20
trans-1,3-Dichloropropene	93		82		70-130	13		20
cis-1,3-Dichloropropene	103		94		70-130	9		20
1,1-Dichloropropene	104		94		70-130	10		20
Bromoform	94		86		54-136	9		20
1,1,2,2-Tetrachloroethane	81		75		67-130	8		20
Benzene	105		96		70-130	9		20
Toluene	101		93		70-130	8		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG789764-1 WG789764-2								
Ethylbenzene	101		92		70-130	9		20
Chloromethane	82		74		64-130	10		20
Bromomethane	143	Q	136		39-139	5		20
Vinyl chloride	92		83		55-140	10		20
Chloroethane	112		101		55-138	10		20
1,1-Dichloroethene	106		99		61-145	7		20
trans-1,2-Dichloroethene	109		100		70-130	9		20
Trichloroethene	111		101		70-130	9		20
1,2-Dichlorobenzene	103		94		70-130	9		20
1,3-Dichlorobenzene	106		95		70-130	11		20
1,4-Dichlorobenzene	105		95		70-130	10		20
Methyl tert butyl ether	83		76		63-130	9		20
p/m-Xylene	107		98		70-130	9		20
o-Xylene	107		96		70-130	11		20
cis-1,2-Dichloroethene	109		100		70-130	9		20
Dibromomethane	98		90		70-130	9		20
1,2,3-Trichloropropane	83		76		64-130	9		20
Acrylonitrile	76		66	Q	70-130	14		20
Diisopropyl Ether	87		80		70-130	8		20
Tert-Butyl Alcohol	81		71		70-130	13		20
Styrene	105		95		70-130	10		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG789764-1 WG789764-2								
Dichlorodifluoromethane	76		69		36-147	10		20
Acetone	90		73		58-148	21	Q	20
Carbon disulfide	93		86		51-130	8		20
2-Butanone	79		69		63-138	14		20
Vinyl acetate	90		82		70-130	9		20
4-Methyl-2-pentanone	70		62		59-130	12		20
2-Hexanone	61		58		57-130	5		20
Acrolein	71		65		40-160	9		20
Bromochloromethane	122		110		70-130	10		20
2,2-Dichloropropane	115		106		63-133	8		20
1,2-Dibromoethane	94		84		70-130	11		20
1,3-Dichloropropane	90		80		70-130	12		20
1,1,1,2-Tetrachloroethane	108		98		64-130	10		20
Bromobenzene	105		96		70-130	9		20
n-Butylbenzene	100		91		53-136	9		20
sec-Butylbenzene	103		94		70-130	9		20
tert-Butylbenzene	105		97		70-130	8		20
o-Chlorotoluene	102		93		70-130	9		20
p-Chlorotoluene	100		92		70-130	8		20
1,2-Dibromo-3-chloropropane	84		75		41-144	11		20
Hexachlorobutadiene	107		98		63-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG789764-1 WG789764-2								
Isopropylbenzene	102		93		70-130	9		20
p-Isopropyltoluene	105		96		70-130	9		20
Naphthalene	84		75		70-130	11		20
n-Propylbenzene	100		91		69-130	9		20
1,2,3-Trichlorobenzene	96		85		70-130	12		20
1,2,4-Trichlorobenzene	100		88		70-130	13		20
1,3,5-Trimethylbenzene	103		94		64-130	9		20
1,2,4-Trimethylbenzene	103		94		70-130	9		20
Methyl Acetate	70		64	Q	70-130	9		20
Ethyl Acetate	66	Q	59	Q	70-130	11		20
Cyclohexane	93		87		70-130	7		20
Ethyl-Tert-Butyl-Ether	88		80		70-130	10		20
Tertiary-Amyl Methyl Ether	90		82		66-130	9		20
1,4-Dioxane	127		97		56-162	27	Q	20
Freon-113	106		100		70-130	6		20
p-Diethylbenzene	106		96		70-130	10		20
p-Ethyltoluene	103		94		70-130	9		20
1,2,4,5-Tetramethylbenzene	102		91		70-130	11		20
Ethyl ether	82		76		59-134	8		20
trans-1,4-Dichloro-2-butene	71		65	Q	70-130	9		20
Methyl cyclohexane	106		97		70-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG789764-1 WG789764-2								
<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>			
1,2-Dichloroethane-d4	83		85		70-130			
Toluene-d8	95		95		70-130			
4-Bromofluorobenzene	90		92		70-130			
Dibromofluoromethane	101		104		70-130			

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG789764-4 WG789764-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715												
Methylene chloride	ND	10	11	111		11	110		70-130	0		20
1,1-Dichloroethane	8.5	10	19	104		19	107		70-130	0		20
Chloroform	ND	10	12	120		12	119		70-130	0		20
Carbon tetrachloride	ND	10	13	132		13	130		63-132	0		20
1,2-Dichloropropane	ND	10	10	104		10	105		70-130	0		20
Dibromochloromethane	ND	10	11	106		11	109		63-130	0		20
1,1,2-Trichloroethane	ND	10	9.3	93		9.5	95		70-130	2		20
Tetrachloroethene	ND	10	12	121		12	123		70-130	0		20
Chlorobenzene	ND	10	11	109		11	111		75-130	0		20
Trichlorofluoromethane	ND	10	12	125		12	123		62-150	0		20
1,2-Dichloroethane	ND	10	11	106		10	104		70-130	10		20
1,1,1-Trichloroethane	14	10	26	121		26	125		67-130	0		20
Bromodichloromethane	ND	10	11	113		11	114		67-130	0		20
trans-1,3-Dichloropropene	ND	10	9.1	91		9.4	94		70-130	3		20
cis-1,3-Dichloropropene	ND	10	11	107		11	108		70-130	0		20
1,1-Dichloropropene	ND	10	11	113		11	111		70-130	0		20
Bromoform	ND	10	9.7	97		9.8	98		54-136	1		20
1,1,2,2-Tetrachloroethane	ND	10	8.1	81		8.2	82		67-130	1		20
Benzene	ND	10	11	113		11	113		70-130	0		20
Toluene	ND	10	10	104		10	106		70-130	0		20
Ethylbenzene	ND	10	10	102		10	104		70-130	0		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG789764-4 WG789764-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715												
Chloromethane	ND	10	9.5	95		9.4	94		64-130	1		20
Bromomethane	ND	10	13	130		15	151	Q	39-139	14		20
Vinyl chloride	ND	10	10	104		11	107		55-140	10		20
Chloroethane	ND	10	12	120		12	124		55-138	0		20
1,1-Dichloroethene	11	10	22	107		22	112		61-145	0		20
trans-1,2-Dichloroethene	ND	10	12	121		12	121		70-130	0		20
Trichloroethene	ND	10	12	122		12	121		70-130	0		20
1,2-Dichlorobenzene	ND	10	10	104		11	106		70-130	10		20
1,3-Dichlorobenzene	ND	10	11	106		11	107		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	104		10	105		70-130	0		20
Methyl tert butyl ether	ND	10	8.8	88		9.0	90		63-130	2		20
p/m-Xylene	ND	20	22	108		22	111		70-130	0		20
o-Xylene	ND	20	22	109		22	110		70-130	0		20
cis-1,2-Dichloroethene	ND	10	12	119		12	118		70-130	0		20
Dibromomethane	ND	10	11	109		11	110		70-130	0		20
1,2,3-Trichloropropane	ND	10	8.1	81		8.2	82		64-130	1		20
Acrylonitrile	ND	10	7.4	74		7.7	77		70-130	4		20
Diisopropyl Ether	ND	10	9.0	90		9.0	90		70-130	0		20
Tert-Butyl Alcohol	ND	50	38	77		39	79		70-130	3		20
Styrene	ND	20	21	107		22	109		70-130	5		20
Dichlorodifluoromethane	ND	10	9.7	97		9.4	94		36-147	3		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG789764-4 WG789764-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715												
Acetone	ND	10	7.3	73		7.7	77		58-148	5		20
Carbon disulfide	ND	10	10	102		10	103		51-130	0		20
2-Butanone	ND	10	6.8	68		7.0	70		63-138	3		20
Vinyl acetate	ND	10	9.5	95		9.3	93		70-130	2		20
4-Methyl-2-pentanone	ND	10	7.2	72		7.4	74		59-130	3		20
2-Hexanone	ND	10	5.8	58		6.0	60		57-130	3		20
Acrolein	ND	10	6.3	63		6.9	69		40-160	9		20
Bromochloromethane	ND	10	13	134	Q	14	135	Q	70-130	7		20
2,2-Dichloropropane	ND	10	12	122		12	122		63-133	0		20
1,2-Dibromoethane	ND	10	9.6	96		9.9	99		70-130	3		20
1,3-Dichloropropane	ND	10	9.0	90		9.3	93		70-130	3		20
1,1,1,2-Tetrachloroethane	ND	10	11	113		12	115		64-130	9		20
Bromobenzene	ND	10	10	106		11	106		70-130	10		20
n-Butylbenzene	ND	10	9.6	96		9.8	98		53-136	2		20
sec-Butylbenzene	ND	10	10	100		10	102		70-130	0		20
tert-Butylbenzene	ND	10	10	103		10	104		70-130	0		20
o-Chlorotoluene	ND	10	9.7	97		9.7	97		70-130	0		20
p-Chlorotoluene	ND	10	9.8	98		9.8	98		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	8.2	82		8.2	82		41-144	0		20
Hexachlorobutadiene	ND	10	10	101		11	108		63-130	10		20
Isopropylbenzene	ND	10	9.8	98		10	101		70-130	2		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG789764-4 WG789764-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715												
p-Isopropyltoluene	ND	10	10	103		10	104		70-130	0		20
Naphthalene	ND	10	8.4	84		8.8	88		70-130	5		20
n-Propylbenzene	ND	10	9.7	97		9.8	98		69-130	1		20
1,2,3-Trichlorobenzene	ND	10	9.5	95		9.8	98		70-130	3		20
1,2,4-Trichlorobenzene	ND	10	9.9	99		10	101		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	10	101		10	101		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	10	101		10	103		70-130	0		20
Methyl Acetate	ND	10	7.2	72		7.4	74		70-130	3		20
Ethyl Acetate	ND	10	6.8J	68	Q	7.0J	70		70-130	3		20
Cyclohexane	ND	10	9.2J	92		9.4J	94		70-130	2		20
Ethyl-Tert-Butyl-Ether	ND	10	9.3	93		9.5	95		70-130	2		20
Tertiary-Amyl Methyl Ether	ND	10	9.6	96		9.7	97		66-130	1		20
1,4-Dioxane	ND	500	410	82		540	109		56-162	27	Q	20
Freon-113	ND	10	11	111		11	113		70-130	0		20
p-Diethylbenzene	ND	10	10	102		10	103		70-130	0		20
p-Ethyltoluene	ND	10	10	100		10	101		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10	9.8	98		10	101		70-130	2		20
Ethyl ether	ND	10	8.8	88		9.0	90		59-134	2		20
trans-1,4-Dichloro-2-butene	ND	10	6.9	69	Q	7.0	70		70-130	1		20
Methyl cyclohexane	ND	10	10	104		11	106		70-130	10		20

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG789764-4 WG789764-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715												
<b>Surrogate</b>			MS % Recovery	Qualifier		MSD % Recovery	Qualifier	<b>Acceptance Criteria</b>				
1,2-Dichloroethane-d4		90			88			70-130				
4-Bromofluorobenzene		86			87			70-130				
Dibromofluoromethane		105			105			70-130				
Toluene-d8		91			93			70-130				

**PCBS**



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-01  
Client ID: MW-18SR-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 21:08  
Analyst: JW

Date Collected: 05/27/15 12:00  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	52		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-02  
Client ID: MW-19SR-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 21:25  
Analyst: JW

Date Collected: 05/27/15 16:00  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	0.346		ug/l	0.083	0.034	1	B
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	0.346		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	61		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	52		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-03  
Client ID: MW-34-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 21:41  
Analyst: JW

Date Collected: 05/27/15 14:00  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	58		30-150	A

Project Name: GOULDS COBALT SITE

Lab Number: L1511616

Project Number: 01257117.2015

Report Date: 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-04  
 Client ID: MW-35-052715  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/30/15 21:58  
 Analyst: JW

Date Collected: 05/27/15 09:20  
 Date Received: 05/27/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/29/15 06:04  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/30/15  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	53		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-05  
Client ID: MW-36-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 22:14  
Analyst: JW

Date Collected: 05/27/15 09:40  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	64		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-06  
Client ID: TW/BRW-01S-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 22:31  
Analyst: JW

Date Collected: 05/27/15 11:30  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	0.493		ug/l	0.083	0.034	1	B
Aroclor 1260	0.210		ug/l	0.083	0.032	1	B
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	0.703		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	B
Decachlorobiphenyl	34		30-150	B
2,4,5,6-Tetrachloro-m-xylene	40		30-150	A
Decachlorobiphenyl	30		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-07  
Client ID: DUP-X-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 22:48  
Analyst: JW

Date Collected: 05/27/15 00:00  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	58		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**SAMPLE RESULTS**

Lab ID: L1511616-08  
Client ID: FIELD BLANK-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/30/15 23:04  
Analyst: JW

Date Collected: 05/27/15 14:50  
Date Received: 05/27/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	54		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 05/31/15 00:27  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 05/29/15 06:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/30/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/30/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	01-08			Batch:	WG788973-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	61		30-150	B
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	56		30-150	A

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG788973-4 WG788973-5 QC Sample: L1511616-01 Client ID: MW-18SR-052715													
Aroclor 1016	ND	2.6	1.82	70		1.87	72		40-140	3		50	A
Aroclor 1260	ND	2.6	1.96	75		1.97	76		40-140	1		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		73		30-150	B
Decachlorobiphenyl	69		69		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		70		30-150	A
Decachlorobiphenyl	66		64		30-150	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG788973-2 WG788973-3									
Aroclor 1016	68		66		40-140	3		50	A
Aroclor 1260	76		73		40-140	4		50	A

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene						
Decachlorobiphenyl	65		60		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		74		30-150	B
Decachlorobiphenyl	61		55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		68		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

#### Cooler Information Custody Seal

##### Cooler

A	Absent
B	Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511616-01A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01A1	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01A2	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01B1	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01B2	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01C1	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01C2	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-01D	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-01D1	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-01D2	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-01E	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-01E1	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-01E2	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-02A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-02B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-02C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-02D	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-02E	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-03A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-03B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-03C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-03D	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-03E	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-04A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511616-04B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-04C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-04D	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-04E	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-05A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-05B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-05C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-05D	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-05E	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-06A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-06B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-06C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-06D	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-06E	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-07A	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-07B	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-07C	Vial HCl preserved	B	N/A	2.5	Y	Absent	NYTCL-8260(14)
L1511616-07D	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-07E	Amber 1000ml unpreserved	B	7	2.5	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-08A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-08B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-08C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-08D	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-08E	Amber 1000ml unpreserved	A	7	2.3	Y	Absent	NYTCL-8082-1200ML(7)
L1511616-09A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1511616-09B	Vial HCl preserved	A	N/A	2.3	Y	Absent	-

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

## GLOSSARY

### **Acronyms**

- 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).
- 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.
- 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.
- 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.
- 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.

### **Footnotes**

- 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**

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.

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.

### **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.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

## 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 its 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

Last revised December 16, 2014

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

#### **Westborough Facility**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### **Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**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.

### **The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

#### **Drinking Water**

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### **Non-Potable Water**

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,**

**SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F,**

**EPA 353.2: Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

 <p><b>NEW YORK CHAIN OF CUSTODY</b></p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3286</p>		<b>Service Centers</b>		<b>Page 1</b> of 2	<b>Date Rec'd in Lab</b> <i>5/27/15</i>	<b>ALPHA Job #</b> <i>LISI616</i>											
		Mahwah, NJ 07430: 35 Whitney Rd, Suite 5															
		Albany, NY 12205: 14 Walker Way															
<b>Client Information</b> Client: ARCADIS Address: 855 Route 146, Suite 210 Clifton Park, NY 12065 Phone: 518-250-7300 Fax: 518-250-7301 Email: Elias.moskal@arcadis-us.com		<b>Project Information</b> Project Name: Goulds Cobalt Site Project Location: Seneca Falls, NY Project # <i>01257117 2015</i> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input checked="" type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #											
				<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input checked="" type="checkbox"/> NY <input type="checkbox"/> Other: NA											
		Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/>		Due Date: # of Days:		<b>ANALYSIS</b> PCBs      TCL VOC+TICS		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <i>Preservation</i> <input type="checkbox"/> Lab to do <i>(Please Specify below)</i> <b>Sample Specific Comments</b>									
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <i>Cat B + EQUIS EDD</i>																	
Please specify Metals or TAL.																	
<b>ALPHA Lab ID (Lab Use Only)</b>  <i>HG6</i> <i>-01</i> <i>-02</i> <i>-03</i> <i>-04</i> <i>-05</i> <i>-06</i> <i>-07</i> <i>-08</i>	<b>Sample ID</b>  <i>MW-18SR -052715</i> <i>MW-19SR -052715</i> <i>MW-24S -052715</i> <i>MW-26S</i> <i>MW-34 -052715</i> <i>MW-35 -052715</i> <i>MW-36 -052715</i> <i>TW/BRW-01R</i> <i>TW/BRW-01S -052715</i>	<b>Collection</b> Date      Time		<b>Sample Matrix</b> Water Water Water Water Water Water Water Water Water	<b>Sampler's Initials</b> <i>AJES</i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i> <i></i>	<b>PCBs</b> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>TCL VOC+TICS</b> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Done</b> <b>Lab to do</b> <i>Preservation</i> <b>Lab to do</b> <i>(Please Specify below)</i> <b>Sample Specific Comments</b>	<b>Total Bottles</b> 5 5 5 5 5 5 5 5 5								
		<b>Preservative Code:</b> A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other	<b>Container Code</b> 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							
												<b>Container Type</b> P					
												<b>Preservative</b> C					
		<b>Relinquished By:</b> <i>Andrew Scanlan</i> <i>John Galay</i>								<b>Date/Time</b> <i>5/27/15 11:00</i> <i>5/27/15 12:45</i> <i>5/27/15 20:35</i> <i>5/27/15 23:30</i>		<b>Received By:</b> <i>John AIAL</i> <i>John Galay</i> <i>John Galay</i> <i>John Galay</i>		<b>Date/Time</b> <i>5/27/15 17:00</i> <i>5/27/15 12:45</i> <i>5/27/15 20:35</i> <i>5/27/15 23:30</i>			
		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.															
		Form No: 01-25 (rev. 30-Sept-2013)															


**NEW YORK  
CHAIN OF  
CUSTODY**

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

**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 2

Date Rec'd  
in Lab

5/27/15

ALPHA Job #  
US1616

<b>Project Information</b> Project Name: Goulds Cobalt Site Project Location: Seneca Falls, NY Project #01257117-2015					Deliverables			Billing Information			
					<input type="checkbox"/> ASP-A	<input type="checkbox"/> ASP-B	<input checked="" type="checkbox"/> Same as Client Info				
					<input type="checkbox"/> EQuIS (1 File)	<input type="checkbox"/> EQuIS (4 File)	PO #				
					<input checked="" type="checkbox"/> Other						
Client Information Client: ARCADIS Address: 855 Route 146, Suite 210 Clifton Park, NY 12065 Phone: 518-250-7300 Fax: 518-250-7301 Email: Elias.moskal@arcadis-us.com					<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge			<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: NA			
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <i>cat B + EQuIS EDD</i>					<b>ANALYSIS</b> PCBs      TCL VOC+TICS			<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <i>Preservation</i> <input type="checkbox"/> Lab to do <i>(Please Specify below)</i>			
Please specify Metals or TAL.								Sample Specific Comments			
ALPHA Lab ID (Lab Use Only)	Sample ID	<b>Collection</b>		Sample Matrix	Sampler's Initials						
		Date	Time								
1616	MS MW-18SR-052715-ms	5/27/15	12:00	Water	ES	X	X				
	MSDMW-18SR-052715-ms)	5/27/15	12:00	Water		X	X				
	Duplicate-DUP-X-052715	05/27/15	—	Water		X	X				
	Field Blank -052715	05/27/15	14:50	water		X	X				
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other					Container Type P			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.			
					Preservative C						
Relinquished By: <i>Goulds Cobalt</i>		Date/Time <i>5/27/15 1700</i>		Received By: <i>John SMC</i>		Date/Time <i>5/27/15 1700</i>					
<i>J. C. S.</i>		<i>5/27/15 17:45</i>		<i>John SMC</i>		<i>5/27/15 17:45</i>					
<i>J. C. S.</i>		<i>5/27/15 20:03</i>		<i>John SMC</i>		<i>5/27/15 20:03</i>					
<i>J. C. S.</i>		<i>5/27/15 2330</i>		<i>John Phillips</i>		<i>5/27/15 2330</i>					



## ANALYTICAL REPORT

Lab Number:	L1511742
Client:	Arcadis U.S, Inc. 855 Route 146, Suite 210 Clifton Park, NY 12065
ATTN:	Daniel Lang
Phone:	(518) 250-7300
Project Name:	GOULDS COBALT SITE
Project Number:	01257117.2015
Report Date:	06/04/15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1511742-01	MW-24S-052715	WATER	SENECA FALLS, NY	05/27/15 15:40	05/28/15
L1511742-02	MW-26S-052715	WATER	SENECA FALLS, NY	05/27/15 18:05	05/28/15
L1511742-03	TW/BRW-01R	WATER	SENECA FALLS, NY	05/27/15 18:54	05/28/15
L1511742-04	DRUM COMPOSITE-052715	WATER	SENECA FALLS, NY	05/27/15 18:55	05/28/15
L1511742-05	TRIP BLANK-052815	WATER	SENECA FALLS, NY	05/28/15 00:00	05/28/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

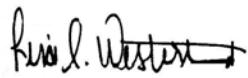
**Case Narrative (continued)**

Report Submission

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

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:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 06/04/15

# ORGANICS



# VOLATILES



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-01	D	Date Collected:	05/27/15 15:40
Client ID:	MW-24S-052715		Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	1,8260C			
Analytical Date:	06/02/15 16:22			
Analyst:	PD			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	5.0	1.4	2	
1,1-Dichloroethane	86	ug/l	5.0	1.4	2	
Chloroform	ND	ug/l	5.0	1.4	2	
Carbon tetrachloride	ND	ug/l	1.0	0.27	2	
1,2-Dichloropropane	ND	ug/l	2.0	0.27	2	
Dibromochloromethane	ND	ug/l	1.0	0.30	2	
1,1,2-Trichloroethane	ND	ug/l	3.0	1.0	2	
Tetrachloroethene	4.0	ug/l	1.0	0.36	2	
Chlorobenzene	ND	ug/l	5.0	1.4	2	
Trichlorofluoromethane	ND	ug/l	5.0	1.4	2	
1,2-Dichloroethane	ND	ug/l	1.0	0.26	2	
1,1,1-Trichloroethane	92	ug/l	5.0	1.4	2	
Bromodichloromethane	ND	ug/l	1.0	0.38	2	
trans-1,3-Dichloropropene	ND	ug/l	1.0	0.33	2	
cis-1,3-Dichloropropene	ND	ug/l	1.0	0.29	2	
Bromoform	ND	ug/l	4.0	1.3	2	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	0.29	2	
Benzene	ND	ug/l	1.0	0.32	2	
Toluene	ND	ug/l	5.0	1.4	2	
Ethylbenzene	ND	ug/l	5.0	1.4	2	
Chloromethane	ND	ug/l	5.0	1.4	2	
Bromomethane	ND	ug/l	5.0	1.4	2	
Vinyl chloride	ND	ug/l	2.0	0.14	2	
Chloroethane	ND	ug/l	5.0	1.4	2	
1,1-Dichloroethene	33	ug/l	1.0	0.28	2	
trans-1,2-Dichloroethene	ND	ug/l	5.0	1.4	2	
Trichloroethene	1.1	ug/l	1.0	0.35	2	
1,2-Dichlorobenzene	ND	ug/l	5.0	1.4	2	
1,3-Dichlorobenzene	ND	ug/l	5.0	1.4	2	
1,4-Dichlorobenzene	ND	ug/l	5.0	1.4	2	



Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-01	D	Date Collected:	05/27/15 15:40
Client ID:	MW-24S-052715		Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND	ug/l	5.0	1.4	2	
p/m-Xylene	ND	ug/l	5.0	1.4	2	
o-Xylene	ND	ug/l	5.0	1.4	2	
cis-1,2-Dichloroethene	29	ug/l	5.0	1.4	2	
Styrene	ND	ug/l	5.0	1.4	2	
Dichlorodifluoromethane	ND	ug/l	10	2.0	2	
Acetone	ND	ug/l	10	2.9	2	
Carbon disulfide	ND	ug/l	10	2.0	2	
2-Butanone	ND	ug/l	10	3.9	2	
4-Methyl-2-pentanone	ND	ug/l	10	2.0	2	
2-Hexanone	ND	ug/l	10	2.0	2	
Bromochloromethane	ND	ug/l	5.0	1.4	2	
1,2-Dibromoethane	ND	ug/l	4.0	1.3	2	
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.4	2	
Isopropylbenzene	ND	ug/l	5.0	1.4	2	
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.4	2	
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.4	2	
Methyl Acetate	ND	ug/l	4.0	0.47	2	
Cyclohexane	ND	ug/l	20	0.54	2	
1,4-Dioxane	ND	ug/l	500	82.	2	
Freon-113	ND	ug/l	5.0	1.4	2	
Methyl cyclohexane	ND	ug/l	20	0.79	2	

**Tentatively Identified Compounds**

Total TIC Compounds	2.8	J	ug/l	2
Unknown	2.8	J	ug/l	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	100		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-02	Date Collected:	05/27/15 18:05
Client ID:	MW-26S-052715	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/02/15 16:50		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-02	Date Collected:	05/27/15 18:05
Client ID:	MW-26S-052715	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-03	Date Collected:	05/27/15 18:54
Client ID:	TW/BRW-01R	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/02/15 17:17		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	1.6	J	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	0.13	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	0.14	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	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-03	Date Collected:	05/27/15 18:54
Client ID:	TW/BRW-01R	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	98		70-130

Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-04	Date Collected:	05/27/15 18:55
Client ID:	DRUM COMPOSITE-052715	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/02/15 17:45		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.5	0.70	1	
1,1-Dichloroethane	20	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	0.13	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	18	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	0.14	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	9.0	ug/l	0.50	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-04	Date Collected:	05/27/15 18:55
Client ID:	DRUM COMPOSITE-052715	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	3.6	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	41.	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	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-05	Date Collected:	05/28/15 00:00
Client ID:	TRIP BLANK-052815	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	06/02/15 18:12		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID:	L1511742-05	Date Collected:	05/28/15 00:00
Client ID:	TRIP BLANK-052815	Date Received:	05/28/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	110		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	99		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/02/15 09:57  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG789990-3					
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	0.13	
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	0.14	
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	0.14	
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:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 06/02/15 09:57  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG789990-3					
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	41.	
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:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/02/15 09:57  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG789990-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	97		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG789990-1 WG789990-2								
Methylene chloride	99		99		70-130	0		20
1,1-Dichloroethane	105		106		70-130	1		20
Chloroform	105		104		70-130	1		20
2-Chloroethylvinyl ether	90		94		70-130	4		20
Carbon tetrachloride	90		92		63-132	2		20
1,2-Dichloropropane	106		106		70-130	0		20
Dibromochloromethane	87		89		63-130	2		20
1,1,2-Trichloroethane	96		98		70-130	2		20
Tetrachloroethene	89		90		70-130	1		20
Chlorobenzene	97		97		75-130	0		20
Trichlorofluoromethane	105		111		62-150	6		20
1,2-Dichloroethane	108		110		70-130	2		20
1,1,1-Trichloroethane	96		98		67-130	2		20
Bromodichloromethane	100		102		67-130	2		20
trans-1,3-Dichloropropene	92		94		70-130	2		20
cis-1,3-Dichloropropene	97		97		70-130	0		20
1,1-Dichloropropene	99		100		70-130	1		20
Bromoform	83		86		54-136	4		20
1,1,2,2-Tetrachloroethane	94		97		67-130	3		20
Benzene	99		99		70-130	0		20
Toluene	97		96		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG789990-1 WG789990-2								
Ethylbenzene	97		98		70-130	1		20
Chloromethane	112		111		64-130	1		20
Bromomethane	145	Q	139		39-139	4		20
Vinyl chloride	99		101		55-140	2		20
Chloroethane	120		121		55-138	1		20
1,1-Dichloroethene	91		93		61-145	2		20
trans-1,2-Dichloroethene	96		96		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	94		96		70-130	2		20
1,3-Dichlorobenzene	96		97		70-130	1		20
1,4-Dichlorobenzene	96		97		70-130	1		20
Methyl tert butyl ether	91		91		63-130	0		20
p/m-Xylene	96		96		70-130	0		20
o-Xylene	98		97		70-130	1		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Dibromomethane	100		102		70-130	2		20
1,2,3-Trichloropropane	98		101		64-130	3		20
Acrylonitrile	95		97		70-130	2		20
Diisopropyl Ether	108		110		70-130	2		20
Tert-Butyl Alcohol	68	Q	79		70-130	15		20
Styrene	97		96		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG789990-1 WG789990-2								
Dichlorodifluoromethane	74		80		36-147	8		20
Acetone	72		76		58-148	5		20
Carbon disulfide	89		89		51-130	0		20
2-Butanone	106		111		63-138	5		20
Vinyl acetate	104		106		70-130	2		20
4-Methyl-2-pentanone	87		90		59-130	3		20
2-Hexanone	75		80		57-130	6		20
Acrolein	49		53		40-160	8		20
Bromochloromethane	96		96		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	92		93		70-130	1		20
1,3-Dichloropropane	97		100		70-130	3		20
1,1,1,2-Tetrachloroethane	92		94		64-130	2		20
Bromobenzene	94		95		70-130	1		20
n-Butylbenzene	106		104		53-136	2		20
sec-Butylbenzene	101		100		70-130	1		20
tert-Butylbenzene	99		97		70-130	2		20
o-Chlorotoluene	104		102		70-130	2		20
p-Chlorotoluene	103		101		70-130	2		20
1,2-Dibromo-3-chloropropane	98		102		41-144	4		20
Hexachlorobutadiene	93		92		63-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG789990-1 WG789990-2								
Isopropylbenzene	98		98		70-130	0		20
p-Isopropyltoluene	100		98		70-130	2		20
Naphthalene	81		98		70-130	19		20
n-Propylbenzene	102		102		69-130	0		20
1,2,3-Trichlorobenzene	75		87		70-130	15		20
1,2,4-Trichlorobenzene	81		88		70-130	8		20
1,3,5-Trimethylbenzene	101		100		64-130	1		20
1,2,4-Trimethylbenzene	102		100		70-130	2		20
Methyl Acetate	107		103		70-130	4		20
Ethyl Acetate	93		93		70-130	0		20
Cyclohexane	97		101		70-130	4		20
Ethyl-Tert-Butyl-Ether	97		99		70-130	2		20
Tertiary-Amyl Methyl Ether	90		91		66-130	1		20
1,4-Dioxane	65		83		56-162	24	Q	20
Freon-113	91		94		70-130	3		20
p-Diethylbenzene	99		96		70-130	3		20
p-Ethyltoluene	100		99		70-130	1		20
1,2,4,5-Tetramethylbenzene	100		102		70-130	2		20
Ethyl ether	106		109		59-134	3		20
trans-1,4-Dichloro-2-butene	96		100		70-130	4		20
Iodomethane	34	Q	42	Q	70-130	21	Q	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG789990-1 WG789990-2								
Methyl cyclohexane	94		96		70-130	2		20

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4	107		106		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	105		105		70-130
Dibromofluoromethane	98		97		70-130

**PCBS**



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID: L1511742-01  
Client ID: MW-24S-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/31/15 22:57  
Analyst: JW

Date Collected: 05/27/15 15:40  
Date Received: 05/28/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/30/15 02:41  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/31/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/31/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	80		30-150	B
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	77		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID: L1511742-02  
Client ID: MW-26S-052715  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/31/15 23:13  
Analyst: JW

Date Collected: 05/27/15 18:05  
Date Received: 05/28/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/30/15 02:41  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/31/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/31/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	90		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**SAMPLE RESULTS**

Lab ID: L1511742-03  
Client ID: TW/BRW-01R  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/31/15 23:28  
Analyst: JW

Date Collected: 05/27/15 18:54  
Date Received: 05/28/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/30/15 02:41  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/31/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/31/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	85		30-150	B
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	86		30-150	A

Project Name: GOULDS COBALT SITE

Lab Number: L1511742

Project Number: 01257117.2015

Report Date: 06/04/15

**SAMPLE RESULTS**

Lab ID: L1511742-04  
 Client ID: DRUM COMPOSITE-052715  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/31/15 23:43  
 Analyst: JW

Date Collected: 05/27/15 18:55  
 Date Received: 05/28/15  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/30/15 02:41  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/31/15  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/31/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	67		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 05/31/15 23:59  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 05/30/15 02:41  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/31/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/31/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	01-04			Batch:	WG789332-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	98		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	92		30-150	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG789332-2 WG789332-3									
Aroclor 1016	82		83		40-140	2		50	A
Aroclor 1260	83		84		40-140	2		50	A

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene						
Decachlorobiphenyl	71		72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	96		97		30-150	B
Decachlorobiphenyl	68		68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		92		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

#### **Cooler Information Custody Seal**

##### **Cooler**

A Absent

#### **Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511742-01A	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-01B	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-01C	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-01D	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-01E	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-02A	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-02B	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-02C	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-02D	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-02E	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-03A	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-03B	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-03C	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-03D	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-03E	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-04A	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-04B	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-04C	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-04D	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-04E	Amber 1000ml unpreserved	A	7	4.2	Y	Absent	NYTCL-8082-1200ML(7)
L1511742-05A	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)
L1511742-05B	Vial HCl preserved	A	N/A	4.2	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

## GLOSSARY

### **Acronyms**

- 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).
- 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.
- 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.
- 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.
- 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.

### **Footnotes**

- 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**

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.

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.

### **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.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

## 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 its 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

Last revised December 16, 2014

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

#### **Westborough Facility**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

#### **Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**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.

### **The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

#### **Drinking Water**

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

#### **Non-Potable Water**

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,**

**SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F,**

**EPA 353.2: Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

<b>NEW YORK CHAIN OF CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		<b>Page</b> 1 <b>of</b>	<b>Date Rec'd</b> <b>In Lab</b> 5/29/15	<b>ALPHA Job #</b> C1511740
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		Project Information		Billing Information
				Project Name: <u>Goulds Cobalt Site</u> Project Location: <u>Seneca Falls, NY</u> Project # <u>01257117.2015</u>		<input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other
Client Information				Deliverables		Billing Information
Client: <u>ARCADIS</u>		(Use Project name as Project #) <input type="checkbox"/>		Regulatory Requirement		Disposal Site Information
Address: <u>855 Route 146, Swedesboro, NJ 08085</u>		Project Manager: <u>Daniel Lang</u>		<input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Please identify below location of applicable disposal facilities: .....
Phone: <u>518-250-7300</u>		Turn-Around Time				Disposal Facility:
Fax: <u>518-250-7301</u>		Standard <input checked="" type="checkbox"/>		Due Date:		<input type="checkbox"/> NJ <input type="checkbox"/> NY
Email: <u>Elias.moskale@.arcadis-us.com</u>		Rush (only if pre approved) <input type="checkbox"/>		# of Days:		<input type="checkbox"/> Other:
These samples have been previously analyzed by Alpha <input type="checkbox"/>						<b>ANALYSIS</b>
						<b>Sample Filtration</b>
						<input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do  <i>(Please Specify below)</i>
						<b>Sample Specific Comments</b>
ALPHA Lab ID (Lab Use Only)		Sample ID	Collection	Sample Matrix	Sampler's Initials	PBS      TUVOC+TICS TUVOC+TICS
11742		-01	<u>MW-24S-052715</u>	<u>05/27/15 15:40</u>	<u>WATER</u>	<u>A7 2 3</u>
		-02	<u>MW-26S-052715</u>	<u>05/27/15 18:05</u>		<u>2 3</u>
		-03	<u>TW/BRW-01R</u>	<u>05/27/15 18:54</u>		<u>2 3</u>
		-04	<u>Drum composite -052715</u>	<u>05/27/15 18:55</u>		<u>2 3</u>
		-05	<u>Trip Blank -0528/15</u>	<u>05/28/15</u>		<u>- 2</u>
						<u>Composite</u>
Preservative Code:		Container Code	Westboro: Certification No: MA935	Container Type	P	
A = None	P = Plastic	Mansfield: Certification No: MA015				
B = HCl	A = Amber Glass					
C = HNO <sub>3</sub>	V = Vial					
D = H <sub>2</sub> SO <sub>4</sub>	G = Glass					
E = NaOH	B = Bacteria Cup					
F = MeOH	C = Cube					
G = NaHSO <sub>4</sub>	O = Other					
H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	E = Encore					
K/E = Zn Ac/NaOH	D = BOD Bottle					
O = Other						
Relinquished By: <u>Emmeline Sosa</u> Date/Time: <u>5/28/15 1708</u> Received By: <u>Jane Mata</u> Date/Time: <u>5/28/15 1708</u> <u>John</u> <u>5/28/15 1720</u> <u>John</u> <u>5/28/15 1730</u> <u>Bryan</u> <u>5/28/15 1738</u> <u>Jim Grey</u> <u>5/28/15 1738</u> <u>J. Clegg</u> <u>5/29/15 0140</u> <u>Graham Phillips</u> <u>5/29/15 0140</u>						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)						

## **ATTACHMENT 4**

**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](mailto:harry@frontiernet.net)

July 14, 2015

Elias Moskal  
ARCADIS US, 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. L1511616 and L1511742

Dear Mr. Moskal:

Review has been completed for the data packages generated by T that pertain to aqueous samples collected on 05/27/15 at the ITT Goulds Cobalt site. Ten samples and a field duplicate were analyzed for Target Compound List (TCL) volatiles, volatile Tentatively Identified Compounds (TICs), and TCL Aroclor PCBs. Field and trip blanks 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**, all sample results are usable either as reported or with minor qualification/edit. Data completeness, accuracy, precision, reproducibility, and comparability are acceptable.

The client and laboratory sample identifications are attached to this text. Also included with the submission is the client EDD, with validation edits/qualifiers applied in red.

#### **Chain-of-Custody/Sample Receipt**

Edits to the custody forms should have been dated and initialed.

#### **Blind Field Duplicate Correlation**

The field duplicate correlations of MW-35-052715 are within validation guidelines.

#### **TCL Volatile Analyses by USEPA Method 8260C**

The following reported detection of chlorobenzene in MW-35-052715 has been edited to reflect non-detection due to the quality of the associated mass spectra.

Holding time requirements were met. Sample standard and internal standard recoveries are within acceptance ranges. Blanks show no contamination.

Matrix spike accuracy and precision evaluations were performed on MW-18R-052715. Recoveries and duplicate correlations are within the recommended ranges and limits, with the exception of one marginally low recovery value. No qualification to the data is indicated.

1,4-dioxane shows very low relative response (RRF<0.01) in the calibration standards. The results for that analyte in the samples, field blank, and trip blank are therefore rejected, and not usable. Other calibration standards show responses within the validation guidelines.

#### **TCL PCB Analyses by USEPA Method 8082A**

The pattern of Aroclor 1254 in MW-19SR-052715 and TW/BRW-01S-052715 does not match that of the standard, likely due to the interferences from the Aroclor 1260 in the samples. The results for Aroclor 1254 in those samples have been qualified as estimated in value.

Matrix spike accuracy and precision evaluations were performed for Aroclor mixtures 1016 and 1260 on MW-18SR-052715. Recoveries and duplicate correlations are within the recommended ranges and limits.

Holding time requirements were met, and the blanks show no contamination. Field sample 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

## **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:** 01257117.2015

**Lab Number:** L1511616  
**Report Date:** 06/03/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1511616-01	MW-18SR-052715	WATER	SENECA FALLS, NY	05/27/15 12:00	05/27/15
L1511616-02	MW-19SR-052715	WATER	SENECA FALLS, NY	05/27/15 16:00	05/27/15
L1511616-03	MW-34-052715	WATER	SENECA FALLS, NY	05/27/15 14:00	05/27/15
L1511616-04	MW-35-052715	WATER	SENECA FALLS, NY	05/27/15 09:20	05/27/15
L1511616-05	MW-36-052715	WATER	SENECA FALLS, NY	05/27/15 09:40	05/27/15
L1511616-06	TW/BRW-01S-052715	WATER	SENECA FALLS, NY	05/27/15 11:30	05/27/15
L1511616-07	DUP-X-052715	WATER	SENECA FALLS, NY	05/27/15 00:00	05/27/15
L1511616-08	FIELD BLANK-052715	WATER	SENECA FALLS, NY	05/27/15 14:50	05/27/15
L1511616-09	TRIP BLANK	WATER	SENECA FALLS, NY	05/27/15 00:00	05/27/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1511742  
**Report Date:** 06/04/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1511742-01	MW-24S-052715	WATER	SENECA FALLS, NY	05/27/15 15:40	05/28/15
L1511742-02	MW-26S-052715	WATER	SENECA FALLS, NY	05/27/15 18:05	05/28/15
L1511742-03	TW/BRW-01R	WATER	SENECA FALLS, NY	05/27/15 18:54	05/28/15
L1511742-04	DRUM COMPOSITE-052715	WATER	SENECA FALLS, NY	05/27/15 18:55	05/28/15
L1511742-05	TRIP BLANK-052815	WATER	SENECA FALLS, NY	05/28/15 00:00	05/28/15

Ms. Charlotte Theobald  
New York State Department of Environmental Conservation – Region 8  
6274 East Avon-Lima Road  
Avon, New York 14414

Arcadis of New York, Inc.  
855 Route 146  
Suite 210  
Clifton Park  
New York 12065  
Tel 518 250 7300  
Fax 518 250 7301  
[www.arcadis.com](http://www.arcadis.com)

Subject:

**Second Semi-Annual 2015 Groundwater Monitoring  
and Sampling Event Report**  
**NYSDEC Site No. C850012 – Goulds Pumps Administration Inc. Cobalt Site  
Seneca Falls, NY 13148**

ENVIRONMENT

Dear Ms. Theobald:

On November 11<sup>th</sup> through November 13<sup>th</sup>, 2015 Arcadis personnel conducted the second semi-annual 2015 groundwater monitoring and sampling event and the 2015 annual site inspection on behalf of ITT Corporation (ITT) for the Goulds Pump Cobalt Site (Cobalt Site) located at 240-250 Fall Street, Seneca Falls, NY.

Date:  
March 1, 2016

Contact:  
Elias J. Moskal  
Phone:  
518.250.7333

Our ref:  
01257CBT.2015

This report is required as an element of the Site Management Plan (SMP) prepared as part of the remedial program being 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). The Cobalt Site is designated as BCP Site Number C850012 and was issued a Certificate of Completion (COC) on December 30, 2014. The NYSDEC approved the SMP (December 19, 2014) and requires that the Cobalt Site and its groundwater monitoring well network be inspected on an annual basis. Additionally, a groundwater monitoring program is to be implemented on a semi-annually basis for the first three years following the approval of the COC, and annually thereafter. The well and site inspection forms that were completed during the second semi-annual 2015 groundwater monitoring and inspection event are included in Attachment 1. The results of these activities are summarized below.

March 1, 2016

## **1.0 MONITORING WELL SURVEY**

*On November 11, 2015 the measuring point elevations were surveyed on monitoring wells MW-34, MW-35, and MW-36 to the nearest 0.01-foot vertically by Popli Design Group.*

## **2.0 SITE INSPECTION**

### **2.1 Pavement**

Overall, the pavement portions of the site are in good condition. At the time of inspection, no evidence of settlement was apparent. Pavement was intact with no significant cracking, and there were no areas of ponded water or damage. During the inspection event, minor rust-colored staining was observed on the asphalt north of Building 900.

### **2.2 Topsoil and Grass**

Areas of topsoil and grass were inspected for evidence of erosion, areas of ponded water, settlement, and damage from burrowing animals. During the inspection event, the condition of topsoil and grass was acceptable and no areas of ponded water were observed. Some minor animal burrowing was observed in the grassy area located southwest of Building 900.

### **2.3 Riprap Spillway**

The riprap spillway areas located southwest of Building 900 and east of the adjacent closed landfill were inspected and appeared to be in satisfactory condition. There was no evidence of erosion, excessive vegetation, missing cover material, areas of settlement or ponding water, or damage from burrowing animals. The riprap slope protection area on the southeastern side of Building 900 was inspected and found to be in good condition.

### **2.4 Concrete**

Concrete areas surrounding Building 900 were inspected and found to be in good condition. There was no evidence of cracking or settlement, and no vegetation was observed to be growing in these areas.

Ms. Charlotte Theobald

March 1, 2016

## 2.5 Gravel

Gravel areas surrounding Building 900 were inspected and found to be in satisfactory condition. There was some minor erosion of gravel into the storm drain located northeast of Building 900. There was also an irregular surface observed in the gravel northeast of Building 900. A roller or tamper may be used to correct this irregular surface.

## 2.6 Northwest Storage Area (NWSA) Cap

The NWSA Cap was inspected for evidence of erosion, cap integrity, vegetation, areas of ponded water and settlement, and damage from burrowing animals. Some minor vegetation was observed growing on the cap. However, the amount of vegetation growth was not excessive or woody. In general, the NWSA Cap is in satisfactory condition.

## 2.7 Site Fence

The fence bordering the Cobalt Site and Closed Landfill to the west was inspected. The small hole which was observed at ground level near MW-26 was repaired in September, 2015 by Arcadis personnel. All portions of the fence appeared to be in good condition during the 4Q inspection event.

## 2.8 Monitoring Well Network

Overall, the monitoring well network is in acceptable condition. The protective steel cover for monitoring well MW-29 was missing a bolt. The well cover is still functional and the missing bolt will be replaced during the next groundwater sampling event. The flush mount on monitoring well MW-34 was off alignment and may need maintenance after the winter. Monitoring well MW-36 was covered by an inventory pallet, which was moved during the inspection event. A cone was placed over this well location.

# 3.0 GROUNDWATER MONITORING AND SAMPLING

## 3.1 Water Levels and Hydraulic Gradients

Depths to groundwater were measured at 18 monitoring wells at the Cobalt Site (Table 1). The fourth quarter (4Q) 2015 Cobalt Site water level measurements are generally consistent with recent values. A potentiometric contour map was generated with the shallow (overburden) wells and is included as

Ms. Charlotte Theobald

March 1, 2016

Figure 1. As shown in Figure 1, groundwater in the vicinity of the Cobalt Site generally flows south towards Fall Street.

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 twice per year for analysis of TCL volatile organic compounds (VOCs) by EPA 8260 plus tentatively identified compounds (TICs) and polychlorinated biphenyls (PCBs) by EPA Method 8082. All 9 wells were sampled during the 4Q 2015 monitoring event.

Groundwater samples were submitted under routine chain-of-custody protocols to Alpha Analytical, a NYDOH ELAP CLP certified laboratory in Westborough, MA for analysis. The laboratory report and chains of custody are included in Attachment 3. The TCL VOCs by EPA 8260 plus TICs and PCBs by EPA Method 8082 analytical data from the 4Q 2015 sampling event are summarized in Table 2 and Table 3, respectively. Field parameters were measured during sampling of the monitoring wells. These parameters are shown on the field sampling logs included in Attachment 3.

As shown in Tables 2 and 3, groundwater sampled from the following Cobalt Site monitoring wells exceeded NYSDEC Class GA groundwater standards:

- MW-18SR for 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene;
- MW-19SR for 1,4-dichlorobenzene;
- TW/BRW-01S for total PCBs;
- MW-24S for 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and cis-1,2-dichloroethene; and
- TW/BRW-01R for 1,1-dichloroethane.

A figure illustrating compounds detected or estimated above reporting limits is included as Figure 2. VOCs and PCBs were not detected above reporting limits in wells MW-26S, MW-34, MW-35, and MW-36. These results are generally consistent with recent sampling events at the Site; compounds detected above NYSDEC Class GA standards are in a limited area within the NWSA.

The next groundwater sampling event for the Cobalt Site will be conducted during the second quarter of 2016.

#### **4.0 MONITORING WELL ABANDONMENT**

During the second quarter inspection event, monitoring well TW-02 was observed to be damaged and unusable for sampling. This monitoring well was abandoned by Parratt Wolff Inc., in accordance with the

Ms. Charlotte Theobald

March 1, 2016

NYSDEC Commissioners Policy 43 "Groundwater Monitoring Well Decommissioning Policy" on November 11, 2015 during the 4Q inspection event. Arcadis personnel were on-sight to oversee and document the abandonment. The monitoring well was excavated to a depth of approximately 2 feet below ground surface (bgs), and filled with a cement-bentonite mix via a tremie-pipe. The upper two feet of the well boring was backfilled, and the surface cover was replaced with in-kind material.

## 5.0 DATA VALIDATION

A data usability summary report (DUSR) was prepared by Data Validation Services of North Creek, New York and is included in Attachment 4. In general, the data are usable as reported or with minor qualifications. These qualifications, where applicable, have been incorporated in Tables 2 and 3.

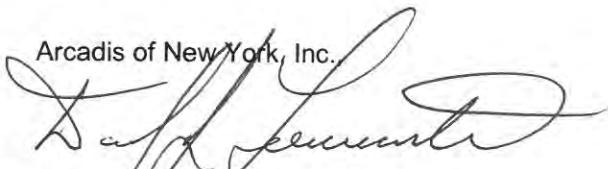
## 6.0 RECOMMENDATIONS AND CONCLUSIONS

In general, the NYSDEC-approved Site Management Plan is working effectively at the Cobalt Site. No significant changes in groundwater conditions were observed during the 4Q 2015 monitoring and inspection event. Future monitoring and maintenance activities at the Cobalt Site will include implementing best management practices to reduce or eliminate gravel erosion into the storm drain located northeast of Building 900.

If you have any questions or comments regarding the monitoring event results, please do not hesitate to call Jeff Stanek 949.562.7401 with ITT Environmental Affairs.

Very truly yours,

Arcadis of New York, Inc.



Daniel Loewenstein, P.E., BCEE  
Senior Vice President

I certify that I have reviewed the Second Semi-Annual 2015 Groundwater Monitoring and Sampling Event Report dated March 1, 2016 and that the document meets the requirements of the Site Management Plan (SMP) dated December 2014. This report also conforms to applicable state, federal, and local regulations, generally accepted practices in the environmental profession and ARCADIS standards.

Ms. Charlotte Theobald

March 1, 2016

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Figure 2 – Summary of Detected Compounds

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Table 3 – Summary of Validated Analytical Results - PCBs

List of Attachments:

Attachment 1 – Fourth Quarter 2015 Site and Well Inspection Forms

Attachment 2 – Groundwater Monitoring Field Purge Logs

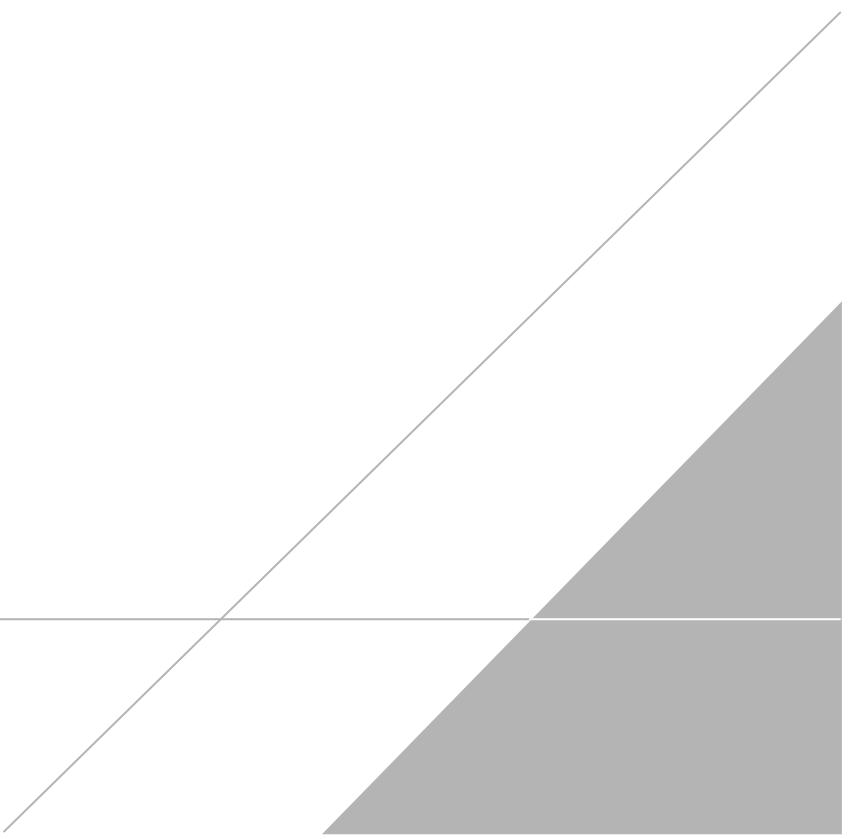
Attachment 3 – Summary Data Packages – Alpha Analytical

Attachment 4 – Data Usability Summary Report – Data Validation Services, Inc.

CC:

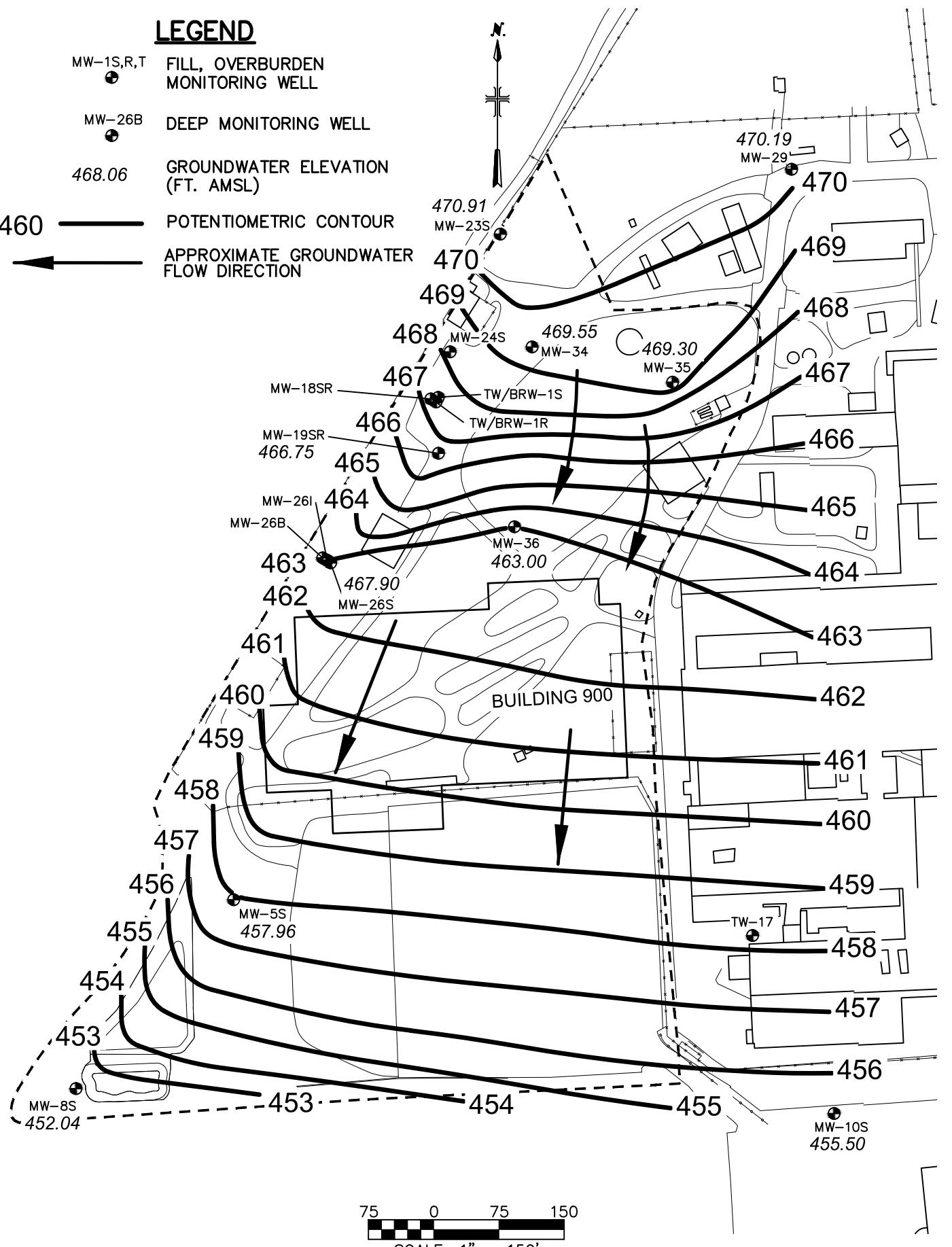
Jeff Stanek – ITT Corporation

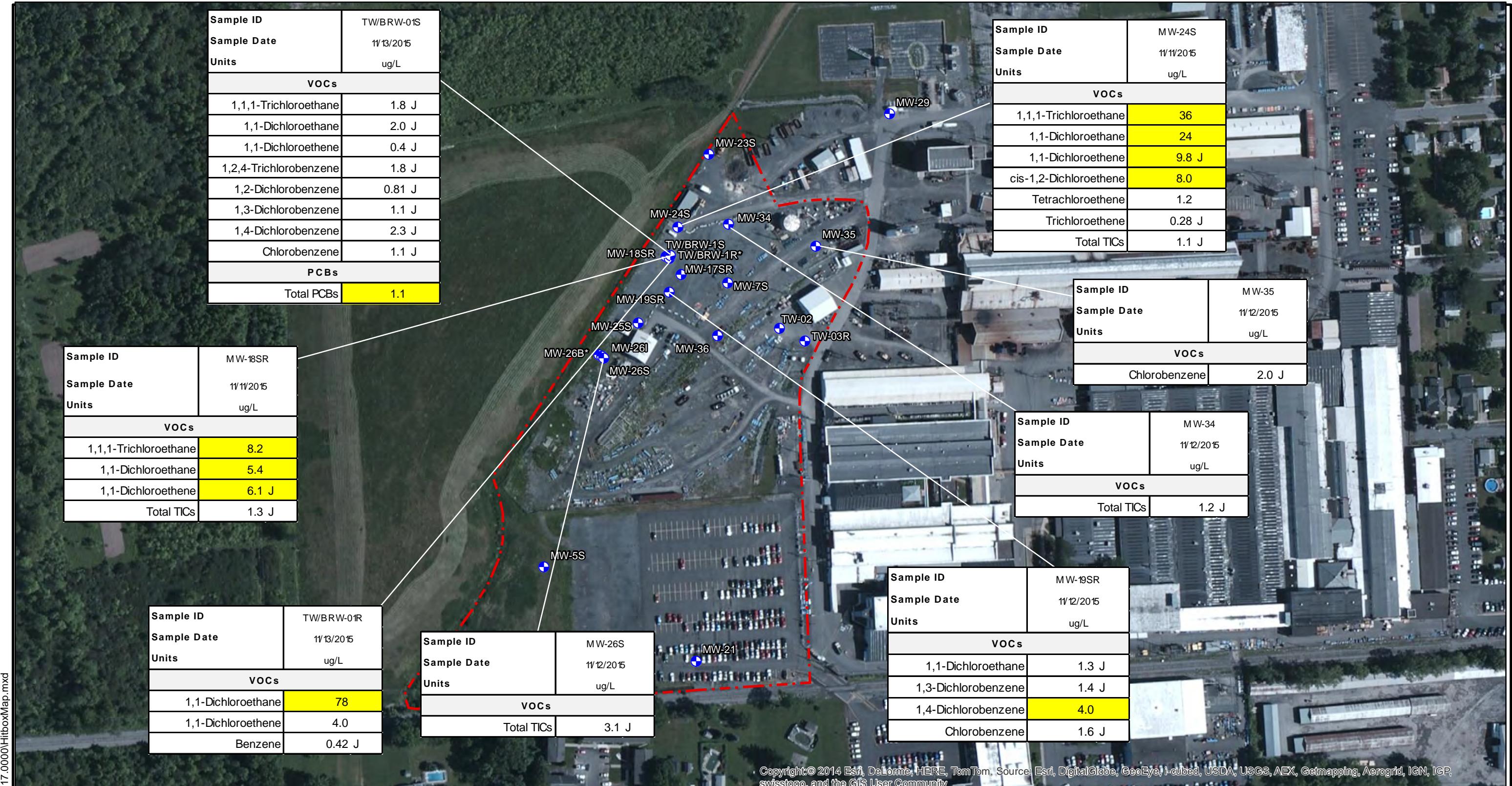
# FIGURES



## LEGEND

- MW-1S,R,T FILL, OVERTBURDEN MONITORING WELL
- MW-26B DEEP MONITORING WELL
- 468.06 GROUNDWATER ELEVATION (FT. AMSL)
- 460 — POTENIOMETRIC CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION





### Legend

● Monitoring Well

◻ Approximate Site Boundary

Note: J - Estimated below laboratory reporting limit.

Yellow box highlights concentrations exceed NYSDEC Class GA Standard

0 125 250 500 750 1,000 Feet



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

# TABLES

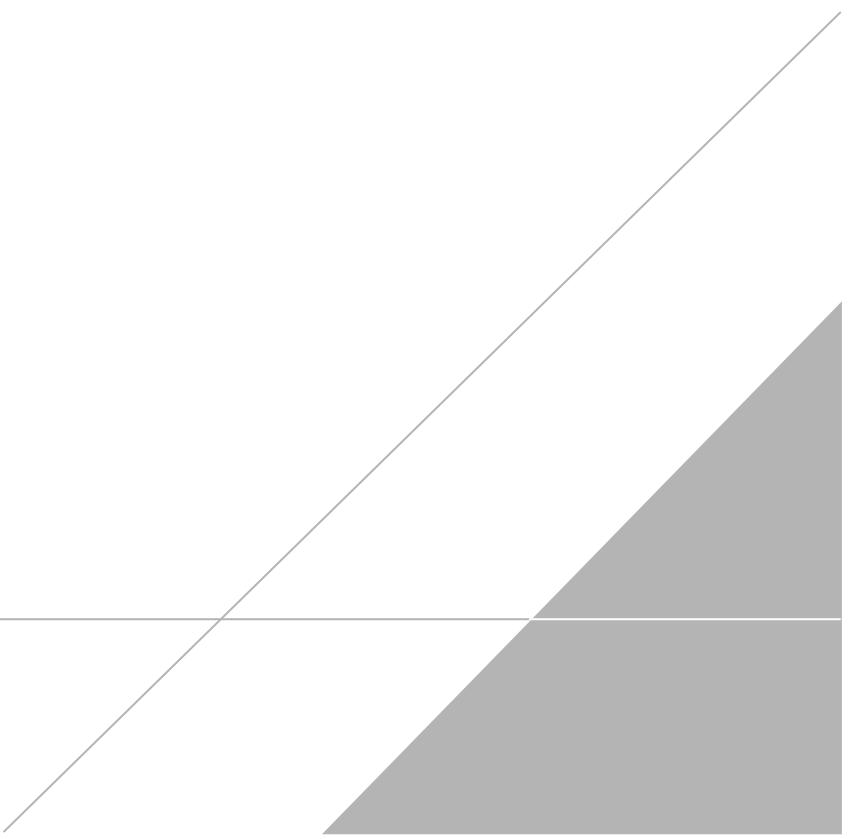


Table 1

Summary of Water Levels

Goulds Pumps - Cobalt Site

Seneca Falls, NY

Well ID	Northing	Easting	Ground Elevation (ft amsl)	Top of Riser Elevation	Measuring Point Elevation (ft amsl)	Hydrogeologic Screen Interval	Groundwater Level		Groundwater Level	
							5/26/2015		11/11/2015	
							(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
MW-7S	1061753.4	758856.1	469.4	471.8	471.77	Silt & Clay	4.52	467.25	4.51	467.26
MW-8S	1061009.8	759205.1	458.4	460.9	460.85	Silt & Clay	DRY	NA	8.81	452.04
MW-10S	1060981.2	759205.1	458.1	458.09	457.42	Silt & Clay	1.77	455.65	1.92	455.50
MW-18SR	1061802.7	758741.5	470.9	470.5	470.54	Silt & Clay	2.78	467.76	2.73	467.81
MW-19SR	1061736.6	758747.7	470.2	469.7	469.66	Silt & Clay	2.60	467.06	2.91	466.75
MW-23S	1061992.2	758821.4	473.2	475.4	475.36	Silt & Clay	6.27	469.09	4.45	470.91
MW-24S	1061856.9	758763.6	471.5	471.1	471.11	Silt & Clay	3.05	468.06	2.93	468.18
MW-26B*	1061620	758617.1	467.1	469.4	469.35	Bedrock	22.36	446.99	23.31	446.04
MW-26I	1061617.3	758622.2	467.3	469.2	469.22	Sand & Silt	23.25	445.97	24.08	445.14
MW-26S	1061614.3	758626.3	467.6	469.5	469.52	Silt & Clay	7.46	462.06	6.62	462.90
MW-29	1062066.7	759156.3	474.9	474.9	474.6	Silt & Clay	4.64	469.96	4.41	470.19
MW-34	1061862.504	758857.8706	471.57	471.10	471.55	Silt & Clay	1.94	NA	2.00	469.55
MW-35	1061821.951	759019.4162	471.12	470.95	471.18	Silt & Clay	1.68	NA	1.88	469.30
MW-36	1061655.772	758837.6341	469.58	469.25	469.56	Silt & Clay	7.00	NA	6.56	463.00
TW-02	1061669.1	758952.2	466.6	466.3	466.34	Silt & Clay	NM**	NA	NM**	NA
TW-22	NA	NA	NA	461.8	NA	Silt & Clay	CNL	CNL	CNL	CNL
TW/BRW-1S	1061799.3	758747.5	470.7	470.5	470.49	Silt & Clay	NM***	NM	3.18	467.31
TW/BRW-1R*	1061804.5	758750	470.7	470.4	470.39	Bedrock	23.20	447.19	24.17	446.22

**Notes:**

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

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

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 2

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

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-18SR 5/27/2015 ug/L	MW-18SR 11/11/2015 ug/L	MW-19SR 5/27/2015 ug/L	MW-19SR 11/12/2015 ug/L	MW-34 5/27/2015 ug/L	MW-34 11/12/2015 ug/L	MW-35 5/27/2015 ug/L
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	5	<b>14</b>	<b>8.2</b>	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
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
1,1-Dichloroethane	5	<b>8.5</b>	<b>5.4</b>	1.4 J	1.3 J	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	<b>11</b>	<b>6.1 J</b>	0.5 U	0.5 UJ	0.5 U	0.5 UJ	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
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 UJ	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
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
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
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
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
1,3-Dichlorobenzene	3	2.5 U	2.5 U	1.4 J	1.4 J	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	<b>4.0</b>	<b>4.0</b>	2.5 U	2.5 U	2.5 U
1,4-Dioxane		250 R	250 R	250 R	250 R	250 R	250 R	250 R
2-Butanone	50	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
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
Acetone	50*	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
Bromochloromethane		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
Bromoform	50*	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U
Bromomethane	5	2.5 U	2.5 U	2.5 U	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
Carbon tetrachloride	5	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	1.4 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
Chloroform	7	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
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
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
Cyclohexane		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
Dichlorodifluoromethane	5	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
Freon-113		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
Methyl Acetate		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
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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethylene	5	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
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
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
Trichloroethene	5	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
Vinyl chloride	2	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	ND	ND	ND	1.2 J	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response  
in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X collected at MW-35

Table 2

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

Sample ID Sample Date Units	NYSDEC Class GA Standard (ug/L)	MW-35 11/12/2015 ug/L	DUP-X 5/27/2015 ug/L	DUP-X 11/12/2015 ug/L	MW-36 5/27/2015 ug/L	MW-36 11/12/2015 ug/L
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	5	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
1,1,2-Trichloroethane	1	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
1,1-Dichloroethene	5	0.5 UJ	0.5 U	0.5 UJ	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
1,2,4-Trichlorobenzene	5	2.5 UJ	2.5 U	2.5 UJ	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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	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
1,4-Dioxane		250 R	250 R	250 R	250 R	250 R
2-Butanone	50	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
4-Methyl-2-pentanone		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
Benzene	1	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
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 UJ
Bromomethane	5	2.5 U	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
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	2.0 J	1.0 J	1.8 J	2.5 U	2.5 U
Chloroethane	5	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
Chlormethane		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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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
Ethylbenzene	5	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
Isopropylbenzene	5	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
Methyl cyclohexane		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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethene	5	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
trans-1,2-Dichloroethene	5	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
Trichloroethene	5	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
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response

in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X collected at MW-35

Table 2

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

Sample ID	NYSDEC Class GA Standard (ug/L)	TW/BRW-01S 5/27/2015 ug/L	TW/BRW-01S 11/13/2015 ug/L	MW-24S 5/27/2015 ug/L	MW-24S 11/11/2015 ug/L	MW-26S 5/27/2015 ug/L	MW-26S 11/12/2015 ug/L	TW/BRW-01R 5/27/2015 ug/L
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	5	0.86 J	1.8 J	92	36	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	3.0 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	2.1 J	2.0 J	86	24	2.5 U	2.5 U	1.6 J
1,1-Dichloroethene	5	0.54	0.4 J	33	9.8 J	0.5 U	0.5 UJ	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.9	1.8 J	5.0 U	2.5 UJ	2.5 U	2.5 UJ	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	2.5 U	0.81 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.9 J	1.1 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	3.2	2.3 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane		250 R	250 R	500 R	250 R	250 R	250 R	250 R
2-Butanone	50	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50*	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone		5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	5.0 U	10 U	5.0 U	5.0 U	9.5 U	5.0 U
Benzene	1	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane		2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50*	2.0 U	2.0 U	4.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U
Bromomethane	5	2.5 U	2.5 UJ	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide		5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	1.4 J	1.1 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Chlormethane		2.5 U	2.5 UU	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	29	8.0	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane		10 U	10 U	20 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Freon-113		2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Acetate		2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane		10 U	10 U	20 U	10 U	10 U	10 U	10 U
Methyl tert butyl ether	10	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	*	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	*	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	5	0.5 U	0.5 U	4.0	1.2	0.5 U	0.5 U	0.5 U
Toluene	5	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	5.0 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	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	0.5 U	0.5 U	1.1	0.28 J	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	5.0 U
Vinyl chloride	2	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Total TIC Compounds	--	ND	ND	2.8 J	1.1 J	ND	3.1 J	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response  
in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

Table 2

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

Sample ID Sample Date Units	NYSDEC Class GA Standard (ug/L)	TW/BRW-01R 11/13/2015 ug/L	Field Blank 5/27/2015 ug/L	Field Blank 11/13/2015 ug/L	Trip Blank 5/27/2015 ug/L	Trip Blank 11/12/2015 ug/L	Trip Blank 5/28/2015 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	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
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	78	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	4.0	0.5 U	0.5 UJ	0.5 U	0.5 UJ	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
1,2,4-Trichlorobenzene	5	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 UJ	0.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	2.5 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
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 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
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,4-Dioxane		250 R	250 R	250 R	250 R	250 R	0.5 R
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 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
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U
Acetone	50*	5.0 U	5.0 U	3.7 J	5.0 U	5.0 U	0.5 U
Benzene	1	0.42 J	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
Bromodichloromethane	50	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 UJ	0.5 U
Bromomethane	5	2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 U	0.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	5.0 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
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Chlormethane		2.5 UJ	2.5 U	2.5 UJ	2.5 U	2.5 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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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	0.5 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	10 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
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
Tetrachloroethene	5	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
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 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
Trichloroethene	5	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
Vinyl chloride	2	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	0.5 U
Total TIC Compounds	--	ND	ND	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response  
in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA	MW-24S 5/27/2015 ug/L	MW-24S 11/11/2015 ug/L	MW-26S 5/27/2015 ug/L	MW-26S 11/12/2015 ug/L	TW/BRW-01R 5/27/2015 ug/L
<b>PCBs</b>						
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

\*Applies to the sum of these compounds.

ND = Not Detected

DUP-X collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA	TW/BRW-01R 11/13/2015 ug/L	MW-18SR 5/27/2015 ug/L	MW-18SR 11/11/2015 ug/L	MW-19SR 5/27/2015 ug/L	MW-19SR 11/12/2015 ug/L	MW-34 5/27/2015 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 UJ	0.083 U	0.083 U	<b>0.346</b>	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
Aroclor 1262	0.09*	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
Total PCBs	0.09*	ND	ND	ND	<b>0.346</b>	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

\* Applies to the sum of these compounds.

ND = Not Detected

DUP-X collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA	MW-34 11/12/2015 ug/L	MW-35 5/27/2015 ug/L	MW-35 11/12/2015 ug/L	DUP-X 5/27/2015 ug/L	DUP-X 11/12/2015 ug/L	MW-36 5/27/2015 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	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

NOTES:

U = Compound not detected; laboratory reporting limit shown

\*Applies to the sum of these compounds.

ND = Not Detected

DUP-X collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA	MW-36 11/12/2015 ug/L	TW/BRW-01S 5/27/2015 ug/L	TW/BRW-01S 11/13/2015 ug/L	Field Blank 5/27/2015 ug/L	Field Blank 11/13/2015 ug/L
<b>PCBs</b>						
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	<b>0.493</b>	<b>0.88 J</b>	0.083 U	0.083 U
Aroclor 1260	0.09*	0.083 U	<b>0.21</b>	<b>0.22</b>	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
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	<b>0.703</b>	<b>1.1</b>	ND	ND

NOTES:

U = Compound not detected; laboratory reporting limit shown

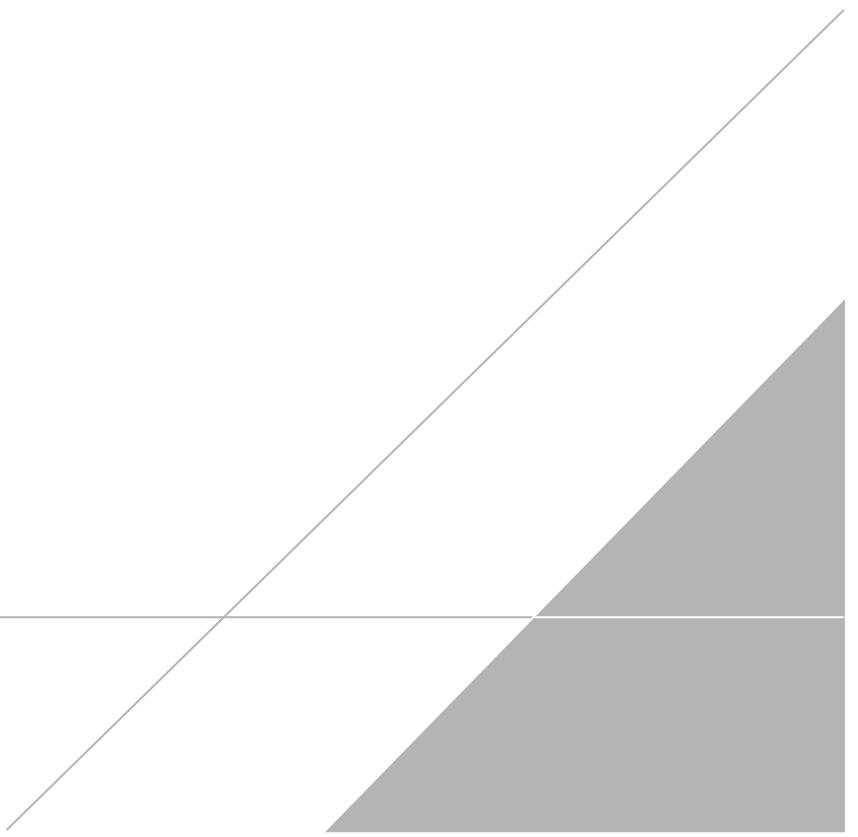
\*Applies to the sum of these compounds.

ND = Not Detected

DUP-X collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

# ATTACHMENTS



## Site Inspection Form

Date Performed: 11/11/15  
 Site Name: Goulds Pumps Cobalt Site (No. C850012)  
 Site Location: Seneca Falls, NY

Weather: Cloudy ~ 45-50° F  
 Inspector Name: Elias Maskev  
 Inspector Signature: E.J. Masev

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	
A2	Pavement	Y	Y	N	Minor rust-colored staining on asphalt
A3	Pavement	Y	Y	N	
B1	Topsoil and Grass	Y	Y	Y	Minor animal burrowing - fill, grade & reseed
B2	Topsoil and Grass	Y	Y	N	
C1	Riprap Spillway	Y	Y	N	
C2	Riprap Spillway	Y	Y	N	
C3	Riprap Spillway	Y	Y	N	
C4	Riprap Spillway	Y	Y	N	
C5	Riprap Slope Protection	Y	Y	N	
D1	Concrete	Y	Y	N	
D2	Concrete	Y	Y	N	

## Site Inspection Form

D3	Concrete	Y	Y	N
D4	Concrete	Y	Y	N
D5	Concrete	X	N	
D6	Concrete	Y	Y	N
D7	Concrete	Y	Y	N
D8	Concrete	Y	Y	N
D9	Concrete	Y	Y	N
D10	Concrete	Y	Y	N
D11	Concrete	Y	Y	N
D12	Concrete	Y	Y	N
E1	Gravel	Y	Y	N
E2	Gravel	Y	Y	Y
E3	Gravel	Y	Y	N
E4	Gravel	Y	Y	N
E5	Gravel	Y	Y	N
F	NWSA Cap	Y	Y	N

*Minor vegetation throughout, nothing tree-like observed*

### 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	

## Well Inspection Form

**Date Performed:** 11/11/15  
**Site Name:** Goulds Pumps Cobalt Site (No. C850012)  
**Site Location:** Seneca Falls, NY

**Weather:** Cloudy ~45-50°F  
**Inspector Name:** Fritz Mosher  
**Inspector Signature:** F.T. Mosher

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	Y	
MW-08R	Y	Y	Y	
MW-10S	Y	Y	Y	
MW-18SR	Y	Y	Y	
MW-19SR	Y	Y	Y	
MW-23S	Y	Y	Y	
MW-24S	Y	Y	Y	
MW-26B	Y	Y	Y	
MW-26I	Y	Y	Y	
MW-26S	Y	Y	Y	
MW-29	Y	Y	Y	
MW-34	Y	Y	Y	
MW-35	Y	Y	Y	
MW-36	Y	Y	Y	
MW-5S	Y	Y	Y	
MW-8S	Y	Y	Y	
TW/BRW-01R	Y	Y	Y	
TW/BRW-01S	Y	Y	Y	
TW-02	Y	Y	Y	* WELL ABANDONED IN ACCORDANCE w/ NYSDDEC CR-13 on 11/11/15
TW-17	Y	Y	Y	

### 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

Low Flow Groundwater Sampling Log								Well ID: TW/BRW-1R	
Site Name: CORAL SITE	Sampling Method: Low-Flow	Northing:							
Site Location: SENECA FAIR, JV	Equipment Used: BLADDER PUMP	Easting:							
Project #: 01257-CBT-2215	Pump/Controller ID#:	Field Personnel: E. MOSKOW							
Well information:				Well Volume Multipliers:				* Measurement Point:	
Installed Depth of Well*: 89.5	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing						
Measured Depth of Well*: 89.34	ft. bmp.	<input type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing						
Depth to Water*: 24.17	ft. bmp.	<input checked="" type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:						
Length of Water Column (LWC):	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume:						
Well Diameter: 4	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*:						
Start Purge Time: 1050								gal. ft. bmp.	
Initial Observations: Color CLEAR		Odor NONE	Sheen/Free Product NONE						
indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1050	24.36	10.83	12.20	2.39	-72	5.21	8.3	~200	
1057	24.36	11.86	12.28	2.47	-64	6.88	2.4	~200	
1104	24.36	11.84	12.24	2.49	-58	6.40	1.6	~200	
1111	24.36	11.81	12.24	2.50	-55	6.13	0.8	~200	
1118	24.36	11.55	12.25	2.51	-53	6.14	0.6	~200	
1125	24.36	11.84	12.25	2.50	-38	6.15	0.6	~200	
1131	24.36	11.84	12.24	2.51	-40	6.16	0.6	~200	
1138		11.84	12.24	2.52	-42	6.15	0.5	~200	
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$	
End Purge Time: 1138				DO Titration = mg/L					
Total volume of groundwater purged: _____ gal.				Less than					
Final Observations: Color CLEAR Odor NONE Specific Gravity 1.0				Sheen/Free Product NONE					
Analytical Sample ID: TW/BRW-1R				Date: 11/13/15	Time: 1140				
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory			
1L 40ml	AMBER GLASS VOA	6 9	NO NO	NONE H2O		ALPHA ALPHA			
Notes: Collected at MC-TW/BRW-1R, MSP-TW/BRW-1R at this location				**Well Integrity Inspection Notes**					
NM: NOT MEASURED									



Low Flow Groundwater Sampling Log								Well ID: MW-265	Northing:	Easting:	
Site Name: <u>Gowire Pumps Cobalt Site</u>	Sampling Method: <u>LOW-FLOW</u>	Field Personnel: <u>E. MACKEL</u>									
Site Location: <u>SENECA FALLS, NY</u>	Equipment Used: <u>PERISTALTIC</u>	Date: <u>11/12/15</u>									
Project #: <u>01257 EBT, 2015</u>	Pump/Controller ID#:	Weather: <u>WINDY, CLOUDY ~53°F</u>									
Well information:		Well Volume Multipliers:				* Measurement Point:					
Installed Depth of Well*: <u>15</u>	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing	Measured Depth of Well*: <u>16.60</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing	Depth to Water*: <u>6.62</u>	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:
Length of Water Column (LWC): <u>9.98</u>	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	<input type="checkbox"/> Pump Intake Depth*: <u>1.63</u> gal.	Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	ft. bmp.				
Start Purge Time: <u>1415</u>		Initial Observations: Color <u>CLEAR</u> Odor <u>NONE</u> Sheen/Free Product <u>NONE</u>				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		
1415	6.69	16.82	7.28	1.16	-86	2.90	55	~200			
1422	7.42	16.05	7.10	1.14	-78	1.32	5.6	~200			
1429	7.89	16.13	7.12	1.17	-78	0.88	2.2	~200			
1436	7.99	16.14	7.13	1.19	-75	0.80	0.9	~200			
1443	8.10	16.07	7.16	1.19	-67	0.86	0.8	~200			
1450	8.19	16.00	7.17	1.19	-62	0.88	1.1	~200			
1457	8.23	15.99	7.17	1.19	-62	0.80	0.9	~200			
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10$ mV	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$			
End Purge Time: <u>1457</u>		DO Titration = <u>~4</u> mg/L				<u>4 min</u>					
Total volume of groundwater purged: <u>~4</u> gal.											
Final Observations: Color <u>CLEAR</u> Odor <u>NONE</u> Specific Gravity <u>NM</u>		Sheen/Free Product <u>NONE</u>									
Analytical Sample ID: <u>MW-265</u>		Date: <u>11/12/15</u>		Time: <u>1500</u>							
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
1 L	AMBER GLASS	2	No	NONE		ALPHA					
40 mL	VDA	3	No	HCL		ALPHA					
Notes: NM: NOT MEASURED								**Well Integrity Inspection Notes**			

Low Flow Groundwater Sampling Log								Well ID: MW-36	Northing:	Easting:	
Site Name: GOULD'S PUMPS CO. INC. SITE	Sampling Method: low-flow	Field Personnel: F. WORKER									
Site Location: SENECA FALLS, NY	Equipment Used: PERISTALTIC	Date: 11/12/15									
Project #: 0857CBL 2015	Pump/Controller ID#:	Weather: WINDY, CLOUDY ~55°F									
Well information:											
Installed Depth of Well*: ft. bmp.	13	Well Volume Multipliers:	* Measurement Point: <input checked="" type="checkbox"/> Well Casing <input type="checkbox"/> Protective Casing <input type="checkbox"/> Other:								
Measured Depth of Well*: ft. bmp.	12.50	<input type="checkbox"/> 1 in. = 0.041 gal/ft									
Depth to Water*: ft. bmp.	6.56	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft									
Length of Water Column (LWC): ft.	5.94	<input type="checkbox"/> 4 in. = 0.653 gal/ft									
Well Diameter: in.	2	<input type="checkbox"/> 6 in. = 1.469 gal/ft									
		<input type="checkbox"/> 8 in. = 2.611 gal/ft		Well Volume: 0.96 gal.							
				Pump Intake Depth*: ft. bmp.							
Start Purge Time: 1305											
Initial Observations: Color	CLEAR	Odor	NONE	Sheen/Free Product	NONE	indicate units					
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (µs/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )		
1305	6.77	16.81	6.83	1.41	95	1.68	8.3	~200			
1310	7.15	17.05	6.79	1.40	95	1.00	2.3	~200			
1317	7.51	17.13	6.71	1.38	114	1.16	2.1	~200			
1324	7.95	17.11	6.68	1.37	122	0.86	1.2	~200			
1331	8.42	17.09	6.69	1.37	124	0.54	1.3	~200			
1338	8.51	17.05	6.70	1.37	120	0.52	1.2	~200			
1345	8.52	17.04	6.70	1.38	119	0.49	1.1	~200			
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500			
End Purge Time: 1345 DO Titration = mg/L											
Total volume of groundwater purged: ~3.5 gal.											
Final Observations: Color	CLEAR	Odor	NONE	Sheen/Free Product	NONE						
Specific Gravity NM											
Analytical Sample ID: MW-36				Date: 11/12/15	Time: 1345						
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
1L	AMBER GLASS	2	No	NONE		ALPHA					
40mL	VDA	3	No	MCL		ALPHA					
Notes: NM: NOT MEASURED								**Well Integrity Inspection Notes**			

Low Flow Groundwater Sampling Log								Well ID: MW-35	Northing:	Easting:
Site Name: <u>Gates Pumps Cobalt Site</u>	Sampling Method: <u>LOW-FLOW</u>	Field Personnel: <u>F. MUSKAN</u>								
Site Location: <u>SENECA FALLS, NY</u>	Equipment Used: <u>PERISTALTIC</u>	Date: <u>11/12/15</u>								
Project #: <u>01257CBT.2015</u>	Pump/Controller ID#:	Weather: <u>WINDY, CLOUDY ~50°F</u>								
Well information:		Well Volume Multipliers:				* Measurement Point:				
Installed Depth of Well*: <u>13</u>	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing							
Measured Depth of Well*: <u>10.98</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing							
Depth to Water*: <u>1.88</u>	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:							
Length of Water Column (LWC): <u>9.10</u>	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.5</u> gal.							
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: ft. bmp.							
Start Purge Time: <u>1058</u>		indicate units								
Initial Observations: Color <u>CLEAR</u>	Odor <u>NONE</u>	Sheen/Free Product <u>NONE</u>								
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity ( $\mu\text{mho}/\text{cm}$ )	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )	
1058	<u>2.20</u>	<u>15.60</u>	<u>6.82</u>	<u>1.60</u>	<u>-95</u>	<u>1.44</u>	<u>161</u>	<u>~200</u>		
1108	<u>2.71</u>	<u>15.58</u>	<u>6.80</u>	<u>1.62</u>	<u>-98</u>	<u>0.68</u>	<u>5.4</u>	<u>~200</u>		
1118	<u>3.31</u>	<u>15.39</u>	<u>6.79</u>	<u>1.62</u>	<u>-98</u>	<u>0.47</u>	<u>3.3</u>	<u>~200</u>		
1128	<u>3.77</u>	<u>15.38</u>	<u>6.76</u>	<u>1.62</u>	<u>-95</u>	<u>0.44</u>	<u>2.2</u>	<u>~200</u>		
1133	<u>3.79</u>	<u>15.41</u>	<u>6.78</u>	<u>1.62</u>	<u>-94</u>	<u>0.45</u>	<u>1.7</u>	<u>~200</u>		
1138	<u>3.82</u>	<u>15.41</u>	<u>6.78</u>	<u>1.63</u>	<u>-95</u>	<u>0.46</u>	<u>2.3</u>	<u>~200</u>		
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$		
End Purge Time: <u>1138</u>		DO Titration = _____ mg/L <u>NM</u>								
Total volume of groundwater purged: <u>~3.5</u> gal.										
Final Observations: Color <u>CLEAR</u>	Odor <u>NONE</u>	Sheen/Free Product <u>NONE</u>								
Specific Gravity <u>NM</u>										
Analytical Sample ID: <u>MW-35 / DUP-MW-X</u>		Date: <u>11/12/15</u>		Time: <u>1140</u>						
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory				
<u>1 L</u>	<u>AMBER GLASS</u>	<u>4</u>	<u>NO</u>	<u>None</u>		<u>ALPHA</u>				
<u>40 mL</u>	<u>VIAL</u>	<u>10</u>	<u>NO</u>	<u>HCl</u>		<u>MATA</u>				
Notes: <u>None NOT MEASURED</u> <u>COLLECTED DUPLICATE DUP-MW-X at this location.</u>						**Well Integrity Inspection Notes**				

Low Flow Groundwater Sampling Log								Well ID: <u>MN-34</u>	Northing: _____	Easting: _____	
Site Name: <u>Gowanus Canal SITE</u>	Sampling Method: <u>LOW FLOW</u>	Field Personnel: <u>E. MUSKAL</u>									
Site Location: <u>SEWER FALLS, NY</u>	Equipment Used: <u>PERISTALTIC</u>	Date: <u>11/12/15</u>									
Project #: <u>01257CBT-2015</u>	Pump/Controller ID#:	Weather: <u>WINDY, SHADOWS ~50%</u>									
Well information:				Well Volume Multipliers:				* Measurement Point:			
Installed Depth of Well*: <u>13</u>	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing								
Measured Depth of Well*: <u>12.60</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing								
Depth to Water*: <u>2.00</u>	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other: _____								
Length of Water Column (LWC): <u>10.60</u>	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.7</u> gal.								
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: _____ ft. bmp.								
Start Purge Time: <u>9:55</u>				indicate units							
Initial Observations: Color <u>CLEAR</u>		Odor <u>NONE</u>	Sheen/Free Product <u>NONE</u>								
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (µs/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )		
9:55	2.00	15.95	7.15	1.45	-38	2.57	70.6	~200			
10:03	3.49	16.29	7.07	1.40	-5	0.50	7.8	~200			
10:15	4.05	16.31	7.06	1.42	-9	0.50	6.0	~200			
10:20	4.85	16.28	7.07	1.36	-12	0.64	94.7	~200			
10:25	4.57	16.17	7.08	1.30	-7	1.01	4.6	2200			
10:30	4.60	16.18	7.08	1.31	-5	1.09	2.4	~200			
10:35	4.61	16.18	7.07	1.31	-8	1.07	3.5	~200			
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500			
End Purge Time: <u>10:35</u>				DO Titration = _____ mg/L <u>2.5</u> mg/L							
Total volume of groundwater purged: <u>~4</u> gal.											
Final Observations: Color <u>CLEAR</u> Odor <u>NONE</u> Specific Gravity <u>1.0</u>				Sheen/Free Product <u>NONE</u>							
Analytical Sample ID: <u>MN-34</u>				Date: <u>11/12/15</u>		Time: <u>10:35</u>					
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory					
1L 40ml	Amber Glass VDA	2 3	No No	None HCl		Alpha Alpha					
Notes: NM = NOT MEASURED				**Well Integrity Inspection Notes** FLUSH MOUNT SLANTED							

Low Flow Groundwater Sampling Log								Well ID: MW-19SR	Northing:	Easting:		
Site Name: <u>GOLD PUMPS COBALT S.Y.</u>	Sampling Method: <u>LOW-FLOW</u>	Field Personnel: <u>E. MOSKA</u>										
Site Location: <u>SECRET LAKE, WI</u>	Equipment Used: <u>PERISTALTIC</u>	Date: <u>11/12/15</u>										
Project #: <u>012590EF.2015</u>	Pump/Controller ID#:	Weather: <u>CLOUDY ~50°, WINDY</u>										
Well information:		Well Volume Multipliers:				* Measurement Point:						
Installed Depth of Well*: <u>15</u>	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing									
Measured Depth of Well*: <u>14.05</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing									
Depth to Water*: <u>2.91</u>	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:									
Length of Water Column (LWC): <u>11.14</u>	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.61</u> gal.									
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: <u>ft. bmp.</u>									
Start Purge Time: <u>830</u>		indicate units										
Initial Observations: Color <u>REDDISH TINT</u> Odor <u>None</u> Sheen/Free Product <u>NONE</u>												
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH	Specific Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other			
830	3.79	15.20	7.07	1.54	-70	2.02	>999	~200				
840	3.80	16.13	7.09	1.54	-61	0.98	>999	~200				
850	3.82	16.05	7.05	1.15	29	2.02	>999	~200				
855	3.82	15.68	7.37	0.744	-77	1.17	528	~200				
900	3.82	15.53	7.47	0.600	-99	1.57	265	~200				
905	3.82	15.46	7.53	0.628	-116	1.04	37.2	~200				
910	3.82	15.45	7.58	0.615	-129	0.94	38.4	~200				
915	3.82	15.43	7.61	0.611	-134	0.89	46.3	~200				
920	3.82	15.41	7.61	0.601	-140	0.84	38.5	~200				
925	3.82	15.40	7.61	0.600	-142	0.90	36.1	~200				
930	3.82	15.40	7.61	0.599	-143	0.91	37.4	~200				
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10$ mV	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$				
End Purge Time: <u>930</u>		DO Titration = <u>2.0 mg/L</u>										
Total volume of groundwater purged: <u>~6</u> gal.												
Final Observations: Color <u>CLEAR</u> Odor <u>NONE</u> Specific Gravity <u>NM</u>		Sheen/Free Product <u>NONE</u>										
Analytical Sample ID: <u>MW-19SR</u>				Date: <u>11/12/15</u>	Time: <u>0930</u>							
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory						
1 L	Glass Amber	2	No	None		TPEA						
40 mL	VDA	3	No	HCl		MATA						
Notes: FILTERED MONITOR CUT @ 850, SEDIMENT ACCUMULATED IN FLOW-THROUGH CELL.								**Well Integrity Inspection Notes**				
NM = NOT MEASURED												

Low Flow Groundwater Sampling Log									
Site Name: <u>COBALT SITE</u>	Sampling Method: <u>LOW FLOW</u>	Well ID: <u>MW - 18SR</u>							
Site Location: <u>SENECA FALLS, NY</u>	Equipment Used: <u>PERISTALTIC</u>	Northing: _____							
Project #: _____	Pump/Controller ID#: _____	Easting: _____							
Field Personnel: <u>J. MOSKAL</u>									
Date: <u>11/11/15</u>									
Weather: <u>Cloudy ~50°F</u>									
Well information:									
Installed Depth of Well*: <u>15.00</u>	ft. bmp.	Well Volume Multipliers:	* Measurement Point:						
Measured Depth of Well*: <u>12.87</u>	ft. bmp.	<input checked="" type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing						
Depth to Water*: <u>7.73</u>	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing						
Length of Water Column (LWC): <u>11.14</u>	ft.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other: _____						
Well Diameter: <u>2</u>	in.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.8</u> gal.						
		<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: _____ ft. bmp.						
Start Purge Time: <u>1405</u>									
Initial Observations: Color <u>Brown</u>	Odor <u>NONE</u>	Sheen/Free Product <u>NONE</u>	indicate units						
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity (μs/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1408	2.90	15.86	7.20	1.40	-99	1.04	2999	~200	
1418	2.90	16.20	7.17	1.28	-69	0.83	610	~200	
1428	2.90	16.05	7.17	1.11	-24	2.05	347	~200	
1438	2.93	15.92	7.12	0.912	-72	1.13	161	~200	
1448	2.93	15.80	7.17	0.749	-77	0.95	131	~200	
1458	2.94	15.63	7.22	0.679	-82	0.78	684	~200	
1508	2.94	15.57	7.25	0.647	-82	0.68	7.4	~200	
1518	2.94	15.53	7.27	0.646	-79	0.63	8.2	~200	
1528	2.94	15.53	7.27	0.646	-79	0.64	7.8	~200	
Stabilization	Δ ≤ 0.3°	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End Purge Time: <u>1528</u>	DO Titration = _____ mg/L								
Total volume of groundwater purged: <u>~7</u> gal.	↳ Nm								
Final Observations: Color <u>CLEAR</u>	Odor <u>NONE</u>	Sheen/Free Product <u>NONE</u>							
Specific Gravity <u>NM</u>									
Analytical Sample ID: <u>MW-18SR</u>	Date: <u>11/11/15</u>	Time: <u>1530</u>							
Container Size	Container Type	# Collected	Field Filtered?	Preservative	Laboratory				
1 L	AMBER GLASS	2	NO	NONE	ALPHA				
40 mL	VDA	3	NO	HCl	ALPHA				
Notes: NM = NOT MEASURED					**Well Integrity Inspection Notes**				





## ANALYTICAL REPORT

Lab Number:	L1529515
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:	01257117.2015
Report Date:	11/20/15

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1529515-01	MW-24S	WATER	SENECA FALLS, NY	11/11/15 14:00	11/11/15
L1529515-02	MW-18SR	WATER	SENECA FALLS, NY	11/11/15 15:30	11/11/15
L1529515-03	MW-19SR	WATER	SENECA FALLS, NY	11/12/15 09:30	11/12/15
L1529515-04	MW-34	WATER	SENECA FALLS, NY	11/12/15 10:35	11/12/15
L1529515-05	MW-35	WATER	SENECA FALLS, NY	11/12/15 11:40	11/12/15
L1529515-06	MW-36	WATER	SENECA FALLS, NY	11/12/15 13:45	11/12/15
L1529515-07	MW-26S	WATER	SENECA FALLS, NY	11/12/15 15:00	11/12/15
L1529515-08	DUP-MW-X	WATER	SENECA FALLS, NY	11/12/15 00:00	11/12/15
L1529515-09	TRIP BLANK	WATER	SENECA FALLS, NY	11/12/15 00:00	11/12/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

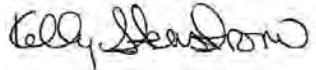
### Case Narrative (continued)

#### Report Submission

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

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 11/20/15

# ORGANICS



# VOLATILES



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-01	Date Collected:	11/11/15 14:00
Client ID:	MW-24S	Date Received:	11/11/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 13:38		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	24		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	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	1.2		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	36		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	0.14	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	9.8		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.28	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT SITE

Lab Number: L1529515

Project Number: 01257117.2015

Report Date: 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-01	Date Collected:	11/11/15 14:00
Client ID:	MW-24S	Date Received:	11/11/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	8.0	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	41.	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	1.1	J	ug/l	1
Unknown	1.1	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	104		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-02	Date Collected:	11/11/15 15:30
Client ID:	MW-18SR	Date Received:	11/11/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 14:07		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.5	0.70	1	
1,1-Dichloroethane	5.4	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	0.13	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	8.2	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	0.14	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	6.1	ug/l	0.50	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-02	Date Collected:	11/11/15 15:30
Client ID:	MW-18SR	Date Received:	11/11/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	1.3	J	ug/l	1
Unknown	1.3	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	102		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-03	Date Collected:	11/12/15 09:30
Client ID:	MW-19SR	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 14:36		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	1.3	J	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	0.13	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	1.6	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	1.4	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	4.0		ug/l	2.5	0.70	1



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-03	Date Collected:	11/12/15 09:30
Client ID:	MW-19SR	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	106		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-04	Date Collected:	11/12/15 10:35
Client ID:	MW-34	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 15:04		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-04	Date Collected:	11/12/15 10:35
Client ID:	MW-34	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	2.9	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	41.	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	1.2	J	ug/l	1
Unknown	1.2	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-05	Date Collected:	11/12/15 11:40
Client ID:	MW-35	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 15:33		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	2.0	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



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Lab Number: L1529515

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**SAMPLE RESULTS**

Lab ID:	L1529515-05	Date Collected:	11/12/15 11:40
Client ID:	MW-35	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	108		70-130
Dibromofluoromethane	104		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-06	Date Collected:	11/12/15 13:45
Client ID:	MW-36	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 16:02		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT SITE

Lab Number: L1529515

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**SAMPLE RESULTS**

Lab ID:	L1529515-06	Date Collected:	11/12/15 13:45
Client ID:	MW-36	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
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**SAMPLE RESULTS**

Lab ID:	L1529515-07	Date Collected:	11/12/15 15:00
Client ID:	MW-26S	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 16:30		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



**Project Name:** GOULDS COBALT SITE  
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**Lab Number:** L1529515  
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**SAMPLE RESULTS**

Lab ID:	L1529515-07	Date Collected:	11/12/15 15:00
Client ID:	MW-26S	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	9.5	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	41.	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	3.1	J	ug/l	1
Unknown	1.5	J	ug/l	1
Unknown	1.6	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	103		70-130

**Project Name:** GOULDS COBALT SITE  
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**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-08	Date Collected:	11/12/15 00:00
Client ID:	DUP-MW-X	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 16:59		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	1.8	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** GOULDS COBALT SITE  
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**SAMPLE RESULTS**

Lab ID:	L1529515-08	Date Collected:	11/12/15 00:00
Client ID:	DUP-MW-X	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	103		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-09	Date Collected:	11/12/15 00:00
Client ID:	TRIP BLANK	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/16/15 13:10		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529515-09	Date Collected:	11/12/15 00:00
Client ID:	TRIP BLANK	Date Received:	11/12/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	107		70-130
Dibromofluoromethane	100		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/15 11:44  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG841172-3					
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	0.13	
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	0.14	
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	0.14	
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:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 11/16/15 11:44  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG841172-3					
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	41.	
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:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/15 11:44  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG841172-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	97		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG841172-1 WG841172-2								
Methylene chloride	92		98		70-130	6		20
1,1-Dichloroethane	97		98		70-130	1		20
Chloroform	92		94		70-130	2		20
2-Chloroethylvinyl ether	97		99		70-130	2		20
Carbon tetrachloride	90		91		63-132	1		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	95		94		63-130	1		20
1,1,2-Trichloroethane	99		100		70-130	1		20
Tetrachloroethene	85		87		70-130	2		20
Chlorobenzene	88		92		75-130	4		20
Trichlorofluoromethane	77		80		62-150	4		20
1,2-Dichloroethane	96		97		70-130	1		20
1,1,1-Trichloroethane	91		93		67-130	2		20
Bromodichloromethane	91		95		67-130	4		20
trans-1,3-Dichloropropene	96		97		70-130	1		20
cis-1,3-Dichloropropene	92		95		70-130	3		20
1,1-Dichloropropene	92		90		70-130	2		20
Bromoform	79		80		54-136	1		20
1,1,2,2-Tetrachloroethane	107		105		67-130	2		20
Benzene	92		94		70-130	2		20
Toluene	91		93		70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG841172-1 WG841172-2								
Ethylbenzene	88		90		70-130	2		20
Chloromethane	109		106		64-130	3		20
Bromomethane	85		93		39-139	9		20
Vinyl chloride	93		94		55-140	1		20
Chloroethane	82		84		55-138	2		20
1,1-Dichloroethene	76		76		61-145	0		20
trans-1,2-Dichloroethene	92		95		70-130	3		20
Trichloroethene	88		91		70-130	3		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	85		87		70-130	2		20
1,4-Dichlorobenzene	87		89		70-130	2		20
Methyl tert butyl ether	93		95		63-130	2		20
p/m-Xylene	84		84		70-130	0		20
o-Xylene	82		85		70-130	4		20
cis-1,2-Dichloroethene	91		92		70-130	1		20
Dibromomethane	98		99		70-130	1		20
1,2,3-Trichloropropane	98		100		64-130	2		20
Acrylonitrile	110		112		70-130	2		20
Isopropyl Ether	100		103		70-130	3		20
tert-Butyl Alcohol	130		126		70-130	3		20
Styrene	85		87		70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG841172-1 WG841172-2								
Dichlorodifluoromethane	91		90		36-147	1		20
Acetone	85		81		58-148	5		20
Carbon disulfide	66		69		51-130	4		20
2-Butanone	104		99		63-138	5		20
Vinyl acetate	99		102		70-130	3		20
4-Methyl-2-pentanone	97		97		59-130	0		20
2-Hexanone	100		110		57-130	10		20
Acrolein	110		106		40-160	4		20
Bromochloromethane	96		97		70-130	1		20
2,2-Dichloropropane	94		94		63-133	0		20
1,2-Dibromoethane	98		99		70-130	1		20
1,3-Dichloropropane	100		99		70-130	1		20
1,1,1,2-Tetrachloroethane	92		94		64-130	2		20
Bromobenzene	92		90		70-130	2		20
n-Butylbenzene	78		78		53-136	0		20
sec-Butylbenzene	82		85		70-130	4		20
tert-Butylbenzene	67	Q	68	Q	70-130	1		20
o-Chlorotoluene	89		91		70-130	2		20
p-Chlorotoluene	87		88		70-130	1		20
1,2-Dibromo-3-chloropropane	91		99		41-144	8		20
Hexachlorobutadiene	69		69		63-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG841172-1 WG841172-2								
Isopropylbenzene	86		87		70-130	1		20
p-Isopropyltoluene	77		81		70-130	5		20
Naphthalene	93		94		70-130	1		20
n-Propylbenzene	86		86		69-130	0		20
1,2,3-Trichlorobenzene	81		83		70-130	2		20
1,2,4-Trichlorobenzene	78		76		70-130	3		20
1,3,5-Trimethylbenzene	83		86		64-130	4		20
1,2,4-Trimethylbenzene	84		85		70-130	1		20
Methyl Acetate	120		116		70-130	3		20
Ethyl Acetate	104		104		70-130	0		20
Cyclohexane	94		94		70-130	0		20
Ethyl-Tert-Butyl-Ether	94		96		70-130	2		20
Tertiary-Amyl Methyl Ether	90		92		66-130	2		20
1,4-Dioxane	147		143		56-162	3		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	77		79		70-130	3		20
p-Diethylbenzene	76		75		70-130	1		20
p-Ethyltoluene	85		86		70-130	1		20
1,2,4,5-Tetramethylbenzene	78		80		70-130	3		20
Ethyl ether	80		81		59-134	1		20
trans-1,4-Dichloro-2-butene	110		104		70-130	6		20
Iodomethane	57	Q	59	Q	70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG841172-1 WG841172-2								
Methyl cyclohexane	86		88		70-130	2		20

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	97		100		70-130

**PCBS**



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-01  
Client ID: MW-24S  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/19/15 00:33  
Analyst: JT

Date Collected: 11/11/15 14:00  
Date Received: 11/11/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/18/15 03:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/18/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/18/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	95		30-150	B
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	76		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-02  
Client ID: MW-18SR  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/19/15 00:49  
Analyst: JT

Date Collected: 11/11/15 15:30  
Date Received: 11/11/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/18/15 03:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/18/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/18/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	95		30-150	B
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	73		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-03  
Client ID: MW-19SR  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 13:00  
Analyst: JW

Date Collected: 11/12/15 09:30  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	68		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	64		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-04  
Client ID: MW-34  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 13:15  
Analyst: JW

Date Collected: 11/12/15 10:35  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	65		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-05  
Client ID: MW-35  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 13:31  
Analyst: JW

Date Collected: 11/12/15 11:40  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	76		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	67		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-06  
Client ID: MW-36  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 13:46  
Analyst: JW

Date Collected: 11/12/15 13:45  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	67		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-07  
Client ID: MW-26S  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 13:59  
Analyst: JW

Date Collected: 11/12/15 15:00  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	64		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529515-08  
Client ID: DUP-MW-X  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 14:15  
Analyst: JW

Date Collected: 11/12/15 00:00  
Date Received: 11/12/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	69		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 11/18/15 12:27  
Analyst: JT

Extraction Method: EPA 3510C  
Extraction Date: 11/18/15 03:04  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/18/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/18/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	01-02			Batch:	WG841719-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	115		30-150	B
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	77		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 11/20/15 14:28  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 22:51  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	03-08			Batch:	WG842596-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	69		30-150	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG841719-2 WG841719-3									
Aroclor 1016	79		80		40-140	2		50	A
Aroclor 1260	82		85		40-140	3		50	A

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene						
Decachlorobiphenyl	71		66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	116		105		30-150	B
Decachlorobiphenyl	74		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		78		30-150	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 03-08 Batch: WG842596-2 WG842596-3									
Aroclor 1016	72		73		40-140	2		50	A
Aroclor 1260	68		73		40-140	7		50	A

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene						
Decachlorobiphenyl	65		70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	64		83		30-150	B
Decachlorobiphenyl	65		65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		71		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

A	Absent
B	Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1529515-01A	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-01B	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-01C	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-01D	Amber 1000ml unpreserved	A	7	3.2	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-01E	Amber 1000ml unpreserved	A	7	3.2	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-02A	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-02B	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-02C	Vial HCl preserved	A	N/A	3.2	Y	Absent	NYTCL-8260(14)
L1529515-02D	Amber 1000ml unpreserved	A	7	3.2	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-02E	Amber 1000ml unpreserved	A	7	3.2	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-03A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-03B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-03C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-03D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-03E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-04A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-04B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-04C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-04D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-04E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-05A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-05B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-05C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-05D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-05E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-06A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-06B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-06C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1529515-06D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-06E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-07A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-07B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-07C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-07D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-07E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-08A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-08B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-08C	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-08D	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-08E	Amber 1000ml unpreserved	B	7	4.1	Y	Absent	NYTCL-8082-1200ML(7)
L1529515-09A	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)
L1529515-09B	Vial HCl preserved	B	N/A	4.1	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

## GLOSSARY

### **Acronyms**

- 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).
- 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.
- 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.
- 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.
- 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.
- 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**

- 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**

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.

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.

### **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).

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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 exceedances 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/20/15

## 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 its 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

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

**Westborough Facility**

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; Iodomethane (methyl iodide) (soil); Methyl methacrylate (soil); Azobenzene.

**EPA 8270D:** Dimethylnaphthalene,1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**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.

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**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

**Drinking Water**

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

**Non-Potable Water**

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		<b>Service Centers</b> 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 <i>11/13/15</i>		ALPHA Job # <b>L1529515</b>	
		<b>Project Information</b> Project Name: <i>GOULD COBALT SITE</i> Project Location: <i>SENECA FALLS, NY</i> Project # <i>01257CBT, 2015</i>				<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO #	
<b>Client Information</b> Client: <i>AKCADIS</i> Address: <i>855 ROUTE 146, STE 210</i> <i>CILFTON PARK, NY 12065</i> Phone: <i>518-250-7300</i> Fax: <i>518-250-7301</i> Email: <i>EUTS.MUSKAL@AKCADIS.COM</i>		(Use Project name as Project #) <input type="checkbox"/> Project Manager: <i>CANDACE FOX</i> ALPHAQuote #:				<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
		Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/>		Due Date: # of Days:					
These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/>						<b>ANALYSIS</b> <i>PCBs</i> <i>TCL Vac + TGS</i>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do <i>(Please Specify below)</i>	
<b>Other project specific requirements/comments:</b>								<b>Sample Specific Comments</b> <i>Total Bottles</i>	
<b>Please specify Metals or TAL.</b>									
<b>ALPHA Lab ID (Lab Use Only)</b>  <i>29515 -03</i> <i>-04</i> <i>-05</i> <i>-06</i> <i>-07</i> <i>-08</i> <i>-09</i>	<b>Sample ID</b>  <i>MW - 195R</i> <i>MW - 34</i> <i>MW - 35</i> <i>MW - 36</i> <i>MW - 265</i> <i>DUF - MW - X</i> <i>TRIP BLANK</i>	<b>Collection</b> Date    Time		<b>Sample Matrix</b> <i>WATER</i> <i>WATER</i> <i>WATER</i> <i>WATER</i> <i>WATER</i> <i>WATER</i> <i>WATER</i>	<b>Sampler's Initials</b> <i>EJM</i> <i>EJM</i> <i>EJM</i> <i>EJM</i> <i>EJM</i> <i>EJM</i> <i>EJM</i>	<b>PCBs</b> <i>2</i> <i>2</i> <i>2</i> <i>2</i> <i>2</i> <i>2</i> <i>3</i>	<b>TCL Vac + TGS</b> <i>3</i>	<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do <i>(Please Specify below)</i>	<b>Sample Specific Comments</b> <i>Total Bottles</i>
		Date	Time						
		<i>11/12/15</i>	<i>0930</i>						
		<i>11/12/15</i>	<i>1035</i>						
		<i>11/12/15</i>	<i>1140</i>						
		<i>11/12/15</i>	<i>1345</i>						
		<i>11/12/15</i>	<i>1500</i>						
		<i>11/12/15</i>	<i>—</i>						
<b>Preservative Code:</b> A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		<b>Container Code</b> 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		<b>Container Type</b> <i>A</i> <i>V</i>		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. <i>(See reverse side.)</i>	
				<b>Preservative</b> <i>A</i> <i>B</i>					
<b>Relinquished By:</b> <i>[Signature]</i>		<b>Date/Time</b> <i>11/12/15 1645</i>		<b>Received By:</b> <i>[Signature]</i>		<b>Date/Time</b> <i>11/12/15 1645</i>			
Form No: 01-25 HC (rev. 30-Sept-2013)									



## ANALYTICAL REPORT

Lab Number:	L1529864
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:	01257117.2015
Report Date:	11/20/15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1529864-01	TW/BRW-01S	WATER	SENECA FALLS, NY	11/13/15 09:20	11/13/15
L1529864-02	TW/BRW-01R	WATER	SENECA FALLS, NY	11/13/15 11:40	11/13/15
L1529864-03	FIELD BLANK	WATER	SENECA FALLS, NY	11/13/15 09:30	11/13/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

### Case Narrative (continued)

#### Report Submission

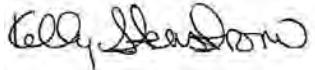
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Sample Receipt

A Field Blank was received in the laboratory but not listed on the Chain of Custody. At the client's request, the Field Blank was analyzed.

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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 11/20/15

# ORGANICS



# VOLATILES



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-01	Date Collected:	11/13/15 09:20
Client ID:	TW/BRW-01S	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/18/15 14:38		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	2.0	J	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	0.13	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	1.1	J	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	1.8	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	0.14	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	0.40	J	ug/l	0.50	0.14	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	0.81	J	ug/l	2.5	0.70	1
1,3-Dichlorobenzene	1.1	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	2.3	J	ug/l	2.5	0.70	1



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-01	Date Collected:	11/13/15 09:20
Client ID:	TW/BRW-01S	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	4.0	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	1.8	J	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	41.	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	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-02	Date Collected:	11/13/15 11:40
Client ID:	TW/BRW-01R	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/18/15 15:13		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	78		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	0.13	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	0.14	1
Benzene	0.42	J	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	4.0		ug/l	0.50	0.14	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
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-02	Date Collected:	11/13/15 11:40
Client ID:	TW/BRW-01R	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	4.7	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	41.	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	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-03	Date Collected:	11/13/15 09:30
Client ID:	FIELD BLANK	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	11/18/15 14:02		
Analyst:	PD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID:	L1529864-03	Date Collected:	11/13/15 09:30
Client ID:	FIELD BLANK	Date Received:	11/13/15
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	3.7	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	41.	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	99		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	97		70-130

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/18/15 13:27  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG842055-3					
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	0.13	
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	0.14	
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	0.14	
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:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 11/18/15 13:27  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG842055-3					
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	41.	
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:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/18/15 13:27  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG842055-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG842055-1 WG842055-2								
Methylene chloride	93		93		70-130	0		20
1,1-Dichloroethane	93		91		70-130	2		20
Chloroform	88		87		70-130	1		20
2-Chloroethylvinyl ether	85		87		70-130	2		20
Carbon tetrachloride	84		83		63-132	1		20
1,2-Dichloropropane	97		98		70-130	1		20
Dibromochloromethane	88		89		63-130	1		20
1,1,2-Trichloroethane	98		100		70-130	2		20
Tetrachloroethene	85		84		70-130	1		20
Chlorobenzene	93		92		75-130	1		20
Trichlorofluoromethane	70		68		62-150	3		20
1,2-Dichloroethane	85		86		70-130	1		20
1,1,1-Trichloroethane	89		88		67-130	1		20
Bromodichloromethane	87		88		67-130	1		20
trans-1,3-Dichloropropene	82		82		70-130	0		20
cis-1,3-Dichloropropene	85		86		70-130	1		20
1,1-Dichloropropene	83		81		70-130	2		20
Bromoform	89		92		54-136	3		20
1,1,2,2-Tetrachloroethane	106		107		67-130	1		20
Benzene	93		92		70-130	1		20
Toluene	93		92		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG842055-1 WG842055-2								
Ethylbenzene	95		94		70-130	1		20
Chloromethane	62	Q	63	Q	64-130	2		20
Bromomethane	67		63		39-139	6		20
Vinyl chloride	63		62		55-140	2		20
Chloroethane	92		91		55-138	1		20
1,1-Dichloroethene	83		82		61-145	1		20
trans-1,2-Dichloroethene	88		87		70-130	1		20
Trichloroethene	85		84		70-130	1		20
1,2-Dichlorobenzene	93		94		70-130	1		20
1,3-Dichlorobenzene	93		93		70-130	0		20
1,4-Dichlorobenzene	93		93		70-130	0		20
Methyl tert butyl ether	111		113		63-130	2		20
p/m-Xylene	92		92		70-130	0		20
o-Xylene	93		92		70-130	1		20
cis-1,2-Dichloroethene	92		91		70-130	1		20
Dibromomethane	91		92		70-130	1		20
1,2,3-Trichloropropane	100		103		64-130	3		20
Acrylonitrile	99		98		70-130	1		20
Isopropyl Ether	91		91		70-130	0		20
tert-Butyl Alcohol	150	Q	151	Q	70-130	1		20
Styrene	97		97		70-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG842055-1 WG842055-2								
Dichlorodifluoromethane	65		63		36-147	3		20
Acetone	93		93		58-148	0		20
Carbon disulfide	80		78		51-130	3		20
2-Butanone	98		100		63-138	2		20
Vinyl acetate	74		73		70-130	1		20
4-Methyl-2-pentanone	129		133	Q	59-130	3		20
2-Hexanone	79		78		57-130	1		20
Bromochloromethane	94		96		70-130	2		20
2,2-Dichloropropane	133		130		63-133	2		20
1,2-Dibromoethane	92		94		70-130	2		20
1,3-Dichloropropane	96		97		70-130	1		20
1,1,1,2-Tetrachloroethane	94		94		64-130	0		20
Bromobenzene	93		94		70-130	1		20
n-Butylbenzene	91		90		53-136	1		20
sec-Butylbenzene	92		91		70-130	1		20
tert-Butylbenzene	90		89		70-130	1		20
o-Chlorotoluene	92		92		70-130	0		20
p-Chlorotoluene	96		95		70-130	1		20
1,2-Dibromo-3-chloropropane	98		102		41-144	4		20
Hexachlorobutadiene	85		82		63-130	4		20
Isopropylbenzene	93		92		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG842055-1 WG842055-2								
p-Isopropyltoluene	89		88		70-130	1		20
Naphthalene	97		100		70-130	3		20
n-Propylbenzene	96		95		69-130	1		20
1,2,3-Trichlorobenzene	91		93		70-130	2		20
1,2,4-Trichlorobenzene	90		92		70-130	2		20
1,3,5-Trimethylbenzene	90		89		64-130	1		20
1,2,4-Trimethylbenzene	92		91		70-130	1		20
Methyl Acetate	109		110		70-130	1		20
Ethyl Acetate	95		98		70-130	3		20
Cyclohexane	85		83		70-130	2		20
Ethyl-Tert-Butyl-Ether	141	Q	142	Q	70-130	1		20
Tertiary-Amyl Methyl Ether	112		113		66-130	1		20
1,4-Dioxane	117		100		56-162	16		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	79		77		70-130	3		20
p-Diethylbenzene	93		92		70-130	1		20
p-Ethyltoluene	95		95		70-130	0		20
1,2,4,5-Tetramethylbenzene	91		91		70-130	0		20
Ethyl ether	97		97		59-134	0		20
trans-1,4-Dichloro-2-butene	83		85		70-130	2		20
Iodomethane	35	Q	34	Q	70-130	3		20
Methyl cyclohexane	81		79		70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG842055-1 WG842055-2								
<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>			
1,2-Dichloroethane-d4	94		96		70-130			
Toluene-d8	103		103		70-130			
4-Bromofluorobenzene	102		104		70-130			
Dibromofluoromethane	94		94		70-130			

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842055-4 WG842055-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R												
Methylene chloride	ND	10	12	123		12	125		70-130	0		20
1,1-Dichloroethane	78	10	87	94		86	78		70-130	1		20
Chloroform	ND	10	12	116		12	118		70-130	0		20
Carbon tetrachloride	ND	10	12	120		12	121		63-132	0		20
1,2-Dichloropropane	ND	10	13	127		13	131	Q	70-130	0		20
Dibromochloromethane	ND	10	11	114		12	119		63-130	9		20
1,1,2-Trichloroethane	ND	10	13	126		13	133	Q	70-130	0		20
Tetrachloroethene	ND	10	12	118		12	118		70-130	0		20
Chlorobenzene	ND	10	12	123		12	125		75-130	0		20
Trichlorofluoromethane	ND	10	10	103		10	100		62-150	0		20
1,2-Dichloroethane	ND	10	11	112		12	116		70-130	9		20
1,1,1-Trichloroethane	ND	10	12	125		13	127		67-130	8		20
Bromodichloromethane	ND	10	11	115		12	117		67-130	9		20
trans-1,3-Dichloropropene	ND	10	10	100		11	106		70-130	10		20
cis-1,3-Dichloropropene	ND	10	11	108		11	112		70-130	0		20
1,1-Dichloropropene	ND	10	12	121		12	122		70-130	0		20
Bromoform	ND	10	12	117		12	124		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10	13	132	Q	14	139	Q	67-130	7		20
Benzene	0.42J	10	13	129		13	130		70-130	0		20
Toluene	ND	10	12	123		12	126		70-130	0		20
Ethylbenzene	ND	10	12	125		13	127		70-130	8		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD Qual	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842055-4 WG842055-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R												
Chloromethane	ND	10	8.5	85		8.4	84		64-130	1		20
Bromomethane	ND	10	9.3	93		10	101		39-139	7		20
Vinyl chloride	ND	10	9.0	90		9.0	90		55-140	0		20
Chloroethane	ND	10	13	132		13	132		55-138	0		20
1,1-Dichloroethene	4.0	10	16	118		16	116		61-145	0		20
trans-1,2-Dichloroethene	ND	10	12	122		12	123		70-130	0		20
Trichloroethene	ND	10	12	116		12	118		70-130	0		20
1,2-Dichlorobenzene	ND	10	12	121		12	124		70-130	0		20
1,3-Dichlorobenzene	ND	10	12	120		12	122		70-130	0		20
1,4-Dichlorobenzene	ND	10	12	120		12	123		70-130	0		20
Methyl tert butyl ether	ND	10	14	136	Q	15	147	Q	63-130	7		20
p/m-Xylene	ND	20	24	122		25	124		70-130	4		20
o-Xylene	ND	20	24	119		24	120		70-130	0		20
cis-1,2-Dichloroethene	ND	10	12	120		12	124		70-130	0		20
Dibromomethane	ND	10	12	117		12	121		70-130	0		20
1,2,3-Trichloropropane	ND	10	13	131	Q	13	133	Q	64-130	0		20
Acrylonitrile	ND	10	12	125		13	129		70-130	8		20
Isopropyl Ether	ND	10	11	115		12	119		70-130	9		20
tert-Butyl Alcohol	ND	50	77	154	Q	86	172	Q	70-130	11		20
Styrene	ND	20	24	122		25	124		70-130	4		20
Dichlorodifluoromethane	ND	10	8.9	89		8.6	86		36-147	3		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842055-4 WG842055-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R												
Acetone	4.7J	10	17	172	Q	18	177	Q	58-148	6		20
Carbon disulfide	ND	10	12	118		12	116		51-130	0		20
2-Butanone	ND	10	13	129		14	139	Q	63-138	7		20
Vinyl acetate	ND	10	10	105		10	105		70-130	0		20
4-Methyl-2-pentanone	ND	10	15	146	Q	15	151	Q	59-130	0		20
2-Hexanone	ND	10	10	101		11	107		57-130	10		20
Bromochloromethane	ND	10	12	122		12	126		70-130	0		20
2,2-Dichloropropane	ND	10	17	169	Q	18	175	Q	63-133	6		20
1,2-Dibromoethane	ND	10	12	116		12	122		70-130	0		20
1,3-Dichloropropane	ND	10	12	124		13	129		70-130	8		20
1,1,1,2-Tetrachloroethane	ND	10	12	119		12	123		64-130	0		20
Bromobenzene	ND	10	12	121		12	124		70-130	0		20
n-Butylbenzene	ND	10	12	120		12	122		53-136	0		20
sec-Butylbenzene	ND	10	12	123		12	125		70-130	0		20
tert-Butylbenzene	ND	10	12	119		12	120		70-130	0		20
o-Chlorotoluene	ND	10	12	121		12	124		70-130	0		20
p-Chlorotoluene	ND	10	12	125		13	127		70-130	8		20
1,2-Dibromo-3-chloropropane	ND	10	12	123		13	135		41-144	8		20
Hexachlorobutadiene	ND	10	11	110		11	114		63-130	0		20
Isopropylbenzene	ND	10	12	124		13	126		70-130	8		20
p-Isopropyltoluene	ND	10	12	118		12	121		70-130	0		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842055-4 WG842055-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R												
Naphthalene	ND	10	13	126		13	135	Q	70-130	0		20
n-Propylbenzene	ND	10	13	128		13	130		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	12	119		12	123		70-130	0		20
1,2,4-Trichlorobenzene	ND	10	12	118		12	123		70-130	0		20
1,3,5-Trimethylbenzene	ND	10	12	118		12	121		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	12	120		12	122		70-130	0		20
Methyl Acetate	ND	10	13	128		14	139	Q	70-130	7		20
Ethyl Acetate	ND	10	13	127		13	133	Q	70-130	0		20
Cyclohexane	ND	10	12	123		12	124		70-130	0		20
Ethyl-Tert-Butyl-Ether	ND	10	17	168	Q	18	177	Q	70-130	6		20
Tertiary-Amyl Methyl Ether	ND	10	13	132	Q	14	139	Q	66-130	7		20
1,4-Dioxane	ND	500	500	101		700	140		56-162	33	Q	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	11	114		11	114		70-130	0		20
p-Diethylbenzene	ND	10	11	110		11	112		70-130	0		20
p-Ethyltoluene	ND	10	11	112		11	114		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10	11	110		11	113		70-130	0		20
Ethyl ether	ND	10	12	120		13	129		59-134	8		20
trans-1,4-Dichloro-2-butene	ND	10	11	108		12	116		70-130	9		20
Methyl cyclohexane	ND	10	12	115		12	116		70-130	0		20

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842055-4 WG842055-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R												
Surrogate		MS % Recovery		MSD Qualifier		MSD % Recovery		MSD Qualifier		Acceptance Criteria		
1,2-Dichloroethane-d4		99				98				70-130		
4-Bromofluorobenzene		103				102				70-130		
Dibromofluoromethane		97				94				70-130		
Toluene-d8		102				102				70-130		

**PCBS**



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529864-01  
Client ID: TW/BRW-01S  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 11:07  
Analyst: JW

Date Collected: 11/13/15 09:20  
Date Received: 11/13/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 14:18  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	0.880		ug/l	0.083	0.034	1	B
Aroclor 1260	0.220		ug/l	0.083	0.032	1	B
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	1.10		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	99		30-150	B
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	92		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529864-02  
Client ID: TW/BRW-01R  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 11:21  
Analyst: JW

Date Collected: 11/13/15 11:40  
Date Received: 11/13/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 14:18  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	103		30-150	B
Decachlorobiphenyl	113		30-150	B
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	107		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**SAMPLE RESULTS**

Lab ID: L1529864-03  
Client ID: FIELD BLANK  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 11/20/15 11:34  
Analyst: JW

Date Collected: 11/13/15 09:30  
Date Received: 11/13/15  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 14:18  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	108		30-150	B
Decachlorobiphenyl	103		30-150	B
2,4,5,6-Tetrachloro-m-xylene	110		30-150	A
Decachlorobiphenyl	97		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 11/20/15 12:18  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 11/19/15 14:18  
Cleanup Method: EPA 3665A  
Cleanup Date: 11/20/15  
Cleanup Method: EPA 3660B  
Cleanup Date: 11/20/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	01-03			Batch:	WG842448-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	94		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	88		30-150	A

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG842448-4 WG842448-5 QC Sample: L1529864-02 Client ID: TW/BRW-01R													
Aroclor 1016	ND	2.6	2.54	98		2.59	100		40-140	2		50	A
Aroclor 1260	ND	2.6	2.20	84		2.46	94		40-140	11		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		93		30-150	B
Decachlorobiphenyl	102		102		30-150	B
2,4,5,6-Tetrachloro-m-xylene	87		91		30-150	A
Decachlorobiphenyl	97		95		30-150	A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG842448-2 WG842448-3									
Aroclor 1016	94		87		40-140	8		50	A
Aroclor 1260	87		74		40-140	16		50	A

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene						
Decachlorobiphenyl	86		83		30-150	B
2,4,5,6-Tetrachloro-m-xylene	101		80		30-150	B
Decachlorobiphenyl	84		81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		74		30-150	A

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1529864-01A	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-01B	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-01C	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-01D	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-01E	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02A	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02A1	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02A2	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02B	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02B1	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02B2	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02C	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02C1	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02C2	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-02D	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02D1	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02D2	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02E	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02E1	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-02E2	Amber 1000ml unpreserved	A	12	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-03A	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-03B	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-03C	Vial HCl preserved	A	N/A	2.7	Y	Absent	NYTCL-8260(14)
L1529864-03D	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	NYTCL-8082-1200ML(7)
L1529864-03E	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	NYTCL-8082-1200ML(7)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

## GLOSSARY

### Acronyms

- 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).
- 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.
- 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.
- 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.
- 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.
- 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

- 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

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.

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.

### 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).

Report Format: DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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 exceedances 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/20/15

## 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 its 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

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

**Westborough Facility**

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; Iodomethane (methyl iodide) (soil); Methyl methacrylate (soil); Azobenzene.

**EPA 8270D:** Dimethylnaphthalene,1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**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.

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**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

**Drinking Water**

**EPA 200.8:** Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

**EPA 300.0:** 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

**Non-Potable Water**

**EPA 200.8:** Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

**EPA 200.7:** Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

**EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1:** Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

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 11-14-15	ALPHA Job # L152 9864		
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		Project Information				Deliverables	
Client Information			Project Name: Govt Co Cobalt Site Project Location: Seneca Falls, NY Project #: 01257CBT 2015				<input type="checkbox"/> ASP-A <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> Other	<input checked="" type="checkbox"/> ASP-B <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other
Client: <u>RECAMS</u>		(Use Project name as Project #) <input type="checkbox"/>		Regulatory Requirement		Billing Information		
Address: 855 Route 141, STE 210 LIPTON DRILL, NY 12085		Project Manager: CAROLINE FOX		<input type="checkbox"/> NY TOGS <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	<input type="checkbox"/> NY Part 375 <input type="checkbox"/> NY CP-51 <input checked="" type="checkbox"/> Other	Same as Client Info PO #		
Phone: 518-250-7383 Fax: 518-250-7301 Email: EUAC.MIAMI@ALPHAGL.COM		Turn-Around Time				Please identify below location of applicable disposal facilities.		
Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/>		Due Date: # of Days:				Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:		
These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/>						ANALYSIS		
Other project specific requirements/comments:						PCBS TCL VJC+TCS TLC VJC+TCS		
Please specify Metals or TAL.								
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Sample Filtration		
		Date	Time			<input type="checkbox"/> Done	<input type="checkbox"/> Lab to do	
0152-01	TW/BRW-015	11/13/15	9:20	WATER	EJM	2	3	
02	TW/BRW-01R	11/13/15	11:40	WATER	EJM	2	3	
02	MS-TW/BRW-01R	11/13/15	11:40	WATER	EJM	2	3	
02	MSD-TW/BRW-01R	11/13/15	11:40	WATER	EJM	2	3	
Preservative Code: Container Code A = None P = Plastic B = HCl A = Amber Glass C = HNO <sub>3</sub> V = Vial D = H <sub>2</sub> SO <sub>4</sub> G = Glass E = NaOH B = Bacteria Cup F = MeOH C = Cube G = NaHSO <sub>4</sub> O = Other H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> E = Encore K/E = Zn Ac/NaOH D = BOD Bottle								
Westboro: Certification No: MA935 Mansfield: Certification No: MA015				Container Type		<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> V	
				Preservative		<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> B	
Relinquished By:		Date/Time		Received By:		Date/Time		
<u>Caroline Fox</u>		11/13/15 1530		<u>Rhonda Lee APR</u>		11/13/15 1530		
<u>Caroline Fox</u>		11/13/15 2030		<u>Bob James</u>		11/13/15 2030		
<u>Bob James</u>		11/14/15 0120		<u>Caroline Fox</u>		11/14/15 0120		
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.)								

# Data Validation Services

120 Cobble Creek Road P.O. Box 208  
North Creek, NY 12853  
Phone 518-251-4429  
[harry@frontiernet.net](mailto:harry@frontiernet.net)

January 8, 2016

Elias Moskal  
ARCADIS US, 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. L1529515 and L1529864

Dear Mr. Moskal:

Review has been completed for the data packages generated by Alpha Analytical that pertain to aqueous samples collected between 11/11/15 and 11/13/15 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. Field and trip blanks 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 sample results are usable either as reported or with minor qualification/edit. The results for 1,4-dioxane are not usable due to poor response inherent in the analytical methodology. Data completeness, accuracy, precision, reproducibility, and comparability are acceptable.

The client and laboratory sample identifications are attached to this text, and should be reviewed in conjunction with this report. Also included in this report are the client EQuis EDD and the laboratory report forms, 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**

The detections of acetone in the samples are considered external contamination and edited to non-detection due to presence in the associated field blank.

Sample standard and internal standard recoveries are within acceptance ranges. Blanks show no contamination.

Matrix spike accuracy and precision evaluations were performed on TW/BRW-01R. Recoveries and duplicate correlations are within the laboratory ranges and limits, with the exception of elevated recoveries for analytes not detected in the parent sample. No qualification to the data is indicated.

The results for chloromethane in the samples reported in SDG L1529864 are qualified as estimated due to low recoveries (62% and 63%) in the associated LCSs.

1,4-dioxane shows very low relative response ( $RRF < 0.01$ ) in the calibration standards. The results for that analyte in the samples, field blank, and trip blank are therefore rejected, and not usable. Other calibration standards show responses within the validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated samples:

- 1,1-dichloroethene (bromoform, and 1,2,4-trichlorobenzene (21%D to 24%D) in the samples reported in SDG L1529515
- bromomethane and vinyl chloride (33%D and 37%D) in samples reported in SDG L1529864

#### **TCL PCB Analyses by USEPA Method 8082A**

The pattern of Aroclor 1254 in TW/BRW-01R does not match that of the standard, likely due to the interferences from the Aroclor 1260 in the samples. The result for Aroclor 1254 in that sample has been qualified as estimated in value.

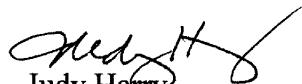
Matrix spike accuracy and precision evaluations were performed for Aroclor mixtures 1016 and 1260 on TW/BRW-01R. Recoveries and duplicate correlations are within the recommended ranges and limits.

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

## **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:** 01257117.2015

**Lab Number:** L1529515  
**Report Date:** 11/22/15

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1529515-01	MW-24S	WATER	SENECA FALLS, NY	11/11/15 14:00	11/11/15
L1529515-02	MW-18SR	WATER	SENECA FALLS, NY	11/11/15 15:30	11/11/15
L1529515-03	MW-19SR	WATER	SENECA FALLS, NY	11/12/15 09:30	11/12/15
L1529515-04	MW-34	WATER	SENECA FALLS, NY	11/12/15 10:35	11/12/15
L1529515-05	MW-35	WATER	SENECA FALLS, NY	11/12/15 11:40	11/12/15
L1529515-06	MW-36	WATER	SENECA FALLS, NY	11/12/15 13:45	11/12/15
L1529515-07	MW-26S	WATER	SENECA FALLS, NY	11/12/15 15:00	11/12/15
L1529515-08	DUP-MW-X	WATER	SENECA FALLS, NY	11/12/15 00:00	11/12/15
L1529515-09	TRIP BLANK	WATER	SENECA FALLS, NY	11/12/15 00:00	11/12/15

**Project Name:** GOULDS COBALT SITE  
**Project Number:** 01257117.2015

**Lab Number:** L1529864  
**Report Date:** 11/22/15

<b>Alpha</b> <b>Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1529864-01	TW/BRW-01S	WATER	SENECA FALLS, NY	11/13/15 09:20	11/13/15
L1529864-02	TW/BRW-01R	WATER	SENECA FALLS, NY	11/13/15 11:40	11/13/15
L1529864-03	FIELD BLANK	WATER	SENECA FALLS, NY	11/13/15 09:30	11/13/15

Ms. Charlotte Theobald  
New York State Department of Environmental Conservation – Region 8  
6274 East Avon-Lima Road  
Avon, New York 14414

Arcadis of New York, Inc.  
855 Route 146  
Suite 210  
Clifton Park  
New York 12065  
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Fax 518 250 7301  
[www.arcadis.com](http://www.arcadis.com)

Subject:

**First Semi-Annual 2016 Groundwater Monitoring  
and Sampling Event Report**  
**NYSDEC Site No. C850012 – Goulds Pumps Administration Inc. Cobalt Site  
Seneca Falls, NY 13148**

ENVIRONMENT

Dear Ms. Theobald:

On May 9 and 10, 2016 Arcadis personnel conducted the first semi-annual 2016 groundwater monitoring and sampling event and a site inspection on behalf of ITT Inc. (ITT) for the Goulds Pumps Cobalt Site (Cobalt Site) located at 240-250 Fall Street, Seneca Falls, NY.

This report is required as an element of the Site Management Plan (SMP) prepared as part of the remedial program being 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). The Cobalt Site is designated as BCP Site Number C850012 and was issued a Certificate of Completion (COC) on December 30, 2014. The NYSDEC approved the SMP (December 19, 2014) and requires that the Cobalt Site and its groundwater monitoring well network be inspected on an annual basis. Additionally, a groundwater monitoring program is to be implemented on a semi-annually basis for the first three years following the approval of the COC, and annually thereafter. The well and site inspection forms that were completed during the first semi-annual 2016 groundwater monitoring and inspection event are included in Attachment 1. The results of these activities are summarized below.

Date:  
June 29, 2016

Contact:  
Elias J. Moskal  
Phone:  
518.250.7333

Our ref:  
01257CBT.2016

June 29, 2016

## **1.0 SITE INSPECTION**

### **1.1 Pavement**

Overall, the pavement portions of the site are in good condition. At the time of inspection, no evidence of settlement was apparent. Pavement was intact with no significant cracking, and there were no areas of ponded water or damage.

### **1.2 Topsoil and Grass**

Areas of topsoil and grass were inspected for evidence of erosion, areas of ponded water, settlement, and damage from burrowing animals. During the inspection event, the condition of topsoil and grass was acceptable and no areas of ponded water were observed.

### **1.3 Riprap Spillway**

The riprap spillway areas located southwest of Building 900 and east of the adjacent closed landfill were inspected and appeared to be in satisfactory condition. There was no evidence of erosion, excessive vegetation, missing cover material, areas of settlement or ponding water, or damage from burrowing animals. The riprap slope protection area on the southeastern side of Building 900 was inspected and found to be in good condition.

### **1.4 Concrete**

Concrete areas surrounding Building 900 were inspected and found to be in good condition. There was no evidence of significant cracking or settlement, and no vegetation was observed to be growing in these areas.

### **1.5 Gravel**

Gravel areas surrounding Building 900 were inspected and found to be in satisfactory condition. A small amount of debris including a few damaged pallets, plastic wrap, and discarded pieces of paper was observed. No debris appeared to negatively impact the gravel areas or the required monitoring activities.

Ms. Charlotte Theobald

June 29, 2016

#### 1.6 Northwest Storage Area (NWSA) Cap

The NWSA Cap was inspected for evidence of erosion, cap integrity, vegetation, areas of ponded water and settlement, and damage from burrowing animals. Similar to the gravel areas, a small amount of debris (pieces of pallet wood, plastic wrap, pieces of paper) was observed, none of which appeared to negatively impact the cap or the required monitoring activities. Some minor vegetation was observed growing on the cap. However, the amount of vegetation growth was not excessive or woody. In general, the NWSA Cap is in satisfactory condition.

#### 1.7 Site Fence

The fence bordering the Cobalt Site and Closed Landfill to the west was inspected. The small hole which was observed at ground level near MW-26 was repaired in September, 2015 by Arcadis personnel. All portions of the fence appeared to be in good condition during the 2Q 2016 inspection event.

#### 1.8 Monitoring Well Network

Monitoring well TW-02 was decommissioned in November 2015 because it was damaged and adequate groundwater level control exists at the Site without this well. Overall, the monitoring well network is in acceptable condition. Some minor maintenance may be required in the future, but wells required to be monitored are in adequate condition. The minor maintenance items have been documented in Attachment 1. The rusted locks will be replaced during the next monitoring event, and if the condition of the protective steel flush-mounted curb box at MW-29 has deteriorated further, it will be replaced.

### 2.0 GROUNDWATER MONITORING AND SAMPLING

#### 2.1 Water Levels and Hydraulic Gradients

Depths to groundwater were measured at 18 monitoring wells at the Cobalt Site (Table 1). The second quarter (2Q) 2016 Cobalt Site water level measurements are generally consistent with recent values. A potentiometric contour map was generated with the shallow (overburden) wells and is included as Figure 1. As shown in Figure 1, groundwater in the vicinity of the Cobalt Site generally flows south towards Fall Street.

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 twice per year for analysis of Target Compound List (TCL) volatile organic compounds (VOCs) by EPA 8260 plus tentatively

Ms. Charlotte Theobald

June 29, 2016

identified compounds (TICs) and polychlorinated biphenyls (PCBs) by EPA Method 8082. All 9 wells were sampled during the 2Q 2016 monitoring event.

Groundwater samples were submitted under routine chain-of-custody protocols to Alpha Analytical, a NYDOH ELAP CLP certified laboratory in Westborough, MA for analysis. The laboratory report and chains of custody are included in Attachment 3. The TCL VOCs by EPA 8260 plus TICs and PCBs by EPA Method 8082 analytical data from the 2Q 2016 sampling event are summarized in Table 2 and Table 3, respectively. Field parameters were measured during sampling of the monitoring wells. These parameters are shown on the field sampling logs included in Attachment 3.

As shown in Tables 2 and 3, groundwater sampled from the following Cobalt Site monitoring wells exceeded NYSDEC Class GA groundwater standards:

- MW-18SR for 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene;
- MW-19SR for 1,4-dichlorobenzene;
- TW/BRW-01S for 1,4-dichlorobenzene and total PCBs; and,
- MW-24S for 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and cis-1,2-dichloroethene.

A figure illustrating compounds detected or estimated above reporting limits is included as Figure 2. VOCs and PCBs were not detected above reporting limits in wells MW-26S and TW/BRW-01R. These results are generally consistent with recent sampling events at the Site; compounds detected above NYSDEC Class GA standards are in a limited area within the NWSA.

The next groundwater sampling event for the Cobalt Site will be conducted during the fourth quarter of 2016.

### **3.0 DATA VALIDATION**

A data usability summary report (DUSR) was prepared by Data Validation Services of North Creek, New York and is included in Attachment 4. In general, the data are usable as reported or with minor qualifications. These qualifications, where applicable, have been incorporated in Tables 2 and 3.

Ms. Charlotte Theobald  
June 29, 2016

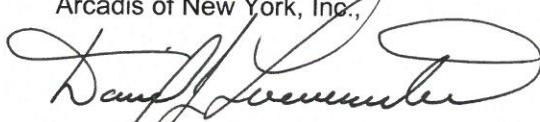
#### 4.0 RECOMMENDATIONS AND CONCLUSIONS

In general, the NYSDEC-approved Site Management Plan is working effectively at the Cobalt Site. No significant changes in groundwater conditions were observed during the 2Q 2016 monitoring and inspection event. Future monitoring and maintenance activities at the Cobalt Site may include minor maintenance to a small number of monitoring wells, however, the current condition of these wells is adequate for monitoring purposes.

If you have any questions or comments regarding the monitoring event results, please do not hesitate to call Jeff Stanek 949.562.7401 with ITT Environmental Affairs.

Very truly yours,

Arcadis of New York, Inc.,



Daniel Loewenstein, P.E., BCEE  
Senior Vice President

I certify that I have reviewed the First Semi-Annual 2016 Groundwater Monitoring and Sampling Event Report dated June 29, 2016 and that the document meets the requirements of the Site Management Plan (SMP) dated December 19, 2014. This report also conforms to applicable state, federal, and local regulations, generally accepted practices in the environmental profession and ARCADIS standards.

List of Figures:

Figure 1 – Site Plan and Potentiometric Map

Figure 2 – Summary of Detected Compounds

List of Tables:

Table 1 – Summary of Water Levels

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Table 2 – Summary of Validated Analytical Results - VOCs

Table 3 – Summary of Validated Analytical Results - PCBs

List of Attachments:

Attachment 1 – Second Quarter 2016 Site and Well Inspection Forms

Attachment 2 – Groundwater Monitoring Field Purge Logs

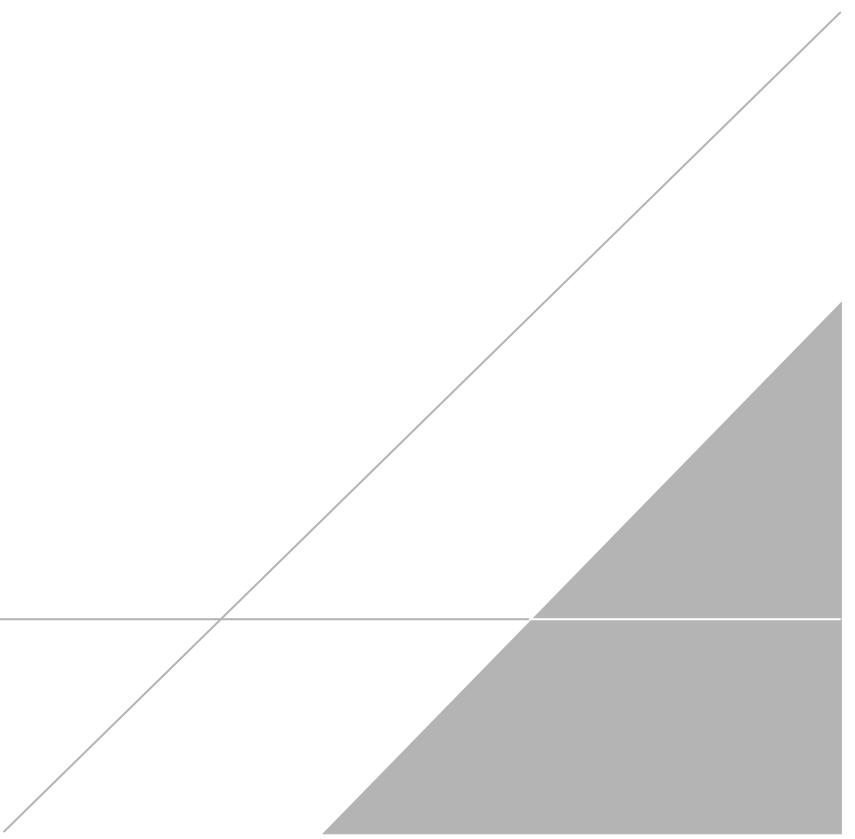
Attachment 3 – Summary Data Package – Alpha Analytical

Attachment 4 – Data Usability Summary Report – Data Validation Services, Inc.

cc:

Jeff Stanek – ITT Inc.

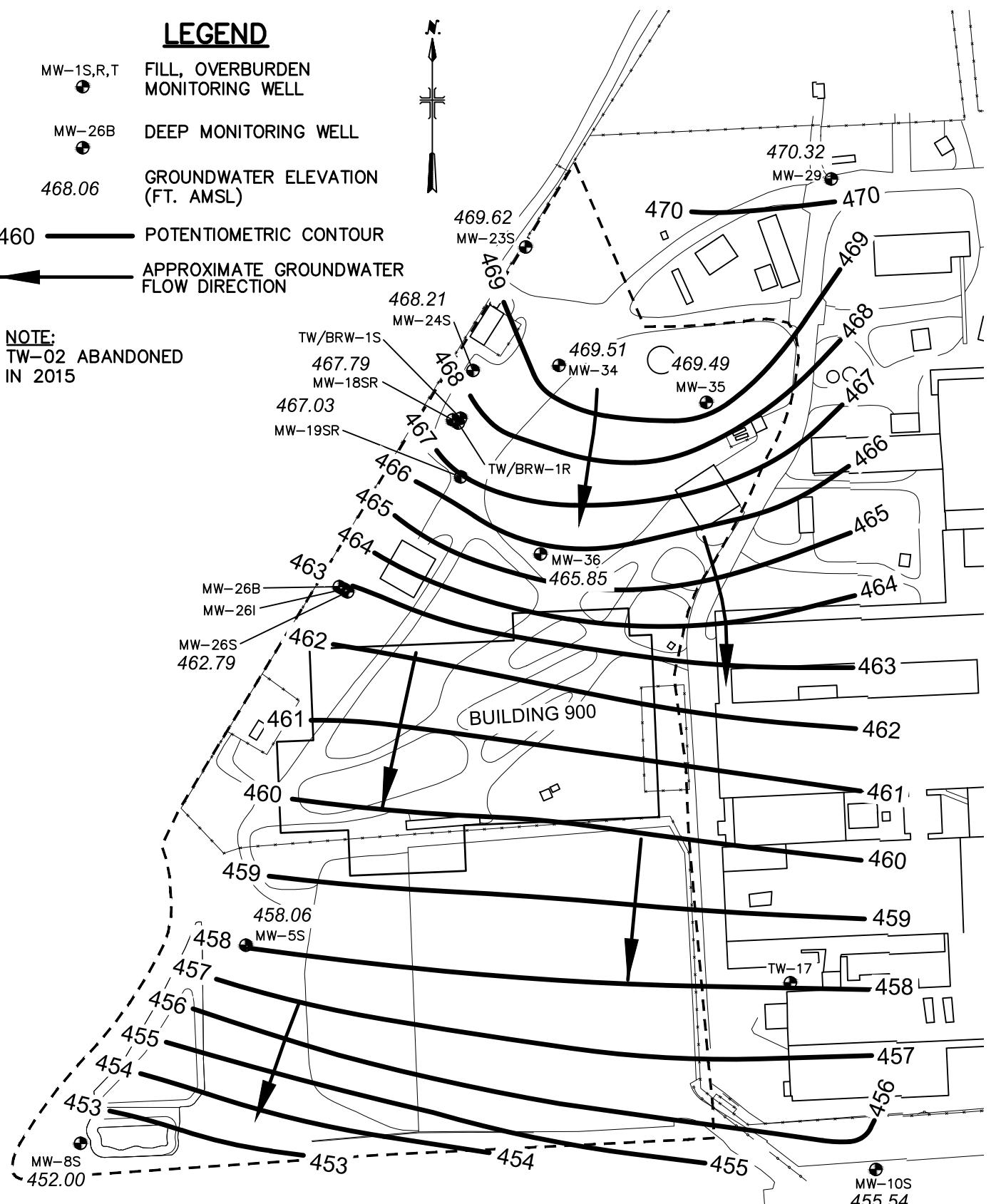
# FIGURES



## LEGEND

- MW-1S,R,T FILL, OVERBURDEN MONITORING WELL
- MW-26B DEEP MONITORING WELL
- 468.06 GROUNDWATER ELEVATION (FT. AMSL)
- 460 — POTENIOMETRIC CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE:  
TW-02 ABANDONED  
IN 2015



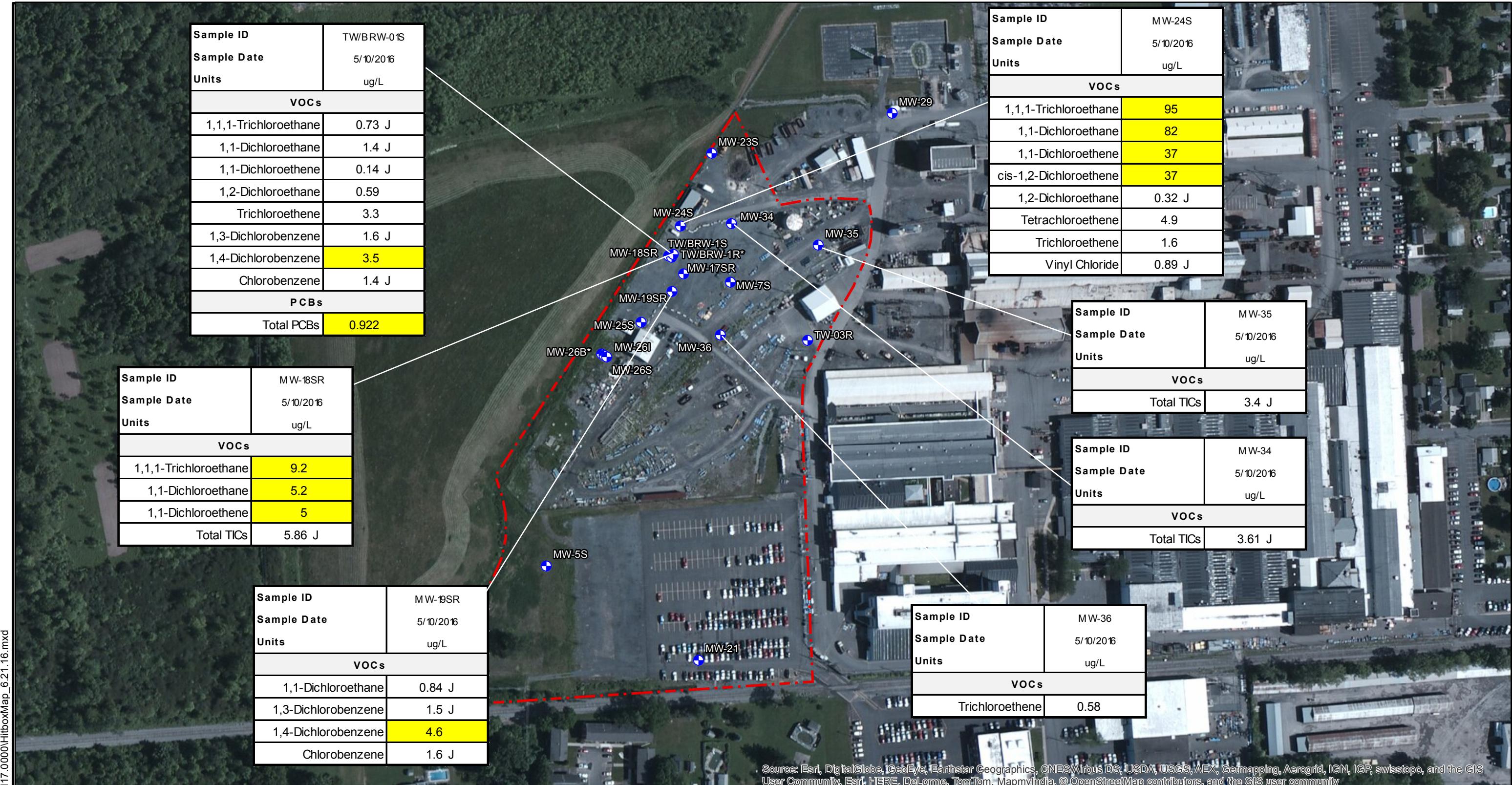
75 0 75 150  
SCALE: 1" = 150'

SITE PLAN &  
POTENIOMETRIC MAP  
SCALE: AS SHOWN

ARCADIS

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

MAY 2016  
FIGURE 1



### Legend

● Monitoring Well

■ Approximate Site Boundary

Note: J - Estimated below laboratory reporting limit.

Yellow box: Highlighted concentrations exceed NYSDEC Class GA Standard

0 125 250 500 750 1,000 Feet



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

# TABLES

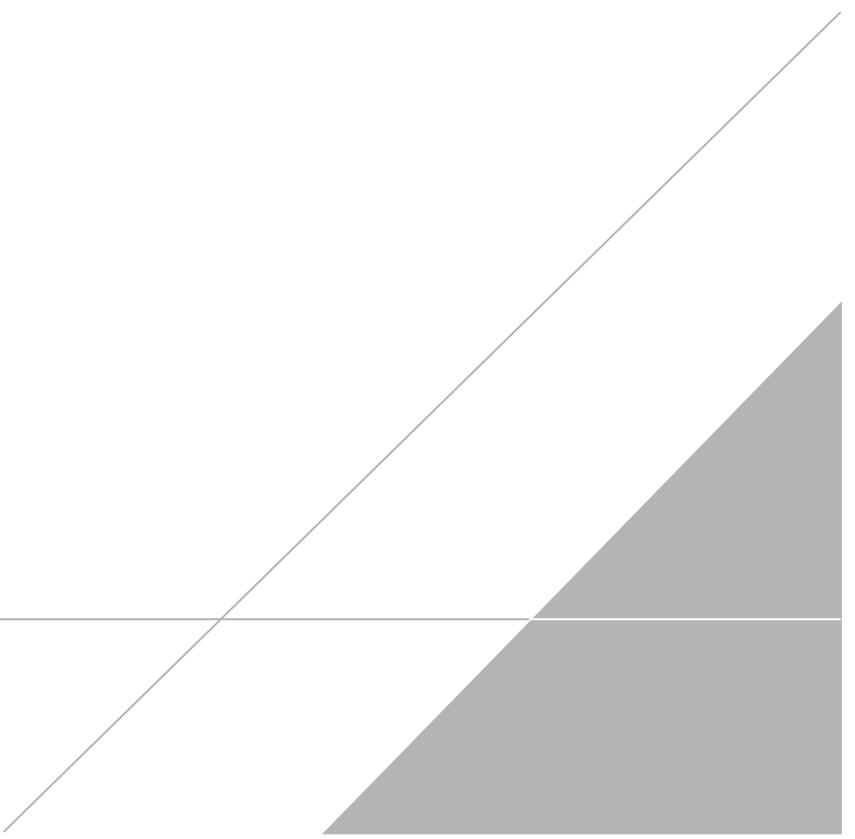


Table 1

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

Well ID	Northing	Easting	Ground Elevation (ft amsl)	Top of Riser Elevation	Measuring Point Elevation (ft)	Hydrogeologic Screen Interval	Groundwater Level		Groundwater Level		Groundwater Level	
							5/26/2015		11/11/2015		5/10/2016	
							(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
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
MW-8S	1061009.8	759205.1	458.4	460.9	460.85	Silt & Clay	DRY	NA	8.81	452.04	8.85	452.00
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
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
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
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
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
MW-26B*	1061620	758617.1	467.1	469.4	469.35	Bedrock	22.36	446.99	23.31	446.04	22.6	446.75
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
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
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
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
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
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
TW-02	1061669.1	758952.2	466.6	466.3	466.34	Silt & Clay	NM**	NA	NM**	NA	NM**	NA
TW-22	NA	NA	NA	461.8	NA	Silt & Clay	CNL	CNL	CNL	CNL	CNL	CNL
TW/BRW-1S	1061799.3	758747.5	470.7	470.5	470.49	Silt & Clay	NM***	NM	3.18	467.31	NM***	NA
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

## 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 2

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-19SR 5/27/2015 ug/L	MW-19SR 11/12/2015 ug/L	MW-19SR 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	<b>14</b>	<b>8.2</b>	<b>9.2</b>	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
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	<b>8.5</b>	<b>5.4</b>	<b>5.2</b>	1.4 J	1.3 J	0.84 J
1,1-Dichloroethene	5	<b>11</b>	<b>6.1 J</b>	<b>5</b>	0.5 U	0.5 UJ	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
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UU	2.5 U	2.5 U	2.5 UU	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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	1.4 J	1.4 J	1.5 J
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	<b>4.0</b>	<b>4.0</b>	<b>4.6</b>
2-Butanone	50	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
4-Methyl-2-pentanone		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
Benzene	1	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
Bromodichloromethane	50	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 UU	2.0 U	2.0 U	2.0 UU	2.0 U
Bromomethane	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UU
Carbon disulfide		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
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	1.4 J	1.6 J	1.6 J
Chloroethane	5	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
Chloromethane		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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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
Ethylbenzene	5	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
Isopropylbenzene	5	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
Methyl cyclohexane		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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethene	5	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
trans-1,2-Dichloroethene	5	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
Trichloroethene	5	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
Vinyl chloride	2	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

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 2

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-34 5/27/2015 ug/L	MW-34 11/12/2015 ug/L	MW-34 5/10/2016 ug/L	MW-35 5/27/2015 ug/L	MW-35 11/12/2015 ug/L	MW-35 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	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
1,1,2-Trichloroethane	1	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
1,1-Dichloroethene	5	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	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
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	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-Butanone	50	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
4-Methyl-2-pentanone		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
Benzene	1	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
Bromodichloromethane	50	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 UJ	2.0 U
Bromomethane	5	2.5 U	2.5 U	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
Carbon tetrachloride	5	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	2.0 J	2.5 U
Chloroethane	5	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
Chloromethane		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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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
Ethylbenzene	5	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
Isopropylbenzene	5	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
Methyl cyclohexane		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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethene	5	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
trans-1,2-Dichloroethene	5	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
Trichloroethene	5	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
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total TIC Compounds	--	ND	1.2 J	3.61 J	ND	ND	3.4 J

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 2

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)	DUP-X 5/27/2015 ug/L	DUP-X 11/12/2015 ug/L	DUPLICATE 5/10/2016 ug/L	MW-36 5/27/2015 ug/L	MW-36 11/12/2015 ug/L	MW-36 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	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
1,1,2-Trichloroethane	1	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
1,1-Dichloroethene	5	0.5 U	0.5 UU	0.5 U	0.5 U	0.5 UU	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
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UU	2.5 U	2.5 U	2.5 UU	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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	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-Butanone	50	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
4-Methyl-2-pentanone		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
Benzene	1	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
Bromodichloromethane	50	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 UU	2.0 U	2.0 U	2.0 UU	2.0 U
Bromomethane	5	2.5 U	2.5 U	2.5 UU	2.5 U	2.5 U	2.5 UU
Carbon disulfide		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
Chlorobenzene	5	1.0 J	1.8 J	1.0 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
Chloroform	7	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
cis-1,2-Dichloroethene	5	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
Cyclohexane		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
Dichlorodifluoromethane	5	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
Freon-113		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
Methyl Acetate		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
Methyl tert butyl ether	10	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
o-Xylene	*	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
Styrene	5	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
Toluene	5	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
trans-1,3-Dichloropropene	0.4	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	0.58
Trichlorofluoromethane	5	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
Total TIC Compounds	--	ND	ND	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 2

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)	TW/BRW-01S 5/27/2015 ug/L	TW/BRW-01S 11/13/2015 ug/L	TW/BRW-01S 5/10/2016 ug/L	MW-24S 5/27/2015 ug/L	MW-24S 11/11/2015 ug/L	MW-24S 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	0.86 J	1.8 J	0.73 J	<b>92</b>	<b>36</b>	<b>95</b>
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U	1.5 U	3.0 U	1.5 U	3.0 U
1,1-Dichloroethane	5	2.1 J	2.0 J	1.4 J	<b>86</b>	<b>24</b>	<b>82</b>
1,1-Dichloroethene	5	0.54	0.4 J	0.14 J	<b>33</b>	<b>9.8 J</b>	<b>37</b>
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U
1,2,4-Trichlorobenzene	5	2.9	1.8 J	2.5 U	5.0 U	2.5 UJ	5.0 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U
1,2-Dichlorobenzene	3	2.5 U	0.81 J	2.5 U	5.0 U	2.5 U	5.0 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U	0.59	1.0 U	0.5 U	0.32 J
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U
1,3-Dichlorobenzene	3	1.9 J	1.1 J	1.6 J	5.0 U	2.5 U	5.0 U
1,4-Dichlorobenzene	3	<b>3.2</b>	2.3 J	<b>3.5</b>	5.0 U	2.5 U	5.0 U
2-Butanone	50	5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
Acetone	50*	5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
Benzene	1	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Bromochloromethane		2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Bromoform	50*	2.0 U	2.0 U	2.0 U	4.0 U	2.0 UJ	4.0 U
Bromomethane	5	2.5 U	2.5 UJ	2.5 UJ	5.0 U	2.5 U	5.0 UJ
Carbon disulfide		5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
Carbon tetrachloride	5	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Chlorobenzene	5	1.4 J	1.1 J	1.4 J	5.0 U	2.5 U	5.0 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Chloroform	7	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Chloromethane		2.5 U	2.5 UJ	2.5 U	5.0 U	2.5 U	5.0 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	<b>29</b>	<b>8.0</b>	<b>37</b>
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Cyclohexane		10 U	10 U	10 U	20 U	10 U	20 U
Dibromochloromethane	50	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	10 U	5.0 U	10 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Freon-113		2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U
Methyl cyclohexane		10 U	10 U	10 U	20 U	10 U	20 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Styrene	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
Tetrachloroethene	5	0.5 U	0.5 U	0.5 U	4.0	1.2	4.9
Toluene	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	1.0 U
Trichloroethene	5	0.5 U	0.5 U	3.3	1.1	0.28 J	1.6
Trichlorofluoromethane	5	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	0.89 J
Total TIC Compounds	--	ND	ND	ND	2.8 J	1.1 J	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 2

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-26S 5/27/2015 ug/L	MW-26S 11/12/2015 ug/L	MW-26S 5/10/2016 ug/L	TW/BRW-01R 5/27/2015 ug/L	TW/BRW-01R 11/13/2015 ug/L	TW/BRW-01R 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	5	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
1,1,2-Trichloroethane	1	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	1.6 J	78	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 UJ	0.5 U	0.5 U	4.0	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
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 UJ	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
1,2-Dibromoethane	5	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
1,2-Dichloroethane	0.6	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
1,3-Dichlorobenzene	3	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-Butanone	50	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
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	5.0 U	9.5 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	0.42 J	0.5 U
Bromochloromethane		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
Bromoform	50*	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 UJ	2.5 U	2.5 UJ	2.5 UJ
Carbon disulfide		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
Chlorobenzene	5	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
Chloroform	7	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 UJ	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
cis-1,3-Dichloropropene	0.4	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
Dibromochloromethane	50	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
Ethylbenzene	5	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
Isopropylbenzene	5	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
Methyl cyclohexane		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
Methylene chloride	5	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
p/m-Xylene	*	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
Tetrachloroethene	5	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
trans-1,2-Dichloroethene	5	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
Trichloroethene	5	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	5.0 U	2.5 U	5.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	2.0 U	1.0 UJ	2.0 U
Total TIC Compounds	--	ND	3.1 J	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 2

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)	Field Blank 5/27/2015 ug/L	Field Blank 11/13/2015 ug/L	Field Blank 5/10/2016 ug/L	Trip Blank 5/27/2015 ug/L	Trip Blank 5/28/2015 ug/L	Trip Blank 11/12/2015 ug/L	Trip Blank 5/10/2016 ug/L
<b>Volatile Organic Compounds</b>								
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
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
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
1,1-Dichloroethane	5	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 UU	0.5 U	0.5 U	0.5 U	0.5 UU	0.5 U
1,2,3-Trichlorobenzene		2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 UU	2.5 U	2.5 U	0.5 U	2.5 UU	0.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
1,2-Dibromoethane	5	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 U	0.5 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 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
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
2-Butanone	50	5.0 U	5.0 U	3.3 J	5.0 U	0.5 U	5.0 U	0.5 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U
4-Methyl-2-pentanone		5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U
Acetone	50*	5.0 U	3.7 J	3.7 J	5.0 U	0.5 U	5.0 U	0.5 U
Benzene	1	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	0.5 U	2.5 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
Bromoform	50*	2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 UU	0.5 U
Bromomethane	5	2.5 U	2.5 UU	2.5 UU	2.5 U	0.5 U	2.5 U	0.5 U
Carbon disulfide		5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 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
Chlorobenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Chloroethane	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Chloromethane		2.5 U	2.5 UU	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
cis-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 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
Cyclohexane		10 U	10 U	10 U	10 U	0.5 U	10 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
Dichlorodifluoromethane	5	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	0.5 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Freon-113		2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Isopropylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Methyl Acetate		2.0 U	2.0 U	2.0 U	2.0 U	0.5 U	2.0 U	0.5 U
Methyl cyclohexane		10 U	10 U	10 U	10 U	0.5 U	10 U	0.5 U
Methyl tert butyl ether	10	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Methylene chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
o-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
p/m-Xylene	*	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
Styrene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 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
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 U	0.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	2.5 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
Trichloroethene	5	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	0.5 U	2.5 U	0.5 U
Vinyl chloride	2	1.0 U	1.0 UU	1.0 U	1.0 U	0.5 U	1.0 U	0.5 U
Total TIC Compounds	--	ND	ND	2.87 J	ND	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

J = Estimated concentration less than laboratory reporting limit

ND = Not Detected

R = Rejected by validator due to very low relative response in calibration standards

= Concentration exceeds NYSDEC Class GA Standard

DUP-X, DUPLICATE collected at MW-35

Table 3

## Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-24S 5/27/2015 ug/L	MW-24S 11/11/2015 ug/L	MW-24S 5/10/2016 ug/L	MW-26S 5/27/2015 ug/L	MW-26S 11/12/2015 ug/L	MW-26S 5/10/2016 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	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

## 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 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	TW/BRW-01R 5/27/2015 ug/L	TW/BRW-01R 11/13/2015 ug/L	TW/BRW-01R 5/10/2016 ug/L	MW-18SR 5/27/2015 ug/L	MW-18SR 11/11/2015 ug/L	MW-18SR 5/10/2016 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	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

## NOTES:

U = Compound not detected; laboratory reporting limit shown

\* Applies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

Table 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-19SR 5/27/2015 ug/L	MW-19SR 11/12/2015 ug/L	MW-19SR 5/10/2016 ug/L	MW-34 5/27/2015 ug/L	MW-34 11/12/2015 ug/L	MW-34 5/10/2016 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	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

## 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 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-35 5/27/2015 ug/L	MW-35 11/12/2015 ug/L	MW-35 5/10/2016 ug/L	DUP-X 5/27/2015 ug/L	DUP-X 11/12/2015 ug/L	DUPLICATE 5/10/2016 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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
Aroclor 1260	0.09*	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
Aroclor 1268	0.09*	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

## 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 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	MW-36 5/27/2015 ug/L	MW-36 11/12/2015 ug/L	MW-36 5/10/2016 ug/L	TW/BRW-01S 5/27/2015 ug/L	TW/BRW-01S 11/13/2015 ug/L	TW/BRW-01S 5/10/2016 ug/L
<b>PCBs</b>							
Aroclor 1016	0.09*	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
Aroclor 1232	0.09*	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
Aroclor 1248	0.09*	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	<b>0.493</b>	<b>0.88 J</b>	<b>0.650</b>
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U	<b>0.21</b>	<b>0.22</b>	<b>0.272</b>
Aroclor 1262	0.09*	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
Total PCBs	0.09*	ND	ND	ND	<b>0.703</b>	<b>1.1</b>	<b>0.922</b>

## 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 3

Summary of Validated Analytical Results - PCBs in Groundwater

Goulds Pumps Administration - Cobalt Site

Seneca Falls, NY

Sample ID	NYSDEC Class GA Standard (ug/L)	Field Blank 5/27/2015 ug/L	Field Blank 11/13/2015 ug/L	Field Blank 5/10/2016 ug/L
<b>PCBs</b>				
Aroclor 1016	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1221	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1232	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1242	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1248	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1254	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1260	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1262	0.09*	0.083 U	0.083 U	0.083 U
Aroclor 1268	0.09*	0.083 U	0.083 U	0.083 U
Total PCBs	0.09*	ND	ND	ND

## NOTES:

U = Compound not detected; laboratory reporting limit shown

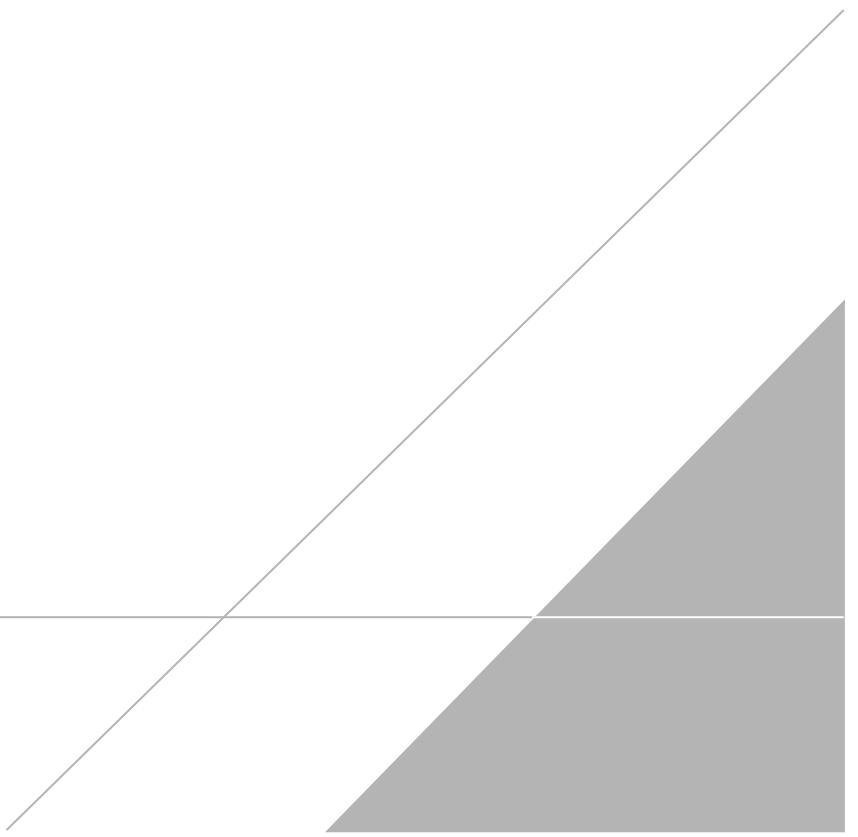
\* Applies to the sum of these compounds.

ND = Not Detected

DUP-X, DUPLICATE collected at MW-35

= Concentration exceeds NYSDEC Class GA Standard

# ATTACHMENTS



**ATTACHMENT 1 – SECOND QUARTER 2016 SITE AND WELL INSPECTION FORMS**

# Well Inspection Form

Date Performed:

5/9/16

Site Name:

Goulds Pumps Cobalt Site (No. C850012)

Site Location:

Seneca Falls, NY

Weather:

Inspector Name:

Inspector Signature:

54°F Partly cloudy  
Andrew Gibson

Well ID	Inspected (Y/N)	Acceptable (Y/N)	Maintenance Required (Y/N)	Well Integrity Inspection	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	Needs new lock	
MW-26B	Y	Y	N		
MW-26I	Y	Y	N	locks are rusted	
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	Water in vault, baited	
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	Fibering in well	

## 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

## Site Inspection Form

D3	Concrete	Y	Y	N	
D4	Concrete	Y	Y	N	HARLINE CRACKING OFF MAIN ACCESS ROAD AND AROUND CB
D5	Concrete	Y	Y	N	STONE AND MINI DEBRIS PRESENT
D6	Concrete	Y	Y	N	
D7	Concrete	Y	Y	N	MINI CHIPPING ON EDGES
D8	Concrete	Y	Y	N	MINI CHIPPING ON CORNERS
D9	Concrete	Y	Y	N	
D10	Concrete	Y	Y	N	
D11	Concrete	Y	Y	N	
D12	Concrete	Y	Y	N	
E1	Gravel	Y	Y	N	
E2	Gravel	Y	Y	N	SMALL AMOUNTS OF DEBRIS THROUGHOUT
E3	Gravel	Y	Y	N	
E4	Gravel	Y	Y	N	
E5	Gravel	Y	Y	N	
F	NWSA Cap	Y	Y	N	DEBRIS & BRUSH THROUGHOUT

**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	

# Site Inspection Form

Date Performed:

5/9/16

Site Name:

Goulds Pumps Cobalt Site (No. C850012)

Site Location:

Seneca Falls, NY

Weather:

PARTLY Cloudy

60°F

Inspector Name:

MIKE MAILHOT

Inspector Signature:

*Mike Mailhot*

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 <i>(attach photographs for documentation as appropriate)</i>
A1	Pavement	Y	Y	N	
A2	Pavement	Y	Y	N	LOOSE STONE AROUND OUTSIDE
A3	Pavement	Y	Y	N	MINER SCOURING FROM PALLET STORAGE
B1	Topsoil and Grass	Y	Y	N	
B2	Topsoil and Grass	Y	Y	N	
C1	Riprap Spillway	Y	Y	N	
C2	Riprap Spillway	Y	Y	N	
C3	Riprap Spillway	Y	Y	N	
C4	Riprap Spillway	Y	Y	N	
C5	Riprap Slope Protection	Y	Y	N	
D1	Concrete	Y	Y	N	
D2	Concrete	Y	Y	N	SOME LOOSE STONE ON CONCRETE

**ATTACHMENT 2 – GROUNDWATER MONITORING FIELD PURGE LOGS**

Low Flow Groundwater Sampling Log								Well ID: MW-185R	Northing:	Easting:
Site Name: GOULD'S PUMPS COBACT	Sampling Method: Low Flow	Field Personnel: MM								
Site Location: SENeca FALLS	Equipment Used: PERISTALTIC / HANIBA	Date: 5/10/16								
Project #: 01257CBT.2016	Pump/Controller ID#:	Weather: SUNNY 65F								
Well information:				Well Volume Multipliers:				* Measurement Point:		
Installed Depth of Well*: 15	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft	<input checked="" type="checkbox"/> Well Casing							
Measured Depth of Well*: 14.09	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Protective Casing							
Depth to Water*: 275	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Other:							
Length of Water Column (LWC): 11.34	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: 1.89 gal.							
Well Diameter: 2in	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: 13.00 ft. bmp.							
Start Purge Time: 1055										
Initial Observations: Color GREY		Odor NONE		Sheen/Free Product NONE						
indicate units										
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other	
1100	3.02	12.10	7.55	0.830	135	0	651	200		
1105	3.05	11.11	7.60	0.848	143	0	229			
1110	3.10	10.98	7.51	0.818	149	0	50.0			
1115	3.10	11.34	7.44	0.759	146	0	17.1			
1120	3.10	11.41	7.32	0.711	5	0	8.8			
1125	3.10	11.44	7.34	0.701	-14	0	9.1			
1130	3.10	11.51	7.38	0.684	-37	0	4.9			
1135	3.10	11.65	7.41	0.657	-48	0	0			
1140	3.12	11.69	7.47	0.654	-51	0	0.3			
1145	3.12	11.73	7.57	0.638	-60	0	0			
1150	3.12	11.78	7.57	0.634	-61	0	0			
1155	3.12	11.93	7.59	0.630	-62	0	0			
1200										
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$		
End Purge Time: 1155				DO Titrataion = mg/L						
Total volume of groundwater purged: 6.5 gal.										
Final Observations: Color CLEAR Odor NONE				Sheen/Free Product NONE						
Specific Gravity										
Analytical Sample ID: MW-185R - 221864				Date: 05/10/16		Time: 1200				
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory				
1L	Amber	2	No	None		ALPHA				
40 ML	VQA	3	No	HCL		ALPHA				
Notes:				**Well Integrity Inspection Notes**						
MS/MSD COLLECTED										

Low Flow Groundwater Sampling Log							Well ID: MW-24S CONT.	Northing:	Easting:
Site Name: Gould Pumps Cobalt	Sampling Method: Low Flow	Field Personnel: MM							
Site Location: SENECA FALLS, NY	Equipment Used: PERISTALTIC / HAZEA	Date: 05/10/16							
Project #: 01257CBT_2016	Pump/Controller ID#:	Weather: SUNNY 65F							
<b>Well information:</b>									
Installed Depth of Well*:	ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft					* Measurement Point:		
Measured Depth of Well*:	ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft					<input checked="" type="checkbox"/> Well Casing		
Depth to Water*:	ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft					<input type="checkbox"/> Protective Casing		
Length of Water Column (LWC):	ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft					<input type="checkbox"/> Other:		
Well Diameter:	in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft					Well Volume: 1.94 gal.		
Start Purge Time: 1405		Pump Intake Depth*: 14 ft. bmp.							
Initial Observations: Color BROWN Odor NONE Sheen/Free Product NONE indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity ( )	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
1545	8.55	13.76	7.43	0.831	22	0	761		
1550	8.70	13.52	7.48	0.827	23	0	725		
1555	8.82	13.33	7.40	0.837	27	0	720		
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10$ mV	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$	
End Purge Time: 1555					DO Titration = mg/L				
Total volume of groundwater purged: ~8.5 gal.									
Final Observations: Color BROWN Odor NONE Sheen/Free Product NONE									
Specific Gravity _____									
Analytical Sample ID: MW-24S - 221864				Date: 05/10/16		Time: 1555			
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory			
1L	AMBER	2	NO	NONE		ALPHA			
40mL	VOL	3	NO	HCL		ALPHA			
Notes:				**Well Integrity Inspection Notes**					

Low Flow Groundwater Sampling Log								Well ID: MW - 245	Northing:	Easting:
Site Name: GOULD PULPS CRAFT	Sampling Method: Low Flow	Field Personnel: MM								
Site Location: SENECA FALLS, NY	Equipment Used: PERISTALTIC / HARIBA	Date: 05/10/16								
Project #: 01257CBT_2016	Pump/Controller ID#:	Weather: PARTLY CLOUDY 65F								
Well information:				Well Volume Multipliers:			* Measurement Point:			
Installed Depth of Well*: Measured Depth of Well*: Depth to Water*: Length of Water Column (LWC): Well Diameter:	ft. bmp. ft. bmp. ft. bmp. ft. in.	<input type="checkbox"/> 1 in. = 0.041 gal/ft <input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft <input type="checkbox"/> 4 in. = 0.653 gal/ft <input type="checkbox"/> 6 in. = 1.469 gal/ft <input type="checkbox"/> 8 in. = 2.611 gal/ft	ft. bmp.	Well Volume: 1.94 gal.	Pump Intake Depth*: 14 ft. bmp.	<input checked="" type="checkbox"/> Well Casing <input type="checkbox"/> Protective Casing <input type="checkbox"/> Other:				
Start Purge Time: 1405	Initial Observations: Color BROWN Odor NONE Sheen/Free Product NONE	indicate units								
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )	
1410	4.15	13.65	7.62	0.876	-7	0	39.2	256		
1415	4.54	13.61	7.57	0.880	-2	0	19.4			
1420	5.00	13.05	7.52	0.886	3	0	14.9			
1425	5.24	13.29	7.55	0.887	2	0	8.9			
1430	5.90	13.48	7.48	0.882	3	0	128			
1435	6.18	13.85	7.49	0.871	-8	0	409			
1440	6.51	14.07	7.44	0.861	-12	0	736			
1445	6.75	14.70	7.43	0.834	-15	0	1000			
1450	6.92	14.46	7.40	0.836	-13	0	1000			
1455	7.12	14.50	7.38	0.835	-9	0	847			
1500	7.31	14.53	7.37	0.831	-5	0	919			
1505	7.42	14.23	7.37	0.833	-2	0	1000			
1510	6.90	15.16	7.39	0.833	1	0	1006			
1515	7.28	13.99	7.46	0.828	4	0	845			
1520	7.51	13.84	7.48	0.832	8	0	665			
1525	7.73	13.78	7.48	0.831	11	0	595			
1530	7.96	13.80	7.47	0.824	17	0	530			
1535	8.19	13.60	7.48	0.821	19	0	542			
1540	8.30	13.72	7.45	0.826	19	0	671			
Stabilization	$\Delta \leq 0.3\%$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10$ mV	$\pm 10\%$	$\pm 10\%$	200 $\leq X \leq 500$		
End Purge Time: 1555				DO Titrataion = mg/L						
Total volume of groundwater purged: ~8.5 gal.										
Final Observations: Color BROWN Odor NONE Sheen/Free Product NONE	Specific Gravity _____									
Analytical Sample ID: MW-245-221864				Date: 05/10/16	Time: 1555					
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory				
1L	AMBER	2	NO	NONE		ALPHA				
40 mL	VQA	3	NO	HCL		ALPHA				
Notes: EMPTIED 5 GAL BUCKET @ 1505. SHUT OFF PUMP				**Well Integrity Inspection Notes**						

Low Flow Groundwater Sampling Log										Well ID: MW-34	
Site Name: GULDS PUMPS COBALT			Sampling Method: Low Flow			Field Personnel: MM					
Site Location: SENeca Falls, NY			Equipment Used: PERISTALTIC PUMP						Date: 05/10/16		
Project #: 01257CBT 2016			Pump/Controller ID#:						Weather: SUNNY 60F		
Well information:			Well Volume Multipliers:						* Measurement Point:		
Installed Depth of Well*: ft. bmp.			<input type="checkbox"/> 1 in. = 0.041 gal/ft						<input checked="" type="checkbox"/> Well Casing		
Measured Depth of Well*: 12.80 ft. bmp.			<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft						<input type="checkbox"/> Protective Casing		
Depth to Water*: 2.04 ft. bmp.			<input type="checkbox"/> 4 in. = 0.653 gal/ft						<input type="checkbox"/> Other:		
Length of Water Column (LWC): 10.76 ft.			<input type="checkbox"/> 6 in. = 1.469 gal/ft						Well Volume: 1.75 gal.		
Well Diameter: 2 in.			<input type="checkbox"/> 8 in. = 2.611 gal/ft						Pump Intake Depth*: 12.50 ft. bmp.		
Start Purge Time: 1250											
Initial Observations: Color LIGHT BROWN 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		
1255	3.45	12.28	7.38	0.780	-57	0	45.1	200			
1300	3.72	12.21	7.51	0.915	-54	0	115				
1305	4.09	11.64	7.43	0.867	-51	0	87.1				
1310	4.38	12.15	7.39	0.808	-31	0	52.5				
1315	4.58	12.30	7.39	0.814	-26	0	45.8				
1320	4.80	12.78	7.34	0.829	-23	0	23.9				
1325	5.02	12.21	7.32	0.851	-29	0	19.9				
1330	5.22	12.28	7.31	0.859	-34	0	11.2				
1335	5.40	12.20	7.31	0.866	-41	0	8.8				
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$			
End Purge Time: 1335			DO Titrataion = mg/L								
Total volume of groundwater purged: 24 gal.											
Final Observations: Color GREY Odor NONE			Sheen/Free Product NONE								
Specific Gravity											
Analytical Sample ID: MW-34 - 221804			Date: 05/10/16			Time: 1340					
Container Size	Container Type	# Collected	Field Filtered?			Preservative			Laboratory		
1L	AMBER	2	No			None			ALPHA		
48ML	VIA	3	No			HCl			ALPHA		
Notes:											
**Well Integrity Inspection Notes**											

Low Flow Groundwater Sampling Log								Well ID: MW-265	
Site Name: Goulds Pumps Cobalt		Sampling Method: Low Flow		Field Personnel: MM					
Site Location: Seneca Falls, NY		Equipment Used: PERISTALTIC/HORIBA		Date: 5/10/16					
Project #: 01257CBT. 2016		Pump/Controller ID#:		Weather: CLEAR 40°F					
Well information:								* Measurement Point:	
Installed Depth of Well*: 15		ft. bmp.		<input type="checkbox"/> 1 in. = 0.041 gal/ft				<input type="checkbox"/> Well Casing	
Measured Depth of Well*: 16.70		ft. bmp.		<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft				<input type="checkbox"/> Protective Casing	
Depth to Water*: 6.73		ft. bmp.		<input type="checkbox"/> 4 in. = 0.653 gal/ft				<input type="checkbox"/> Other:	
Length of Water Column (LWC): 9.97		ft.		<input type="checkbox"/> 6 in. = 1.469 gal/ft				Well Volume: 1.63 gal.	
Well Diameter: 2		in.		<input type="checkbox"/> 8 in. = 2.611 gal/ft				Pump Intake Depth*: 16 ft. bmp.	
Start Purge Time: 07:45 CLEAR									
Initial Observations: Color <del>Dark</del> Odor NONE Sheen/Free Product NONE								indicate units	
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (ms/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0750		9.05	7.18	0.631	113	0	0	250	
0755		9.20	7.22	0.639	112	0	0		
0800	8.00	9.27	7.28	0.641	103	0	0		
0805	8.19	9.32	7.29	0.641	93	0	0		
0810	8.40	9.39	7.35	0.643	77	0	0		
0815	8.53	9.48	7.41	0.644	63	0	0		
0820	8.65	9.40	7.44	0.643	48	0	0		↓
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End Purge Time: 0820								DO Titration = _____ mg/L	
Total volume of groundwater purged: ~4.5 gal.									
Final Observations: Color LIGHT Brown Odor NONE Sheen/Free Product NONE								Specific Gravity _____	
Analytical Sample ID: MW-265-				Date: 05/10/15		Time: 0825			
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory			
1L	AMBER	2	NO	None		ALPHA			
40mL	VIAL	3	NO	HCL		ALPHA			
Notes: _____									
**Well Integrity Inspection Notes**									

Low Flow Groundwater Sampling Log									
Site Name:	GOULDS PUMPS			Sampling Method:	Low Flow		Field Personnel:	Well ID: NW-36 Northing: _____ Easting: _____	
Site Location:	SENECA FALLS, NM			Equipment Used:	PERISTALTIC/HelixA		Date:	MM DD YY	
Project #:	01257CBT.2016			Pump/Controller ID#:			Weather:	5/10/16 CLEAR 50F	
Well information:									
Installed Depth of Well*:	13	ft. bmp.	Well Volume Multipliers:				* Measurement Point:		
Measured Depth of Well*:	12.70	ft. bmp.	<input checked="" type="checkbox"/> 1 in. = 0.041 gal/ft	<input type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> 6 in. = 1.469 gal/ft	<input type="checkbox"/> 8 in. = 2.611 gal/ft	<input checked="" type="checkbox"/> Well Casing	<input type="checkbox"/> Protective Casing
Depth to Water*:	3.71	ft. bmp.						<input type="checkbox"/> Other:	
Length of Water Column (LWC):	8.99	ft.						Well Volume: 1.50 gal.	
Well Diameter:	2	in.						Pump Intake Depth*: 12 ft. bmp.	
Start Purge Time:	0935								
Initial Observations:	Color CLEAR		Odor NONE	Sheen/Free Product NONE					
indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other ( )
0940	4.32	10.07	6.06	0.751	190	0	14.4	250	
0945	4.69	9.90	6.82	0.732	182	0	16.3	1	
0950	4.88	9.88	6.90	0.674	177	0	8.6		
0955	5.19	9.86	6.92	0.675	172	0	2.1		
1000	5.45	9.87	6.93	0.676	168	0	1.1		
1005	5.84	9.87	6.94	0.680	164	0	0.2		↓
Stabilization	Δ ≤ 0.3'	± 3%	± 0.1	± 3%	± 10 mV	± 10%	± 10%	200 ≤ X ≤ 500	
End Purge Time:	1005								
Total volume of groundwater purged:	24 gal.								
Final Observations:	Color CLEAR		Odor NONE	Sheen/Free Product NONE					
Specific Gravity _____									
Analytical Sample ID: NW-36				Date: 05/10/16	Time: 1005				
Container Size	Container Type	# Collected	Field Filtered?	Preservative			Laboratory		
1L 40 ml	AMBER VOA	2 3	NO NO	None HCl			ALPHA ALPHA		
Notes:				**Well Integrity Inspection Notes**					

Low Flow Groundwater Sampling Log									
Site Name: <u>Windas Dunes Gebalt Site</u>			Sampling Method: <u>Low Flow</u>			Field Personnel: <u>Andrew Liss</u>			
Site Location: <u>Senechal Falls, MN</u>			Equipment Used: <u>Precistaltic</u>			Northing: <u>500-195R</u>			
Project #: <u>01257CBT 2016</u>			Pump/Controller ID#:			Easting: _____			
Well information:			Well Volume Multipliers:			* Measurement Point:			
Installed Depth of Well*:		<u>15</u>	ft. bmp.		<input type="checkbox"/> 1 in. = 0.041 gal/ft	Well Casing			
Measured Depth of Well*:		<u>13.23</u>	ft. bmp.		<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	Protective Casing			
Depth to Water*:		<u>12.63</u>	ft. bmp.		<input type="checkbox"/> 4 in. = 0.653 gal/ft	Other:			
Length of Water Column (LWC):		<u>10.6</u>	ft.		<input type="checkbox"/> 6 in. = 1.469 gal/ft	Well Volume: <u>1.73</u> gal.			
Well Diameter:		<u>2</u>	in.		<input type="checkbox"/> 8 in. = 2.611 gal/ft	Pump Intake Depth*: ft. bmp			
Start Purge Time: <u>0811</u>									
Initial Observations: Color <u>Clear</u> Odor <u>None</u> Sheen/Free Product <u>None</u>									
indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH (SU)	Specific Conductivity ( $\mu\text{S}/\text{cm}$ )	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other (TDS)
5	3.12	10.50	6.67	1.04	-117	0.00	40.1	~2.0	0.668
10	3.18	19.66	6.25	1.02	-105	0.00	31.7	1	0.652
15	3.18	11.38	6.46	0.623	-7	0.00	5.5	1	0.399
20	3.19	11.52	7.05	0.610	-84	0.07	2.4	1	0.395
25	3.20	11.72	7.20	0.613	-116	0	0	1	0.392
30	3.19	11.74	7.03	0.6489	-121	0.0	0.0	1	0.415
35	3.21	11.80	7.18	0.652	-143	0.0	0.0	1	0.417
40	3.21	11.92	7.44	0.651	-173	0.0	0.0	1	0.417
45	3.23	11.94	7.51	0.650	-185	0.0	0.0	1	0.416
50	3.23	12.00	7.58	0.651	-194	0.0	0.0	1	0.417
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10 \text{ mV}$	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$	
End Purge Time: <u>0904</u>					DO Titrataion = _____ mg/L				
Total volume of groundwater purged: <u>6</u> gal.									
Final Observations: Color <u>Clear</u> Odor <u>None</u> Sheen/Free Product <u>None</u>					Specific Gravity <u>NM</u>				
Analytical Sample ID: <u>MW-195R</u>			Date: <u>5/10/16</u>			Time: <u>0915</u>			
Container Size	Container Type	# Collected	Field Filtered?		Preservative		Laboratory		
1L	Glass Amber	2	N		None		Alpha		
40mL	VoA	3	N		HCL		Alpha		
Notes: <u>Stripped at 25 min. to recalibrate because of 60 reading, re cal caused 2 min. down time</u>					**Well Integrity Inspection Notes**				

Low Flow Groundwater Sampling Log									Well ID: IN-B1SW-01R	
Site Name: Goulds Pump Cobalt Site	Sampling Method: Pump/Low Flow	Field Personnel: Andrew Gibson								
Site Location: Seneca Falls, NY	Equipment Used: Bladder Pump	Date: 5/10/16								
Project #: 01257CBT 2016	Pump/Controller ID#:	Weather: Overcast 65°F								
Well information:									* Measurement Point:	
Installed Depth of Well*: 89.5 ft. bmp.	<input type="checkbox"/> 1 in. = 0.041 gal/ft									
Measured Depth of Well*: 89.5 ft. bmp.	<input type="checkbox"/> 2 in. = 0.163 gal/ft									
Depth to Water*: 23.40 ft. bmp.	<input checked="" type="checkbox"/> 4 in. = 0.653 gal/ft									
Length of Water Column (LWC): 66.10 ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft									
Well Diameter: 4 in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft									
	Well Volume Multipliers:									
	<input type="checkbox"/> Well Casing									
	<input type="checkbox"/> Protective Casing									
	<input type="checkbox"/> Other:									
	Well Volume: 42.95 gal.									
	Pump Intake Depth*: ft. bmp.									
Start Purge Time: 1155/529 AM										
Initial Observations: Color clear Odor none Sheen/Free Product none	indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celsius)	pH (SU)	Specific Conductivity (mS/cm)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other (TDS)	
1530	23.62	18.09	10.67	1.23	-160	5.29	7.9	333	9,259	
5	23.65	20.92	10.60	1.80	-59	7.32	3.3	333	1.19	
10	23.63	19.13	9.11	2.13	0	5.84	0.0		1.36	
15	23.64	18.79	8.64	2.22	19	4.94	0.0		1.42	
20	23.74	17.65	8.24	2.24	-42	2.37	2.9		1.44	
25	23.75	16.13	7.87	2.29	-119	0.00	71.0		1.16	
30	23.95	15.13	7.12	2.35	-127	0.00	72.0		1.80	
35	23.94	14.38	7.63	2.36	-123	0.00	71.2		1.81	
40	23.97	14.18	7.35	2.39	-120	0.00	87.9		1.53	
45	24.00	14.09	7.47	2.39	-112	0.00	55.4		1.53	
55	23.95	14.03	7.44	2.39	-112	0.00	49.6		1.53	
60	23.94	13.99	7.43	2.39	-111	0.00	46.0		1.53	
65	23.97	14.09	7.42	2.39	-110	0.00	32.8		1.53	
70	23.97	14.11	7.39	2.37	-108	0.00	34.4		1.52	
75	23.96	13.98	7.38	2.37	-104	0.00	19.7		1.52	
80	23.98	13.96	7.39	2.37	-101	0.00	13.7		1.52	
85	23.99	13.90	7.35	2.38	-101	0.00	11.2		1.52	
Stabilization $\Delta \leq 0.3'$ $\pm 3\%$ $\pm 0.1$ $\pm 3\%$ $\pm 10$ mV $\pm 10\%$ $\pm 10\%$ $200 \leq X \leq 500$										
End Purge Time: 1645 DO Titration = mg/L										
Total volume of groundwater purged: gal.										
Final Observations: Color clear Odor none Sheen/Free Product none	Specific Gravity not measured									
Analytical Sample ID: AS-TW15RW-01R				Date: 5/11/16	Time: 1702					
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory				
1L	Glass Amber	2	No	None		Alpha				
40mL	VFA	3	No	HCl		Alpha				
Notes: Field blank taken on bladder.							**Well Integrity Inspection Notes**			

Low Flow Groundwater Sampling Log									
Site Name:	Gonid's Pump (Joint)	Sampling Method:	Low-flow		Well ID:	MW-35			
Site Location:	Sereca Falls, NY	Equipment Used:	FISTOFLOW		Northing:				
Project #:	01257CBT 2016	Pump/Controller ID#:			Easting:				
Field Personnel:		Andrew Gibson		Date:	5/10/16				
				Weather:	S2°F partly cloudy				
Well information:									
Installed Depth of Well*:	13 ft. bmp.	Well Volume Multipliers:				* Measurement Point:			
Measured Depth of Well*:	11.19 ft. bmp.	<input checked="" type="checkbox"/> 2 in. = 0.163 gal/ft	<input type="checkbox"/> Well Casing						
Depth to Water*:	1.09 ft. bmp.	<input type="checkbox"/> 4 in. = 0.653 gal/ft	<input type="checkbox"/> Protective Casing						
Length of Water Column (LWC):	9.5 ft.	<input type="checkbox"/> 6 in. = 1.469 gal/ft	<input type="checkbox"/> Other:						
Well Diameter:	2 in.	<input type="checkbox"/> 8 in. = 2.611 gal/ft	Well Volume:	1.61 gal.					
		Pump Intake Depth*:	ft. bmp.						
Start Purge Time:	1003								
Initial Observations:	Color clear	Odor none	Sheen/Free Product none						
indicate units									
Elapsed Time (minutes)	Depth to Water (ft bmp)	Temperature (Celcius)	pH	Specific Conductivity (mS/cm.)	ORP (mV)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)	Other (TDS)
5	2.82	11.98	7.48	9.848	-173	0.00	0.0	200	0.559
10	3.55	12.15	7.24	1.23	-134	0.00	0.8		0.785
15	4.30	12.50	7.14	1.27	-125	0.00	0.0		0.814
20	4.77	12.15	7.04	1.29	-131	0.0	0.0		0.823
25	5.38	11.89	7.04	1.28	-131	0.0	0.0		0.821
Stabilization	$\Delta \leq 0.3'$	$\pm 3\%$	$\pm 0.1$	$\pm 3\%$	$\pm 10$ mV	$\pm 10\%$	$\pm 10\%$	$200 \leq X \leq 500$	
End Purge Time: 1028									
DO Titration = mg/L									
Total volume of groundwater purged: 4.5 gal.									
Final Observations:	Color clear	Odor none	Sheen/Free Product none						
Specific Gravity Not measured									
Analytical Sample ID: MW-35 Date: 5/10/16 Time: 1030									
Container Size	Container Type	# Collected	Field Filtered?	Preservative		Laboratory			
10mL	Glass Amber	4	No	None		Alpha			
	VQA	4	No	HCl		Alpha			
Notes: + water left in well DNP taken here									
**Well Integrity Inspection Notes**									



**ATTACHMENT 3 – SUMMARY DATA PACKAGE – ALPHA ANALYTICAL**



## ANALYTICAL REPORT

Lab Number:	L1614149
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
Project Number:	01257CBT.2016
Report Date:	05/23/16

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1614149-01	MW-18SR	WATER	SENECA FALLS, NY	05/10/16 12:00	05/10/16
L1614149-02	MW-19SR	WATER	SENECA FALLS, NY	05/10/16 09:15	05/10/16
L1614149-03	MW-24S	WATER	SENECA FALLS, NY	05/10/16 15:55	05/10/16
L1614149-04	MW-26S	WATER	SENECA FALLS, NY	05/10/16 08:25	05/10/16
L1614149-05	MW-34	WATER	SENECA FALLS, NY	05/10/16 13:40	05/10/16
L1614149-06	MW-35	WATER	SENECA FALLS, NY	05/10/16 10:30	05/10/16
L1614149-07	MW-36	WATER	SENECA FALLS, NY	05/10/16 10:05	05/10/16
L1614149-08	TW/BRW-01R	WATER	SENECA FALLS, NY	05/10/16 17:00	05/10/16
L1614149-09	TW/BRW-01S	WATER	SENECA FALLS, NY	05/10/16 12:50	05/10/16
L1614149-10	DUPLICATE	WATER	SENECA FALLS, NY	05/10/16 00:00	05/10/16
L1614149-11	FIELD BLANK	WATER	SENECA FALLS, NY	05/10/16 14:10	05/10/16
L1614149-12	TRIP BLANK	WATER	SENECA FALLS, NY	05/10/16 00:00	05/10/16

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**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.

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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/23/16

# ORGANICS

# VOLATILES



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-01  
 Client ID: MW-18SR  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/19/16 17:48  
 Analyst: MS

Date Collected: 05/10/16 12:00  
 Date Received: 05/10/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.5	0.70	1	
1,1-Dichloroethane	5.2	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	0.13	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	9.2	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	0.14	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	5.0	ug/l	0.50	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-01	Date Collected:	05/10/16 12:00
Client ID:	MW-18SR	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	5.86	J	ug/l	1
Unknown	5.86	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-02  
 Client ID: MW-19SR  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/19/16 13:15  
 Analyst: PK

Date Collected: 05/10/16 09:15  
 Date Received: 05/10/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	0.84	J	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	0.13	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	1.6	J	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	0.14	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	0.14	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
1,3-Dichlorobenzene	1.5	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	4.6		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-02	Date Collected:	05/10/16 09:15
Client ID:	MW-19SR	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	108		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-03	D	Date Collected:	05/10/16 15:55
Client ID:	MW-24S		Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	1,8260C			
Analytical Date:	05/19/16 13:43			
Analyst:	PK			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	82		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	4.9		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	0.32	J	ug/l	1.0	0.26	2
1,1,1-Trichloroethane	95		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.29	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	0.89	J	ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	37		ug/l	1.0	0.28	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	1.6		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-03	D	Date Collected:	05/10/16 15:55
Client ID:	MW-24S		Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND	ug/l	5.0	1.4	2	
p/m-Xylene	ND	ug/l	5.0	1.4	2	
o-Xylene	ND	ug/l	5.0	1.4	2	
cis-1,2-Dichloroethene	37	ug/l	5.0	1.4	2	
Styrene	ND	ug/l	5.0	1.4	2	
Dichlorodifluoromethane	ND	ug/l	10	2.0	2	
Acetone	ND	ug/l	10	2.9	2	
Carbon disulfide	ND	ug/l	10	2.0	2	
2-Butanone	ND	ug/l	10	3.9	2	
4-Methyl-2-pentanone	ND	ug/l	10	2.0	2	
2-Hexanone	ND	ug/l	10	2.0	2	
Bromochloromethane	ND	ug/l	5.0	1.4	2	
1,2-Dibromoethane	ND	ug/l	4.0	1.3	2	
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	1.4	2	
Isopropylbenzene	ND	ug/l	5.0	1.4	2	
1,2,3-Trichlorobenzene	ND	ug/l	5.0	1.4	2	
1,2,4-Trichlorobenzene	ND	ug/l	5.0	1.4	2	
Methyl Acetate	ND	ug/l	4.0	0.47	2	
Cyclohexane	ND	ug/l	20	0.54	2	
1,4-Dioxane	ND	ug/l	500	82.	2	
Freon-113	ND	ug/l	5.0	1.4	2	
Methyl cyclohexane	ND	ug/l	20	0.79	2	

**Tentatively Identified Compounds**

No Tentatively Identified Compounds	ND	ug/l	2
Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	107		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-04  
 Client ID: MW-26S  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/19/16 14:11  
 Analyst: PK

Date Collected: 05/10/16 08:25  
 Date Received: 05/10/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-04	Date Collected:	05/10/16 08:25
Client ID:	MW-26S	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	104		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	112		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-05	Date Collected:	05/10/16 13:40
Client ID:	MW-34	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 23:12		
Analyst:	BS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-05	Date Collected:	05/10/16 13:40
Client ID:	MW-34	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	3.61	J	ug/l	1
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Unknown	3.61	J	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-06	Date Collected:	05/10/16 10:30
Client ID:	MW-35	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 23:35		
Analyst:	BS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-06	Date Collected:	05/10/16 10:30
Client ID:	MW-35	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	3.40	J	ug/l	1
Unknown	3.40	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	102		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-07  
 Client ID: MW-36  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/19/16 15:36  
 Analyst: PK

Date Collected: 05/10/16 10:05  
 Date Received: 05/10/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	1	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	1	
Trichloroethene	0.58	ug/l	0.50	0.18	1	
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-07	Date Collected:	05/10/16 10:05
Client ID:	MW-36	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	105		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	112		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-08	Date Collected:	05/10/16 17:00
Client ID:	TW/BRW-01R	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 16:04		
Analyst:	PK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-08	Date Collected:	05/10/16 17:00
Client ID:	TW/BRW-01R	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	105		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	110		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-09	Date Collected:	05/10/16 12:50
Client ID:	TW/BRW-01S	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 16:32		
Analyst:	PK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	1.4	J	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	0.13	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	1.4	J	ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	0.59		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	0.73	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	0.14	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	0.14	J	ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	3.3		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	1.6	J	ug/l	2.5	0.70	1
1,4-Dichlorobenzene	3.5		ug/l	2.5	0.70	1



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-09	Date Collected:	05/10/16 12:50
Client ID:	TW/BRW-01S	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	108		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	112		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-10	Date Collected:	05/10/16 00:00
Client ID:	DUPLICATE	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 17:00		
Analyst:	PK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-10	Date Collected:	05/10/16 00:00
Client ID:	DUPLICATE	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	107		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	109		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-11  
 Client ID: FIELD BLANK  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 05/19/16 17:28  
 Analyst: PK

Date Collected: 05/10/16 14:10  
 Date Received: 05/10/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-11	Date Collected:	05/10/16 14:10
Client ID:	FIELD BLANK	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	3.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	3.3	J	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	41.	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	2.87	J	ug/l	1
Unknown	2.87	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	111		70-130

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-12	Date Collected:	05/10/16 00:00
Client ID:	TRIP BLANK	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	1,8260C		
Analytical Date:	05/19/16 17:57		
Analyst:	PK		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	0.13	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	0.14	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	0.14	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	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70	1	



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID:	L1614149-12	Date Collected:	05/10/16 00:00
Client ID:	TRIP BLANK	Date Received:	05/10/16
Sample Location:	SENECA FALLS, NY	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	41.	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	102		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	105		70-130

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:26  
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04,07-12 Batch: WG895788-5					
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	0.13	
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	0.14	
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	0.14	
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  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:26  
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04,07-12 Batch: WG895788-5					
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	41.	
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
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**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:26  
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04,07-12 Batch: WG895788-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	108		70-130

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:04  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG895946-5					
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	0.13
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	0.14
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	0.14
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  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:04  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG895946-5					
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	0.77	J	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	41.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

#### Tentatively Identified Compounds

Total TIC Compounds	3.34	J	ug/l
Unknown	3.34	J	ug/l



**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 10:04  
Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01				Batch:	WG895946-5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	110		70-130

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG896299-5					
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	0.13	
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	0.14	
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	0.14	
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  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG896299-5					
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	0.84	J	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	41.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

#### Tentatively Identified Compounds

Total TIC Compounds	3.70	J	ug/l
Unknown	3.70	J	ug/l



**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### **Method Blank Analysis**

#### **Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 05/19/16 21:16  
Analyst: BS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06				Batch: WG896299-5	

<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04,07-12 Batch: WG895788-3 WG895788-4								
Methylene chloride	98		97		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		99		70-130	1		20
Dibromochloromethane	99		96		63-130	3		20
1,1,2-Trichloroethane	94		92		70-130	2		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	130		120		62-150	8		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	92		90		70-130	2		20
cis-1,3-Dichloropropene	93		90		70-130	3		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	97		95		54-136	2		20
1,1,2,2-Tetrachloroethane	89		87		67-130	2		20
Benzene	98		96		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	98		99		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04,07-12 Batch: WG895788-3 WG895788-4								
Chloromethane	100		100		64-130	0		20
Bromomethane	72		65		39-139	10		20
Vinyl chloride	110		110		55-140	0		20
Chloroethane	110		120		55-138	9		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	98		98		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	96		96		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	98		99		70-130	1		20
Methyl tert butyl ether	88		86		63-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	97		99		70-130	2		20
Dibromomethane	97		93		70-130	4		20
1,2,3-Trichloropropane	96		91		64-130	5		20
Acrylonitrile	92		85		70-130	8		20
Isopropyl Ether	100		100		70-130	0		20
tert-Butyl Alcohol	104		96		70-130	8		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	94		89		36-147	5		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04,07-12 Batch: WG895788-3 WG895788-4								
Acetone	110		110		58-148	0		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	98		90		63-138	9		20
Vinyl acetate	97		94		70-130	3		20
4-Methyl-2-pentanone	88		88		59-130	0		20
2-Hexanone	87		88		57-130	1		20
Acrolein	84		74		40-160	13		20
Bromochloromethane	98		96		70-130	2		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	92		91		70-130	1		20
1,3-Dichloropropane	93		94		70-130	1		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	91		91		53-136	0		20
sec-Butylbenzene	91		93		70-130	2		20
tert-Butylbenzene	81		82		70-130	1		20
o-Chlorotoluene	100		99		70-130	1		20
p-Chlorotoluene	58	Q	100		70-130	53	Q	20
1,2-Dibromo-3-chloropropane	84		77		41-144	9		20
Hexachlorobutadiene	89		89		63-130	0		20
Isopropylbenzene	96		96		70-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04,07-12 Batch: WG895788-3 WG895788-4								
p-Isopropyltoluene	94		94		70-130	0		20
Naphthalene	65	Q	64	Q	70-130	2		20
n-Propylbenzene	97		97		69-130	0		20
1,2,3-Trichlorobenzene	82		81		70-130	1		20
1,2,4-Trichlorobenzene	84		85		70-130	1		20
1,3,5-Trimethylbenzene	120		100		64-130	18		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Methyl Acetate	92		92		70-130	0		20
Ethyl Acetate	94		85		70-130	10		20
Cyclohexane	110		100		70-130	10		20
Ethyl-Tert-Butyl-Ether	96		93		70-130	3		20
Tertiary-Amyl Methyl Ether	90		87		66-130	3		20
1,4-Dioxane	92		96		56-162	4		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	120		120		70-130	0		20
p-Diethylbenzene	94		93		70-130	1		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	94		94		70-130	0		20
Tetrahydrofuran	74		92		58-130	22	Q	20
Ethyl ether	95		92		59-134	3		20
trans-1,4-Dichloro-2-butene	87		77		70-130	12		20
Iodomethane	54	Q	78		70-130	36	Q	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i> <i>%Recovery</i>	<i>Qual</i>	<i>LCSD</i> <i>%Recovery</i>	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04,07-12 Batch: WG895788-3 WG895788-4								
Methyl cyclohexane	91		91		70-130	0		20

<b>Surrogate</b>	<i>LCS</i> <i>%Recovery</i>	<i>Qual</i>	<i>LCSD</i> <i>%Recovery</i>	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
1,2-Dichloroethane-d4	100		101		70-130
Toluene-d8	104		105		70-130
4-Bromofluorobenzene	99		98		70-130
Dibromofluoromethane	106		107		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG895946-3 WG895946-4								
Methylene chloride	98		100		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	110		110		70-130	0		20
2-Chloroethylvinyl ether	56	Q	52	Q	70-130	7		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	97		97		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	94		97		70-130	3		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	99		99		75-130	0		20
Trichlorofluoromethane	120		130		62-150	8		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	120		120		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	88		89		70-130	1		20
cis-1,3-Dichloropropene	88		90		70-130	2		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	81		83		54-136	2		20
1,1,2,2-Tetrachloroethane	86		90		67-130	5		20
Benzene	98		98		70-130	0		20
Toluene	98		96		70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG895946-3 WG895946-4								
Ethylbenzene	100		100		70-130	0		20
Chloromethane	100		90		64-130	11		20
Bromomethane	100		89		39-139	12		20
Vinyl chloride	94		89		55-140	5		20
Chloroethane	110		82		55-138	29	Q	20
1,1-Dichloroethene	100		98		61-145	2		20
trans-1,2-Dichloroethene	99		99		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	98		100		70-130	2		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	98		99		70-130	1		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	98		99		70-130	1		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	97		94		64-130	3		20
Acrylonitrile	94		100		70-130	6		20
Isopropyl Ether	96		99		70-130	3		20
tert-Butyl Alcohol	100		114		70-130	13		20
Styrene	105		105		70-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG895946-3 WG895946-4								
Dichlorodifluoromethane	100		96		36-147	4		20
Acetone	96		100		58-148	4		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	89		94		63-138	5		20
Vinyl acetate	89		94		70-130	5		20
4-Methyl-2-pentanone	86		95		59-130	10		20
2-Hexanone	80		87		57-130	8		20
Acrolein	82		86		40-160	5		20
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	97		99		70-130	2		20
1,3-Dichloropropane	97		99		70-130	2		20
1,1,1,2-Tetrachloroethane	110		110		64-130	0		20
Bromobenzene	97		99		70-130	2		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	92		93		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	82		87		41-144	6		20
Hexachlorobutadiene	120		110		63-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG895946-3 WG895946-4								
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	71		85		70-130	18		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	90		100		70-130	11		20
1,2,4-Trichlorobenzene	90		100		70-130	11		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Methyl Acetate	90		95		70-130	5		20
Ethyl Acetate	90		100		70-130	11		20
Cyclohexane	92		93		70-130	1		20
Ethyl-Tert-Butyl-Ether	98		100		70-130	2		20
Tertiary-Amyl Methyl Ether	84		88		66-130	5		20
1,4-Dioxane	100		118		56-162	17		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		100		70-130	10		20
p-Diethylbenzene	97		97		70-130	0		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	93		96		70-130	3		20
Tetrahydrofuran	92		99		58-130	7		20
Ethyl ether	84		84		59-134	0		20
trans-1,4-Dichloro-2-butene	61	Q	65	Q	70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i> %Recovery		<i>LCSD</i> %Recovery		<i>%Recovery</i> <i>Limits</i>		<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
	<i>Qual</i>		<i>Qual</i>						
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG895946-3 WG895946-4									
Iodomethane	37	Q	41	Q	70-130		10		20
Methyl cyclohexane	98		99		70-130		1		20

<b>Surrogate</b>	<i>LCS</i> %Recovery		<i>LCSD</i> %Recovery		<b>Acceptance Criteria</b>
	<i>Qual</i>		<i>Qual</i>		
1,2-Dichloroethane-d4	118		119		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	105		106		70-130
Dibromofluoromethane	111		111		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG896299-3 WG896299-4								
Methylene chloride	110		91		70-130	19		20
1,1-Dichloroethane	100		86		70-130	15		20
Chloroform	110		89		70-130	21	Q	20
2-Chloroethylvinyl ether	43	Q	33	Q	70-130	26	Q	20
Carbon tetrachloride	100		84		63-132	17		20
1,2-Dichloropropane	100		84		70-130	17		20
Dibromochloromethane	120		100		63-130	18		20
1,1,2-Trichloroethane	98		83		70-130	17		20
Tetrachloroethene	120		95		70-130	23	Q	20
Chlorobenzene	110		90		75-130	20		20
Trichlorofluoromethane	110		84		62-150	27	Q	20
1,2-Dichloroethane	100		85		70-130	16		20
1,1,1-Trichloroethane	110		92		67-130	18		20
Bromodichloromethane	110		89		67-130	21	Q	20
trans-1,3-Dichloropropene	90		75		70-130	18		20
cis-1,3-Dichloropropene	94		78		70-130	19		20
1,1-Dichloropropene	100		86		70-130	15		20
Bromoform	93		80		54-136	15		20
1,1,2,2-Tetrachloroethane	91		77		67-130	17		20
Benzene	100		87		70-130	14		20
Toluene	100		86		70-130	15		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG896299-3 WG896299-4								
Ethylbenzene	100		86		70-130	15		20
Chloromethane	86		99		64-130	14		20
Bromomethane	82		73		39-139	12		20
Vinyl chloride	110		97		55-140	13		20
Chloroethane	97		100		55-138	3		20
1,1-Dichloroethene	110		87		61-145	23	Q	20
trans-1,2-Dichloroethene	110		91		70-130	19		20
Trichloroethene	100		86		70-130	15		20
1,2-Dichlorobenzene	100		92		70-130	8		20
1,3-Dichlorobenzene	110		93		70-130	17		20
1,4-Dichlorobenzene	110		91		70-130	19		20
Methyl tert butyl ether	110		90		63-130	20		20
p/m-Xylene	110		90		70-130	20		20
o-Xylene	110		90		70-130	20		20
cis-1,2-Dichloroethene	110		92		70-130	18		20
Dibromomethane	100		86		70-130	15		20
1,2,3-Trichloropropane	90		78		64-130	14		20
Acrylonitrile	100		84		70-130	17		20
Isopropyl Ether	96		80		70-130	18		20
tert-Butyl Alcohol	114		98		70-130	15		20
Styrene	110		95		70-130	15		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG896299-3 WG896299-4								
Dichlorodifluoromethane	90		77		36-147	16		20
Acetone	80		79		58-148	1		20
Carbon disulfide	120		91		51-130	27	Q	20
2-Butanone	80		68		63-138	16		20
Vinyl acetate	89		74		70-130	18		20
4-Methyl-2-pentanone	97		85		59-130	13		20
2-Hexanone	85		70		57-130	19		20
Acrolein	91		78		40-160	15		20
Bromochloromethane	110		98		70-130	12		20
2,2-Dichloropropane	100		84		63-133	17		20
1,2-Dibromoethane	110		91		70-130	19		20
1,3-Dichloropropane	100		85		70-130	16		20
1,1,1,2-Tetrachloroethane	120		98		64-130	20		20
Bromobenzene	110		95		70-130	15		20
n-Butylbenzene	97		83		53-136	16		20
sec-Butylbenzene	100		86		70-130	15		20
tert-Butylbenzene	93		79		70-130	16		20
o-Chlorotoluene	100		86		70-130	15		20
p-Chlorotoluene	100		85		70-130	16		20
1,2-Dibromo-3-chloropropane	93		82		41-144	13		20
Hexachlorobutadiene	120		100		63-130	18		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG896299-3 WG896299-4								
Isopropylbenzene	100		89		70-130	12		20
p-Isopropyltoluene	100		86		70-130	15		20
Naphthalene	81		80		70-130	1		20
n-Propylbenzene	98		83		69-130	17		20
1,2,3-Trichlorobenzene	97		98		70-130	1		20
1,2,4-Trichlorobenzene	100		93		70-130	7		20
1,3,5-Trimethylbenzene	110		89		64-130	21	Q	20
1,2,4-Trimethylbenzene	100		90		70-130	11		20
Methyl Acetate	88		74		70-130	17		20
Ethyl Acetate	95		85		70-130	11		20
Cyclohexane	85		70		70-130	19		20
Ethyl-Tert-Butyl-Ether	100		85		70-130	16		20
Tertiary-Amyl Methyl Ether	92		77		66-130	18		20
1,4-Dioxane	132		116		56-162	13		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		83		70-130	19		20
p-Diethylbenzene	98		84		70-130	15		20
p-Ethyltoluene	110		90		70-130	20		20
1,2,4,5-Tetramethylbenzene	95		83		70-130	13		20
Tetrahydrofuran	93		98		58-130	5		20
Ethyl ether	130		110		59-134	17		20
trans-1,4-Dichloro-2-butene	66	Q	55	Q	70-130	18		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> <i>Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> <i>Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG896299-3 WG896299-4								
Iodomethane	82		65	Q	70-130	23	Q	20
Methyl cyclohexane	96		79		70-130	19		20

<b>Surrogate</b>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		93		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	106		105		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD Qual	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG895946-6 WG895946-7 QC Sample: L1614149-01 Client ID: MW-18SR												
Methylene chloride	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloroethane	5.2	10	16	108		15	98		70-130	6		20
Chloroform	ND	10	10	100		10	100		70-130	0		20
Carbon tetrachloride	ND	10	9.8	98		9.8	98		63-132	0		20
1,2-Dichloropropane	ND	10	9.9	99		11	110		70-130	11		20
Dibromochloromethane	ND	10	11	110		11	110		63-130	0		20
1,1,2-Trichloroethane	ND	10	9.8	98		9.5	95		70-130	3		20
Tetrachloroethene	ND	10	10	100		10	100		70-130	0		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		10	100		62-150	10		20
1,2-Dichloroethane	ND	10	9.7	97		9.8	98		70-130	1		20
1,1,1-Trichloroethane	9.2	10	20	108		20	108		67-130	0		20
Bromodichloromethane	ND	10	10	100		11	110		67-130	10		20
trans-1,3-Dichloropropene	ND	10	8.4	84		8.3	83		70-130	1		20
cis-1,3-Dichloropropene	ND	10	8.5	85		8.6	86		70-130	1		20
1,1-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
Bromoform	ND	10	8.9	89		9.1	91		54-136	2		20
1,1,2,2-Tetrachloroethane	ND	10	8.8	88		8.9	89		67-130	1		20
Benzene	ND	10	10	100		10	100		70-130	0		20
Toluene	ND	10	10	100		9.7	97		70-130	3		20
Ethylbenzene	ND	10	9.9	99		9.8	98		70-130	1		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG895946-6 WG895946-7 QC Sample: L1614149-01 Client ID: MW-18SR												
Chloromethane	ND	10	8.7	87		8.8	88		64-130	1		20
Bromomethane	ND	10	4.4	43		5.5	54		39-139	22	Q	20
Vinyl chloride	ND	10	11	110		11	110		55-140	0		20
Chloroethane	ND	10	12	120		12	120		55-138	0		20
1,1-Dichloroethene	5.0	10	16	110		15	100		61-145	6		20
trans-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Trichloroethene	ND	10	10	100		10	100		70-130	0		20
1,2-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		9.9	99		70-130	1		20
Methyl tert butyl ether	ND	10	10	100		10	100		63-130	0		20
p/m-Xylene	ND	20	21	105		19	95		70-130	10		20
o-Xylene	ND	20	21	105		19	95		70-130	10		20
cis-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Dibromomethane	ND	10	10	100		11	110		70-130	10		20
1,2,3-Trichloropropane	ND	10	9.3	93		8.8	88		64-130	6		20
Acrylonitrile	ND	10	9.8	98		9.7	97		70-130	1		20
Isopropyl Ether	ND	10	9.6	96		9.1	91		70-130	5		20
tert-Butyl Alcohol	ND	10	53	106		54	108		70-130	2		20
Styrene	ND	20	20	100		20	100		70-130	0		20
Dichlorodifluoromethane	ND	10	8.9	89		8.6	86		36-147	3		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG895946-6 WG895946-7 QC Sample: L1614149-01 Client ID: MW-18SR												
Acetone	ND	10	9.4	85		9.5	86		58-148	1		20
Carbon disulfide	ND	10	11	110		10	100		51-130	10		20
2-Butanone	ND	10	8.2	82		8.5	85		63-138	4		20
Vinyl acetate	ND	10	8.5	85		8.0	80		70-130	6		20
4-Methyl-2-pentanone	ND	10	9.8	98		9.7	97		59-130	1		20
2-Hexanone	ND	10	8.5	85		8.4	84		57-130	1		20
Acrolein	ND	10	8.6	86		8.2	82		40-160	5		20
Bromochloromethane	ND	10	11	110		11	110		70-130	0		20
2,2-Dichloropropane	ND	10	9.0	90		8.8	88		63-133	2		20
1,2-Dibromoethane	ND	10	10	100		10	100		70-130	0		20
1,3-Dichloropropane	ND	10	9.9	99		9.6	96		70-130	3		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		11	110		64-130	0		20
Bromobenzene	ND	10	10	100		10	100		70-130	0		20
n-Butylbenzene	ND	10	9.2	92		9.1	91		53-136	1		20
sec-Butylbenzene	ND	10	9.7	97		9.6	96		70-130	1		20
tert-Butylbenzene	ND	10	9.0	90		8.9	89		70-130	1		20
o-Chlorotoluene	ND	10	9.4	94		9.5	95		70-130	1		20
p-Chlorotoluene	ND	10	9.5	95		9.4	94		70-130	1		20
1,2-Dibromo-3-chloropropane	ND	10	8.8	88		9.5	95		41-144	8		20
Hexachlorobutadiene	ND	10	11	110		11	110		63-130	0		20
Isopropylbenzene	ND	10	10	100		10	100		70-130	0		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD Qual	RPD Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG895946-6 WG895946-7 QC Sample: L1614149-01 Client ID: MW-18SR												
p-Isopropyltoluene	ND	10	9.5	95		9.4	94		70-130	1		20
Naphthalene	ND	10	6.3	63	Q	8.6	86		70-130	31	Q	20
n-Propylbenzene	ND	10	9.4	94		9.2	92		69-130	2		20
1,2,3-Trichlorobenzene	ND	10	6.6	66	Q	10	100		70-130	41	Q	20
1,2,4-Trichlorobenzene	ND	10	8.8	88		9.9	99		70-130	12		20
1,3,5-Trimethylbenzene	ND	10	10	100		9.8	98		64-130	2		20
1,2,4-Trimethylbenzene	ND	10	10	100		9.9	99		70-130	1		20
Methyl Acetate	ND	10	8.4	84		8.0	80		70-130	5		20
Ethyl Acetate	ND	10	8.7J	87		8.9J	89		70-130	2		20
Cyclohexane	ND	10	8.9J	89		8.2J	82		70-130	8		20
Ethyl-Tert-Butyl-Ether	ND	10	10	100		9.6	96		70-130	4		20
Tertiary-Amyl Methyl Ether	ND	10	8.6	86		8.9	89		66-130	3		20
1,4-Dioxane	ND	1000	550	110		570	114		56-162	4		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	10	100		9.7	97		70-130	3		20
p-Diethylbenzene	ND	10	9.2	92		9.1	91		70-130	1		20
p-Ethyltoluene	ND	10	10	100		9.8	98		70-130	2		20
1,2,4,5-Tetramethylbenzene	ND	10	8.9	89		9.1	91		70-130	2		20
Tetrahydrofuran	ND	10	9.9	99		10	100		58-130	1		20
Ethyl ether	ND	10	11	110		11	110		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	5.8	58	Q	6.0	60	Q	70-130	3		20
Iodomethane	ND	10	6.0	60	Q	6.9	69	Q	70-130	14		20

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD RPD	Qual Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG895946-6 WG895946-7 QC Sample: L1614149-01 Client ID: MW-18SR												
Methyl cyclohexane	ND	10	9.7J	97		9.4J	94		70-130	3		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		95		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	104		104		70-130
Toluene-d8	104		98		70-130

**PCBS**



Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-01  
 Client ID: MW-18SR  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/16/16 00:56  
 Analyst: JW

Date Collected: 05/10/16 12:00  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-02  
 Client ID: MW-19SR  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 22:36  
 Analyst: JW

Date Collected: 05/10/16 09:15  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-03  
 Client ID: MW-24S  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 22:49  
 Analyst: JW

Date Collected: 05/10/16 15:55  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-04  
 Client ID: MW-26S  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 23:02  
 Analyst: JW

Date Collected: 05/10/16 08:25  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	57		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-05  
 Client ID: MW-34  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 23:16  
 Analyst: JW

Date Collected: 05/10/16 13:40  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	51		30-150	B

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-06  
Client ID: MW-35  
Sample Location: SENECA FALLS, NY  
Matrix: Water  
Analytical Method: 1,8082A  
Analytical Date: 05/15/16 23:31  
Analyst: JW

Date Collected: 05/10/16 10:30  
Date Received: 05/10/16  
Field Prep: Not Specified  
Extraction Method: EPA 3510C  
Extraction Date: 05/14/16 13:16  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/15/16  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-07  
 Client ID: MW-36  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 23:45  
 Analyst: JW

Date Collected: 05/10/16 10:05  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-08  
 Client ID: TW/BRW-01R  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/15/16 23:59  
 Analyst: JW

Date Collected: 05/10/16 17:00  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-09  
 Client ID: TW/BRW-01S  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/16/16 00:14  
 Analyst: JW

Date Collected: 05/10/16 12:50  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	0.650		ug/l	0.083	0.034	1	B
Aroclor 1260	0.272		ug/l	0.083	0.032	1	B
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	0.922		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-10  
 Client ID: DUPLICATE  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/16/16 00:28  
 Analyst: JW

Date Collected: 05/10/16 00:00  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	59		30-150	B

Project Name: GOULDS COBALT

Lab Number: L1614149

Project Number: 01257CBT.2016

Report Date: 05/23/16

**SAMPLE RESULTS**

Lab ID: L1614149-11  
 Client ID: FIELD BLANK  
 Sample Location: SENECA FALLS, NY  
 Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 05/16/16 00:42  
 Analyst: JW

Date Collected: 05/10/16 14:10  
 Date Received: 05/10/16  
 Field Prep: Not Specified  
 Extraction Method: EPA 3510C  
 Extraction Date: 05/14/16 13:17  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 05/15/16  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.083	0.055	1	A
Aroclor 1221	ND		ug/l	0.083	0.053	1	A
Aroclor 1232	ND		ug/l	0.083	0.031	1	A
Aroclor 1242	ND		ug/l	0.083	0.060	1	A
Aroclor 1248	ND		ug/l	0.083	0.051	1	A
Aroclor 1254	ND		ug/l	0.083	0.034	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.029	1	A
Aroclor 1268	ND		ug/l	0.083	0.038	1	A
PCBs, Total	ND		ug/l	0.083	0.029	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	36		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	38		30-150	B

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A  
Analytical Date: 05/16/16 01:39  
Analyst: JW

Extraction Method: EPA 3510C  
Extraction Date: 05/14/16 13:16  
Cleanup Method: EPA 3665A  
Cleanup Date: 05/15/16  
Cleanup Method: EPA 3660B  
Cleanup Date: 05/15/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s):	01-11			Batch:	WG894032-1	
Aroclor 1016	ND		ug/l	0.083	0.055	A
Aroclor 1221	ND		ug/l	0.083	0.053	A
Aroclor 1232	ND		ug/l	0.083	0.031	A
Aroclor 1242	ND		ug/l	0.083	0.060	A
Aroclor 1248	ND		ug/l	0.083	0.051	A
Aroclor 1254	ND		ug/l	0.083	0.034	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.029	A
Aroclor 1268	ND		ug/l	0.083	0.038	A
PCBs, Total	ND		ug/l	0.083	0.029	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	75		30-150	B

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG894032-4 WG894032-5 QC Sample: L1614149-01 Client ID: MW-18SR													
Aroclor 1016	ND	2.6	2.09	80		2.12	81		40-140	1		50	A
Aroclor 1260	ND	2.6	2.30	88		2.30	88		40-140	0		50	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		60		30-150	A
Decachlorobiphenyl	61		63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		63		30-150	B
Decachlorobiphenyl	65		67		30-150	B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Parameter</b>	<i>LCS</i>	<i>LCSD</i>	%Recovery		%Recovery	<i>RPD</i>	<i>Qual</i>	<i>RPD</i>	<i>Column</i>
	%Recovery	Qual	%Recovery	Qual	Limits			Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG894032-2 WG894032-3									
Aroclor 1016	78		87		40-140	11		50	A
Aroclor 1260	89		93		40-140	5		50	A

<b>Surrogate</b>	<i>LCS</i>	<i>LCSD</i>			<i>Acceptance</i>	<i>Column</i>
	%Recovery	Qual	%Recovery	Qual	Criteria	
2,4,5,6-Tetrachloro-m-xylene	46		53		30-150	A
Decachlorobiphenyl	69		70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		54		30-150	B
Decachlorobiphenyl	77		77		30-150	B

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

#### Cooler Information Custody Seal

##### Cooler

A	Absent
B	Absent
C	Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1614149-01A	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01A1	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01A2	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01B	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01B1	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01B2	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01C	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01C1	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01C2	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-01D	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-01D1	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-01D2	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-01E	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-01E1	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-01E2	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-02A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-02B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-02C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-02D	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-02E	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-03A	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-03B	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-03C	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-03D	Amber 1000ml unpreserved	B	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-03E	Amber 1000ml unpreserved	B	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-04A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-04B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1614149-04C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-04D	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-04E	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-05A	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-05B	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-05C	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-05D	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-05E	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-06A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-06B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-06C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-06D	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-06E	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-07A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-07B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-07C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-07D	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-07E	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-08A	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-08B	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-08C	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-08D	Amber 1000ml unpreserved	B	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-08E	Amber 1000ml unpreserved	B	7	3.8	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-09A	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-09B	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-09C	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-09D	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-09E	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-10A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-10B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-10C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1614149-10D	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-10E	Amber 1000ml unpreserved	A	7	3.7	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-11A	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-11B	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1614149-11C	Vial HCl preserved	C	N/A	4.3	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT  
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**Lab Number:** L1614149  
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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1614149-11D	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-11E	Amber 1000ml unpreserved	C	7	4.3	Y	Absent	NYTCL-8082-1200ML(7)
L1614149-12A	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)
L1614149-12B	Vial HCl preserved	B	N/A	3.8	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

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## GLOSSARY

### **Acronyms**

- 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).
- 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.
- 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.
- 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.
- 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.
- 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**

- 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**

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.

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.

### **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).

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT  
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**Data Qualifiers**

- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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 exceedances 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.
- 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).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

## 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 its 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

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

**Westborough Facility**

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amyl methyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
EPA 1010A: NPW: Ignitability  
EPA 6010C: NPW: Strontium; SCM: Strontium  
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
EPA 9038: NPW: Sulfate  
EPA 9050A: NPW: Specific Conductance  
EPA 9056: NPW: Chloride, Nitrate, Sulfate  
EPA 9065: NPW: Phenols  
EPA 9251: NPW: Chloride  
SM3500: NPW: Ferrous Iron  
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
SM5310C: DW: Dissolved Organic Carbon

**Mansfield Facility**

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane  
SM 2540D: TSS  
SM2540G: SCM: Percent Solids  
EPA 1631E: SCM: Mercury  
EPA 7474: SCM: Mercury  
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.  
EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.  
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.  
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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A**: Lead; **8270D**: bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

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The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

**Drinking Water**

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1**: Mercury;  
EPA 300.0: 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**  
EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT**.

**Non-Potable Water**

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;  
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;  
EPA 245.1, **SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1**: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, **SM4500NO3-F**,  
EPA 353.2: Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D**.  
EPA 624: Volatile Halocarbons & Aromatics,  
EPA 608: 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: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.  
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

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



 <p><b>NEW YORK CHAIN OF CUSTODY</b></p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>		<b>Service Centers</b>		Page 1 of 2		<b>Date Rec'd in Lab</b>		<b>ALPHA Job #</b>	
						5/10/16		L1614149	
<b>Client Information</b> <p>Client: Arcadis U.S. Inc.</p> <p>Address: 855 Rt. 146</p> <p>Clifton Park, N.Y.</p> <p>Phone: 518-250-7325</p> <p>Fax:</p> <p>Email: elias.moskal@arcadis.com</p>		<b>Project Information</b> <p>Project Name: Goulds Cobalt</p> <p>Project Location: Seneca Falls NY</p> <p>Project # 01257CBT.2016</p> <p>(Use Project name as Project #) <input checked="" type="checkbox"/></p>				<b>Deliverables</b> <p><input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B</p> <p><input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File)</p> <p><input checked="" type="checkbox"/> Other</p>		<b>Billing Information</b> <p><input checked="" type="checkbox"/> Same as Client Info</p> <p>PO #</p>	
<p>Turn-Around Time</p> <p>Standard <input checked="" type="checkbox"/></p> <p>Rush (only if pre approved) <input type="checkbox"/></p>		Due Date:		# of Days:		<b>Regulatory Requirement</b> <p><input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375</p> <p><input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51</p> <p><input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other</p> <p><input type="checkbox"/> NY Unrestricted Use</p> <p><input type="checkbox"/> NYC Sewer Discharge</p>		<b>Disposal Site Information</b> <p><input type="checkbox"/> NJ <input type="checkbox"/> NY</p> <p><input type="checkbox"/> Other: NA</p>	
<p>These samples have been previously analyzed by Alpha <input type="checkbox"/></p> <p>Other project specific requirements/comments:</p> <p>Please specify Metals or TAL.</p>						<b>ANALYSIS</b> <p>TVL VOCs 8260+TICS</p> <p>PCBs 8082</p>		<b>Sample Filtration</b> <p><input type="checkbox"/> Done</p> <p><input type="checkbox"/> Lab to do</p> <p><b>Preservation</b></p> <p><input type="checkbox"/> Lab to do</p> <p>(Please Specify below)</p>	
								<p>Sample Specific Comments</p>	
<p>ALPHA Lab ID (Lab Use Only)</p> <p>14149 -01</p> <p>02</p> <p>03</p> <p>04</p> <p>05</p> <p>06</p> <p>07</p> <p>08</p> <p>09</p>	<p>Sample ID</p> <p>MW-18SR</p> <p>MW-19SR</p> <p>MW-24S</p> <p>MW-26S</p> <p>MW-34</p> <p>MW-35</p> <p>MW-36</p> <p>TW/BRW-01R</p> <p>TW/BRW-01S</p>	<b>Collection</b> <p>Date</p> <p>5/10/16</p>		<p>Sample Matrix</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p> <p>Water</p>	<p>Sampler's Initials</p> <p>MM</p> <p>AG</p> <p>MM</p> <p>MM</p> <p>MM</p> <p>AG</p> <p>MM</p> <p>AG</p> <p>AG</p>	<p>TVL VOCs 8260+TICS</p> <p>PCBs 8082</p>			
		<p>Time</p> <p>1200</p>							
<p>Preservative Code:</p> <p>A = None</p> <p>B = HCl</p> <p>C = HNO<sub>3</sub></p> <p>D = H<sub>2</sub>SO<sub>4</sub></p> <p>E = NaOH</p> <p>F = MeOH</p> <p>G = NaHSO<sub>4</sub></p> <p>H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub></p> <p>K/E = Zn Ac/NaOH</p> <p>O = Other</p>		<p>Container Code</p> <p>P = Plastic</p> <p>A = Amber Glass</p> <p>V = Vial</p> <p>G = Glass</p> <p>B = Bacteria Cup</p> <p>C = Cube</p> <p>O = Other</p> <p>E = Encore</p> <p>D = BOD Bottle</p>		<p>Westboro: Certification No: MA935</p> <p>Mansfield: Certification No: MA015</p>		<p>Container Type</p> <p>V A</p>		<p>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 &amp; CONDITIONS.</p>	
						<p>Preservative</p> <p>B A</p>			
<p>Relinquished By:</p> <p>Andrew Gibson</p>		<p>Date/Time</p> <p>5/10/16 1725</p>		<p>Received By:</p> <p>JM AL AAC</p>		<p>Date/Time</p> <p>5/10/16 17:30</p>			
<p>Form No: 01-25 (rev. 30-Sept-2013)</p>									

**ATTACHMENT 4 – DATA USABILITY SUMMARY REPORT – DATA VALIDATION SERVICES, INC.**

# Data Validation Services

120 Cobble Creek Road P.O. Box 208

North Creek, NY 12853

Phone 518-251-4429

[harry@frontiernet.net](mailto:harry@frontiernet.net)

June 16, 2016

Elias Moskal  
ARCADIS US, 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. L1614149

Dear Mr. Moskal:

Review has been completed for the data packages generated by Alpha Analytical that pertain to aqueous samples collected 05/10/16 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. Field and trip blanks 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 sample results are usable either as reported or with minor qualification/edit. The results for 1,4-dioxane are not usable due to poor response inherent in the analytical methodology. Data completeness, accuracy, precision, reproducibility, and comparability are acceptable.

The client and laboratory sample identifications is attached to this text. Also included in this report is 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**

Detected results for 1,2-dichloroethane and trichloroethene in TW/BRW-01S are edited to reflect non-detection, at elevated reporting limits, due to very poor, non-definitive mass spectral quality.

Sample surrogate and internal standard recoveries are within acceptance ranges. Blanks show no contamination affecting sample reported results.

Matrix spike accuracy and precision evaluations were performed on MW-18SR. Recoveries and duplicate correlations are within the laboratory ranges and limits, with the exception of one recovery (66%) and an elevated duplicate correlations (41%RPD) for 1,2,3-trichlorobenzene.

1,4-dioxane shows very low relative response ( $RRF < 0.01$ ) in the calibration standards. The results for that analyte in the samples, field blank, and trip blank are therefore rejected, and not usable. Other calibration standards show responses within the validation guidelines, with the following exception, results for which are qualified as estimated in the indicated samples: bromomethane (28%D) in MW-19SR, MW-24S, MW-26S, MW-36, TW/BRW-01R, TW/BRW-01S, DUPLICATE, TRIP BLANK, and FIELD BLANK

#### **TCL PCB Analyses by USEPA Method 8082A**

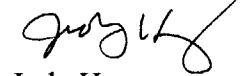
Matrix spike accuracy and precision evaluations were performed for Aroclor mixtures 1016 and 1260 on MW-18SR. Recoveries and duplicate correlations are within the recommended ranges and limits.

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

## **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**

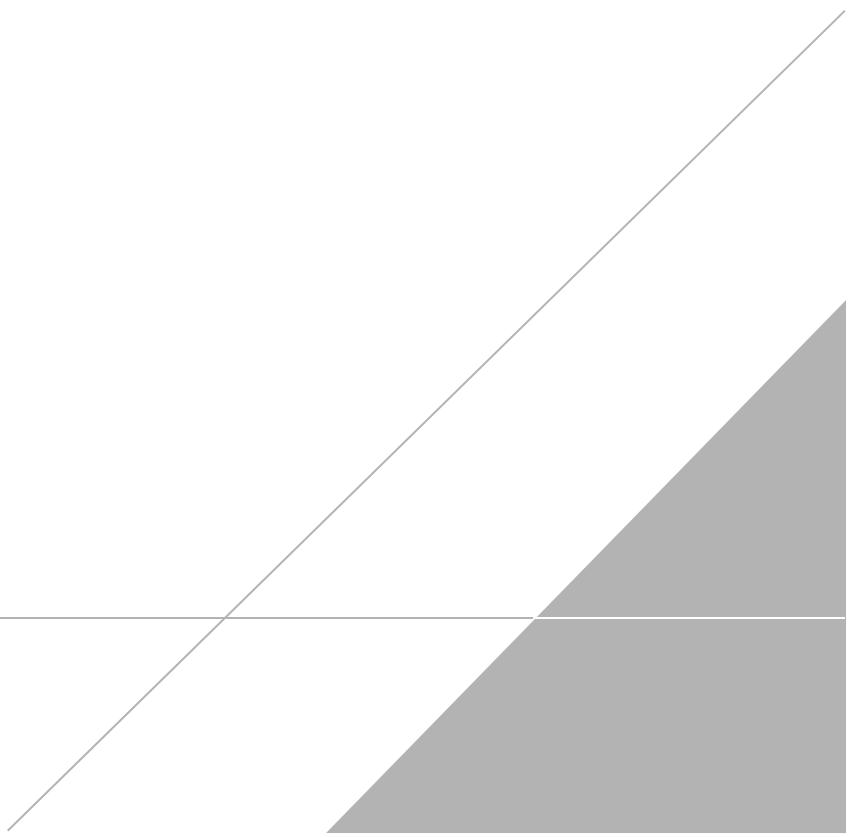
**Project Name:** GOULDS COBALT  
**Project Number:** 01257CBT.2016

**Lab Number:** L1614149  
**Report Date:** 05/23/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1614149-01	MW-18SR	WATER	SENECA FALLS, NY	05/10/16 12:00	05/10/16
L1614149-02	MW-19SR	WATER	SENECA FALLS, NY	05/10/16 09:15	05/10/16
L1614149-03	MW-24S	WATER	SENECA FALLS, NY	05/10/16 15:55	05/10/16
L1614149-04	MW-26S	WATER	SENECA FALLS, NY	05/10/16 08:25	05/10/16
L1614149-05	MW-34	WATER	SENECA FALLS, NY	05/10/16 13:40	05/10/16
L1614149-06	MW-35	WATER	SENECA FALLS, NY	05/10/16 10:30	05/10/16
L1614149-07	MW-36	WATER	SENECA FALLS, NY	05/10/16 10:05	05/10/16
L1614149-08	TW/BRW-01R	WATER	SENECA FALLS, NY	05/10/16 17:00	05/10/16
L1614149-09	TW/BRW-01S	WATER	SENECA FALLS, NY	05/10/16 12:50	05/10/16
L1614149-10	DUPLICATE	WATER	SENECA FALLS, NY	05/10/16 00:00	05/10/16
L1614149-11	FIELD BLANK	WATER	SENECA FALLS, NY	05/10/16 14:10	05/10/16
L1614149-12	TRIP BLANK	WATER	SENECA FALLS, NY	05/10/16 00:00	05/10/16

## **APPENDIX B**

### NYSDEC Certifications





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



Site No. C850012

**Site Details**

Box 1

Site Name **Goulds Pumps Cobalt Site**

Site Address: 240 Fall Street Zip Code: 13148  
City/Town: Seneca Falls  
County: Seneca  
Site Acreage: 11.4

Reporting Period: December 30, 2014 to May 31, 2016

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**

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

YES  NO

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**

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
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**

<u>Parcel</u>	<u>Engineering Control</u>
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).

**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 complete.

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

print name

ITT INC.

at 56 TECHNOLOGY DRIVE, IRVINE CA

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  
Signature of Owner, Remedial Party, or Designated Representative

Rendering Certification

6/27/16

Date

## **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.

Daniel J Lowenstein at 855 Route 146, Clifton Park, NY 12065  
print name print business address

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

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



6/29/16



Arcadis of New York, Inc.

855 Route 146

Suite 210

Clifton Park, New York 12065

Tel 518 250 7300

Fax 518 250 7301

[www.arcadis.com](http://www.arcadis.com)