

Prepared for:

CAPITAL CITY BANK
1301 Metropolitan Boulevard
Tallahassee, FL 32308

**VOLUNTARY REMEDIATION PROGRAM
PROGRESS REPORT
Grantville Mill
41 Industrial Way
Grantville, GA 30220**

Prepared by:



1050 Crown Pointe Parkway, Suite 550
Atlanta, Georgia 30338
Tel: 404-315-9113

January 2016

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A handwritten signature in blue ink, reading "Kirk J. Kessler", is positioned above a horizontal line.

Kirk J. Kessler
Principal

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PROFESSIONAL GEOLOGIST CERTIFICATION

"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Kirk Kessler GA000685

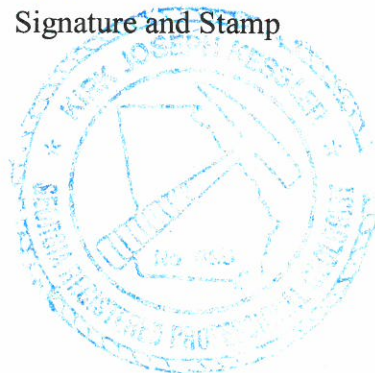
Printed Name and GA PE/PG Number

1/21/2016

Date

Kirk Kessler

Signature and Stamp



1 INTRODUCTION

1.1 Overview

This Voluntary Remediation Program (“VRP”) Progress Report is submitted on behalf of Capital City Bank (“CCB”) for the Grantville Mill site (“Site”) comprised of two parcels as listed on the Hazardous Site Inventory (“HSI”), Site Number 10912. The purpose of this Progress Report is to update the information submitted in the March 26, 2015 Voluntary Investigation and Remediation Plan (“VIRP”) (EPS, 2015), which was approved by the Georgia Environmental Protection Division (“GaEPD”) on July 22, 2015 (GaEPD, 2015). It includes activities completed through January 15, 2016, associated with groundwater monitoring and delineation for volatile organic compounds (“VOCs”) and activity to assess potential remedial action technologies.

Specifically, this Progress Report includes: 1) an update on the horizontal delineation of groundwater VOCs, 2) results of a comprehensive groundwater sampling event, 3) a description of preliminary steps to assess remedial action technology options, 4) an update to the Conceptual Site Model (“CSM”) and 5) discussion of the planned activities to be completed for the next Site progress report.

1.2 Site Location and Description

The CCB property (“Property”) is located in the City of Grantville, Georgia, Coweta County (Figure 1). The Property is listed as Coweta Country Parcel ID G050008008 and totals 13.48 acres (Figure 2), and has the physical address of 41 Industrial Way, Grantville, Georgia (Figure 2). The other parcel comprising HSI Site Number 10912, Coweta County Parcel ID G050008008A, is owned by Grantville Mill, LLC and was brought into the VRP as an additional qualifying property (Figure 2). The Site is approximately 0.2 miles northeast of the City of Grantville, GA.

The Property was first developed in the early 1900s as a cotton mill to make uniforms and canvas during World War I. The mill later became West Point Peppermill’s Grantville Mill, operating into the early 1980s when the mill was closed. Since that time, buildings within the facility have been leased to various companies. One of the tenants, Tropic Formals, Ltd., operated a formals clothing business in one of the former mill buildings, at the southwest portion of the mill complex, between 1980 and 1993. Tropic Formals was a RCRA listed handler of the VOC tetrachloroethene (“PCE”) until it changed its registration status to a non-waste generator on December 31, 1993. The Site is listed on the basis of a documented PCE release to groundwater. The building is now occupied by a wholesale book seller.

Properties bordering the Site are shown on Figure 2 and include:

- to the North - residences;
- to the Northeast - wooded vacant land (Grantville Mill LLC parcel);
- to the East - CSX rail line and Grantville City Cemetery;
- to the South and Southwest - residences; and
- to the West and Northwest – residences and a City park complex.

2 VRP PROJECT MANAGEMENT

2.1 Professional Geologist Oversight

This Progress Report includes a certification by Kirk Kessler, the Professional Geologist (“PG”) specified in the VRP application. Appendix A contains a monthly summary of hours invoiced by the PG.

2.2 Milestone Schedule

The milestone schedule is included in Appendix B.

3 RECENTLY COMPLETED ACTIVITIES

3.1 Overview

This section discusses activities conducted after the approval of the VIRP, including horizontal delineation of groundwater VOCs, results of a comprehensive groundwater sampling event and testing performed to assess potential remedial action technologies.

3.2 Expansion of Monitoring Well Network

Prior to acceptance of the Property into the VRP, a pre-existing network of on-Property and off-Property monitoring wells existed. Sampling of these monitoring wells in 2014 reported VOCs at all locations, primarily PCE and PCE degradation products, with some disinfection by-products (chloroform, bromodichloromethane) typical of chlorinated drinking water supplies. In response to this reporting, CCB has completed two expansions to the Site monitoring well network to delineate the horizontal expanse of groundwater VOCs.

The first expansion of the monitoring well network occurred on October 5th-7th, 2015, with installation of six monitoring wells, MW-7 to MW-12 (Figure 3). The wells were installed following standard practices with hollow stem auger drilling. Each boring was advanced to bedrock or refusal to ensure the well screen was adequately set within the saturated zone and sufficient groundwater was available for sample collection. Each well was completed with 10 feet (“ft”) of Schedule 40 PVC slotted screen and Schedule 40 PVC riser. The surface completion of each well comprised of 4-inch square protective-lockable casing.

A second expansion of the Site monitoring well network was completed on December 17th-18th, 2015 following a comprehensive groundwater sampling event of all Site monitoring wells (Section 3.3). The second expansion comprised of three additional monitoring wells, MW-13 to MW-15, and were installed on the Grantville Mill LLC property north of the alleged VOC release area (Figure 3). Each well boring was advanced until sufficient groundwater was encountered to ensure placement of the well screen within the saturated zone, typically coinciding with drill refusal. Each well was installed following standard practices and completed as described previously.

Boring logs for the expanded monitoring well network are provided in Appendix C.

3.3 Groundwater Assessment

Following the first expansion of the monitoring well network (MW-7 to MW-12), a comprehensive groundwater sampling event was performed on November 2-4, 2015 for all Site monitoring wells. A second groundwater sampling event was performed on January 12, 2015 following the second well network expansion (MW-13 to MW-15). Each well was sampled following low-flow/low stress purging and sampling protocols to reflect the mobile or dissolved organic constituents

transported in the subsurface under ambient conditions and prevent alteration of the groundwater condition from sampling operations. Field forms are provided in Appendix D. All wells were tested for TCL Volatile Organics (SW8260B) and a subset of wells were sampled and assessed for Monitored Natural Attenuation (“MNA”) parameters. Laboratory analytical reports are provided in Appendix E

3.3.1 Groundwater Results

Five VOCs were reported in groundwater for the November 2015 sampling including: PCE, trichloroethene (“TCE”), cis-1,2-dichloroethene (“cis-DCE”), Freon-11 and chloroform. The occurrence and concentration of each constituent are provided on Table 1 and illustrated on Figure 4. PCE was reported highest in MW-5 at 7,600 micrograms per liter (“µg/L”), located near the alleged PCE release area and consistent with the highest reported concentration from prior groundwater assessment. PCE was also reported in four down-gradient wells, MW-6 (1,600 µg/L), MW-8 (5,100 µg/L), MW-14 (510 µg/L) and MW-2 (39 µg/L). Two PCE degradation products were reported in MW-8, TCE at 67 µg/L and cis-DCE at 85 µg/L.

Freon-11 is reported in MW-2 at 31 µg/L and is well below the Type 1 Risk Reduction Standard (“RRS”) of 2000 µg/L (*i.e.* the delineation criterion) and this represent the only detection of Freon-11 in the monitoring well network. Chloroform is only reported in off-Property well MW-1 at 25 µg/L. No other VOC is reported in MW-1 and chloroform is not a PCE degradation product. Chloroform is a groundwater contaminant common to areas serviced with a chlorinated drinking water supply due to intentional (*e.g.*, irrigation) or inadvertent discharge (*e.g.*, leaky water distribution or wastewater sewer lines). It is not related to the Site contamination and indeed, Site-related VOC are not present at the MW-1 location.

3.3.2 VOC Horizontal Delineation Status

The results of the November 2015 groundwater sampling event delineate PCE and PCE degradation products to the south (MW-3), to the north (MW-12 and MW-13), and to the east (MW-4, MW-9, MW-10, MW-11) (Figure 4). Delineation along the western edge of the groundwater plume is reasonably well bounded by MW-7, MW-15 and MW-13. The CSM, in particular the update to Site groundwater flow (and area topography) supports the western edge delineation status, with VOC groundwater transport expected to continue to the northeast and away from this line of monitoring wells reporting non-detect for VOCs¹.

3.3.3 VOC Vertical Delineation Status

Vertical delineation of groundwater VOCs is assessed with well pair MW-5/MW-5D, located in the vicinity of the presumed VOC release area. The November 2015 sampling reported 7,500 µg/L in MW-5 (shallow well), and reported non-detect for all VOCs in the deeper MW-5D, which was sampled twice during the November 2015 sampling event. MW-5D was sampled on November 2, 2015 during an initial purge event that resulted in excessive drawdown of the water level and

¹ Further interaction and discussion with EPD of the status of the western border delineation may be warranted.

again on November 3, 2015 after allowing for post-purge recharge. Boring log data indicates the screened section of MW-5D, set at approximately 50-60 feet below ground surface (“ft-bgs”), is below a hard geologic stratum layer encountered at 46 ft-bgs, potentially acting as an aquitard from the surficial groundwater zone that reports an elevated PCE condition.

3.4 Evaluation of Remedial Options

3.4.1 Preliminary Remediation Plan

The VIRP outlined three preliminary remediation technologies – MNA, *in situ* bioremediation, and *in situ* chemical oxidation (“ISCO”) – as feasible options to address groundwater VOCs based on detected COC properties and Site-specific conditions. Site-specific testing to assess all three remedial technologies is complete or currently in an active testing phase. A summary or status of each remedial technology evaluation is provided below.

3.4.2 MNA

Assessment of MNA potential was performed during the November 2015 groundwater sampling event with collection of geochemical indicator parameters and groundwater constituent parameters (Table 2). The combined assessment of geochemical and groundwater constituent parameters provide complimentary lines of evidence as to the intrinsic capacity of the Site aquifer to support microbial degradation of VOCs (*i.e.* reductive dechlorination). The overall finding is limited support for intrinsic degradation with groundwater reporting an absence of organic carbon, a necessary precursor to support microbial population growth and support anaerobic conditions (*i.e.* a requirement for intrinsic reductive dechlorination). Groundwater was found to be aerobic and oxidizing exhibiting a dissolved oxygen (“DO”) range of 2.83 mg/L to 6.95 mg/L, and an oxidation-reduction potential (“ORP”) range of 246 millivolts (“mV”) to 416 mV. In groundwater supportive of intrinsic reductive dechlorination DO is typically less than 0.5 mg/L and the ORP is typically less than 50 mV. Site groundwater pH in general is at the low side (*i.e.* 5 pH) of the range considered ideal for intrinsic microbial degradation. Groundwater constituent parameters support the geochemical interpretation, with a general absence of constituents (*e.g.* ethane, ethene, methane, ferrous iron and sulfide) typically reported for Sites in which anaerobic conditions occur and VOC reductive dechlorination is observed.

3.4.3 *In Situ* Bioremediation

A treatability study to assess enhanced *in situ* bioremediation was initiated on November 4, 2015 with placement of a Bio-Trap® sampler in MW-5 (MW-5 exhibits the highest Site PCE concentration). The sampler will assess the feasibility to stimulate or enhance *in situ* bioremediation through addition of an organic carbon source (*i.e.* biostimulation) and a microbial strain known to completely degrade PCE to a non-toxic end product (*i.e.* bioaugmentation). Retrieval and sampling of the Bio-Trap® sampler was performed on January 12, 2016, with a preliminary report of *in situ* bioremediation feasibility to be provided in the next Progress Report.

3.4.4 ISCO

Assessment of Site-specific conditions for ISCO was performed by collection of soil and testing for permanganate Natural Oxidant Demand (“NOD”). Knowledge of NOD is required for assessing ISCO feasibility and establishing full-scale design parameters. Two soil samples were collected during installation of groundwater monitoring wells near the alleged release point, one at MW-7 from 18-23 ft-bgs and one at MW-9 from 20-25 ft-bgs. The results of the NOD analysis found no demand for the oxidant permanganate (Appendix F), indicating Site conditions are favorable for ISCO as little to no background oxidant demand would consume injected oxidant, thus reducing implementation efforts and cost.

4 PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD

4.1 On-Property Activities

4.1.1 Vapor Intrusion Assessment

Sub slab vapor and indoor air will be assessed for the occupied portion of the building near the suspected release area. Indoor air vapor intrusion will be assessed following US EPA guidance by collecting a time-integrated sample (8-hour) to test for exposure and potential COC concentrations. Sub slab vapor will be assessed with a grab samples. Sampling and testing will be performed following US EPA method TO-15.

4.1.2 Release Area Soil Assessment

Soil sampling will be performed in the area of the former Tropics Formals. This will involve sampling on a uniform grid (as shown on Figure 12 of the VIRP), involving locations within and outside the former Tropical Formals building subject to accessibility. Soil will be sampled using a direct-push drilling rig and will consist of sampling at prescribed depths of 1 and 4 ft-bgs, with additional samples collected as warranted based upon elevated photoionization detector readings.

4.2 Off-Property Vapor Intrusion Assessment

A request to test indoor air for VOCs has been made with the nearest residence to the PCE release area (residence to the northwest of MW-6). This property exhibits the greatest potential for off-Site vapor intrusion. If testing of this off-Site property does not report risk from vapor intrusion, it is unlikely any additional properties along the western plume edge will exhibit potential risk from the groundwater plume.

Indoor air vapor intrusion will be assessed following US EPA guidance by collecting a time-integrated sample (24-hour) to test for exposure and potential COC concentrations. Sampling and testing will be performed following US EPS method TO-15.

5 UPDATES TO THE PRELIMINARY CONCEPTUAL SITE MODEL (CSM)

5.1 Overview

The CSM is intended to establish a common knowledge base about the Site and its environmental condition to facilitate the development of remedial action objectives, and to allow an informed decision regarding possible remedial action measures. For the VIRP application, sufficient information for the Site was available from past investigations and the scientific literature to develop a CSM that presented: (i) the surface and subsurface features at the Site, (ii) the nature and extent of the environmental condition, (iii) fate and transport characteristics of chemicals of potential concern (“COPC”) at the Site, and (iv) potential receptors and exposure pathways. This update to the CSM refines the hydrogeologic model for the site, the horizontal extent of VOCs, the COPC for the Site and potential receptor and exposure pathways.

5.2 Groundwater Direction and Flow Velocity

An update to the hydrogeologic model has been performed to improve assessment of groundwater flow direction and velocity. All existing and new monitoring wells were surveyed by a registered land surveyor to an established datum (*i.e.* mean sea level). Groundwater depths at each monitoring well were assessed and a potentiometric surface map for the Site was developed for the overburden. As illustrated on Figure 5, groundwater from the suspected release area flows northeast approximately 400 ft, before turning more northerly, consistent with Site topography. Groundwater flow is expected to continue in a northerly direction beyond MW-2 following the axis of the valley floor.

Depth to groundwater ranged from 5.53 ft-bgs (MW-15) to 26.51 ft-bgs (MW-7) bgs. The hydraulic gradient calculated for the January 2016 gauging event is approximately 0.033 ft/ft, comparable to the hydraulic gradient presented in the VIRP (0.035 ft/ft). As such, the groundwater velocity presented in the VIRP (150 ft/year) is considered representative of the Site.

5.3 Hydrogeologic Cross-section

Figure 6 is an updated hydrogeologic cross section oriented from south to north along the direction of groundwater flow across the Site (cross section line shown on Figure 3). Monitoring well installation details (*i.e.* screened intervals) and VOC detections are shown on the cross section. In general, PCE concentrations down-gradient of the assumed release area trend higher in monitoring wells set at the base of the overburden in the partially weathered rock zone (*e.g.*, MW-8 and MW-14), with nearby shallower wells exhibiting lesser concentrations (*e.g.*, MW-6 and MW-2).

5.4 Compliance Status of Regulated Constituents

Thus far, the only environmental media sampled at the Site is groundwater. Past sampling detected six constituents regulated under Georgia's HSRA in groundwater at the Site: (i) PCE, (ii) TCE, (iii) cis-DCE, (iv) Freon-11, (v) chloroform, and (vi) bromodichloromethane. Sampling performed in 2015 confirmed the occurrence five of the six regulated substances, with bromodichloromethane not detected in 2015.

5.5 Groundwater COPC for the Site

The VIRP recognized a single COPC, that being PCE, based on groundwater data available at the time, as it was the only VOC to exceed its Type 1 RRS. The list of groundwater COPC is expanded for this submission based upon the additional groundwater monitoring and investigation performed in 2015 and comparison of the data for the Site Type 1 RRS, which is also used as the groundwater delineation benchmark. Type I RRS were derived and presented in Appendix D of the VIRP (EPS, 2015).

Groundwater constituents TCE and cis-DCE are added to the list of COPC for the site. TCE was reported in MW-8 at 67 µg/L, above the Type 1 RRS of 5 µg/L; cis-DCE was reported in MW-8 at 85 µg/L, above the Type 1 RRS of 70 µg/L.

5.6 Potential Receptors and Exposure Pathways

5.6.1 On-Site Receptors and Exposure Pathways

The receptors and exposure pathways presented in the VIRP are conserved for this submission. Assessment of the vapor intrusion pathway, the pathway considered most likely to permit exposure under current Site use, will be assessed for the occupied portion of the Site before the next reporting period.

5.6.2 Off-Site Receptors and Exposure Pathways

As presented in the VIRP, the primary potential exposure pathway for off-Site receptors is for VOC vapor intrusion as no drinking water supply wells have been located for the presumed down-gradient plume area. The results of the 2015 groundwater sampling, which reported higher VOC concentrations than previously found, indicate the potential for off-Site vapor intrusion. Accordingly, plans to assess the nearest off-site property is ongoing and will be performed prior to the next reporting period if access is granted to the residence.

6 REFERENCES

GaEPD (2015). HSI Site Number 10912, Voluntary Investigation and Remediation Plan Approval Letter, Dated July 22, 2015.

EPS (2015). Voluntary Investigation and Remediation Plan, Grantville Mill, Grantville, Georgia. March 26, 2015.

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TABLES

Summary of Groundwater VOC Data

[illegible]

Units: µg/L
--: Non-detect

Table 1
Summary of Groundwater VOC Data

	Cyclohexane	Dibromochloromethane	Dichlorobromomethane	Dichloromethane	Ethyl benzene	Freon-11	Freon-113	Freon-12	Isopropylbenzene	m&p-Xylene	Methyl tertbutyl ether (MTBE)	o-Xylene	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Vinyl chloride
MW-1																			
04/18/14	--	--	0.42	--	--	--	--	--	--	--	--	--	--	3.9	--	--	--	--	--
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2																			
04/18/14	--	--	--	--	11.3	--	--	--	--	--	--	--	--	28.7	--	--	3.3	--	--
11/03/15	--	--	--	--	31	--	--	--	--	--	--	--	--	39	--	--	--	--	--
MW-3																			
05/22/14	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3	--	--	--	--	--
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4																			
04/18/14	--	--	1.5	--	--	--	--	--	--	--	--	--	--	11.8	--	--	--	--	--
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5																			
04/18/14	--	--	--	--	--	--	--	--	--	--	--	--	--	598	--	--	--	--	--
11/04/15	--	--	--	--	--	--	--	--	--	--	--	--	--	7,600	--	--	--	--	--
MW-5D																			
05/22/14	--	--	--	--	--	--	--	--	--	--	--	--	--	9.8	--	--	6.9	--	--
06/30/14	--	--	--	--	--	--	--	--	--	--	--	--	--	0.79	--	--	3.7	--	--
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6																			
05/22/14	--	--	--	--	--	--	--	--	--	--	--	--	--	379	--	--	--	--	--
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	1,600	--	--	--	--	--
MW-7																			
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8																			
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	5,100	--	--	67	--	--
MW-9																			
11/03/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10																			
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11																			
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12																			
11/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13																			
01/12/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14																			
01/12/16	--	--	--	--	--	--	--	--	--	--	--	--	--	510	--	--	--	--	--
MW-15																			
01/12/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Units: µg/L
--: Non-detect

Table 2
MNA Assessment Parameters

Parameter	Units	MW-2	MW-3	MW-4	MW-5	MW-6	MW-9	MW-12
Alkalinity	mg/L	24	22	13	23	25	13	--
Conductivity, field	mS/cm	0.142	0.058	0.126	0.090	0.104	0.058	0.025
Dissolved Oxygen, field	mg/L	6.7	6.7	6.0	7.0	4.4	6.7	2.8
Eh, field	mV	246	416	308	274	302	227	333
Ethane	µg/L	--	--	--	--	--	--	--
Ethene	µg/L	--	--	--	--	--	--	--
Ferrous Iron, field	mg/L	--	--	--	--	--	--	--
Methane	µg/L	36	--	--	--	--	--	--
Nitrogen	mg/L	0.57	0.57	1.29	2.96	1.29	0.87	0.47
pH, field	pH	5.3	4.8	4.7	5.6	4.5	4.7	5.9
Sulfate	mg/L	24	35	33	--	2.7	14	--
Sulfide	mg/L	--	--	--	--	--	--	--
Temperature, field	C	18.6	22.3	18.5	18.9	18.7	19.1	17.4
Total Organic Carbon (TOC)	mg/L	--	--	--	--	--	--	--

--: Non-detect

µg/L: micrograms per Liter

mg/L: milligrams per Liter

mV: millivolts

ms/cm: milliSiemens percentimeter

C: Celsius

FIGURES

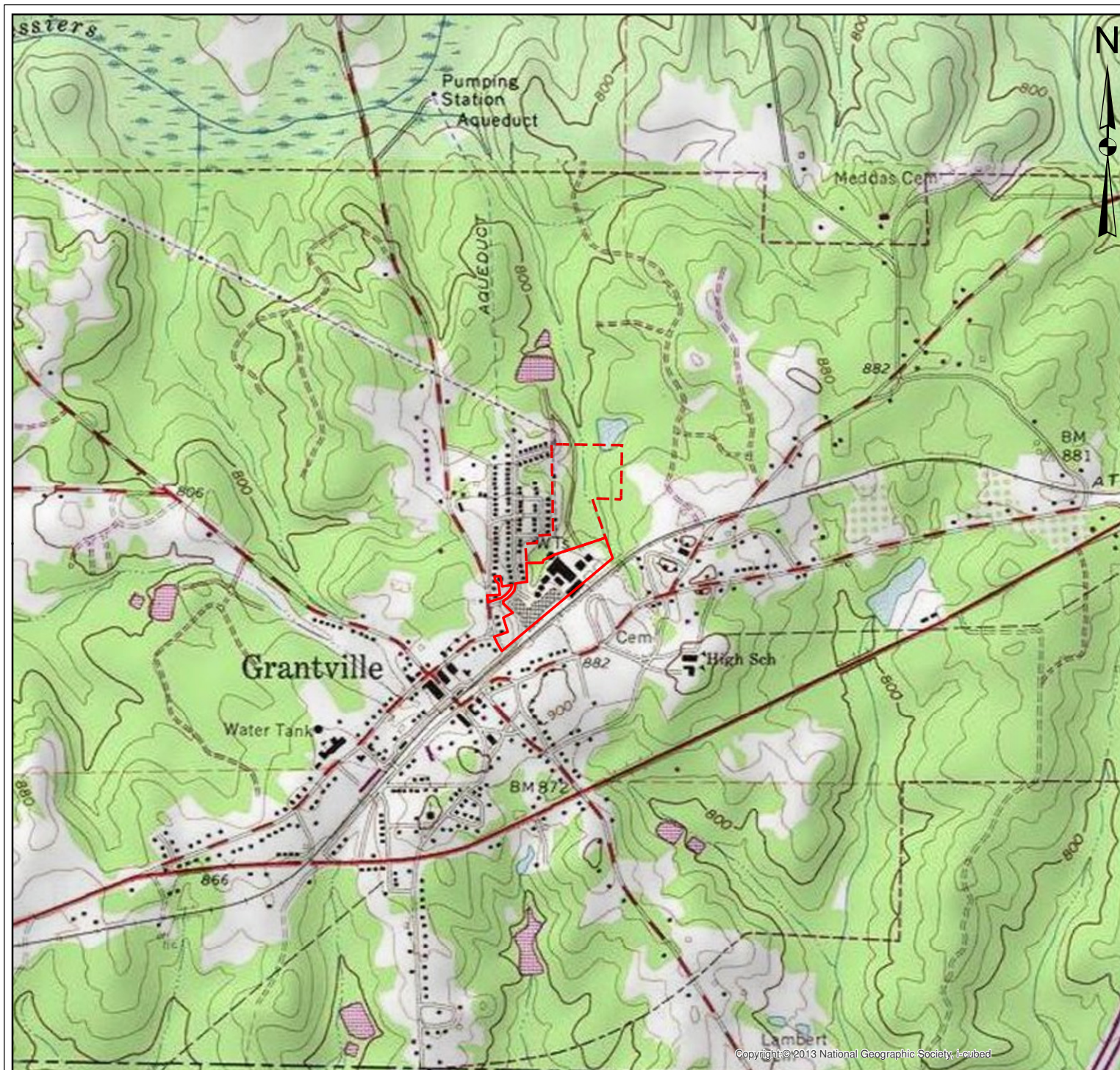


Figure 1
Site Location

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts Site Location and regional topographic features.

Notes

Data obtained from the U.S. Geologic Society.

Legend

- Capital City Bank Parcel
- Grantville Mill LLC Parcel

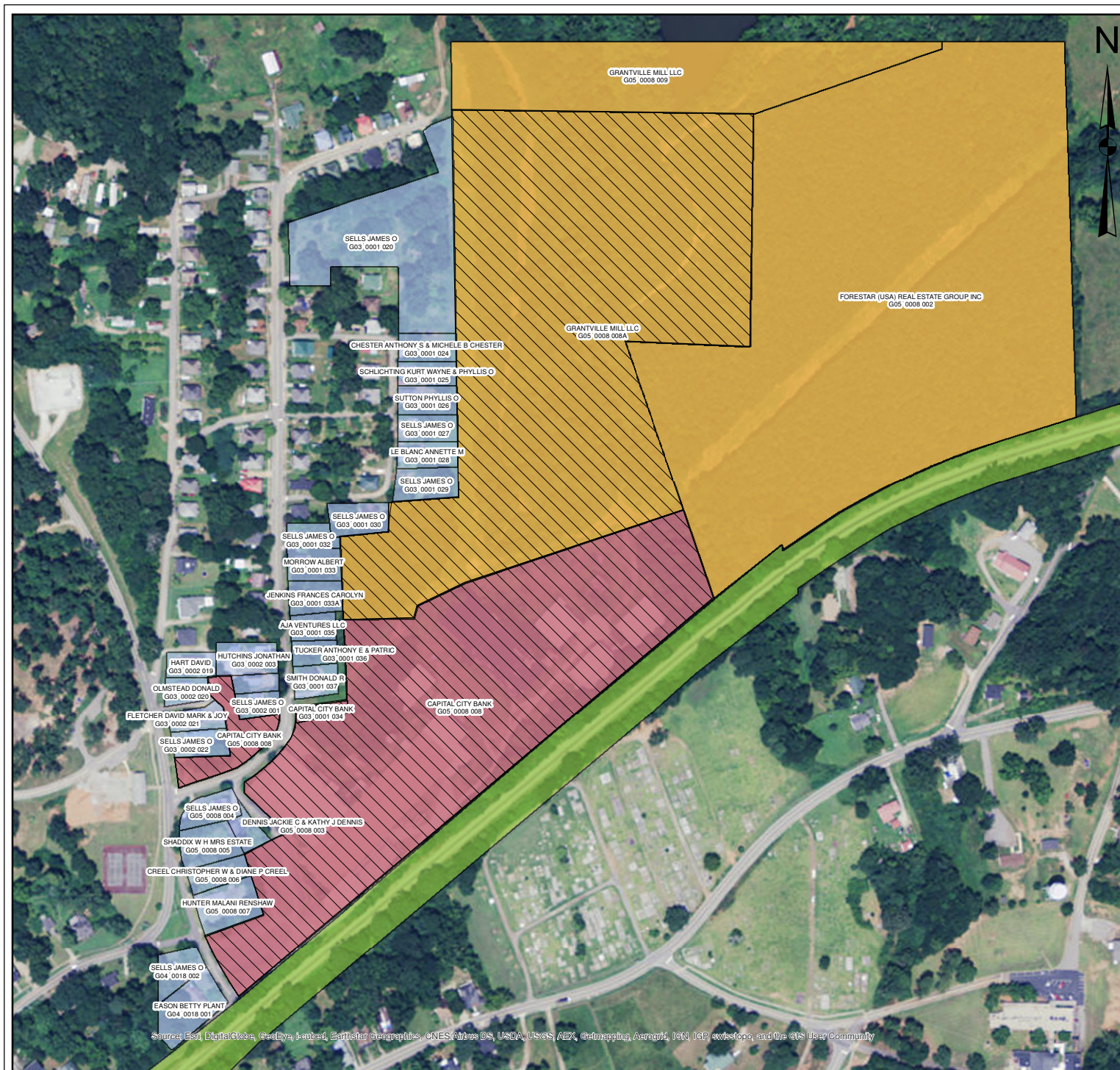


Figure 2
VRP Properties, Adjacent Land
Use and Ownership

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts land parcel ownership, parcel number, and land use of abutting properties to the Site.

Notes

Data obtained from the Coweta County Geographic Information System.

Legend

Land Use

- Forested/Unoccupied
- Commercial/Industrial
- Residential
- Rail Road

VRP Property Status

- VRP Enrolled Property

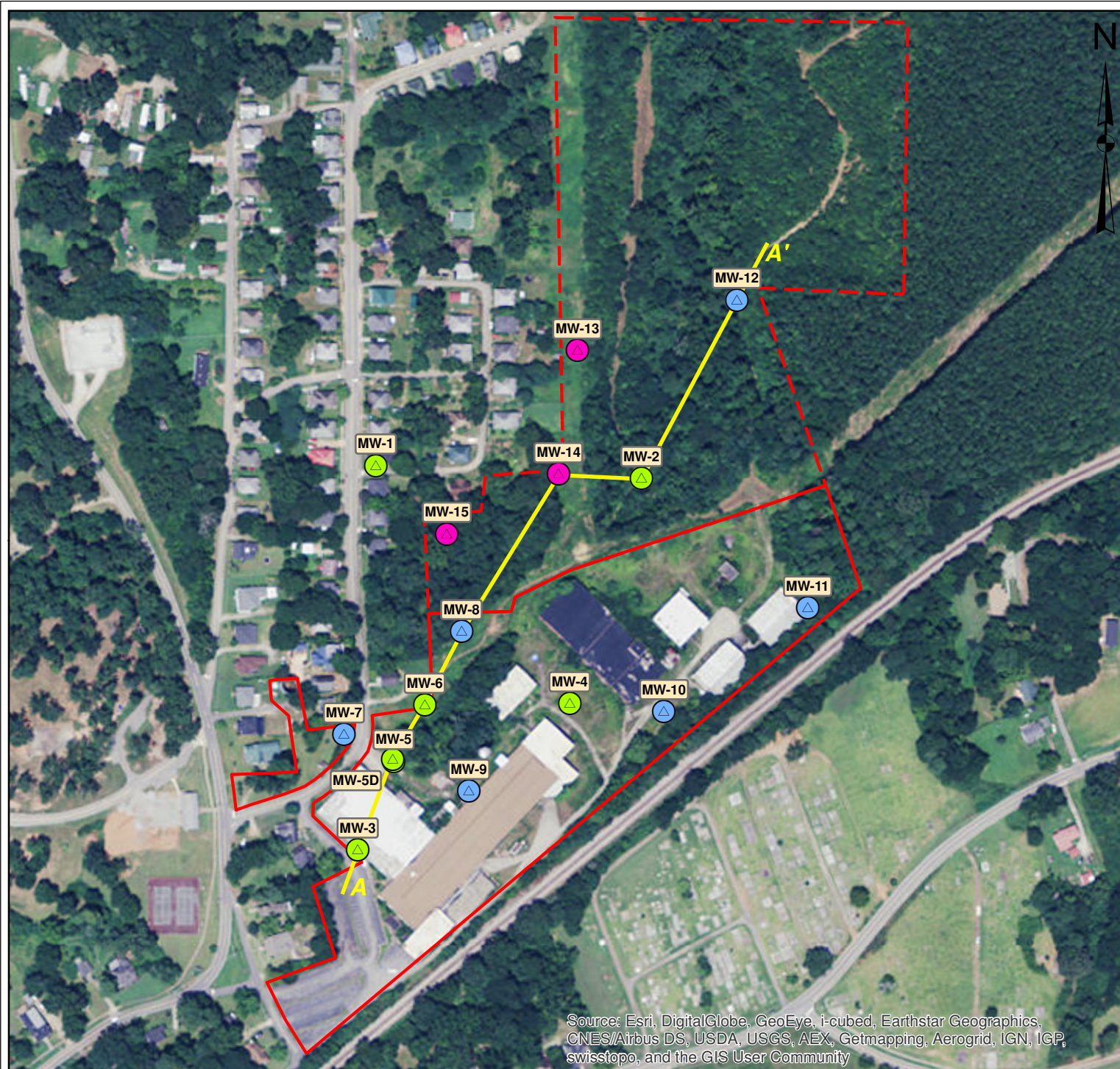


Figure 3
Site Monitoring Well Network

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts the Site monitoring well network, well expansion phases and location of hydrogeologic cross-section A-A'.

Notes

Legend

Property Information

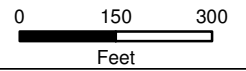
- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

Well Status

- Pre-2015 Monitoring Wells
- Installed October 2015
- Installed December 2015

Hydrogeologic Cross Section

- Cross Section A-A' (Figure 6)



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

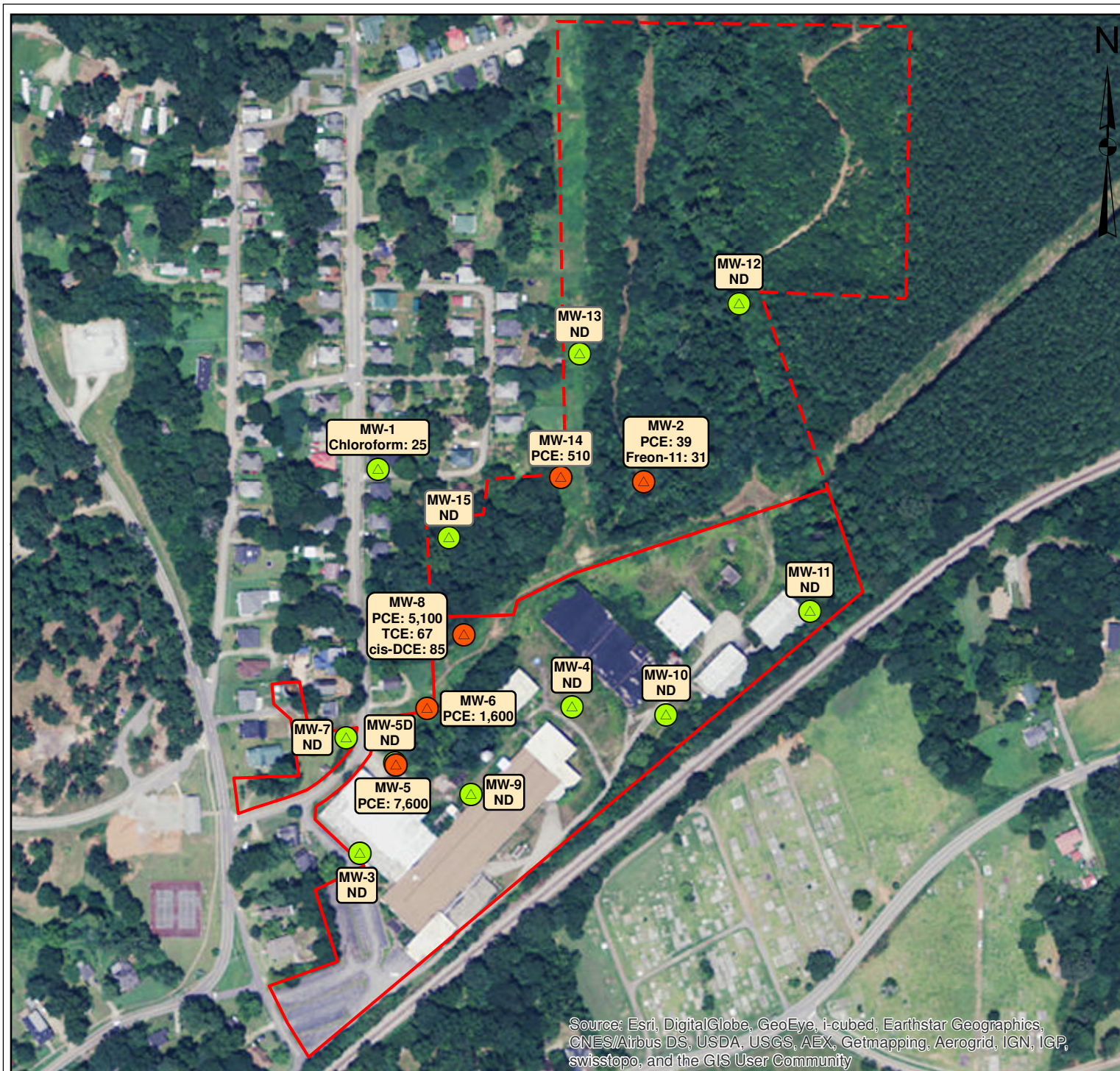


Figure 4
November 2015 Groundwater Results Summary
Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts the VOC testing results for the November 2015 Groundwater Sampling.

Notes
Units: µg/L
PCE: Tetrachloroethene
TCE: Trichloroethene
cis-DCE: cis-1,2-Dichloroethene
ND: Non-detect

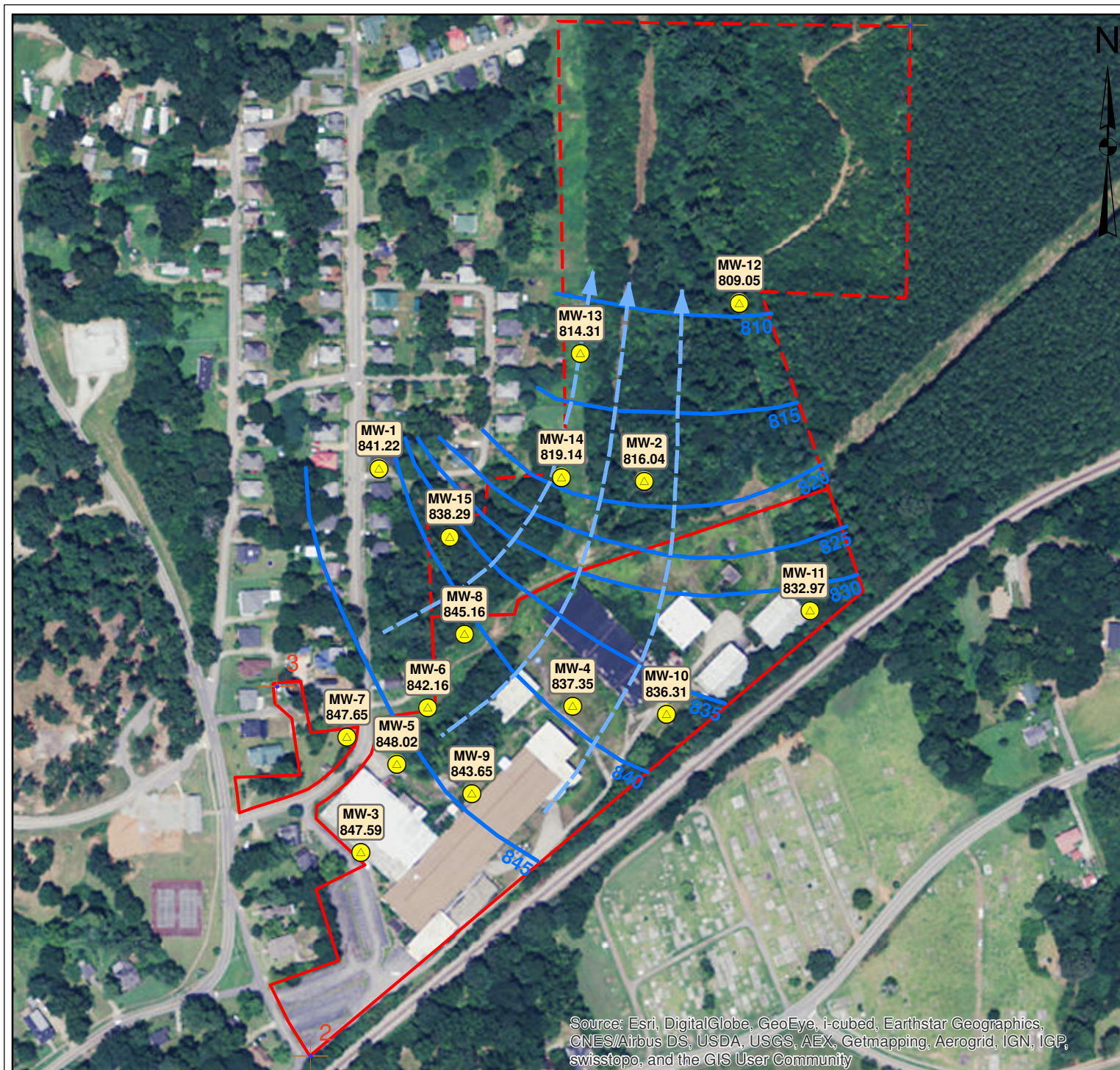
Legend

Property Information

- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

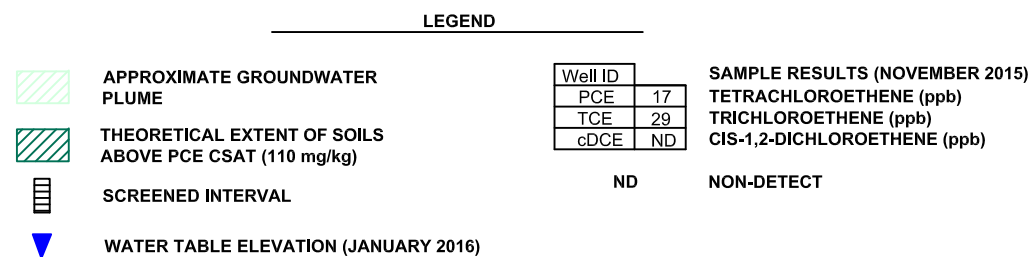
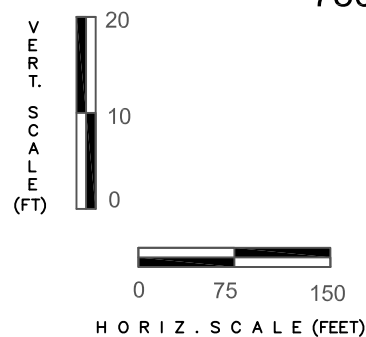
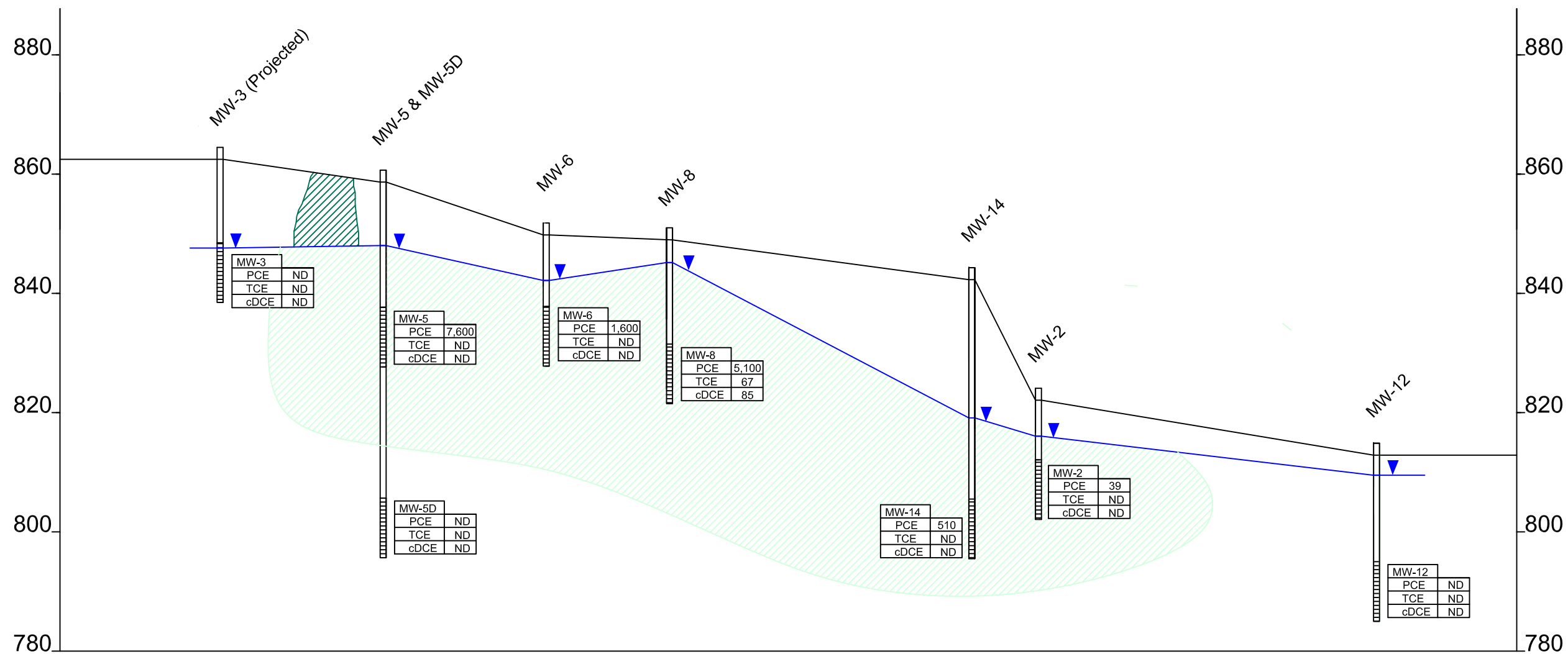
Well Status

- No VOC Detected
- VOC Detected



A
(West)

A'
(East)



Hydrogeologic Profile A - A'
Grantville Mill
Grantville, GA

Figure No. 6

APPENDIX A
Professional Geologist Summary of Hours

Appendix A
Professional Geologist Hours
Period: July 2015 - December 2015

Period	Hours
July 2015	9
August 2015	7.5
September 2015	1.5
October 2015	1.5
November 2015	0
December 2015	7.75
Total:	27.25

APPENDIX B

Milestone Schedule

Appendix B

Project Milestone Schedule Grantville Mill, GA HSI Site

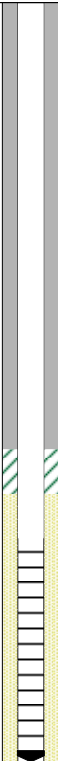
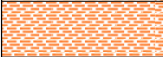
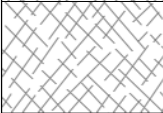
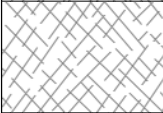
[illegible]

APPENDIX C

Boring Logs

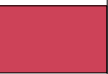
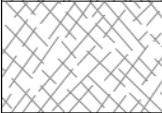
PROJECT:	Grantville Mill	Log of Boring No.	MW-7
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/6/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/6/2015
DRILLING EQUIPMENT:	Geoprobe	TOTAL DEPTH (ft.):	34
SAMPLING METHOD:	Macrocore w/ Acetate Liner	DEPTH TO WATER AT TIME OF BORING (ft.):	~24
		SCREEN INTERVAL (ft.):	24-34
		CASING (ft.):	0-24
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0	15279-MW-7-NOD		0		Top soil		Direct push refusal at ~29.5 ft bgs. Boring terminated at ~34 ft bgs.
					Red-orange clay		
5					Red-orange clay w/ weathered rock		
					White weathered rock w/ orange-red clay		
10					White, pink weathered rock w/ tan clay		
					White, tan, pink weathered rock		
15					White, gray weathered rock		
20					White, pink weathered rock w/ quartz (wet at ~24 ft. bgs)		
25					White, pink weathered rock		
30				0.1			
35							
40							
45							
50							
55							

PROJECT:	Grantville Mill	Log of Boring No.	MW-8
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/7/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/7/2015
DRILLING EQUIPMENT:	Geoprobe	TOTAL DEPTH (ft.):	29.5
SAMPLING METHOD:	Macrocore w/ Acetate Liner	SCREEN INTERVAL (ft.):	19.5-29.5
		DEPTH TO WATER AT TIME OF BORING (ft.):	~5
		CASING (ft.):	0-19.5
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0	15280-MW-8-NOI		0		Topsoil		Direct push refusal at ~25 ft bgs. Boring terminated at ~29.5 ft bgs.
					Red-orange clay		
5					Saturated tan clay		
					Tan weathered rock with clay		
10					Tan, orange clay		
					Gray, orange weathered rock		
15					Fine white weathered rock with tan clay		
20					White, gray weathered rock		
25			0				
30							
35							
40							
45							
50							
55							

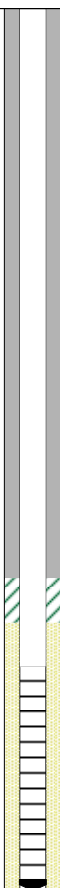
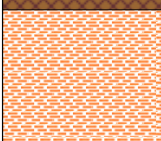
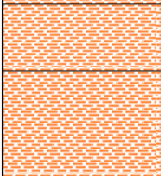
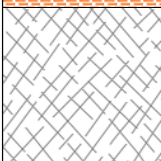
PROJECT:	Grantville Mill	Log of Boring No.	MW-9
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/5/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/5/2015
DRILLING EQUIPMENT:	CME 55	TOTAL DEPTH (ft.):	39.5
SAMPLING METHOD:	Split Spoon	DEPTH TO WATER AT TIME OF BORING (ft.):	~25
		SCREEN INTERVAL (ft.):	29.5-39.5
		CASING (ft.):	0-29.5
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0	15278-MW-9-NOD				Topsoil		Boring terminated at ~39.5 ft bgs.
					Red-orange micaceous clay		
5			0		tan micaceous clay with pink weathered rock		
10			0		Light brown, tan micaceous clay		
15			0		Light brown, tan micaceous clay with weathered rock		
20			0		Light brown micaceous clay with weathered rock (wet at ~25 ft. bgs)		
25		0		White, tan weathered rock			
30		0.3		Saturated gray weathered rock			
35				White, gray weathered rock			
40							
45							
50							
55							

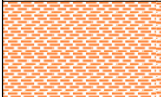
PROJECT:	Grantville Mill	Log of Boring No.	MW-10
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/5/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/5/2015
DRILLING EQUIPMENT:	CME 55	TOTAL DEPTH (ft.):	39.5
SAMPLING METHOD:	Split Spoon	DEPTH TO WATER AT TIME OF BORING (ft.):	~22
		SCREEN INTERVAL (ft.):	29.5-39.5
		CASING (ft.):	0-29.5
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY:	Alex Testoff
------------	--------------

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
	Sample No.	Location		Ground Surface Elevation (ft):				
				N/A				
0	15278-MW-10-NOD		0		Topsoil			
					Red-orange clay			
5			0		Gray clay			
10			0		Gray micaceous clay			
15			0		Gray, tan weathered rock with clay			
20			0		Saturated gray, white weathered rock with pyrite			
25			0		Red-orange clay			
30			0		Coarse grain weathered rock			
35			0		Gray, tan weathered rock			
40			0		Tan weathered rock with signs of competent rock at 39.5 ft. bgs			
45								
50								
55								

PROJECT:	Grantville Mill	Log of Boring No.	MW-11
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/6/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/6/2015
DRILLING EQUIPMENT:	CME 55	TOTAL DEPTH (ft.):	35
SAMPLING METHOD:	Split Spoon	DEPTH TO WATER AT TIME OF BORING (ft.):	~14.5
		SCREEN INTERVAL (ft.):	25-35
		CASING (ft.):	0-25
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

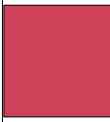
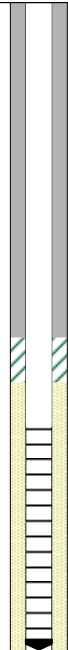
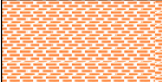
LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0	15279-MW-11-NOD				Topsoil		Boring terminated at ~34 ft bgs.
				Red clay			
5			0		Tan sandy clay		
10			0				
15			0				
			0		Saturated light brown micaceous clay		
					Tan weathered rock w/ micaceous clay		
20			0.1		Tan, brown weathered rock		
					White, gray weathered rock		
25			0		Red, brown micaceous clay		
					Tan, brown weathered rock		
30					Red, brown micaceous clay		
					White, gray weathered rock		
35							
40							
45							
50							
55							

Boring terminated at ~34 ft bgs.

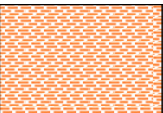
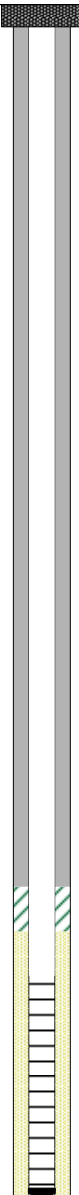
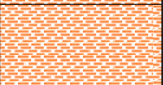
PROJECT:	Grantville Mill	Log of Boring No.	MW-12
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	10/6/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	10/6/2015
DRILLING EQUIPMENT:	Geoprobe	TOTAL DEPTH (ft.):	29
SAMPLING METHOD:	Macrocore w/ Acetate Liner	DEPTH TO WATER AT TIME OF BORING (ft.):	~7.5
		SCREEN INTERVAL (ft.):	19-29
		CASING (ft.):	0-19
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0	15279-MW-12-NOD		0		Topsoil		Boring terminated at ~29 ft bgs.
					Gray, pink clay		
5					Gray, pink clay with quartz		
					Gray, tan weathered rock		
10					Saturated white weathered rock with gray sandy clay		
					Gray clay with pyrite		
15					White, gray weathered rock with pyrite		
					White, brown, gray weathered rock with pyrite		
20					Gray, white weathered rock		
					Brown, white weathered rock with pyrite		
25					Pinkish white weathered rock		
					White, brown weathered rock		

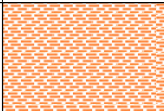
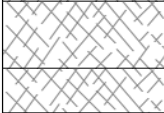
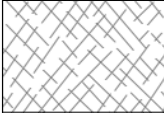
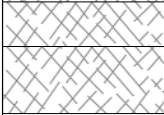
PROJECT:	Grantville Mill	Log of Boring No.	MW-13
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	12/18/2015
DRILLING METHOD:	Hollow Stem Auger	TOTAL DEPTH (ft.):	53.5
DRILLING EQUIPMENT:	Geoprobe	DEPTH TO WATER AT TIME OF BORING (ft.):	NM
SAMPLING METHOD:	Macrocore w/ Acetate Liner	BOREHOLE DIAMETER (In.):	4.25
		DATE FINISHED:	12/21/2015
		SCREEN INTERVAL (ft.):	43.5-53.5
		CASING (ft.):	0-43.5
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION		WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
	Sample No.	Location		Ground Surface Elevation (ft): N/A			
0					Red clay		
5			0.1		Red, gray micaceous clay		
10			0	 	Gray, white pink micaceous clay White weathered rock		
15			0		Brown, white, pink weathered rock		
20			0		Gray, brown, pink weathered rock		
25			0		Brown, white weathered rock		
30			0.1		White, gray weathered rock		
35			0		Dark gray, white weathered rock		Direct push refusal at ~36 ft bgs.
40						 	
45							
50							
55							Boring terminated at ~53.5 ft bgs.

PROJECT:	Grantville Mill	Log of Boring No.	MW-14
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	12/17/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	12/21/2015
DRILLING EQUIPMENT:	Geoprobe	TOTAL DEPTH (ft.):	48.5
SAMPLING METHOD:	Macrocore w/ Acetate Liner	SCREEN INTERVAL (ft.):	38.5-48.5
		DEPTH TO WATER AT TIME OF BORING (ft.):	~24
		CASING (ft.):	0-38.5
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft): N/A			
0					Red, pink clay with weathered rock		
5			0		Brown, pink weathered rock with clay		
10					White, pink weathered rock with red clay		
			0		Brown, pink weathered rock		
15					White, brown weathered rock		
					Brown, pink, white weathered rock		
			0		Brown, white weathered rock		
20					White, brown, pink weathered rock		
			0		Brown, white weathered rock		
25					White, pink weathered rock		
30			0		White, pink, dark gray weathered rock		
35			0		Brown, white weathered rock with gold mica flakes		
					Dark gray, white weathered rock with gold mica flakes		
40			0		Gray, white weathered rock		
					Gray, pink weathered rock		
45			0		Brown, white weathered rock with gold mica flakes		
50							Direct push refusal at ~45 ft bgs.
55							Boring terminated at ~48.5 ft bgs.

PROJECT:	Grantville Mill	Log of Boring No.	MW-15
SITE LOCATION:	Grantville, GA	TOP OF CASING ELEVATION (ft):	N/A
DRILLING CONTRACTOR:	GeoLab	DATE STARTED:	12/18/2015
DRILLING METHOD:	Hollow Stem Auger	DATE FINISHED:	12/21/2015
DRILLING EQUIPMENT:	Geoprobe	TOTAL DEPTH (ft.):	38
SAMPLING METHOD:	Macrocore w/ Acetate Liner	DEPTH TO WATER AT TIME OF BORING (ft.):	~20
		SCREEN INTERVAL (ft.):	28-38
		CASING (ft.):	0-28
		BOREHOLE DIAMETER (In.):	4.25
		WELL DIAMETER (In.):	2

LOGGED BY: Alex Testoff

DEPTH (feet)	SAMPLES		PID Reading	DESCRIPTION			WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Sample No.	Location		Ground Surface Elevation (ft):			
				N/A			
0					Topsoil		
			0		Red clay		
5							
			0		Red, gray white weathered rock (fine grained)		
10							
			0		Weathered rock with red micaceous clay		
15							
			0		Gray, red weathered rock		
20							
			0.1		Brown, red weathered rock		
25							
			0.2		Tan, white weathered rock (fine grained)		
30							
			0.1		Brown, red weathered rock		
35							
			0		Brown, white weathered rock with black mottling		
40							
45							
50							
55							

Boring terminated at ~38 ft bgs.

APPENDIX D

Monitoring Well Sampling Forms



Monitoring Well Sampling Form

Hariba # U266CWXW
containes 50JKPy9F

Sample ID: 15306-MW-1

Technician Signature Alex Tash



Monitoring Well Sampling Form

$$[\text{Fe}^{2+}] = 0.0 \text{ mg/L}$$

Handwritten: 62N68198 11/18/90

Sample ID: 15307-MW-2

Time Collected: 9:25

Technician Signature 



Monitoring Well Sampling Form

Hammer # 01660XW
Controller 507K99F

$$(\text{Fe}^{2+}) = 0.0 \text{ mg/L}$$

Sample ID: 15306-MW-3

Time Collected: 13:17

Technician Signature

Accepted

EPS Project: Grantville Mill

Date: 11-3-2015

Well ID:

11-12-21

Sampling Performed By:

Alex Testoff/ Brian Goldman

Well Construction:

attitude

Well Labeled: Y

p:

100-5

Condition of surrounding area

Well depth from TOC:

79.72

7/2

Depth to Water from TOC:

Well Diameter (in):

吃

Well Diameter (in): 22

Height (Ht) of water in well (Well depth from TOC - Static level from

1

12

Volume of water in well (Ht. x(.16 for 2")(.653 for 4") (1.469 for 6"):

96

1

Purging Method:

low flow, low volume

Time @ Start of Purge:

Sample Method:

doxahile even direct

Sample Parameters:

[illegible]

Write # E7004984

Control X CIG9NB6

$$[Fe^{2+}] = 0.0 \text{ mol/L}$$

Sample ID: 15307-MW-4

Time Collected: 9:57

Technician Signature _____

Oluf Tobi

EPS

$$[Fe^{2+}] = 0.0 \text{ mg/L}$$

XUEFANG

15307-D12

Time Collected: 9:17
→ 12:00

Technician Signature _____

1897



Monitoring Well Sampling Form

EPS Project: Grantville Mill

Date: 11-2-2015

Well ID: MW-5D

Field Conditions: ~70°F, overcast

Sampling Performed By: Alex Testoff/Brian Goldman

Well Construction: shut-up

Well Labeled: no

General Condition of Well: good

Well depth from TOC: 66.71'

Condition of surrounding area: grass

Well Diameter (in): 2"

Depth to Water from TOC: 15.53'

Method of measure: Water Level Meter

Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 51.18'

Volume of water in well (Ht. x (.16 for 2") (.653 for 4") (1.469 for 6")): 8.19

Purging Method: low flow, low volume

Time @ Start of Purge: 14:06

Sample Method: direct, double pump

Sample Parameters: VOIs

Time	Volume (gal)	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Depth to Water (ft)	Comments
17:28	32.0	20.57	10.39	171	0.116	123	4.86	58.98	
17:40	33.0	20.56	10.39	167	0.112	107	4.62	59.93	
17:47	33.5	20.24	10.37	150	0.116	102	4.31	60.05	
17:52	34.0	20.62	10.38	170	0.114	113	4.55	60.11	
17:57	34.5	20.39	10.39	164	0.113	84.3	4.39	60.19	
18:02	35.0	20.47	10.26	164	0.112	80.6	4.92	60.19	
18:08	36.0	20.32	10.35	164	0.112	102	4.79	61.09	
18:13	38.5	20.39	10.35	164	0.112	110	4.81	61.16	
18:34	40.0	20.88	10.35	167	0.114	124	4.87	62.00	
7:43	shut purge								* Reached 5 well volumes, turbidity not improving, will collect sample
7:58	2.5	19.32	9.90	192	0.095	55.7	3.79	13.21	* Pumping @ start of date
8:03	3.0	19.55	9.92	180	0.097	72.2	4.56	20.40	
8:06	4.0	19.46	9.93	169	0.098	72.0	4.23	22.68	
								25.39	

Handbook # ET0099PY
Controller XC1E9NE6

11/2
Time Collected: 18:40
11/3 - 8:10

Sample ID: 15306-MW-5D
15307-MW-5D

Technician Signature

Alex Testoff

Date: 11-3-2015

Well ID: MW-6

Sampling Performed By: Alex Testoff/ Brian Goldman

Well Construction: Shale - no

General Condition of Well: Good

Well Labeled: yes

Well Cap:	Well Locked:
YCS	YCS

Condition of surrounding area:

Well depth from TOC:

26.41'

1

Depth to Water from TOC:

Well Diameter (in):

24

ure: Water

Height (Ht) of water in well (Well depth from TOC - Static level from TOC):

Volume of water in well (Ht. x(.16 for 2")(.653 for 4") (1.469 for 6"):

Purging Method: low flow, low volume

Sample Method: live hole sump direct

Figure 1

[illegible]

Article # ET0049PY
control# X61E9NEG

$$[\text{Fe}^{2+}] = 0.0 \text{ M/L}$$

Sample ID: 15307-MW-6

Time Collected: 13:16

Technician Signature



Monitoring Well Sampling Form

Hand # ET0649PY
Controler X6189NE6

Sample ID: 15307-MW-7

Time Collected: 11:52

Technician Signature _____

akz. Zelt

Date: 11-3-2015

double pump direct

Frühjahr
control

Technician Signature

Monitoring Well Sampling Form

MVA parameters

$$[Fe^{2+}] = 0,0 \text{ mg/L}$$

Technician Signature 

Monitoring Well Sampling Form

Antib # E70049PY
Controlled XG1E7N8G

Sample ID: JS306-MW-10

Time Collected: 12:23

Technician Signature _____

Date: 11-2-2015

Alex Testoff/ Brian Goldman

SHK-110

Well Cap:	Well Locked:
44	44

28-16 /

116

Well depth from TOC - Static level from TOC):

(.16 for 2")(.653 for 4")(1.469 for 6"):

১৯৭৬/৭৭ খ্রিঃ

11/29/07

Holder #U1G6CUXW
Controller #S0JKP49F

Time Collected: 9:25

Technician Signature



Monitoring Well Sampling Form

[illegible]
$$[F_{l^{25}}] = 0.0 \text{ mg/L}$$

Florida # ET0049PY
Contractor X 6159 NEG

Sample ID: 15306-MW-12

Time Collected: 9:32

Technician Signature _____



Monitoring Well Sampling Form

Sample ID: 16012-MW-14

Time Collected: 9:07

Technician Signature



Monitoring Well Sampling Form

Sample ID: 16012-MW-15

Time Collected: 12:11

Technician Signature: 

APPENDIX E

Groundwater Laboratory Analytical Reports



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

November 13, 2015

Aaron Williams
Environmental Planning Specialists, Inc.
1050 Crown Pointe Parkway, Suite 550
Atlanta GA 30338

TEL: (404) 315-9113
FAX: (404) 315-8509

RE: Grantville Mill

Dear Aaron Williams:

Order No: 1511383

Analytical Environmental Services, Inc. received 18 samples on 11/4/2015 5:50:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Chantelle Kanhai
Project Manager



TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1511383

Date: 11-4-15

Page 1 of 2

COMPANY: ERS Inc.		ADDRESS: 1050 Crown Pointe Pkwy Suite 550 Atlanta, GA 30338		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE: 404 315 9113		FAX:		VOCs Methanol & Ethanol & Ethene Sulfate & Sulfide Nitrite & Nitrate Total Organic Carbon Iron Scan Alkalinity														
SAMPLED BY: Alex Testoff & Brian Goldman		SIGNATURE: <i>[Signature]</i>		PRESERVATION (See codes)												REMARKS		
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H ₂ S	NO ₃ ⁻	NO ₂ ⁻	SO ₄ ²⁻	Si	B	F	I	I			
1	15306-MW-11	11-2-15	9:25	X		GW	X										2	
2	15306-MW-12	11-2-15	9:32	X		GW	X	X	X	X	X	X	X	X			8	
3	15306-MW-10	11-2-15	12:33	X		GW	X										2	
4	15306-MW-3	11-2-15	13:17	X		GW	X	X	X	X	X	X	X	X			8	
5	15306-MW-1	11-2-15	16:10	X		GW	X										2	
6	15306-MW-5D	11-2-15	18:40	X		GW	X										2	
7	15307-MW-5D	11-3-15	8:10	X		GW	X										2	
8	15307-MW-2	11-3-15	9:25	X		GW	X	X	X	X	X	X	X	X			8	
9	15307-MW-4	11-3-15	9:57	X		GW	X	X	X	X	X	X	X	X			8	
10	15307-MW-8	11-3-15	11:21	X		GW	X										2	
11	15307-MW-7	11-3-15	11:52	X		GW	X										2	
12	15307-MW-6	11-3-15	13:16	X		GW	X	X	X	X	X	X	X	X			8	
13	15307-MW-9	11-3-15	15:30	X		GW	X	X	X	X	X	X	X	X			8	
14	15308-MW-5	11-4-15	9:17	X		GW	X	X	X	X	X	X	X	X			8	

RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1. <i>Brian Goldman</i>		11/4/15 5:50 PM	1. <i>[Signature]</i> 11/4/15 5:50 PM		PROJECT NAME: Grantville, GA Grantville Mill		Total # of Containers 70	
2.			2.		PROJECT #:		Turnaround Time Request	
3.			3.		SITE ADDRESS: Grantville, GA		☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other	
SPECIAL INSTRUCTIONS/COMMENTS:			SHIPMENT METHOD		SEND REPORT TO: awilliams@envuplanning.com & atestoff@envuplanning.com		SEATE PROGRAM (if any):	
			OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		INVOICE TO: atestoff@envuplanning.com		E-mail? Y/N; Fax? Y/N	
					QUOTE #:		DATA PACKAGE: I II III IV	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 2 of 59

White Copy - Original; Yellow Copy - Client



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 151383

Date: 11-4-15 Page 2 of 2

COMPANY: EPS Inc.		ADDRESS: 1650 Crown Pointe Pkwy Suite 530 Atlanta, GA 30338		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers	
PHONE: 404 315 9113		FAX:		100s 100s 100s 100s															
SAMPLED BY: Alex Testoff		SIGNATURE: <i>[Signature]</i>														PRESERVATION (See codes)			
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)													
1	15308-DUP	11-4-15	12:00	X		GW													2
2	15308-Drom 2	11-4-15	10:30		X	GW													2
3	15308-Drom 1	11-4-15	10:37		X	GW													2
4	Trip Blank					W													2
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			

RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION				RECEIPT	
1: Ben Gulch		11/4/15 5:50 PM		1: <i>[Signature]</i>		11/4/15 5:50 PM		PROJECT NAME: Grantville Mill				Total # of Containers 8	
2:				2:				PROJECT #:				Turnaround Time Request ☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other	
3:				3:				SITE ADDRESS: Grantville, GA					
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		OUT / / VIA:		IN / / VIA:		SEND REPORT TO: a.williams@enuplaning.com & a.testoff@enuplaning.com				STATE PROGRAM (if any):	
								INVOICE TO: (IF DIFFERENT FROM ABOVE)				E-mail? Y/N, Fax? Y/N	
				CLIENT: FedEx UPS MAIL COURIER		GREYHOUND OTHER		QUOTE #:				PO#:	
												DATA PACKAGE: I II III IV	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-001

Client Sample ID: 15306-MW-11
Collection Date: 11/2/2015 9:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
2-Butanone	BRL	50		ug/L	215509	1	11/05/2015 17:12	NP
2-Hexanone	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
Acetone	BRL	50		ug/L	215509	1	11/05/2015 17:12	NP
Benzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Bromoform	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Bromomethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Chloroethane	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
Chloroform	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Chloromethane	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Cyclohexane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Freon-113	BRL	10		ug/L	215509	1	11/05/2015 17:12	NP
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Methyl acetate	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Methylene chloride	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
o-Xylene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-001

Client Sample ID: 15306-MW-11
Collection Date: 11/2/2015 9:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Toluene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Trichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/05/2015 17:12	NP
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/05/2015 17:12	NP
Surr: 4-Bromofluorobenzene	86.3	70.6-123		%REC	215509	1	11/05/2015 17:12	NP
Surr: Dibromofluoromethane	96.7	78.7-124		%REC	215509	1	11/05/2015 17:12	NP
Surr: Toluene-d8	92.7	81.3-120		%REC	215509	1	11/05/2015 17:12	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-002

Client Sample ID: 15306-MW-12
Collection Date: 11/2/2015 9:32:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 10:53	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 03:14	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 03:14	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 03:14	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-002

Client Sample ID: 15306-MW-12
Collection Date: 11/2/2015 9:32:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:14	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 03:14	CH
Surr: 4-Bromofluorobenzene	85.2	70.6-123		%REC	215509	1	11/06/2015 03:14	CH
Surr: Dibromofluoromethane	101	78.7-124		%REC	215509	1	11/06/2015 03:14	CH
Surr: Toluene-d8	90.2	81.3-120		%REC	215509	1	11/06/2015 03:14	CH
Sulfide by SW9030B/9034 (SW9030B)								
Sulfide	BRL	2.00		mg/L	215649	1	11/06/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	0.473	0.050		mg/L	R303995	1	11/10/2015 12:54	TL
ION SCAN SW9056A								
Sulfate	BRL	1.0		mg/L	R303992	1	11/09/2015 16:32	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)								
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:19	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:19	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:19	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	BRL	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-003

Client Sample ID: 15306-MW-10
Collection Date: 11/2/2015 12:33:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 03:40	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 03:40	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 03:40	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-003

Client Sample ID: 15306-MW-10
Collection Date: 11/2/2015 12:33:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 03:40	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 03:40	CH
Surr: 4-Bromofluorobenzene	83.7	70.6-123		%REC	215509	1	11/06/2015 03:40	CH
Surr: Dibromofluoromethane	100	78.7-124		%REC	215509	1	11/06/2015 03:40	CH
Surr: Toluene-d8	91	81.3-120		%REC	215509	1	11/06/2015 03:40	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-004

Client Sample ID: 15306-MW-3
Collection Date: 11/2/2015 1:17:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 11:13	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 04:06	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 04:06	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 04:06	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-004

Client Sample ID: 15306-MW-3
Collection Date: 11/2/2015 1:17:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:06	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 04:06	CH
Surr: 4-Bromofluorobenzene	82.4	70.6-123		%REC	215509	1	11/06/2015 04:06	CH
Surr: Dibromofluoromethane	109	78.7-124		%REC	215509	1	11/06/2015 04:06	CH
Surr: Toluene-d8	95.6	81.3-120		%REC	215509	1	11/06/2015 04:06	CH
Sulfide by SW9030B/9034				(SW9030B)				
Sulfide	BRL	2.00		mg/L	215649	1	11/06/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	0.570	0.050		mg/L	R303995	1	11/10/2015 12:55	TL
ION SCAN SW9056A								
Sulfate	35	1.0		mg/L	R303992	1	11/09/2015 16:47	JW
GC Analysis of Gaseous Samples SOP-RSK 175				(RSK175)				
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:24	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:24	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:24	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	22.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-005

Client Sample ID: 15306-MW-1
Collection Date: 11/2/2015 4:10:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 04:33	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 04:33	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
Chloroform	25	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 04:33	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-005

Client Sample ID: 15306-MW-1
Collection Date: 11/2/2015 4:10:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:33	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 04:33	CH
Surr: 4-Bromofluorobenzene	80.4	70.6-123		%REC	215509	1	11/06/2015 04:33	CH
Surr: Dibromofluoromethane	103	78.7-124		%REC	215509	1	11/06/2015 04:33	CH
Surr: Toluene-d8	93.5	81.3-120		%REC	215509	1	11/06/2015 04:33	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-006

Client Sample ID: 15306-MW-5D
Collection Date: 11/2/2015 6:40:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 04:59	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 04:59	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 04:59	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-006

Client Sample ID: 15306-MW-5D
Collection Date: 11/2/2015 6:40:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 04:59	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 04:59	CH
Surr: 4-Bromofluorobenzene	82.7	70.6-123		%REC	215509	1	11/06/2015 04:59	CH
Surr: Dibromofluoromethane	103	78.7-124		%REC	215509	1	11/06/2015 04:59	CH
Surr: Toluene-d8	94.3	81.3-120		%REC	215509	1	11/06/2015 04:59	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-007

Client Sample ID: 15307-MW-5D
Collection Date: 11/3/2015 8:10:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 19:08	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 19:08	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 19:08	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-007

Client Sample ID: 15307-MW-5D
Collection Date: 11/3/2015 8:10:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:08	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 19:08	CH
Surr: 4-Bromofluorobenzene	77.4	70.6-123		%REC	215509	1	11/06/2015 19:08	CH
Surr: Dibromofluoromethane	117	78.7-124		%REC	215509	1	11/06/2015 19:08	CH
Surr: Toluene-d8	96.5	81.3-120		%REC	215509	1	11/06/2015 19:08	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-008

Client Sample ID: 15307-MW-2
Collection Date: 11/3/2015 9:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 11:34	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 19:34	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 19:34	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 19:34	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-008

Client Sample ID: 15307-MW-2
Collection Date: 11/3/2015 9:25:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Tetrachloroethene	39	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Trichlorofluoromethane	31	5.0		ug/L	215509	1	11/06/2015 19:34	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 19:34	CH
Surr: 4-Bromofluorobenzene	72.6	70.6-123		%REC	215509	1	11/06/2015 19:34	CH
Surr: Dibromofluoromethane	115	78.7-124		%REC	215509	1	11/06/2015 19:34	CH
Surr: Toluene-d8	97.3	81.3-120		%REC	215509	1	11/06/2015 19:34	CH
Sulfide by SW9030B/9034 (SW9030B)								
Sulfide	BRL	2.00		mg/L	215729	1	11/10/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	0.565	0.050		mg/L	R303995	1	11/10/2015 12:56	TL
ION SCAN SW9056A								
Sulfate	24	1.0		mg/L	R303992	1	11/09/2015 17:02	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)								
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:29	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:29	MD
Methane	36	4.0		ug/L	215711	1	11/10/2015 14:29	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	24.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-009

Client Sample ID: 15307-MW-4
Collection Date: 11/3/2015 9:57:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 11:57	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 20:00	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 20:00	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 20:00	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-009

Client Sample ID: 15307-MW-4
Collection Date: 11/3/2015 9:57:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:00	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 20:00	CH
Surr: 4-Bromofluorobenzene	76.6	70.6-123		%REC	215509	1	11/06/2015 20:00	CH
Surr: Dibromofluoromethane	117	78.7-124		%REC	215509	1	11/06/2015 20:00	CH
Surr: Toluene-d8	97.8	81.3-120		%REC	215509	1	11/06/2015 20:00	CH
Sulfide by SW9030B/9034 (SW9030B)								
Sulfide	BRL	2.00		mg/L	215729	1	11/10/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	1.29	0.050		mg/L	R303995	1	11/10/2015 12:57	TL
ION SCAN SW9056A								
Sulfate	33	1.0		mg/L	R303992	1	11/09/2015 17:17	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)								
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:33	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:33	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:33	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	13.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-010

Client Sample ID: 15307-MW-8
Collection Date: 11/3/2015 11:21:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 20:27	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 20:27	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
cis-1,2-Dichloroethene	85	5.0		ug/L	215509	1	11/06/2015 20:27	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 20:27	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-010

Client Sample ID: 15307-MW-8
Collection Date: 11/3/2015 11:21:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Tetrachloroethene	5100	500		ug/L	215509	100	11/09/2015 18:37	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Trichloroethene	67	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:27	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 20:27	CH
Surr: 4-Bromofluorobenzene	74.1	70.6-123		%REC	215509	1	11/06/2015 20:27	CH
Surr: 4-Bromofluorobenzene	87.6	70.7-125		%REC	215509	100	11/09/2015 18:37	CH
Surr: Dibromofluoromethane	104	82.2-120		%REC	215509	100	11/09/2015 18:37	CH
Surr: Dibromofluoromethane	111	78.7-124		%REC	215509	1	11/06/2015 20:27	CH
Surr: Toluene-d8	95.1	81.3-120		%REC	215509	1	11/06/2015 20:27	CH
Surr: Toluene-d8	104	81.8-120		%REC	215509	100	11/09/2015 18:37	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-011

Client Sample ID: 15307-MW-7
Collection Date: 11/3/2015 11:52:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 20:53	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 20:53	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 20:53	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-011

Client Sample ID: 15307-MW-7
Collection Date: 11/3/2015 11:52:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 20:53	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 20:53	CH
Surr: 4-Bromofluorobenzene	78.9	70.6-123		%REC	215509	1	11/06/2015 20:53	CH
Surr: Dibromofluoromethane	110	78.7-124		%REC	215509	1	11/06/2015 20:53	CH
Surr: Toluene-d8	95.4	81.3-120		%REC	215509	1	11/06/2015 20:53	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-012

Client Sample ID: 15307-MW-6
Collection Date: 11/3/2015 1:16:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 12:18	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
2-Butanone	BRL	50		ug/L	215509	1	11/06/2015 21:18	CH
2-Hexanone	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
Acetone	BRL	50		ug/L	215509	1	11/06/2015 21:18	CH
Benzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Bromoform	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Bromomethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Chloroethane	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
Chloroform	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Chloromethane	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Cyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Freon-113	BRL	10		ug/L	215509	1	11/06/2015 21:18	CH
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Methyl acetate	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-012

Client Sample ID: 15307-MW-6
Collection Date: 11/3/2015 1:16:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Methylene chloride	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
o-Xylene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Styrene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Tetrachloroethene	1600	50		ug/L	215509	10	11/09/2015 19:28	CH
Toluene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Trichloroethene	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/06/2015 21:18	CH
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/06/2015 21:18	CH
Surr: 4-Bromofluorobenzene	77.8	70.6-123		%REC	215509	1	11/06/2015 21:18	CH
Surr: 4-Bromofluorobenzene	88.1	70.7-125		%REC	215509	10	11/09/2015 19:28	CH
Surr: Dibromofluoromethane	107	78.7-124		%REC	215509	1	11/06/2015 21:18	CH
Surr: Dibromofluoromethane	108	82.2-120		%REC	215509	10	11/09/2015 19:28	CH
Surr: Toluene-d8	94.9	81.3-120		%REC	215509	1	11/06/2015 21:18	CH
Surr: Toluene-d8	106	81.8-120		%REC	215509	10	11/09/2015 19:28	CH
Sulfide by SW9030B/9034 (SW9030B)								
Sulfide	BRL	2.00		mg/L	215729	1	11/10/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	1.29	0.050		mg/L	R303995	1	11/10/2015 12:58	TL
ION SCAN SW9056A								
Sulfate	2.7	1.0		mg/L	R303992	1	11/09/2015 17:32	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)								
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:38	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:38	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:38	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	25.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-013

Client Sample ID: 15307-MW-9
Collection Date: 11/3/2015 3:30:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 12:39	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
2-Butanone	BRL	50		ug/L	215572	1	11/06/2015 21:44	CH
2-Hexanone	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
Acetone	BRL	50		ug/L	215572	1	11/06/2015 21:44	CH
Benzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Bromodichloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Bromoform	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Bromomethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Carbon disulfide	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Carbon tetrachloride	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Chlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Chloroethane	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
Chloroform	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Chloromethane	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Cyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Dibromochloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Dichlorodifluoromethane	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
Ethylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Freon-113	BRL	10		ug/L	215572	1	11/06/2015 21:44	CH
Isopropylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
m,p-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Methyl acetate	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client:	Environmental Planning Specialists, Inc.	Client Sample ID:	15307-MW-9
Project Name:	Grantville Mill	Collection Date:	11/3/2015 3:30:00 PM
Lab ID:	1511383-013	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Methylcyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Methylene chloride	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
o-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Styrene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Tetrachloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Toluene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Trichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215572	1	11/06/2015 21:44	CH
Vinyl chloride	BRL	2.0		ug/L	215572	1	11/06/2015 21:44	CH
Surr: 4-Bromofluorobenzene	78.9	70.6-123		%REC	215572	1	11/06/2015 21:44	CH
Surr: Dibromofluoromethane	114	78.7-124		%REC	215572	1	11/06/2015 21:44	CH
Surr: Toluene-d8	98.4	81.3-120		%REC	215572	1	11/06/2015 21:44	CH
Sulfide by SW9030B/9034				(SW9030B)				
Sulfide	BRL	2.00		mg/L	215729	1	11/10/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	0.874	0.050		mg/L	R303995	1	11/10/2015 12:59	TL
ION SCAN SW9056A								
Sulfate	14	1.0		mg/L	R303992	1	11/09/2015 17:47	JW
GC Analysis of Gaseous Samples SOP-RSK 175				(RSK175)				
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:43	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:43	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:43	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	13.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-014

Client Sample ID: 15308-MW-5
Collection Date: 11/4/2015 9:17:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Organic Carbon (TOC) SW9060A								
Organic Carbon, Total	BRL	1.00		mg/L	R304057	1	11/10/2015 13:00	YS
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
2-Butanone	BRL	50		ug/L	215572	1	11/06/2015 22:11	CH
2-Hexanone	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
Acetone	BRL	50		ug/L	215572	1	11/06/2015 22:11	CH
Benzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Bromodichloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Bromoform	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Bromomethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Carbon disulfide	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Carbon tetrachloride	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Chlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Chloroethane	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
Chloroform	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Chloromethane	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Cyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Dibromochloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Dichlorodifluoromethane	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
Ethylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Freon-113	BRL	10		ug/L	215572	1	11/06/2015 22:11	CH
Isopropylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
m,p-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Methyl acetate	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-014

Client Sample ID: 15308-MW-5
Collection Date: 11/4/2015 9:17:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Methylcyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Methylene chloride	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
o-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Styrene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Tetrachloroethene	7600	500		ug/L	215572	100	11/10/2015 16:00	NP
Toluene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Trichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:11	CH
Vinyl chloride	BRL	2.0		ug/L	215572	1	11/06/2015 22:11	CH
Surr: 4-Bromofluorobenzene	77.3	70.6-123		%REC	215572	1	11/06/2015 22:11	CH
Surr: 4-Bromofluorobenzene	85.6	70.7-125		%REC	215572	100	11/10/2015 16:00	NP
Surr: Dibromofluoromethane	107	82.2-120		%REC	215572	100	11/10/2015 16:00	NP
Surr: Dibromofluoromethane	111	78.7-124		%REC	215572	1	11/06/2015 22:11	CH
Surr: Toluene-d8	95.8	81.3-120		%REC	215572	1	11/06/2015 22:11	CH
Surr: Toluene-d8	106	81.8-120		%REC	215572	100	11/10/2015 16:00	NP
Sulfide by SW9030B/9034 (SW9030B)								
Sulfide	BRL	2.00		mg/L	215729	1	11/10/2015 10:00	PF
Nitrogen, Nitrate-Nitrite (as N) E353.2								
Nitrogen, Nitrate-Nitrite (as N)	2.96	0.500		mg/L	R303995	10	11/10/2015 13:17	TL
ION SCAN SW9056A								
Sulfate	BRL	1.0		mg/L	R303992	1	11/09/2015 18:02	JW
GC Analysis of Gaseous Samples SOP-RSK 175 (RSK175)								
Ethane	BRL	9.0		ug/L	215711	1	11/10/2015 14:48	MD
Ethylene	BRL	7.0		ug/L	215711	1	11/10/2015 14:48	MD
Methane	BRL	4.0		ug/L	215711	1	11/10/2015 14:48	MD
Alkalinity by SM2320B								
Alkalinity, Total (As CaCO3)	23.0	3.00		mg/L	R304026	1	11/10/2015 11:00	PF

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-015

Client Sample ID: 15308-DUP
Collection Date: 11/4/2015 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
2-Butanone	BRL	50		ug/L	215572	1	11/06/2015 22:37	CH
2-Hexanone	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
Acetone	BRL	50		ug/L	215572	1	11/06/2015 22:37	CH
Benzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Bromodichloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Bromoform	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Bromomethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Carbon disulfide	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Carbon tetrachloride	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Chlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Chloroethane	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
Chloroform	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Chloromethane	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Cyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Dibromochloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Dichlorodifluoromethane	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
Ethylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Freon-113	BRL	10		ug/L	215572	1	11/06/2015 22:37	CH
Isopropylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
m,p-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Methyl acetate	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Methylcyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Methylene chloride	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
o-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-015

Client Sample ID: 15308-DUP
Collection Date: 11/4/2015 12:00:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Tetrachloroethene	8000	500		ug/L	215572	100	11/10/2015 16:26	NP
Toluene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Trichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215572	1	11/06/2015 22:37	CH
Vinyl chloride	BRL	2.0		ug/L	215572	1	11/06/2015 22:37	CH
Surr: 4-Bromofluorobenzene	74	70.6-123		%REC	215572	1	11/06/2015 22:37	CH
Surr: 4-Bromofluorobenzene	88.4	70.7-125		%REC	215572	100	11/10/2015 16:26	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	215572	1	11/06/2015 22:37	CH
Surr: Dibromofluoromethane	115	82.2-120		%REC	215572	100	11/10/2015 16:26	NP
Surr: Toluene-d8	92.5	81.3-120		%REC	215572	1	11/06/2015 22:37	CH
Surr: Toluene-d8	110	81.8-120		%REC	215572	100	11/10/2015 16:26	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-016

Client Sample ID: 15308-DRUM 2
Collection Date: 11/4/2015 10:30:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,1-Dichloroethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,1-Dichloroethene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2-Dibromoethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2-Dichloroethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,2-Dichloropropane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
2-Butanone	BRL	50		ug/L	215572	1	11/09/2015 17:45	CH
2-Hexanone	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
4-Methyl-2-pentanone	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
Acetone	BRL	50		ug/L	215572	1	11/09/2015 17:45	CH
Benzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Bromodichloromethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Bromoform	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Bromomethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Carbon disulfide	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Carbon tetrachloride	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Chlorobenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Chloroethane	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
Chloroform	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Chloromethane	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Cyclohexane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Dibromochloromethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Dichlorodifluoromethane	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
Ethylbenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Freon-113	BRL	10		ug/L	215572	1	11/09/2015 17:45	CH
Isopropylbenzene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
m,p-Xylene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Methyl acetate	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Methylcyclohexane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Methylene chloride	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
o-Xylene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-016

Client Sample ID: 15308-DRUM 2
Collection Date: 11/4/2015 10:30:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Tetrachloroethene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Toluene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Trichloroethene	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Trichlorofluoromethane	BRL	5.0		ug/L	215572	1	11/09/2015 17:45	CH
Vinyl chloride	BRL	2.0		ug/L	215572	1	11/09/2015 17:45	CH
Surr: 4-Bromofluorobenzene	89.5	70.7-125		%REC	215572	1	11/09/2015 17:45	CH
Surr: Dibromofluoromethane	104	82.2-120		%REC	215572	1	11/09/2015 17:45	CH
Surr: Toluene-d8	105	81.8-120		%REC	215572	1	11/09/2015 17:45	CH

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-017

Client Sample ID: 15308-DRUM 1
Collection Date: 11/4/2015 10:37:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,1-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,1-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2-Dibromoethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2-Dichloroethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,2-Dichloropropane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
2-Butanone	BRL	50		ug/L	215572	1	11/06/2015 23:20	NP
2-Hexanone	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
4-Methyl-2-pentanone	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
Acetone	BRL	50		ug/L	215572	1	11/06/2015 23:20	NP
Benzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Bromodichloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Bromoform	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Bromomethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Carbon disulfide	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Carbon tetrachloride	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Chlorobenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Chloroethane	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
Chloroform	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Chloromethane	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Cyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Dibromochloromethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Dichlorodifluoromethane	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
Ethylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Freon-113	BRL	10		ug/L	215572	1	11/06/2015 23:20	NP
Isopropylbenzene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
m,p-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Methyl acetate	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Methylcyclohexane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Methylene chloride	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
o-Xylene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-017

Client Sample ID: 15308-DRUM 1
Collection Date: 11/4/2015 10:37:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Tetrachloroethene	3600	500		ug/L	215572	100	11/09/2015 19:03	CH
Toluene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Trichloroethene	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Trichlorofluoromethane	BRL	5.0		ug/L	215572	1	11/06/2015 23:20	NP
Vinyl chloride	BRL	2.0		ug/L	215572	1	11/06/2015 23:20	NP
Surr: 4-Bromofluorobenzene	82.5	70.7-125		%REC	215572	100	11/09/2015 19:03	CH
Surr: 4-Bromofluorobenzene	85.5	70.7-125		%REC	215572	1	11/06/2015 23:20	NP
Surr: Dibromofluoromethane	95.9	82.2-120		%REC	215572	1	11/06/2015 23:20	NP
Surr: Dibromofluoromethane	105	82.2-120		%REC	215572	100	11/09/2015 19:03	CH
Surr: Toluene-d8	96.4	81.8-120		%REC	215572	1	11/06/2015 23:20	NP
Surr: Toluene-d8	102	81.8-120		%REC	215572	100	11/09/2015 19:03	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-018

Client Sample ID: TRIP BLANK
Collection Date: 11/4/2015
Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2-Dibromoethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,2-Dichloropropane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
2-Butanone	BRL	50		ug/L	215509	1	11/05/2015 16:46	NP
2-Hexanone	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
4-Methyl-2-pentanone	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
Acetone	BRL	50		ug/L	215509	1	11/05/2015 16:46	NP
Benzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Bromodichloromethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Bromoform	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Bromomethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Carbon disulfide	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Carbon tetrachloride	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Chlorobenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Chloroethane	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
Chloroform	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Chloromethane	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Cyclohexane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Dibromochloromethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Dichlorodifluoromethane	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
Ethylbenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Freon-113	BRL	10		ug/L	215509	1	11/05/2015 16:46	NP
Isopropylbenzene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
m,p-Xylene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Methyl acetate	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Methylcyclohexane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Methylene chloride	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
o-Xylene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 13-Nov-15

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1511383-018

Client Sample ID: TRIP BLANK
Collection Date: 11/4/2015
Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Tetrachloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Toluene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Trichloroethene	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Trichlorofluoromethane	BRL	5.0		ug/L	215509	1	11/05/2015 16:46	NP
Vinyl chloride	BRL	2.0		ug/L	215509	1	11/05/2015 16:46	NP
Surr: 4-Bromofluorobenzene	86.4	70.6-123		%REC	215509	1	11/05/2015 16:46	NP
Surr: Dibromofluoromethane	99.5	78.7-124		%REC	215509	1	11/05/2015 16:46	NP
Surr: Toluene-d8	91.3	81.3-120		%REC	215509	1	11/05/2015 16:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Env. Planning

Work Order Number 1511383

Checklist completed by [Signature] 11-4-15
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 4.1°C Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Sample Condition: Good ☒ Adjusted? ☐ Other(Explain) ☐ Checked by [Signature]

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: Environmental Planning Specialists, Inc.
 Project Name: Grantville Mill
 Lab Order: 1511383

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1511383-001A	15306-MW-11	11/2/2015 9:25:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/05/2015
1511383-002A	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-002B	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-002C	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	Sulfide by SW9030/9034		11/6/2015 10:00:00 AM	11/06/2015
1511383-002D	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-002E	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-002F	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	ION SCAN			11/09/2015
1511383-002F	15306-MW-12	11/2/2015 9:32:00AM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-003A	15306-MW-10	11/2/2015 12:33:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-004A	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-004B	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-004C	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	Sulfide by SW9030/9034		11/6/2015 10:00:00 AM	11/06/2015
1511383-004D	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-004E	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-004F	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	ION SCAN			11/09/2015
1511383-004F	15306-MW-3	11/2/2015 1:17:00PM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-005A	15306-MW-1	11/2/2015 4:10:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-006A	15306-MW-5D	11/2/2015 6:40:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-007A	15307-MW-5D	11/3/2015 8:10:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-008A	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-008B	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-008C	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	Sulfide by SW9030/9034		11/10/2015 9:00:00 AM	11/10/2015
1511383-008D	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-008E	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-008F	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	ION SCAN			11/09/2015
1511383-008F	15307-MW-2	11/3/2015 9:25:00AM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-009A	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-009B	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-009C	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	Sulfide by SW9030/9034		11/10/2015 9:00:00 AM	11/10/2015

Client: Environmental Planning Specialists, Inc.
 Project Name: Grantville Mill
 Lab Order: 1511383

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1511383-009D	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-009E	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-009F	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	ION SCAN			11/09/2015
1511383-009F	15307-MW-4	11/3/2015 9:57:00AM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-010A	15307-MW-8	11/3/2015 11:21:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-010A	15307-MW-8	11/3/2015 11:21:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/09/2015
1511383-011A	15307-MW-7	11/3/2015 11:52:00AM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-012A	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/06/2015
1511383-012A	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/09/2015
1511383-012B	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-012C	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	Sulfide by SW9030/9034		11/10/2015 9:00:00 AM	11/10/2015
1511383-012D	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-012E	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-012F	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	ION SCAN			11/09/2015
1511383-012F	15307-MW-6	11/3/2015 1:16:00PM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-013A	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/06/2015
1511383-013B	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-013C	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	Sulfide by SW9030/9034		11/10/2015 9:00:00 AM	11/10/2015
1511383-013D	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-013E	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-013F	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	ION SCAN			11/09/2015
1511383-013F	15307-MW-9	11/3/2015 3:30:00PM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-014A	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/06/2015
1511383-014A	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/10/2015
1511383-014B	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	GC Analysis of Gaseous Samples		11/10/2015 11:39:39 AM	11/10/2015
1511383-014C	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	Sulfide by SW9030/9034		11/10/2015 9:00:00 AM	11/10/2015
1511383-014D	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	Nitrogen, Nitrate-Nitrite (as N)			11/10/2015
1511383-014E	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	Total Organic Carbon (TOC)			11/10/2015
1511383-014F	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	ION SCAN			11/09/2015

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab Order: 1511383

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1511383-014F	15308-MW-5	11/4/2015 9:17:00AM	Groundwater	Alkalinity by SM2320B			11/10/2015
1511383-015A	15308-DUP	11/4/2015 12:00:00PM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/06/2015
1511383-015A	15308-DUP	11/4/2015 12:00:00PM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/10/2015
1511383-016A	15308-DRUM 2	11/4/2015 10:30:00AM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/09/2015
1511383-017A	15308-DRUM 1	11/4/2015 10:37:00AM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/06/2015
1511383-017A	15308-DRUM 1	11/4/2015 10:37:00AM	Groundwater	TCL VOLATILE ORGANICS		11/6/2015 12:08:00 PM	11/09/2015
1511383-018A	TRIP BLANK	11/4/2015 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		11/5/2015 11:30:00 AM	11/05/2015

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215509**

Sample ID: MB-215509	Client ID:					Units: ug/L	Prep Date: 11/05/2015	Run No: 303715			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215509	Analysis Date: 11/05/2015	Seq No: 6500931			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215509**

Sample ID: MB-215509		Client ID:			Units: ug/L			Prep Date: 11/05/2015		Run No: 303715	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B			BatchID: 215509			Analysis Date: 11/05/2015		Seq No: 6500931	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.97	0	50.00		93.9	70.6	123				
Surr: Dibromofluoromethane	46.19	0	50.00		92.4	78.7	124				
Surr: Toluene-d8	45.79	0	50.00		91.6	81.3	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215509**

Sample ID: LCS-215509	Client ID:					Units: ug/L	Prep Date: 11/05/2015	Run No: 303715			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215509	Analysis Date: 11/05/2015	Seq No: 6500930			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	59.73	5.0	50.00		119	64.2	137				
Benzene	56.34	5.0	50.00		113	72.8	128				
Chlorobenzene	52.99	5.0	50.00		106	72.3	126				
Toluene	56.10	5.0	50.00		112	74.9	127				
Trichloroethene	57.96	5.0	50.00		116	70.5	134				
Surr: 4-Bromofluorobenzene	48.31	0	50.00		96.6	70.6	123				
Surr: Dibromofluoromethane	45.80	0	50.00		91.6	78.7	124				
Surr: Toluene-d8	46.19	0	50.00		92.4	81.3	120				

Sample ID: 1511104-018AMS	Client ID:					Units: ug/L	Prep Date: 11/05/2015	Run No: 303715			
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215509	Analysis Date: 11/05/2015	Seq No: 6502217			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	650.7	50	500.0		130	60.5	156				
Benzene	563.4	50	500.0		113	70	135				
Chlorobenzene	526.7	50	500.0		105	70.5	132				
Toluene	560.3	50	500.0		112	70.5	137				
Trichloroethene	593.6	50	500.0		119	71.8	139				
Surr: 4-Bromofluorobenzene	445.3	0	500.0		89.1	70.6	123				
Surr: Dibromofluoromethane	481.5	0	500.0		96.3	78.7	124				
Surr: Toluene-d8	455.7	0	500.0		91.1	81.3	120				

Sample ID: 1511104-018AMSD	Client ID:				Units: ug/L	Prep Date: 11/05/2015	Run No: 303715				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 215509	Analysis Date: 11/05/2015	Seq No: 6502218				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	657.5	50	500.0		132	60.5	156	650.7	1.04	20	
Benzene	539.6	50	500.0		108	70	135	563.4	4.32	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215509

Sample ID: 1511104-018AMSD	Client ID:					Units: ug/L	Prep Date: 11/05/2015	Run No: 303715			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215509	Analysis Date: 11/05/2015	Seq No: 6502218			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	535.6	50	500.0		107	70.5	132	526.7	1.68	20	
Toluene	555.5	50	500.0		111	70.5	137	560.3	0.860	20	
Trichloroethene	584.5	50	500.0		117	71.8	139	593.6	1.54	20	
Surr: 4-Bromofluorobenzene	413.8	0	500.0		82.8	70.6	123	445.3	0	0	
Surr: Dibromofluoromethane	462.5	0	500.0		92.5	78.7	124	481.5	0	0	
Surr: Toluene-d8	450.5	0	500.0		90.1	81.3	120	455.7	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215572

Sample ID: MB-215572	Client ID:					Units: ug/L	Prep Date: 11/06/2015	Run No: 303799			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215572	Analysis Date: 11/06/2015	Seq No: 6503138			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215572**

Sample ID: MB-215572	Client ID:					Units: ug/L	Prep Date: 11/06/2015		Run No: 303799		
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS	SW8260B				BatchID: 215572	Analysis Date: 11/06/2015		Seq No: 6503138		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	40.38	0	50.00		80.8	70.6	123				
Surr: Dibromofluoromethane	51.70	0	50.00		103	78.7	124				
Surr: Toluene-d8	46.67	0	50.00		93.3	81.3	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215572**

Sample ID: LCS-215572	Client ID:					Units: ug/L	Prep Date: 11/06/2015	Run No: 303848			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215572	Analysis Date: 11/06/2015	Seq No: 6503955			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	56.51	5.0	50.00		113	64.2	137				
Benzene	53.32	5.0	50.00		107	72.8	128				
Chlorobenzene	54.86	5.0	50.00		110	72.3	126				
Toluene	51.80	5.0	50.00		104	74.9	127				
Trichloroethene	62.52	5.0	50.00		125	70.5	134				
Surr: 4-Bromofluorobenzene	45.03	0	50.00		90.1	70.6	123				
Surr: Dibromofluoromethane	47.38	0	50.00		94.8	78.7	124				
Surr: Toluene-d8	49.25	0	50.00		98.5	81.3	120				

Sample ID: 1511555-001AMS	Client ID:					Units: ug/L	Prep Date: 11/06/2015	Run No: 303848			
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 215572	Analysis Date: 11/06/2015	Seq No: 6503957			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2744	250	2500		110	60.5	156				
Benzene	2706	250	2500		108	70	135				
Chlorobenzene	2676	250	2500		107	70.5	132				
Toluene	2582	250	2500		103	70.5	137				
Trichloroethene	3077	250	2500		123	71.8	139				
Surr: 4-Bromofluorobenzene	2284	0	2500		91.4	70.6	123				
Surr: Dibromofluoromethane	2392	0	2500		95.7	78.7	124				
Surr: Toluene-d8	2464	0	2500		98.5	81.3	120				

Sample ID: 1511555-001AMSD	Client ID:				Units: ug/L	Prep Date: 11/06/2015	Run No: 303848				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 215572	Analysis Date: 11/06/2015	Seq No: 6503958				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	2598	250	2500		104	60.5	156	2744	5.50	20	
Benzene	2530	250	2500		101	70	135	2706	6.74	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215572

Sample ID: 1511555-001AMSD	Client ID:				Units: ug/L	Prep Date: 11/06/2015	Run No: 303848				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 215572	Analysis Date: 11/06/2015	Seq No: 6503958				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	2634	250	2500		105	70.5	132	2676	1.60	20	
Toluene	2536	250	2500		101	70.5	137	2582	1.76	20	
Trichloroethene	2870	250	2500		115	71.8	139	3077	6.96	20	
Surr: 4-Bromofluorobenzene	2172	0	2500		86.9	70.6	123	2284	0	0	
Surr: Dibromofluoromethane	2402	0	2500		96.1	78.7	124	2392	0	0	
Surr: Toluene-d8	2450	0	2500		98.0	81.3	120	2464	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215649

Sample ID: MB-215649	Client ID:					Units: mg/L	Prep Date: 11/06/2015	Run No: 303922			
SampleType: MBLK	TestCode: Sulfide by SW9030B/9034					BatchID: 215649	Analysis Date: 11/06/2015	Seq No: 6505560			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide BRL 2.00

Sample ID: LCS-215649		Client ID:		Units: mg/L		Prep Date: 11/06/2015		Run No: 303922			
SampleType: LCS		TestCode: Sulfide by SW9030B/9034		BatchID: 215649		Analysis Date: 11/06/2015		Seq No: 6505561			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide 244.0 2.00 244.0 100 40 120

Sample ID: 1510S30-001DMS					Client ID:			Units: mg/L		Prep Date: 11/06/2015		Run No: 303922	
SampleType: MS					TestCode: Sulfide by SW9030B/9034			BatchID: 215649		Analysis Date: 11/06/2015		Seq No: 6505585	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual		

Sulfide 11.40 2.00 12.20 93.4 73.7 120

Sample ID: 1510S30-001DMSD					Client ID:			Units: mg/L		Prep Date: 11/06/2015		Run No: 303922	
SampleType: MSD					TestCode: Sulfide by SW9030B/9034			BatchID: 215649		Analysis Date: 11/06/2015		Seq No: 6505586	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual		

Sulfide 11.20 2.00 12.20 91.8 73.7 120 11.40 1.77 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: 215711**

Sample ID: MB-215711	Client ID:					Units: ug/L	Prep Date: 11/10/2015	Run No: 304235			
SampleType: MBLK	TestCode: GC Analysis of Gaseous Samples	SOP-RSK 175				BatchID: 215711	Analysis Date: 11/10/2015	Seq No: 6513005			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Ethane BRL 9.0
 Ethylene BRL 7.0
 Methane BRL 4.0

Sample ID: LCS-215711	Client ID:					Units: ug/L	Prep Date: 11/10/2015	Run No: 304235			
SampleType: LCS	TestCode: GC Analysis of Gaseous Samples	SOP-RSK 175				BatchID: 215711	Analysis Date: 11/10/2015	Seq No: 6513006			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Ethane 124.8 9.0 200.0 62.4 41.2 115
 Ethylene 83.33 7.0 200.0 41.7 26.5 115
 Methane 126.8 4.0 200.0 63.4 45.1 115

Sample ID: LCSD-215711	Client ID:					Units: ug/L	Prep Date: 11/10/2015	Run No: 304235			
SampleType: LCSD	TestCode: GC Analysis of Gaseous Samples	SOP-RSK 175				BatchID: 215711	Analysis Date: 11/10/2015	Seq No: 6513007			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Ethane 117.8 9.0 200.0 58.9 41.2 115 124.8 5.77 20
 Ethylene 80.42 7.0 200.0 40.2 26.5 115 83.33 3.56 20
 Methane 121.2 4.0 200.0 60.6 45.1 115 126.8 4.51 20

Sample ID: 1511587-002AMS	Client ID:					Units: ug/L	Prep Date: 11/10/2015	Run No: 304235			
SampleType: MS	TestCode: GC Analysis of Gaseous Samples	SOP-RSK 175				BatchID: 215711	Analysis Date: 11/10/2015	Seq No: 6513019			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Ethane 106.5 9.0 200.0 53.3 40.5 115
 Ethylene 70.70 7.0 200.0 35.4 25.1 115
 Methane 109.4 4.0 200.0 54.7 40.4 115

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215711

Sample ID: 1511587-002AMSD	Client ID:					Units: ug/L	Prep Date: 11/10/2015	Run No: 304235			
SampleType: MSD	TestCode: GC Analysis of Gaseous Samples	SOP-RSK 175				BatchID: 215711	Analysis Date: 11/10/2015	Seq No: 6513020			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	101.9	9.0	200.0		51.0	40.5	115	106.5	4.40	20	
Ethylene	68.87	7.0	200.0		34.4	25.1	115	70.70	2.62	20	
Methane	104.1	4.0	200.0		52.0	40.4	115	109.4	4.96	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: 215729

Sample ID: MB-215729	Client ID:					Units: mg/L	Prep Date: 11/10/2015	Run No: 304156			
SampleType: MBLK	TestCode: Sulfide by SW9030B/9034					BatchID: 215729	Analysis Date: 11/10/2015	Seq No: 6511140			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide BRL 2.00

Sample ID: LCS-215729		Client ID:			Units: mg/L		Prep Date: 11/10/2015		Run No: 304156		
SampleType: LCS		TestCode: Sulfide by SW9030B/9034			BatchID: 215729		Analysis Date: 11/10/2015		Seq No: 6511141		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide 284.0 2.00 284.0 100 40 120

Sample ID: 1511383-008CMS	Client ID: 15307-MW-2	Units: mg/L	Prep Date: 11/10/2015	Run No: 304156							
SampleType: MS	TestCode: Sulfide by SW9030B/9034	BatchID: 215729	Analysis Date: 11/10/2015	Seq No: 6511165							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide 13.20 2.00 14.20 93.0 73.7 120

Sample ID: 1511383-008CMSD	Client ID: 15307-MW-2	Units: mg/L	Prep Date: 11/10/2015	Run No: 304156							
SampleType: MSD	TestCode: Sulfide by SW9030B/9034	BatchID: 215729	Analysis Date: 11/10/2015	Seq No: 6511166							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfide 12.80 2.00 14.20 90.1 73.7 120 13.20 3.08 20

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: R303992**

Sample ID: MB-R303992	Client ID:					Units: mg/L	Prep Date:		Run No: 303992		
SampleType: MBLK	TestCode: ION SCAN SW9056A					BatchID: R303992	Analysis Date: 11/09/2015		Seq No: 6507536		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfate BRL 1.0

Sample ID: LCS-R303992	Client ID:					Units: mg/L	Prep Date:		Run No: 303992		
SampleType: LCS	TestCode: ION SCAN SW9056A					BatchID: R303992	Analysis Date: 11/09/2015		Seq No: 6507535		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfate 24.23 1.0 25.00 96.9 90 110

Sample ID: 1511587-003BMS	Client ID:					Units: mg/L	Prep Date:		Run No: 303992		
SampleType: MS	TestCode: ION SCAN SW9056A					BatchID: R303992	Analysis Date: 11/09/2015		Seq No: 6507562		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfate 277.5 10 250.0 30.74 98.7 90 110

Sample ID: 1511802-001CMS	Client ID:					Units: mg/L	Prep Date:	Run No: 303992			
SampleType: MS	TestCode: ION SCAN SW9056A					BatchID: R303992	Analysis Date: 11/09/2015	Seq No: 6507566			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfate 24.90 1.0 25.00 0.6597 97.0 90 110

Sample ID: 1511587-003BMSD		Client ID:			Units: mg/L		Prep Date:		Run No: 303992			
SampleType: MSD		TestCode: ION SCAN SW9056A			BatchID: R303992		Analysis Date: 11/09/2015		Seq No: 6507564			
Analyte		Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Sulfate 277.9 10 250.0 30.74 98.9 90 110 277.5 0.167 20

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT**BatchID: R303995**

Sample ID: MB-R303995	Client ID:					Units: mg/L	Prep Date:			Run No: 303995	
SampleType: MBLK	TestCode: Nitrogen, Nitrate-Nitrite (as N) E353.2					BatchID: R303995	Analysis Date: 11/10/2015			Seq No: 6507829	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N) BRL 0.050

Sample ID: LCS-R303995	Client ID:					Units: mg/L	Prep Date:		Run No: 303995		
SampleType: LCS	TestCode: Nitrogen, Nitrate-Nitrite (as N) E353.2					BatchID: R303995	Analysis Date: 11/10/2015		Seq No: 6507830		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N) 0.4970 0.050 0.5000 99.4 90 110

Sample ID: 1511270-001AMS	Client ID:					Units: mg/L	Prep Date:		Run No: 303995		
SampleType: MS	TestCode: Nitrogen, Nitrate-Nitrite (as N) E353.2					BatchID: R303995	Analysis Date: 11/10/2015		Seq No: 6507864		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N) 0.6800 0.050 0.5000 0.1750 101 90 110

Sample ID: 1511379-001BMS	Client ID:					Units: mg/L	Prep Date:		Run No: 303995		
SampleType: MS	TestCode: Nitrogen, Nitrate-Nitrite (as N) E353.2					BatchID: R303995	Analysis Date: 11/10/2015		Seq No: 6507866		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N) 0.6700 0.050 0.5000 0.1770 98.6 90 110

Sample ID: 1511270-001AMSD	Client ID:					Units: mg/L	Prep Date:			Run No: 303995	
SampleType: MSD	TestCode: Nitrogen, Nitrate-Nitrite (as N) E353.2					BatchID: R303995	Analysis Date: 11/10/2015			Seq No: 6507865	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N) 0.6720 0.050 0.5000 0.1750 99.4 90 110 0.6800 1.18 20

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: R304026

Sample ID: MB-R304026		Client ID:			Units: mg/L		Prep Date:		Run No: 304026		
SampleType: MBLK		TestCode: Alkalinity by SM2320B			BatchID: R304026		Analysis Date: 11/10/2015		Seq No: 6508227		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3) BRL 3.00

Sample ID: LCS-R304026		Client ID:		Units: mg/L		Prep Date:		Run No: 304026			
SampleType: LCS		TestCode: Alkalinity by SM2320B		BatchID: R304026		Analysis Date: 11/10/2015		Seq No: 6508228			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3) 125.0 3.00 125.0 100 75 125

Sample ID: 1511204-001IDUP		Client ID:				Units: mg/L		Prep Date:		Run No: 304026	
SampleType: DUP		TestCode: Alkalinity by SM2320B				BatchID: R304026		Analysis Date: 11/10/2015		Seq No: 6508239	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3) 2100 60.0 2080 0.957 30

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1511383

ANALYTICAL QC SUMMARY REPORT

BatchID: R304057

Sample ID: MB-R304057	Client ID:					Units: mg/L	Prep Date:		Run No: 304057		
SampleType: MBLK	TestCode: Total Organic Carbon (TOC)	SW9060A				BatchID: R304057	Analysis Date: 11/10/2015		Seq No: 6508978		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total BRL 1.00

Sample ID: LCS-R304057	Client ID:					Units: mg/L	Prep Date:			Run No: 304057	
SampleType: LCS	TestCode: Total Organic Carbon (TOC)	SW9060A				BatchID: R304057	Analysis Date: 11/10/2015			Seq No: 6508977	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total 24.01 1.00 25.00 96.0 90 110

Sample ID: 1511383-013EMS	Client ID: 15307-MW-9	Units: mg/L	Prep Date:	Run No: 304057							
SampleType: MS	TestCode: Total Organic Carbon (TOC) SW9060A	BatchID: R304057	Analysis Date: 11/10/2015	Seq No: 6508988							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total 22.05 1.00 25.00 88.2 80 120

Sample ID: 1511383-013EMSD	Client ID: 15307-MW-9	Units: mg/L	Prep Date:	Run No: 304057							
SampleType: MSD	TestCode: Total Organic Carbon (TOC) SW9060A	BatchID: R304057	Analysis Date: 11/10/2015	Seq No: 6508989							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total 24.36 1.00 25.00 97.4 80 120 22.05 9.95 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

January 18, 2016

Aaron Williams
Environmental Planning Specialists, Inc.
1050 Crown Pointe Parkway, Suite 550
Atlanta GA 30338

TEL: (404) 315-9113
FAX: (404) 315-8509

RE: Grantville Mill

Dear Aaron Williams:

Order No: 1601755

Analytical Environmental Services, Inc. received 4 samples on 1/12/2016 4:13:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Chantelle Kanhai
Project Manager



TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 160175

Date: 1/12/16 Page 1 of 1

[illegible]

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-001

Client Sample ID: 16012-MW-14
Collection Date: 1/12/2016 9:07:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,1-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,1-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2-Dibromoethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,2-Dichloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
2-Butanone	BRL	50		ug/L	218494	1	01/15/2016 17:45	NP
2-Hexanone	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
4-Methyl-2-pentanone	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
Acetone	BRL	50		ug/L	218494	1	01/15/2016 17:45	NP
Benzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Bromodichloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Bromoform	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Bromomethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Carbon disulfide	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Carbon tetrachloride	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Chlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Chloroethane	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
Chloroform	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Chloromethane	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Cyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Dibromochloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Dichlorodifluoromethane	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
Ethylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Freon-113	BRL	10		ug/L	218494	1	01/15/2016 17:45	NP
Isopropylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
m,p-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Methyl acetate	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Methylcyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Methylene chloride	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
o-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-001

Client Sample ID: 16012-MW-14
Collection Date: 1/12/2016 9:07:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Tetrachloroethene	510	50		ug/L	218494	10	01/16/2016 21:17	NP
Toluene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Trichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Trichlorofluoromethane	BRL	5.0		ug/L	218494	1	01/15/2016 17:45	NP
Vinyl chloride	BRL	2.0		ug/L	218494	1	01/15/2016 17:45	NP
Surr: 4-Bromofluorobenzene	91.3	70.7-125		%REC	218494	1	01/15/2016 17:45	NP
Surr: 4-Bromofluorobenzene	91.7	70.7-125		%REC	218494	10	01/16/2016 21:17	NP
Surr: Dibromofluoromethane	109	82.2-120		%REC	218494	10	01/16/2016 21:17	NP
Surr: Dibromofluoromethane	113	82.2-120		%REC	218494	1	01/15/2016 17:45	NP
Surr: Toluene-d8	98.1	81.8-120		%REC	218494	10	01/16/2016 21:17	NP
Surr: Toluene-d8	101	81.8-120		%REC	218494	1	01/15/2016 17:45	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-002

Client Sample ID: 16012-MW-13
Collection Date: 1/12/2016 10:20:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,1-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,1-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2-Dibromoethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,2-Dichloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
2-Butanone	BRL	50		ug/L	218494	1	01/15/2016 18:09	NP
2-Hexanone	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
4-Methyl-2-pentanone	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
Acetone	BRL	50		ug/L	218494	1	01/15/2016 18:09	NP
Benzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Bromodichloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Bromoform	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Bromomethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Carbon disulfide	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Carbon tetrachloride	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Chlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Chloroethane	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
Chloroform	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Chloromethane	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Cyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Dibromochloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Dichlorodifluoromethane	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
Ethylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Freon-113	BRL	10		ug/L	218494	1	01/15/2016 18:09	NP
Isopropylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
m,p-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Methyl acetate	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Methylcyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Methylene chloride	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
o-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-002

Client Sample ID: 16012-MW-13
Collection Date: 1/12/2016 10:20:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Tetrachloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Toluene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Trichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Trichlorofluoromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:09	NP
Vinyl chloride	BRL	2.0		ug/L	218494	1	01/15/2016 18:09	NP
Surr: 4-Bromofluorobenzene	94.1	70.7-125		%REC	218494	1	01/15/2016 18:09	NP
Surr: Dibromofluoromethane	111	82.2-120		%REC	218494	1	01/15/2016 18:09	NP
Surr: Toluene-d8	99.1	81.8-120		%REC	218494	1	01/15/2016 18:09	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-003

Client Sample ID: 16012-MW-15
Collection Date: 1/12/2016 12:11:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,1-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,1-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2-Dibromoethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,2-Dichloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
2-Butanone	BRL	50		ug/L	218494	1	01/15/2016 18:32	NP
2-Hexanone	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
4-Methyl-2-pentanone	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
Acetone	BRL	50		ug/L	218494	1	01/15/2016 18:32	NP
Benzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Bromodichloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Bromoform	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Bromomethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Carbon disulfide	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Carbon tetrachloride	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Chlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Chloroethane	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
Chloroform	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Chloromethane	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Cyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Dibromochloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Dichlorodifluoromethane	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
Ethylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Freon-113	BRL	10		ug/L	218494	1	01/15/2016 18:32	NP
Isopropylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
m,p-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Methyl acetate	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Methylcyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Methylene chloride	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
o-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-003

Client Sample ID: 16012-MW-15
Collection Date: 1/12/2016 12:11:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Tetrachloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Toluene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Trichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Trichlorofluoromethane	BRL	5.0		ug/L	218494	1	01/15/2016 18:32	NP
Vinyl chloride	BRL	2.0		ug/L	218494	1	01/15/2016 18:32	NP
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	218494	1	01/15/2016 18:32	NP
Surr: Dibromofluoromethane	112	82.2-120		%REC	218494	1	01/15/2016 18:32	NP
Surr: Toluene-d8	99.9	81.8-120		%REC	218494	1	01/15/2016 18:32	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-004

Client Sample ID: TRIP BLANK
Collection Date: 1/12/2016
Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,1-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,1-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2-Dibromoethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2-Dichloroethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,2-Dichloropropane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
2-Butanone	BRL	50		ug/L	218494	1	01/15/2016 15:49	NP
2-Hexanone	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
4-Methyl-2-pentanone	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
Acetone	BRL	50		ug/L	218494	1	01/15/2016 15:49	NP
Benzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Bromodichloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Bromoform	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Bromomethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Carbon disulfide	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Carbon tetrachloride	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Chlorobenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Chloroethane	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
Chloroform	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Chloromethane	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Cyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Dibromochloromethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Dichlorodifluoromethane	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
Ethylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Freon-113	BRL	10		ug/L	218494	1	01/15/2016 15:49	NP
Isopropylbenzene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
m,p-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Methyl acetate	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Methylcyclohexane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Methylene chloride	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
o-Xylene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 18-Jan-16

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Lab ID: 1601755-004

Client Sample ID: TRIP BLANK
Collection Date: 1/12/2016
Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Tetrachloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Toluene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Trichloroethene	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Trichlorofluoromethane	BRL	5.0		ug/L	218494	1	01/15/2016 15:49	NP
Vinyl chloride	BRL	2.0		ug/L	218494	1	01/15/2016 15:49	NP
Surr: 4-Bromofluorobenzene	91.8	70.7-125		%REC	218494	1	01/15/2016 15:49	NP
Surr: Dibromofluoromethane	107	82.2-120		%REC	218494	1	01/15/2016 15:49	NP
Surr: Toluene-d8	97.5	81.8-120		%REC	218494	1	01/15/2016 15:49	NP

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client ENV. PLANNING Work Order Number 160175

Checklist completed by [Signature] Date 1/12/2016
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 3.6°C Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by ☐

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Receipt_Checklist_Rev1.rtf

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1601755

ANALYTICAL QC SUMMARY REPORT**BatchID: 218494**

Sample ID: MB-218494	Client ID:					Units: ug/L	Prep Date: 01/15/2016	Run No: 308342			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 218494	Analysis Date: 01/15/2016	Seq No: 6619429			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1601755

ANALYTICAL QC SUMMARY REPORT

BatchID: 218494

Sample ID: MB-218494		Client ID:				Units: ug/L		Prep Date: 01/15/2016		Run No: 308342	
SampleType: MBLK		TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 218494		Analysis Date: 01/15/2016		Seq No: 6619429	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	45.02	0	50.00		90.0	70.7	125				
Surr: Dibromofluoromethane	54.07	0	50.00		108	82.2	120				
Surr: Toluene-d8	48.89	0	50.00		97.8	81.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1601755

ANALYTICAL QC SUMMARY REPORT**BatchID: 218494**

Sample ID: LCS-218494	Client ID:					Units: ug/L	Prep Date: 01/15/2016	Run No: 308342			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 218494	Analysis Date: 01/15/2016	Seq No: 6619430			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	60.80	5.0	50.00		122	65.3	137				
Benzene	52.95	5.0	50.00		106	74.9	123				
Chlorobenzene	55.76	5.0	50.00		112	73.9	124				
Toluene	55.77	5.0	50.00		112	75	124				
Trichloroethene	55.13	5.0	50.00		110	73.1	128				
Surr: 4-Bromofluorobenzene	45.43	0	50.00		90.9	70.7	125				
Surr: Dibromofluoromethane	52.59	0	50.00		105	82.2	120				
Surr: Toluene-d8	47.19	0	50.00		94.4	81.8	120				

Sample ID: 1601889-001AMS	Client ID:					Units: ug/L	Prep Date: 01/15/2016	Run No: 308342			
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 218494	Analysis Date: 01/15/2016	Seq No: 6619432			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	63.93	5.0	50.00		128	60	150				
Benzene	55.93	5.0	50.00		112	70.1	132				
Chlorobenzene	57.42	5.0	50.00		115	70.9	131				
Toluene	59.34	5.0	50.00	1.130	116	70.1	133				
Trichloroethene	57.63	5.0	50.00		115	70	136				
Surr: 4-Bromofluorobenzene	50.70	0	50.00		101	70.7	125				
Surr: Dibromofluoromethane	52.52	0	50.00		105	82.2	120				
Surr: Toluene-d8	48.50	0	50.00		97.0	81.8	120				

Sample ID: 1601889-001AMSD	Client ID:				Units: ug/L	Prep Date: 01/15/2016	Run No: 308342				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 218494	Analysis Date: 01/15/2016	Seq No: 6619433				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	56.17	5.0	50.00		112	60	150	63.93	12.9	17.7	
Benzene	50.36	5.0	50.00		101	70.1	132	55.93	10.5	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville Mill
Workorder: 1601755

ANALYTICAL QC SUMMARY REPORT

BatchID: 218494

Sample ID: 1601889-001AMSD	Client ID:					Units: ug/L	Prep Date: 01/15/2016	Run No: 308342			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 218494	Analysis Date: 01/15/2016	Seq No: 6619433			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	51.14	5.0	50.00		102	70.9	131	57.42	11.6	20	
Toluene	52.99	5.0	50.00	1.130	104	70.1	133	59.34	11.3	20	
Trichloroethene	51.99	5.0	50.00		104	70	136	57.63	10.3	20	
Surr: 4-Bromofluorobenzene	49.44	0	50.00		98.9	70.7	125	50.70	0	0	
Surr: Dibromofluoromethane	51.68	0	50.00		103	82.2	120	52.52	0	0	
Surr: Toluene-d8	48.38	0	50.00		96.8	81.8	120	48.50	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX F

Carus Remediation Technologies Remediation Report



Carus Remediation Technologies
Remediation Report

October 15, 2015

Customer: EPS Inc.
1050 Crown Pointe Plwy
Suite 550
Atlanta, CA 30338

Cc: T. Lizer

Attention: Aaron Williams

From: L. Mueller

TECH # 15-159

Subject: RemOx[®] L ISCO Reagent Permanganate Natural Oxidant Demand

Summary

The overall average RemOx[®] L ISCO reagent permanganate natural oxidant demand (PNOD) at 48 hours for the soil samples was determined to be 0.0 g/kg. The average demands ranged from 0.0 g/kg to 0.0 g/kg. These values are calculated on a weight as sodium permanganate (NaMnO₄) per dry weight of soil.

Background

Two soil samples were received from EPS Inc. from the Grantville, GA project located in Grantville, GA. The soil sample designations were 5278-MW-9-NOD, and 5279-MW-7-NOD. The samples were analyzed for permanganate natural oxidant demand. The measurement of the permanganate natural oxidant demand is used to estimate the concentration of permanganate that will be consumed by the natural reducing agents during a given time period of 48 hours.

Experimental

The samples were analyzed for permanganate natural oxidant demand following ASTM D7262-07 Test Method A. A brief summary is as follows:

To determine the PNOD, the soil was baked at 105°C for 24 hours then allowed to cool to room temperature. The soil was then blended and passed through a U.S. 10 sieve (2 mm). Reactors were loaded with 50 grams of soil and 100 mL of 20 g/L NaMnO₄ for an initial dose of 40 g/kg NaMnO₄ on a dry soil weight basis at a 1:2 soil to aqueous reagent ratio. Each soil dose was performed in triplicate. The reaction vessels were inverted once to mix the reagents. Residual permanganate (MnO₄⁻) was determined at 48 hours. The demands were calculated on a dry weight basis.

Results

The permanganate demand is the amount of permanganate consumed in a given amount of time. It should be noted that in a soil or groundwater sample, the oxidation of any compound by permanganate is dependent on the initial dose of permanganate and the reaction time available. As the permanganate dose is increased, the reaction rate and oxidant consumption may also increase. Some compounds that are not typically oxidized by permanganate under low doses can become

reactive with permanganate at higher concentrations. The 48-hour PNOD results can be seen in Table 1 (on a dry soil basis).

Table 1: 48-Hour PNOD *

Soil Sample Identification	Average and Standard Deviation (g/kg)	Replicate 1 (g/kg)	Replicate 2 (g/kg)	Replicate 3 (g/kg)
5278-MW-9-NOD	0.0 ± 0.00	0.0	0.0	0.0
5279-MW-7-NOD	0.0 ± 0.02	0.0	0.0	0.0
Overall Average	0.0			

*Demands were calculated on a weight NaMnO₄/dry soil weight basis from an initial dose of 40.0 g/kg NaMnO₄ initial dose at a 1:2 soil to aqueous solution ratio

Conclusions

For this application the amount of permanganate needed will be dependent on the reaction time allowed. On average, the soil samples had a 48-hour permanganate demand value of 0.0 g/kg. The average demands ranged from 0.0 g/kg to 0.0 g/kg. Generally, remediation sites with a soil demand of less than 20.0 g/kg at the time of interest are favorable for *in situ* chemical oxidation with permanganate (see Table 2 for additional information).

Table 2: Correlation of Permanganate Natural Oxidant Demand Results*

PNOD (g/kg)	Rank	Comment
<10	Low	ISCO with MnO ₄ ⁻ is recommended. Soil contribution to MnO ₄ ⁻ demand is low.
10-20	Moderate	ISCO with MnO ₄ ⁻ is recommended. Soil contribution to MnO ₄ ⁻ demand is moderate. Economics should be considered.
>20	High	ISCO with MnO ₄ ⁻ is technically feasible. Other technologies may provide lower cost alternatives.

*Dry Weight Basis