Prepared for:

CAPITAL CITY BANK
1301 Metropolitan Boulevard
Tallahassee, Florida 32308

VOLUNTARY REMEDIATION PROGRAM
PROGRESS REPORT #5
Grantville Mill
41 Industrial Way
Grantville, GA 30220

Prepared by:

400 Northbridge Road, Suite 400
Sandy Springs, Georgia 30350
Tel: 404-315-9113

January 2018

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Kirk J. Kessler, P.G.
Senior Principal

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EPS

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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

1/10/2018
Date

Signature and Stamp

1 INTRODUCTION

1.1 Overview

This Voluntary Remediation Program (VRP) Progress Report #5 is submitted on behalf of Capital City Bank (CCB) for the Grantville Mill site comprised of two parcels as listed on the Hazardous Site Inventory (HSI), Site Number 10912. The Grantville Mill Voluntary Investigation and Remediation Plan (VIRP) (EPS, 2015) was approved by the Georgia Environmental Protection Division (EPD) on July 22, 2015 (EPD, 2015). This Progress Report includes a comprehensive overview of soil, groundwater and vapor intrusion investigations, an update to the conceptual site model (CSM), and the final remediation plan to address potential contaminant exposure pathways.

1.2 Site Location and Description

The CCB property is located in the City of Grantville, Georgia in Coweta County (Figure 1). The CCB property is listed as Coweta Country Parcel ID G050008008, totals 13.48 acres, and has the physical address of 41 Industrial Way, Grantville, Georgia. 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). Together these two property parcels constitute the "Site".

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. (Tropic Formals), 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 previously listed as an RCRA handler of tetrachloroethene (PCE) for dry cleaning 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 property is currently unoccupied.

Properties bordering the Site and their land use are shown in Figure 2 and include:

- 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 UPDATE TO THE CONCEPTUAL SITE MODEL (CSM)

3.1 Overview

The CSM is intended to establish a common knowledge base about the Site and its environmental condition to facilitate an informed decision regarding possible remedial action measures to address potential exposure pathways. Sufficient information for the Site is available from past investigations and the scientific literature to update the CSM that presents: (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. In this update, a comprehensive review of data collected through the VRP is presented, with new data presented for testing of building materials in the presumed PCE release area and refinement of the potential exposure pathways.

3.2 Site Features

3.2.1 Topography and Surface Features

The Site is located in Coweta County, which falls in the Greenville Slope District of the Piedmont Physiographic Province (Piedmont Province) in Georgia. The Greenville Slope District is characterized by rolling topography that gradually decreases in elevation from approximately 1,000 ft above mean sea level (amsl) in the northeast to 600 ft amsl in the southwest. Open valleys with broad, rounded divides and deeper valleys with narrow, rounded divides cover the southwestern and northeastern portion of the district, respectively. The southern boundary of the district follows the base of the northern side of Pine Mountain.

A U.S. Geological Survey (USGS) Light Detection and Ranging ("LiDAR") topographic map showing 2-ft contour intervals is included in Figure 3. The Site is located on the eastern flank of a U-shaped valley, oriented to the north-northeast. Site elevation decreases from approximately 880 ft amsl along Industrial Way to 824 ft amsl at the northeastern boundary of the CCB parcel, sloping down to an elevation of around 800 ft amsl at the northern boundary of the Grantville Mill LLC parcel (Figure 3).

The southwestern portion of the CCB parcel is largely covered by impermeable surfaces (buildings and paved parking lots). Grassed or cleared areas become more widespread moving toward the northeastern boundary of the CCB parcel, away from the former Tropic Formals building. The Grantville Mill LLC parcel is wooded with the most prominent feature being a north-south oriented valley.

3.2.2 Surface Water Features

Surface water features in the vicinity of the Site are depicted on the USGS Quadrangle Map, shown in Figure 4. At the local scale of the Site, an intermittent unnamed stream begins north of the City of Grantville cemetery and flows beneath the rail line to the north along the extreme northeast border of the CCB parcel and then centralized within the valley of the Grantville Mill LLC parcel continuing in a northerly direction for another 1160 ft (approximate) beyond the northern boundary of the Grantville Mill LLC parcel where it transitions into an unnamed perennial stream. This stream extends for approximately 0.6 miles where it empties into Messiers Creek. Messiers Creek flows in a westerly direction discharging into the New River in about 1.6 miles, which continues in a westerly direction for another 17 miles (approximate) discharging into the Chattahoochee River above Lake West Point.

3.2.3 General Hydrogeologic Conditions

3.2.3.1 Site Geologic and Hydrogeologic Setting

Soils in the Piedmont, such as at Grantville Mill, are derived from underlying metamorphic rocks through weathering, disintegration, and decay where the predominant metamorphic rocks are gneisses and schists. According to the National Resources Conservation Service's web Soil Survey, the residuum beneath the surface across the Site contains predominantly sandy clay loam and sandy loam derived from mica schist and gneiss to approximately 4.5 feet below ground surface (ft-bgs). The Piedmont typically consists of crystalline bedrock with discontinuous fractures containing water, which are hydraulically connected to overlying saprolite (partially weathered rock (PWR) and soil (or residuum). The degree of fracturing and size of the fracture apertures (openings) in the crystalline bedrock generally decreases with depth. One well (MW-5D) was terminated approximately 65 ft-bgs, appearing to have encountered the PWR around 42 ft-bgs based upon the well drilling log. Top of bedrock was not encountered at MW-5D, but likely exists somewhere in the range of 65 to 85 ft based upon other sites in the Piedmont.

Groundwater in the Piedmont Province occurs under unconfined conditions where the potentiometric surface typically mimics ground surface topography. Along topographically low areas, the water table typically occurs within the saprolite portion of the hydrogeological profile. Along topographically high areas, the water table often occurs in underlying crystalline or weathered bedrock. The saprolite portion of the hydrogeological system generally contains significantly more fluid compared to the same volume of bedrock. The crystalline bedrock exhibits essentially no primary porosity/permeability and relies upon secondary permeability features such as fractures and faults for the transmission and storage of groundwater. These secondary features generally are not abundant and of relatively small apertures, which limits the amount of fluid flowing through the bedrock. This is why water supply wells such as those on the Site typically extend to as much as 500-700 ft-bgs and are open-hole installations to allow maximum available yield from intersected fractures.

3.2.3.2 Groundwater Direction and Flow Velocity

The depth to the water table and groundwater flow direction have been updated semi-annually (2014-2016) as additional monitoring wells have been installed to investigate the subsurface condition. All wells are surveyed with respect to the Georgia West State Plane coordinate system with elevation established with respect to ft amsl. Evaluations of groundwater flow to date consistently model flow to the northeast across the CCB parcel then turning to a more northerly direction along the Grantville Mill LLC parcel (Figure 5). This groundwater flow model mimics the ground surface topography as is typical in unconfined strata within the Piedmont. Groundwater flow is expected to continue in a northerly direction beyond MW-2 following the axis of the valley floor.

Ardaman performed a falling head permeability test on well MW-5 to determine the hydraulic conductivity of the Site's upper aquifer material. The data was analyzed using the Hvorslev Slug Test method (Hvorslev, 1951) and the hydraulic conductivity was calculated at $8.5 \cdot 10^{-4}$ cm/s. Groundwater velocity was calculated according to the standard Darcy velocity equation as follows:

Q=Ki/n where

K is hydraulic conductivity

i is the hydraulic gradient

n is the effective porosity (assumed to be 0.2)

Using the hydraulic conductivity from the falling head permeability test ($8.5 \cdot 10^{-4}$ cm/s), and the measured Site hydraulic gradient (0.035 ft/ft), and an assumed effective porosity of 20%, the groundwater velocity in the upper aquifer (i.e., where contaminants are detected) is calculated to be approximately 150 ft/yr.

3.3 Nature and Extent of Groundwater Contamination

3.3.1 Area of Release

Based on historical occupancy information for the Site and multimedia sampling data (i.e., soil, soil gas, groundwater and building material), the PCE release is reasonably traced to the northern corner of the main Site facility building. The lines of evidence supporting this deduction include:

1. a registered RCRA handler of PCE occupied this portion of the main facility building (i.e., Tropic Formals) from 1980 through 1993;
2. testing of the wood flooring in the space occupied by Tropic Formals detected PCE indicating a release occurred from within the interior of the building;
3. soil testing data reports the highest PCE condition beneath the portion of the main facility occupied by Tropic Formals, with the condition quickly diminishing at the building perimeter;

4. soil gas data reports the highest PCE condition beneath the portion of the main facility occupied by Tropic Formals, with the condition quickly diminishing at the building perimeter;
5. groundwater data reports the highest PCE condition immediately northeast of the main facility building occupied by Tropic Formal, consistent with groundwater flow to the northeast of the release area.

3.3.2 Groundwater Investigations

The VOC plume was initially characterized in March 2010, with further investigation performed through November 2016. Installation of permanent monitoring wells to investigate and delineate the groundwater condition has occurred in three phases with a specific purpose. The first phase occurred in 2014 with the installation of MW-1 through MW-6, including the installation of well pair MW-5 and MW-5D for vertical delineation of groundwater. The objective of the first phase of monitoring wells was to characterize the perceived core of the VOC plume based on groundwater data gathered with temporary wells. The second phase occurred in October 2016 with the installation of MW-7 through MW-12 with the objective of delineating the horizontal extent of the VOC plume. The October 2016 well installation bounded the plume (i.e., MW-1, MW-3, MW-4, MW-7, MW-9, MW-10, MW-11, and MW-12 are non-detect for Site-related VOCs). The final phase of monitoring well installation was performed in three iterative stages for the purpose of refining the edge of the VOC plume with respect to adjacent residential properties. These additional wells include MW-13 through MW-18.

3.3.3 Groundwater Results

3.3.3.1 Summary of Detections

A total of six VOCs have been detected in on-Site and off-Site groundwater including chloroform, cis-1,2-dichloroethene (cis-DCE), dichloromethane, Freon-11, PCE, and TCE. A summary of results by the chemical group is provided below and in Table 1. A map of the results and the inferred groundwater chloroethene plume is provided in Figure 6.

Chloroethenes

PCE is reported highest in MW-16 at 22,000 µg/L, located just north of the PCE release area. PCE is detected in six down-gradient wells: MW-5 (3,300 µg/L), MW-6 (1,800 µg/L), MW-8 (6,600 µg/L), MW-14 (730 µg/L), MW-17 (2,900 µg/L), and MW-2 (28 µg/L). Two PCE degradation products are detected: cis-DCE in MW-8 (200 µg/L) and MW-5 (25 µg/L), and TCE in MW-8 (31 µg/L). No chloroethenes are detected in the Site's deep well (MW-5D) following the sampling event that occurred immediately after well installation.

Freon-11

Freon-11 is reported in MW-2 and is the only detection of Freon-11 in the monitoring well network. The range of Freon-11 detection is 11.3 µg/L to 32 µg/L.

Chlorinated Water Disinfection Byproducts

Chloroform is currently reported in off-Site monitoring well MW-1 at 20 µg/L, and was previously detected in MW-4, MW-5D, and MW-6 during the first post-installation sampling event at each location. Dichlorobromomethane was also reported in MW-1 and MW-4 following installation with a non-detect condition reported in subsequent sampling events. Chloroform and dichorobromomethane are two constituents of a group chemicals termed trihalomethanes, which are common disinfection byproducts found in chlorinated potable water supplies and are also reported in groundwater near areas serviced with a chlorinated potable water due to intentional (*e.g.,* irrigation) or inadvertent discharge (*e.g.,* leaky water distribution or wastewater sewer lines). The City of Grantville utilizes chlorination in its potable water supply and from 2015 through 2016 reported trihalomethane concentrations from 46.5 µg/L to 58.4 µg/L. Thus, the detection of these two trihalomethanes are attributed to release from the city water supply or utilization of potable during drilling and are not related to the on-Site release.

3.3.3.2 VOC Plume Properties and Status

Sampling results from the monitoring well network indicate that the VOC plume extends approximately 900 ft northeast of the release area, with low-level detection of PCE in MW-2 (ranging from 28 to 39 µg/L), but the plume does not extend to the next down-gradient monitoring well, MW-12 at 1,300 ft. The VOC plume is bound to the south (MW-3), east (MW-4, MW-9, MW-1, MW-11), and west of the release area (MW-7) on CCB property. The plume extent and scale indicates local groundwater flow is strongly influenced by the valley and topography just north of the release area. This is supported by the potentiometric surface data that indicates groundwater flow is funneled to the base of the valley feature, and also, the VOC data which exhibits an elongated plume following the valley feature. North of the PCE release area, four monitoring wells adjacent to off-Site properties exhibit detection of PCE. Further interception of additional off-site properties to the north and west by the VOC plume is unlikely based on local groundwater flow, with the advective flow to the east and northeast direction towards the unoccupied valley feature and away from the residential area. In the vertical dimension, the PCE condition ends abruptly between the screened intervals of MW-5 and MW-5D. MW-5 reports PCE at 3,300 µg/L to 8,000 µg/L, whereas MW-5 reports a non-detect condition for the past three sample events. It is noted that MW-5D reported trace PCE and trace trichloroethene (TCE) immediately following well installation in 2014, a condition attributed to carry down of the much higher VOC condition from the upper aquifer during well boring activity.

The VOC plume has reasonably attained a level of stability in the aquifer, a condition facilitated by the period since the release occurred (a minimum of 25 years ago) and natural attenuation processes that diminish contaminant concentrations with time and distance (i.e., degradation, dispersion, and adsorption). Further data indicating a stable plume condition has been attained is inferred from modeling of advective transport of PCE in comparison to groundwater. The adventive flow rate for Site groundwater (estimated at 150 ft/yr) and low total organic carbon (TOC) of the aquifer[1] matrix would foster a much lengthier VOC plume than observed had the

[1] Testing of groundwater at seven locations across the site found non-detect TOC in groundwater.

system not attained a stable condition. Specifically, modeling of advective PCE transport with respect to the site groundwater would predict a VOC plume on the order of 2,900 ft (PCE retardation factor = 1.3) based on a 25-year transport period, a length considerably more than the observed site condition of approximately 900 ft.

3.3.4 Groundwater COPC for the Site

The initial Site groundwater investigation identified PCE as the sole COPC in groundwater based on exceedance of the proposed Type 1 RRS. Further investigation has identified two additional VOCs in groundwater above proposed RRS, TCE and cis-DCE, with both constituents being degradation products derived from the PCE release material. Detection of TCE and cis-DCE is currently limited to two monitoring wells, MW-5 and MW-8.

3.4 Nature and Extent of Soil Contamination

3.4.1 Soil Investigations

A total of five soil sampling events have been performed to investigate on-Site soil conditions. A summary of each event is provided below.

- The first event took place on May 17, 2016 through May 19, 2016, and included sixteen soil boring (SB-1 through SB-16) advanced beneath and adjacent to the Site building that was occupied by Tropic Formals. Each soil boring was advanced with direct push technology to the water table, typically 10 to 14 ft-bgs, with the soil core preserved in an acetate liner for field screening. Field screening of each core was performed with a Photo Ionization Detector (PID) to assess for potential VOCs and guide sample selection for laboratory testing. Two soil samples from each boring were selected for VOC analysis with the depth of the sample selected based PID response (*i.e.*, the soil segments with highest PID readings were selected for analysis). If no substantial PID reading of a core was reported, two samples were collected from the core at prescribed depths.
- The second event took place on November 21, 2016, and included sampling from shallow soil (0 to 1 ft-bgs) in a former machinery area where the discolored soil was noted from a prior Site assessment performed by the GaEPD. Two soil sample locations were assessed, sample locations S-1 and S-2, with one sample collected at 0 to 6 inches below ground surface (in-bgs) and one sample at 6 to 12 in-bgs. The soil was tested for VOCs, semi-volatile organic compounds (SVOCs), and RCRA metals.
- The third event took place on June 2, 2017, and included sampling of soil from two locations: (1) beneath and adjacent to the main facility building including the basement (SB-17 through SB-22), and (2) adjacent to the former machinery area (S-3 through S-6). The soil samples collected from beneath and adjacent to the main facility building were collected with a hand auger and analyzed for VOCs. The soil samples collected from the former machinery area were analyzed for VOCs and metals.

- The fourth event on June 21, 2017, and the fifth event on July 19 and 20, 2017 involved two additional episodes of soil arsenic delineation near the former machinery area (S-3, S-4, S-7, S-8, S-13 through S-18, S-20, and S-22 through S-29).

The soil samples from all five events were analyzed by Analytical Environmental Services, Inc. in Atlanta, Georgia. VOCs were tested with EPA method 8260, SVOCs were tested with EPA method 8270, and metals were tested with EPA Method 6010.

3.4.2 Comprehensive Analytical Soil Results

3.4.2.1 Main facility building

A summary of soil test results for HSRA regulated substances is provided in Tables 2a and 2b (VOCs and metals, respectively). Soil PCE results are illustrated in Figures 7a and 7b with respect to RRS as submitted in the VRP Progress Report #4 (EPS, 2017). Figure 7a reports the soil test result for the shallow sample from each assessment location and Figure 7b reports the soil test result for the paired deeper sample. Exceedances of the residential RRS for PCE (0.5 milligrams per kilogram [mg/kg]) in the shallow soil are reported in five locations, four which occur beneath the building (SB-8, SB-9, SB-11, and SB-16) and are consistent with the location of the former dry cleaning operation. The fifth shallow soil sample (SB-3) reporting PCE above the residential RRS occurs near the loading dock at the backside (north) of the building and is beneath concrete. These five samples also exceed the non-residential RRS for PCE of 0.89 mg/kg. As shown in Figure 7a, exceedances of PCE in the shallow soil are bounded by samples reporting PCE below the residential RRS.

Test results for the deeper soil PCE condition exhibit a spatial profile consistent with the shallow soil condition. Four locations beneath the building exceed both the residential and non-residential RRS for PCE (SB-8, SB-9, SB-11, and SB-16). Additionally, two adjacent samples (SB-10 and SB-12) exceed the residential RRS, but are less than the non-residential RRS. As shown in Figure 7b, the deep soil is delineated to the residential RRS.

3.4.2.2 Former Machinery Area

Arsenic

Arsenic was detected above both the residential RRS (20 mg/kg) and non-residential RRS (38 mg/kg) in one interior soil sample (S-1) at 0.5 ft-bgs in May 2016 (Figure 8a). Follow-up delineation sampling found arsenic concentrations above the residential RRS along two exterior sides of the former machinery area (S-3 and S-4), requiring additional step-outs to complete the soil assessment. Further interior sampling (i.e., beneath the building) is obstructed by foundation walls and piers. Arsenic concentrations in shallow surface soil (< 0.5 ft-bgs) ranges from non-detect to 101 mg/kg with results from six samples above the residential RRS, three of which are also above the non-residential RRS (Figure 8a). Shallow soil samples tend to exhibit higher concentrations immediately northeast of the former machinery area.

Soil samples collected from 1-2 ft-bgs also exhibit a grouping of higher arsenic concentrations near the northeast side of the former machinery area and ranges from non-detect to 83.5 mg/kg

(Figure 8b). Soil from 1-2 ft-bgs is delineated to the residential RRS with a single exception at S-26, which reported arsenic at 21.3 mg/kg, slightly above the residential RRS of 20 mg/kg. The corresponding shallow (< 0.5 ft-bgs) and deep (4 ft-bgs) samples at S-26 are both below the residential RRS.

Soil from 2-4 ft-bgs exhibits overall lower arsenic concentrations ranging from non-detect to 21.1 mg/kg (Figure 8c). Two samples collected at 4 ft-bgs are reported slightly above the residential RRS at 20.7 mg/kg (S-14) and 21.1 mg/kg (S-29), but below the non-residential RRS of 38 mg/kg. These soil samples are also below the soil depth applied to residential exposure (i.e., 2 ft-bgs)

Benzene

Benzene was detected above the residential/non-residential RRS of 0.5 mg/kg in one interior soil sample (S-2) at 0.5 ft-bgs in May 2016 (Figure 9a). The sample was collected from shallow soil adjacent to mechanical equipment. Follow-up delineation sampling performed on June 2, 2017, found benzene to be non-detect or below the residential RRS in the soil surrounding the former machinery area, thus finding the benzene condition limited to the interior of the building. Soil benzene concentrations are non-detect or below the residential RRS in soil samples collected at a depth of 1.0 ft-bgs in the machinery area (Figure 9b).

Lead

Lead was detected above both the residential RRS of 270 mg/kg and the non-residential RRS of 400 mg/kg in one machinery area soil sample (S-1) at 0.5 ft-bgs in May 2016 (Figure 10a). Follow-up delineation sampling performed on June 2, 2017, found lead to be below (Figure 10a) the residential RRS in the soil surrounding the former machinery area. Soil lead concentrations are below the residential RRS in soil samples collected at a depth of 1.0 ft-bgs in the machinery area (Figure 10b).

3.4.3 Soil COPC for the Site

Soil testing at the Site has identified arsenic, benzene, lead, and PCE as COPC in soil based on one or more exceedance of the Type I RRS.

3.5 Vapor Intrusion Assessment

3.5.1 Overview

A series of vapor intrusion (VI) investigations have been performed to assess areas considered at most risk. On-Site, this comprised of testing soil gas beneath the main building occupied by Tropic Formals and at the CCB property boundary where the highest reported VOC groundwater condition (MW-16) exists. Off-Site VI assessment was performed for the nearest off-Site residential property, i.e., nearest to the groundwater VOC plume. The off-Site assessment comprised of soil gas sampling and indoor air sampling. Soil gas sampling results are summarized in Table 3 and Figure 11 posts results for constituents detected above residential screening values in the soil.

3.5.2 On-Site VI Assessment

3.5.2.1 On-Site VI Investigation

The on-Site VI assessment consisted of five soil gas samples collected from beneath the main facility building (i.e., substructure samples) and one soil gas sample at the CCB property boundary. Three of the five substructure samples were collected from the soil beneath the wooden floor of the building (SG-5 to SG-7), and two samples were collected from beneath the concrete slab floor of the structure's partial basement (SSSG-1 and SSGS-2). The exterior soil gas sample (SG-8) was collected at the Site property line. All soil gas samples were collected from a depth of 3 ft-bgs. An attempt to collect a deeper exterior soil gas sample at the Site property line nearer to the water table was unsuccessful as insufficient soil gas was available (*i.e.,* the soil strata surrounding the soil gas probe was highly impermeable to soil gas transport) to fill the sample collection vessel. Samples were collected following Environmental Protection Agency ("EPA") Method TO-15.

3.5.2.2 On-Site VI Results

Twelve VOCs were detected in on-Site soil gas including: 1,2,4-trimethylbenzene (23 micrograms per cubic meter ["µg/m^3"]), acetone (210 µg/m^3), benzene (37 µg/m^3), chlorobenzene (9.5 µg/m^3), chloroform (410 µg/m^3), ethyl benzene (4.4 µg/m^3), Freon-11 (8.8 - 600 µg/m^3), m&p-xylene (16 µg/m^3), o-xylene (8.7 µg/m^3), PCE (2,500 – 720,000 µg/m^3), toluene (22 µg/m^3) and TCE (60 µg/m^3). Of the constituents detected in on-Site soil gas, only acetone and PCE are detected in the sub-structure soil (Section 3.4.2), and only Freon-11 and PCE are detected in on-Site groundwater (Section 3.3.3).

3.5.3 Off-Site VI Assessment

3.5.3.1 Off-Site VI Investigations

Three off-Site VI investigations have been performed and focused on the nearest off-Site residential property to the groundwater VOC plume. The investigations included assessment of exterior soil gas adjacent to the off-Site residential property and two indoor air sampling events. Four exterior soil gas samples were collected adjacent to the residence, with one sample to each side of the house. Each soil gas probe was set approximately 3 ft below the approximate grade of the structure's basement. The probes were installed on February 8th, 2016 and allowed to equilibrate for 24 hours prior to sampling. The indoor air sampling was performed in the basement of the residence with suma canisters fitted with 24 hour regulators. The first indoor air sampling event was performed on May 18th and May 19th, 2016. The second indoor air sampling event was performed on November 29th and 30th, 2017. Sampling was performed in accordance with EPA Method TO-15.

3.5.3.2 Off-Site VI Results

The range of soil gas constituents reported in the off-Site exterior soil gas is more extensive in comparison to the on-Site soil gas results and includes several aromatic hydrocarbons including

benzene (4.3 - 88 µg/m^3), toluene (33 - 250 µg/m^3), ethylbenzene (7.8 – 8.6 µg/m^3), m&p-xylene (20 - 51 µg/m^3), o-xylene (6.3 - 24 µg/m^3) and 1,2,4-trimethylbenzene (5.3 – 6.7 µg/m^3), and common organic ketone compounds including 2-butanone (40 µg/m^3) and 4-methyl-2-pentanone (9.8 – 40.0 µg/m^3). These constituents are not reported in on-Site groundwater or soil and therefore not expected to be associated with the Site release. Additional VOCs detected in off-Site soil gas include: 1,2-dichloropropane (32 - 170 µg/m^3), acetone (26 - 49 µg/m^3), carbon disulfide (6.5 µg/m^3), chloroform (5.4 - 9 µg/m^3) and chloromethane (2.1 µg/m^3). These constituents with the exception of chloroform are not reported in on-Site groundwater and therefore not expected to be associated with the Site release. PCE is reported in two of the four off-Site soil gas samples, SG-1 at 210 µg/m^3 and SG-2 at 10 µg/m^3.

Ten VOCs were detected in indoor air including 2-butanone (0.49 – 1.8 µg/m^3), acetone (11- 16 µg/m^3), benzene (<0.2 - 0.83 µg/m^3), chloromethane (0.48 – 1.6 µg/m^3), dichloromethane (0.31 – 0.86 µg/m^3), ethyl acetate (<0.2 – 7.8 µg/m^3), Freon-12 (0.38 – <0.99 µg/m^3), propylene (<0.2 – 2.9 µg/m^3), tetrahydrofuran (<0.59 – 1.1 µg/m^3) and toluene (0.23 – 1.7 µg/m^3). VOC constituents associated with the PCE release on the Grantville Mill property, specifically PCE and PCE degradation products, were not detected in off-Site indoor air and therefore the VOCs in the house are not expected to be associated with the Site.

All detected indoor VOCs except for benzene are below residential screening values (10^{-6} target cancer risk) developed by the EPA for human health protection (U.S. EPS, 2016). Benzene is not detected in on-Site or off-Site groundwater. Based on the data, the Site or the VOC groundwater plume is not considered a source for the indoor air VOCs at this residence.

3.6 Wood Floor Sampling

On December 8, 2017, ten wood floor samples from the main facility building were collected for VOC testing to determine if a release of PCE occurred from within the building structure. Nine samples (F-1 through F-9) were collected adjacent to borings from the May 2016 soil assessment. The tenth sample (F-10) was collected from a discolored portion of the wood flooring near two floor drains. PCE results are posted in Figure 12. PCE was detected in nine samples (F-1, F-2, and F-4 through F-10) ranging from 0.28 mg/kg to 340 mg/kg, with the highest wood floor test results collocated with the highest soil test results for PCE.

3.7 Evaluation of Exposure Pathways

3.7.1 On-Site Potential Receptors and Exposure Pathways

Potential current and/or future on-Site receptors are listed below along with a brief discussion of the pathways through which they could potentially be exposed to Site COPCs.

Future Site Worker

In the future, the facility may be returned to commercial/industrial use. A pathway of direct exposure to PCE from soil or groundwater is currently incomplete. PCE in soil is delineated to the

non-residential RRS, with detections above the non-residential RRS limited to the soil beneath structure or concrete (Figure 7A and Figure 7B). The facility is serviced by the municipal water system. Thus a pathway for exposure or consumption to contaminated groundwater is incomplete. The most probable exposure pathway to a hypothetical future Site worker is vapor intrusion based on soil gas assessment and facility material testing (i.e., wood flooring). Exposure through vapor intrusion is expected to be limited to the building previously occupied by Tropic Formal, where contamination is detected.

Future Trespasser

Access to the Site is restricted by fencing; however, trespassers have accessed the Site. A pathway of direct exposure to PCE from soil or groundwater for trespassers, like Site workers, is currently incomplete due to the existing structure. Trespassers could potentially be exposed to metals near the machinery area via ingestion/inhalation or dermal contacts.

Future Construction Worker

No construction activities are currently planned at the Site; however, it is possible that additional or replacement buildings could be constructed on the property in the future. Construction workers could potentially have short-term intermittent exposure to VOCs and metals in surface and subsurface soil via ingestion, dermal contact, and inhalation of volatiles.

3.7.2 Off-Site Potential Receptors and Exposure Pathways

The primary potential exposure pathway for off-Site receptors is vapor intrusion, although based on the available data this pathway appears negligible (no detection of Site COPCs in nearest off-Site structure indoor air). Potential off-Site soil and groundwater exposure pathways are incomplete. The soil VOC condition associated with the PCE release is delineated to on-Site, and the metals condition is reasonably limited to the Site with the nearest parcel occupied by a railroad right-of-way. Drinking water for the areas surrounding the Site is served by the City of Grantville public water supply. There are no known users of groundwater in the vicinity of the Site; however, a thorough records search will be undertaken for verification.

4 FINAL VIRP

4.1 Final VIRP for Soil

4.1.1 Soil Delineation Status

Soil delineation is complete to the non-residential RRS for the four COPC - arsenic, benzene, lead and PCE - and to the residential RRS for accessible soils (i.e., shallow soil and soil not covered by structure). The horizontal extent of PCE in soil is delineated to the residential RRS beneath or adjacent to the northern corner of the facility building, consistent with the location of the former Tropic Formals operation and CSM PCE release area. The arsenic soil condition is reasonably limited to the top 4 ft of soil north and east of the former machinery area. The area-weighted arsenic concentration is 16 mg/kg, less than the non-residential RRS for arsenic (38 mg/kg), with the highest concentrations occurring adjacent to the northeast corner of the former machinery area. Benzene and lead are each detected once above their respective residential RRSs in shallow soil (<0.5 ft-bgs) inside the former machinery area, collocated with the hardened residue in the immediate vicinity of machinery equipment. The benzene and lead condition is delineated to the Type I in the soil surrounding the former machinery area.

4.1.2 Soil VIRP

Two actions will be implemented in the VIRP to manage potential exposure to soil COPC. The actions for soil for the PCE release area and soil in the machinery area detailed below.

4.1.2.1 Machinery Area

Inside the former machinery area, all visually observed residue will be excavated and disposed of off-Site. Based on prior testing, the depth of excavation required for removing the hardened residue is 6" or less, and only 2 to 3 cubic yards of soil is anticipated to require disposal. Removal of the top 6" of soil will also remove from the area the sole soil samples reported above the lead (S-2) and benzene (S-1) residential RRS. With respect to arsenic, as stated, the area-weighted arsenic concentration is 16 mg/kg, less than the non-residential RRS for arsenic (38 mg/kg). Thus, no additional corrective action beyond removal of the hardened residue is necessary to manage potential exposure pathways to future non-residential occupants in the machinery area.

4.1.2.2 PCE Release Area

The soil above the non-residential PCE RRS is limited to an area beneath the building that occupied the former Tropic Formals operation. Thus a pathway for direct soil exposure to future non-residential Site occupants is currently incomplete. To manage potential future exposure as a result of modification to the Site layout (i.e., construction), a restriction will be recorded in the deed for the property to prohibit soil excavation within the area delineated above non-residential RRS for PCE unless appropriate correctiveaction and health and safety protocols are implemented.

4.2 Final VIRP for Groundwater

4.2.1 Groundwater Delineation Status

Groundwater delineation is complete, with the VOC condition delineated to non-detect in MW-1, MW-3, MW-4, MW-7, MW-9, MW-10, MW-12, MW-13, MW-15, and MW-18 (Figure 6). In the vertical dimension, PCE is detected in the shallow surficial aquifer (MW-5 reports PCE at 3,300 µg/L to 8,000 µg/L for the past three sample events) but ends abruptly in the deeper surficial aquifer (MW-5D reports a non-detect condition for the past three sample events). A decreasing PCE condition with depth is also noted for adjacent wells MW-8 and MW-17, with MW-8 reporting 6,600 µg/L, and the deeper MW-17 reporting 2,900 µg/L.

4.2.2 Final Remediation Strategy for On-Site Groundwater

4.2.2.1 Overview

This section presents a review of the remedial action strategy for on-Site groundwater. The selected strategy to manage the groundwater condition is *in situ* chemical oxidation ("ISCO") with permanganate for PCE mass reduction in the area of PCE release, and a Uniform Environmental Covenant (UEC) for the VRP properties to ensure exposure to groundwater above acceptable risk levels will not reasonably occur.

4.2.2.2 ISCO

4.2.2.2.1 Overview of the Technology

ISCO involves the introduction of a chemical oxidant into the subsurface to accelerate contaminant mass removal. Permanganate (MnO_4^-) is a common oxidant used to address chlorinated ethenes in groundwater. The reactions below illustrate the complete oxidation of PCE, TCE, cis-DCE, and VC, respectively, by permanganate:

(1) $4\ MnO_4^- + 3\ C_2Cl_4 + 4\ H_2O \rightarrow 6\ CO_2 + 4\ MnO_2 + 8\ H^+ + 12\ Cl^-$

(2) $2\ MnO_4^- + C_2HCl_3 + 4\ H_2O \rightarrow 2\ CO_2 + 2\ MnO_2 + H^+ + 3\ Cl^-$

(3) $8\ MnO_4^- + 3\ C_2H_2Cl_2 + 4\ H_2O \rightarrow 6\ CO_2 + 8\ MnO_2 + 2\ OH^- + 6\ Cl^- + 2\ H_2O$

(4) $10\ MnO_4^- + 3\ C_2H_3Cl + 4\ H_2O \rightarrow 6\ CO_2 + 10\ MnO_2 + 7\ OH^- + 3\ Cl^- + H_2O$

The effectiveness of ISCO is highly dependent on aquifer geochemistry. A wide-range of non-target constituents that naturally occur in aquifers may react with a chemical oxidant, including natural organic matter (humic and fluvic acids) and reduced chemical species (Fe^{2+}, Mn^{2+}, sulfides, etc.). Collectively, the capacity of these background constituents to react with an added oxidant, and therefore reduce its capacity to degrade COCs, is termed the Natural Oxidant Demand (NOD). Prior Site investigation work evaluated the Site's NOD to determine the feasibility of ISCO as described in Section 4.2.2.2.2.

4.2.2.2.2 ISCO Review

The feasibility of ISCO was examined for the Site through soil oxidant demand treatability testing and modeling the oxidant mass required for the release area. In October 2015 during the first expansion of the monitoring well network, two soil samples were collected for permanganate NOD (PNOD) analysis. The samples were collected during installation of groundwater monitoring wells near the release area where ISCO will be implemented, one at MW-7 from 18-23 ft-bgs and one at MW-9 from 20-25 ft-bgs. The results of the PNOD analysis found no demand for the permanganate oxidant, indicating that the Site aquifer imposes little to no background oxidant demand.

Carus Remediation Technologies' ISCO Reagents Estimation Spreadsheet was used to model the permanganate mass for PCE reduction in the release area. The spreadsheet incorporates treatment area volume, soil porosity, average contaminant concentration, and Site-specific PNOD. The spreadsheet also considers potential delivery system limitations attributable to the heterogeneous nature of the subsurface (*i.e.*, the occurrence of preferential pathways and less permissive zones in the subsurface enhance the migration of the oxidant in some directions and diminish migration in others, which may result in a portion of treatment area volume not coming contact with the oxidant) and includes an engineering adjustment factor to compensate for potential data gaps that may increase the permanganate required for sufficient PCE mass reduction. The outcome of this model is approximately 12,000 pounds of permanganate based on a PNOD of 0.4 g/kg. A PNOD value of 0.4 g/kg was applied to the model in place of the 0.0 g/kg PNOD result from the treatability study at the recommendation of Carus to compensate for potential unknowns in the subsurface and provide of a degree of design contingency.

4.2.2.3 Final Remediation Strategy

ISCO will be implemented to address the PCE release area soil and groundwater (as shown on Figure 13) and will span across the thickness of the shallow surficial aquifer, consistent with the CSM and supporting PCE data for the Site. The ISCO strategy will utilize two general methods for placement of the permanganate in the aquifer, application via injection wells and/or direct-push injection technology. The implementation method selected will be determined based on accessibility to the point of injection. Points not readily accessible to a relatively large drill rig used to install a permanent injection well will require the use of direct-push technology since the equipment is often less sizeable and more maneuverable.

4.2.2.4 Institutional Control for On-Site Groundwater

A UEC will be prepared for the Site that includes a residential use restriction to prevent residential use of the property and a groundwater use restriction to prevent the extraction of groundwater from the property for any reason other than remediation.

4.3 Main Facility Building Actions

Two potentially complete exposure pathways exist for future occupants of the building occupied by the former Tropic Formals business:

- PCE vapors potentially migrating from groundwater and vadose zone soils to the indoor air of the building, as evidenced by elevated concentrations of PCE detected in soil gas beneath the building; and
- direct contact and/or vapors from PCE in the wood flooring.

Reasonable corrective action to address these potential exposure pathways includes two options:

Option 1: contaminated flooring will be removed and replaced, and future occupancy will be subject to implementing necessary measures to prevent flux of VOC vapors into the structure. Probable measures include crawl space ventilation or subslab depressurization depending on a future assessment of building construction.
Option 2: the building will be demolished, thus removing any occupied structure from above the contaminated soil. A UEC will be prepared for the Site that requires any future occupied space built above the PCE release area to be constructed with a vapor barrier to mitigate vapor intrusion.

The corrective action option selected for the building will be determined based on the intended future use of the property and the Tropic Formals building. The selected corrective action will be enacted prior to occupancy by a future Site owner.

4.4 Off-Site Remediation Plan

4.4.1 Off-Site VOC Plume Refinement

The inferred plume boundary reasonably encompasses a portion of two off-Site properties west of the Site; however, further effort refining the western boundary of the plume is necessary to determine if additional properties intersect the VOC plume and thus require consideration in the off-Site remediation plan. Plume refinement will involve installing and sampling a new groundwater monitoring well screened in the surficial aquifer as shown in Figure 14. PCE was reported in nearby wells MW-6, MW-8, and MW-17 during the most recent comprehensive groundwater monitoring event.

4.4.2 Monitored Natural Attenuation

Monitored natural attenuation (MNA) relies on a combination of intrinsic physical and chemical processes (e.g., sorption, dispersion, volatilization, abiotic degradation, and biodegradation) to degrade and dilute chemicals of concern. MNA is considered applicable if: (i) exposure to impacted groundwater above acceptable risk levels is not or will not reasonably occur, (ii) further migration of the plume is not occurring, and conditions are improving or will improve as a result of source material remediation, and (iii) the groundwater plume can be restored to below groundwater standards, to the extent practicable.

Direct exposure of potential off-Site receptors to groundwater is not reasonably expected to occur as the area surrounding the Site is served by a public water supply, and there are no known users of groundwater near the Site. Additionally, institutional controls will be implemented for off-Site

properties that intersect the VOC plume restricting the extraction of groundwater (see Section 4.4.3).

PCE is currently reported in seven of the nineteen monitoring wells on-Site (MW-2, MW-5, MW-6, MW-8, MW-14, MW-16, and MW-17). Groundwater data collected since 2014 show comparable PCE concentrations in the groundwater plume over time, suggesting the plume may have attained a steady-state condition. Following release area ISCO treatment, monitoring at a point of compliance (POC) will be implemented to monitor plume stability. The propose POC is existing monitoring well MW-12.

4.4.3 VIRP for Off-Site Residential Lots

A UEC may likely be required for one or more properties overlying PCE-impacted groundwater to ensure exposure to impacted groundwater above acceptable risk levels will not reasonably occur. UECs for off-site properties would include a groundwater use restriction to prevent the extraction of groundwater from the property.

4.5 Cost Estimate to Implement the VIRP

The estimated costs for the remedial actions described above are as follows:

Preliminary Cost Estimate

Task	Description	Cost Estimate
1	**Project Management**	**$30,000**
2	**VRP Progress Reports**	**$60,000**
3	**Groundwater Delineation Refinement**	**$8,000**
4	**Groundwater Release Area Remedial Action (ISCO)**	**$150,00-250,000**
5	**Contaminated Building Material Remediation**	**TBD**
6	**Point of Compliance Monitoring**	**$12,500**
	Total	**$250,500-360,500**

5 PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD

5.1 PCE Release Area Groundwater ISCO Design

EPS is currently finalizing the ISCO design, including implementation strategy (i.e., injection approach) and media injection parameters (i.e., oxidant mass and volume per injection location).

5.2 Refinement of Western Plume Boundary

One monitoring well will be installed and sampled to refine the extent of the VOC plume with respect to vacant lots near the Site's western boundary (Figure 14). The results of this refinement will determine if additional properties require consideration in the off-Site remediation plan.

6 REFERENCES

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

TABLES

Table 1. Summary of Groundwater Analytical Results

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Chloroform	cis-1,2-Dichloroethene	Dichlorobromo-methane	Freon-11	Tetrachloroethene	Trichloroethene
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
	Residential RRS	**80**	**70**	**80**	**4,700**	**19**	**5**
	non-Residential RRS	**80**	**200**	**80**	**31,000**	**98**	**5.2**
MW-1	4/18/2014	1.6	ND	0	ND	3.9	ND
MW-1	11/2/2015	25	ND	ND	ND	ND	ND
MW-1	11/1/2016	20	ND	ND	ND	ND	ND
MW-2	4/18/2014	ND	1.0	ND	11	29	3.3
MW-2	11/3/2015	ND	ND	ND	31	39	ND
MW-2	11/1/2016	ND	ND	ND	32	28	ND
MW-3	5/22/2014	ND	ND	ND	ND	2.3	ND
MW-3	11/2/2015	ND	ND	ND	ND	ND	ND
MW-3	10/31/2016	ND	ND	ND	ND	ND	ND
MW-4	4/18/2014	6.0	ND	1.5	ND	12	ND
MW-4	11/3/2015	ND	ND	ND	ND	ND	ND
MW-4	10/31/2016	ND	ND	ND	ND	ND	ND
MW-5	4/18/2014	ND	ND	ND	ND	598	ND
MW-5	11/4/2015	ND	ND	ND	ND	8,000	ND
MW-5	11/1/2016	ND	25	ND	ND	3,300	ND
MW-5D	5/22/2014	12	ND	ND	ND	10	6.9
MW-5D	6/30/2014	5.3	ND	ND	ND	0.8	3.7
MW-5D	11/2/2015	ND	ND	ND	ND	ND	ND
MW-5D	11/3/2015	ND	ND	ND	ND	ND	ND
MW-5D	10/31/2016	ND	ND	ND	ND	ND	ND
MW-6	5/22/2014	1.1	ND	ND	ND	379	ND
MW-6	11/3/2015	ND	ND	ND	ND	1,600	ND
MW-6	11/1/2016	ND	ND	ND	ND	1,800	ND
MW-7	11/3/2015	ND	ND	ND	ND	ND	ND
MW-7	10/31/2016	ND	ND	ND	ND	ND	ND
MW-8	11/3/2015	ND	85	ND	ND	5,100	67
MW-8	11/1/2016	ND	200	ND	ND	6,600	31
MW-9	11/3/2015	ND	ND	ND	ND	ND	ND
MW-9	10/31/2016	ND	ND	ND	ND	ND	ND
MW-10	11/2/2015	ND	ND	ND	ND	ND	ND
MW-10	10/31/2016	ND	ND	ND	ND	ND	ND
MW-11	11/2/2015	ND	ND	ND	ND	ND	ND
MW-11	10/31/2016	ND	ND	ND	ND	ND	ND
MW-12	11/2/2015	ND	ND	ND	ND	ND	ND
MW-12	10/31/2016	ND	ND	ND	ND	ND	ND
MW-13	1/12/2016	ND	ND	ND	ND	ND	ND
MW-13	11/1/2016	ND	ND	ND	ND	ND	ND
MW-14	1/12/2016	ND	ND	ND	ND	510	ND
MW-14	11/1/2016	ND	ND	ND	ND	730	ND
MW-15	1/12/2016	ND	ND	ND	ND	ND	ND
MW-15	11/1/2016	ND	ND	ND	ND	ND	ND
MW-16	6/22/2016	ND	ND	ND	ND	18,000	ND
MW-16	11/1/2016	ND	ND	ND	ND	22,000	ND
MW-17	11/1/2016	ND	ND	ND	ND	2,900	ND
MW-18	11/1/2016	ND	ND	ND	ND	ND	ND

Notes

RRS: Risk Reduction Standard

ND: Non-detect

µg/L: Microgram per liter

Exceeds Residential RRS

Exceeds non-Residential RRS

Table 2A. Summary of Soil Test Results for HSRA Regulated Substances: VOCs

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Sample Depth (ft-bgs)	2-Butanone (MEK) (µg/kg)	4-Methyl-2-pentanone (µg/kg)	Acetone (µg/kg)	Benzene (µg/kg)	Cyclohexane (µg/kg)	Ethyl benzene (µg/kg)	Isopropylbenzene (µg/kg)	m&p-Xylene (µg/kg)	o-Xylene (µg/kg)	Tetrachloroethene (µg/kg)	Toluene (µg/kg)
Residential RRS			**200,000**	**200,000**	**400,000**	**500**	**74,000**	**70,000**	**22,000**	**20,000**	**20,000**	**500**	**100,000**
non-Residential RRS			**200,000**	**200,000**	**400,000**	**500**	**364,000**	**70,000**	**34,000**	**20,000**	**20,000**	**890**	**100,000**
Main Building													
SB-1	5/17/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND
SB-1	5/17/2016	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	47	ND
SB-2	5/17/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-2	5/17/2016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-3	5/17/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	960	ND
SB-3	5/17/2016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	110	ND
SB-4	5/18/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-4	5/18/2016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-5	5/18/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	ND
SB-5	5/18/2016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	82	ND
SB-6	5/18/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.2	ND
SB-6	5/18/2016	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	41	ND
SB-7	5/18/2016	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-7	5/18/2016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-8	5/18/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,000	ND
SB-8	5/18/2016	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300	ND
SB-9	5/18/2016	2	ND	ND	81	ND	ND	ND	ND	ND	ND	1,100	ND
SB-9	5/18/2016	13.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,300	ND
SB-10	5/18/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4	ND
SB-10	5/18/2016	13.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	670	ND
SB-11	5/19/2016	2	ND	ND	70	ND	ND	ND	ND	ND	ND	10,000	ND
SB-11	5/19/2016	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,400	ND
SB-12	5/19/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	51	ND
SB-12	5/19/2016	13.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	640	ND
SB-13	5/19/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-13	5/19/2016	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-14	5/19/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4	ND
SB-14	5/19/2016	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	28	ND
SB-15	5/19/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-15	5/19/2016	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND
SB-16	5/19/2016	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	ND
SB-16	5/19/2016	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,300	ND
SB-17	6/2/2017	2	ND	ND	74	ND	ND	ND	ND	ND	ND	7.8	ND
SB-17	6/2/2017	4	ND	ND	75	ND	ND	ND	ND	ND	ND	ND	ND
SB-18	6/2/2017	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-18	6/2/2017	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-19	6/2/2017	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-19	6/2/2017	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-20	6/2/2017	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-20	6/2/2017	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-21	6/2/2017	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-21	6/2/2017	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-22	6/2/2017	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-22	6/2/2017	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes

RRS: Risk Reduction Standard

ND: Non-detect

µg/kg: Microgram per kg soil

Exceeds non-Residential RRS

Table 2A. Summary of Soil Test Results for HSRA Regulated Substances: VOCs

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Sample Depth (ft-bgs)	2-Butanone (MEK) (µg/kg)	4-Methyl-2-pentanone (µg/kg)	Acetone (µg/kg)	Benzene (µg/kg)	Cyclohexane (µg/kg)	Ethyl benzene (µg/kg)	Isopropylbenzene (µg/kg)	m&p-Xylene (µg/kg)	o-Xylene (µg/kg)	Tetrachloroethene (µg/kg)	Toluene (µg/kg)
Residential RRS			**200,000**	**200,000**	**400,000**	**500**	**74,000**	**70,000**	**22,000**	**20,000**	**20,000**	**500**	**100,000**
non-Residential RRS			**200,000**	**200,000**	**400,000**	**500**	**364,000**	**70,000**	**34,000**	**20,000**	**20,000**	**890**	**100,000**
Former Machine Shop													
S-1	11/21/2016	0.5	ND	1,800	ND	ND	2,000	530	ND	3,800	2,400	ND	2,700
S-1	11/21/2016	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S-2	11/21/2016	0.5	ND	ND	ND	970	1,700	610	240	4,400	2,400	ND	6,100
S-2	11/21/2016	1	34	ND	280	ND	ND	ND	ND	ND	ND	ND	ND
S-3	6/2/2017	0.5	ND	ND	200	6.5	ND	ND	ND	ND	ND	ND	ND
S-3	6/2/2017	1	ND	ND	230	6.2	ND	ND	ND	ND	ND	ND	ND
S-4	6/2/2017	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.2
S-4	6/2/2017	1	ND	ND	160	ND	ND	ND	ND	ND	ND	ND	ND
S-5	6/2/2017	0.5	ND	ND	110	ND	ND	ND	ND	ND	ND	ND	ND
S-5	6/2/2017	1	ND	ND	100	ND	ND	ND	ND	ND	ND	ND	ND
S-6	6/2/2017	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S-6	6/2/2017	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes

RRS: Risk Reduction Standard

ND: Non-detect

µg/kg: Microgram per kg soil

Exceeds non-Residential RRS

Table 2B. Summary of Soil Test Results for HSRA Regulated Substances: Metals

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Sample Depth (ft-bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)
Residential RRS			**20**	**2,578**	**12**	**3,600,000**	**270**	**2.1**
non-Residential RRS			**38**	**16,807**	**77**	**3,600,000**	**400**	**17**
Former Machine Shop								
S-1	11/21/2016	0.5	95.5	245	6.15	15.7	1,130	0.22
S-1	11/21/2016	1	ND	36.8	ND	41.8	15.8	ND
S-2	11/21/2016	0.5	9.47	103	ND	8.91	126	0.0934
S-2	11/21/2016	1	ND	38.7	ND	54.3	13.7	ND
S-3	6/2/2017	0.5	28.5			17.7	79.7	
S-3	6/2/2017	1	33.6			14.9	60.2	
S-3	6/21/2017	1.5	28					
S-3	7/20/2017	4	ND					
S-4	6/2/2017	0.5	71.7			13	24.6	
S-4	6/2/2017	1	83.6			22.9	30.2	
S-4	6/21/2017	1.5	46.4					
S-4	7/20/2017	4	9.87					
S-5	6/2/2017	0.5	8.51			48.5	42.4	
S-5	6/2/2017	1	7			31.3	12.3	
S-6	6/2/2017	0.5	ND			33.8	23.4	
S-6	6/2/2017	1	ND			63.1	28.2	
S-7	6/21/2017	0.5	22.2					
S-7	6/21/2017	1	26.2					
S-7	6/21/2017	2	7.15					
S-8	6/21/2017	0.5	ND					
S-8	6/21/2017	1	45.5					
S-8	6/21/2017	2	29.9					
S-8	7/20/2017	4	32.4					
S-13	6/21/2017	0.5	ND					
S-13	6/21/2017	1	13.5					
S-13	6/21/2017	1.5	5.71					
S-14	6/21/2017	0.5	36.9					
S-14	6/21/2017	1	22.3					
S-14	6/21/2017	2	67					
S-14	7/20/2017	4	20.7					
S-15	6/21/2017	0.5	ND					
S-15	6/21/2017	1	ND					
S-15	6/21/2017	2	24.7					
S-15	7/20/2017	4	ND					
S-16	6/21/2017	0.5	ND					
S-16	6/21/2017	1	ND					
S-16	6/21/2017	3	16					
S-17	6/21/2017	0.5	ND					
S-17	6/21/2017	1	52.9					
S-17	7/20/2017	4	ND					
S-18	6/21/2017	0.5	ND					
S-18	6/21/2017	1	ND					
S-18	6/21/2017	3	ND					
S-20	6/21/2017	0.5	ND					
S-20	6/21/2017	1	ND					
S-20	6/21/2017	3	ND					
S-22	7/19/2017	0.5	101					
S-22	7/19/2017	2	15.2					
S-22	7/19/2017	4	18.5					
S-23	7/19/2017	0.5	ND					
S-23	7/19/2017	2	ND					
S-23	7/19/2017	4	ND					
S-24	7/19/2017	0.5	5.14					
S-24	7/19/2017	2	ND					
S-24	7/19/2017	4	ND					
S-25	7/19/2017	0.5	ND					
S-25	7/19/2017	2	ND					
S-25	7/19/2017	4	ND					
S-26	7/19/2017	0.5	ND					
S-26	7/19/2017	2	21.3					
S-26	7/19/2017	4	4.61					
S-27	7/19/2017	0.5	10.6					
S-27	7/19/2017	2	68					
S-27	7/19/2017	4	ND					
S-28	7/19/2017	0.5	ND					
S-28	7/19/2017	2	5.43					
S-28	7/19/2017	4	ND					
S-29	7/19/2017	0.5	8.14					
S-29	7/19/2017	2	7.47					
S-29	7/20/2017	4	21.1					

Notes

RRS: Risk Reduction Standard

ND: Non-detect

mg/kg: Milligram per kg soil

Exceeds non-Residential RRS

Table 3. Soil Gas and Indoor Air Test Results

Grantville Mill, Grantville, Georgia

Location	Date Sampled	1,1,1,2-Tetrachloroethane (µg/m^3)	1,1,1-Trichloroethane (µg/m^3)	1,1,2,2-Tetrachloroethane (µg/m^3)	1,1,2-Trichloroethane (µg/m^3)	1,1-Dichloroethane (µg/m^3)	1,1-Dichloroethene (µg/m^3)	1,2,4-Trichlorobenzene (µg/m^3)	1,2,4-Trimethylbenzene (µg/m^3)	1,2-Dibromoethane (µg/m^3)	1,2-Dichlorobenzene (µg/m^3)	1,2-Dichloroethane (µg/m^3)	1,2-Dichloropropane (µg/m^3)	1,3,5-Trimethylbenzene (µg/m^3)	1,3-Butadiene (µg/m^3)	1,3-Dichlorobenzene (µg/m^3)	1,4-Dichlorobenzene (µg/m^3)	1,4-Dioxane (µg/m^3)	2-Butanone (MEK) (µg/m^3)	2-Hexanone (µg/m^3)	4-Ethyltoluene (µg/m^3)	4-Methyl-2-pentanone (µg/m^3)	Acetone (µg/m^3)	Allyl chloride (µg/m^3)
Off-Site Property*																								
IA-1	5/19/2016		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49	ND	ND	ND	11	ND
IA-2	5/18/2016		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54	ND	ND	ND	12	ND
IA-3	11/30/2016		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.61	ND	ND	ND	6.7	ND
SG-1	2/9/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170	ND		ND	ND		ND	ND	ND	ND	26	
SG-2	2/9/2016	ND	ND	ND	ND	ND	ND	ND	6.7	ND	ND	ND	77	ND		ND	ND		ND	ND	ND	21	49	
SG-3	2/9/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32	ND		ND	ND		ND	ND	ND	9.8	ND	
SG-4	2/9/2016	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND	ND	95	ND		ND	ND		40	ND	ND	40	ND	
Grantville Mill Property																								
SG-5	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND		ND	ND	
SG-5	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND		ND	ND	
SG-6	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND		ND	ND	
SG-7	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	ND	210	
SG-8	6/21/2016	ND	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	ND		
SSSG-1	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND		ND	ND	
SSSG-2	2/12/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	

Notes:

µg/m^3 : micrograms per cubic meter air

ND: Not detected

* 45 Grady Smith Street, Grantville, GA

Table 3. Soil Gas and Indoor Air Test Results

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Benzene (µg/m^3)	Benzyl chloride (µg/m^3)	Bromoform (µg/m^3)	Bromomethane (µg/m^3)	Carbon disulfide (µg/m^3)	Carbon tetrachloride (µg/m^3)	Chlorobenzene (µg/m^3)	Chloroethane (µg/m^3)	Chloroform (µg/m^3)	Chloromethane (µg/m^3)	cis-1,2-Dichloroethene (µg/m^3)	cis-1,3-Dichloropropene (µg/m^3)	Cyclohexane (µg/m^3)	Dibromochloromethane (µg/m^3)	Dichlorobromomethane (µg/m^3)	Dichloromethane (Methylene chloride) (µg/m^3)	Ethyl acetate (µg/m^3)	Ethyl benzene (µg/m^3)	Freon-11 (µg/m^3)	Freon-113 (µg/m^3)	Freon-114 (µg/m^3)	Freon-12 (µg/m^3)	Heptane (µg/m^3)
Off-Site Property*																								
IA-1	5/19/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	ND	ND	ND	ND	ND	0.86	ND	ND	ND	ND	ND	0.39	ND
IA-2	5/18/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.52	ND	ND	ND	ND	ND	0.31	ND	ND	ND	ND	ND	0.38	ND
IA-3	11/30/2016	0.26	ND	ND	ND	ND	ND	ND	ND	ND	0.77	ND	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND
SG-1	2/9/2016	16		ND	ND	6.5	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		7.8	ND	ND	ND	ND	
SG-2	2/9/2016	9.6		ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND		ND	ND	ND		ND	ND	ND	ND	ND	
SG-3	2/9/2016	4.3		ND	ND	ND	ND	ND	ND	5.4	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND	ND	
SG-4	2/9/2016	88		ND	ND	ND	ND	ND	ND	9	ND	ND	ND		ND	ND	ND		8.6	ND	ND	ND	ND	
Grantville Mill Property																								
SG-5	2/12/2016	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND	ND	ND		ND	
SG-5	2/12/2016	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND	ND	ND		ND	
SG-6	2/12/2016	ND		ND	ND	ND	ND	ND	ND	410	ND	ND	ND		ND	ND	ND		ND	ND	ND		ND	
SG-7	2/12/2016	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND	ND	
SG-8	6/21/2016	37		ND	ND	ND	ND	9.5	ND	ND	ND	ND	ND		ND	ND	ND		4.4	8.8	ND	ND	ND	
SSSG-1	2/12/2016	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND	600	ND		ND	
SSSG-2	2/12/2016	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND	62	ND	ND	ND	

Notes:

µg/m^3 : micrograms per cubic meter air

ND: Not detected

* 45 Grady Smith Street, Grantville, GA

Table 3. Soil Gas and Indoor Air Test Results

Grantville Mill, Grantville, Georgia

Location	Date Sampled	Hexachloro-butadiene ($\mu g/m^3$)	Isooctane ($\mu g/m^3$)	Isopropyl Alcohol ($\mu g/m^3$)	m&p-Xylene ($\mu g/m^3$)	Methyl tertbutyl ether (MTBE) ($\mu g/m^3$)	n-Hexane ($\mu g/m^3$)	o-Xylene ($\mu g/m^3$)	Propylene ($\mu g/m^3$)	Styrene ($\mu g/m^3$)	Tetrachloroethene ($\mu g/m^3$)	Tetrahydrofuran ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	trans-1,2-Dichloroethene ($\mu g/m^3$)	trans-1,3-Dichloropropene ($\mu g/m^3$)	Trichloroethene ($\mu g/m^3$)	Vinyl acetate ($\mu g/m^3$)	Vinyl bromide (bromoethene) ($\mu g/m^3$)	Vinyl chloride ($\mu g/m^3$)
Off-Site Property*																			
IA-1	5/19/2016	ND	ND		ND	ND	ND	ND	ND	ND	ND	1.1	0.23	ND	ND	ND	ND	ND	ND
IA-2	5/18/2016	ND	ND		ND	ND	ND	ND	ND	ND	ND	0.99	0.24	ND	ND	ND	ND	ND	ND
IA-3	11/30/2016	ND	ND	2.3	ND	ND	ND	ND	1.7	ND	ND	ND	0.44	ND	ND	ND	ND	ND	ND
SG-1	2/9/2016	ND			20			6.3		ND	210		130	ND	ND	ND			ND
SG-2	2/9/2016	ND			ND			ND		ND	10		66	ND	ND	ND			ND
SG-3	2/9/2016	ND			ND			ND		ND	ND		33	ND	ND	ND			ND
SG-4	2/9/2016	ND			51			24		ND	ND		250	ND	ND	ND			ND
Grantville Mill Property																			
SG-5	2/12/2016	ND			ND			ND		ND	260000		ND	ND	ND	ND			ND
SG-5	2/12/2016	ND			ND			ND		ND	270000		ND	ND	ND	ND			ND
SG-6	2/12/2016	ND			ND			ND		ND	720000		ND	ND	ND	ND			ND
SG-7	2/12/2016	ND			ND			ND		ND	8900		22	ND	ND	ND			ND
SG-8	6/21/2016	ND			16			8.7		ND	2500		25	ND	ND	ND			ND
SSSG-1	2/12/2016	ND			ND			ND		ND	72000		ND	ND	ND	60			ND
SSSG-2	2/12/2016	ND			ND			ND		ND	14000		ND	ND	ND	ND			ND

Notes:

$\mu g/m^3$: micrograms per cubic meter air

ND: Not detected

* 45 Grady Smith Street, Grantville, GA

FIGURES

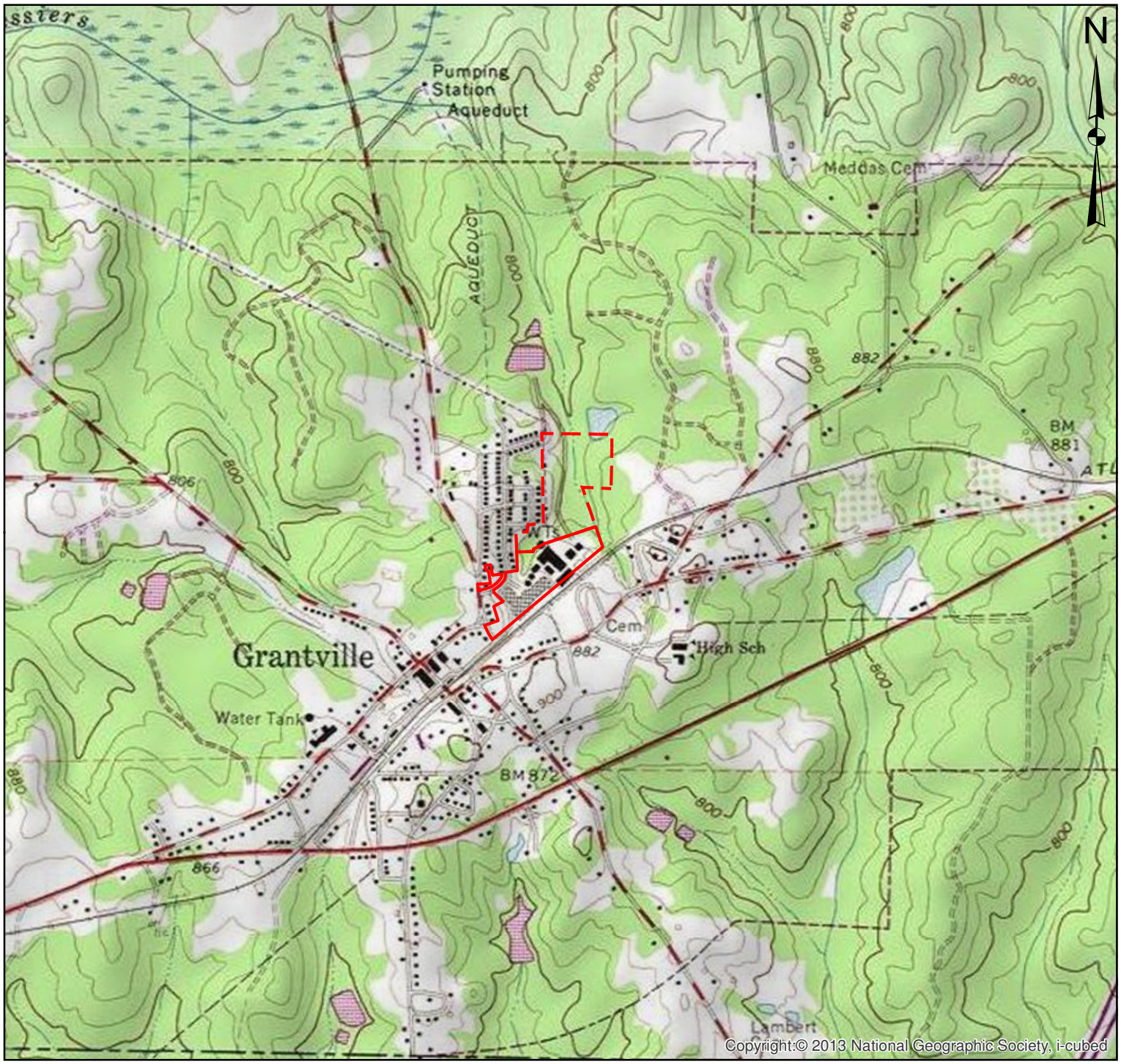


Figure 1
Site Location

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts Site location and regional topographic features.

Notes
Data obtained from the U.S. Geologic Society.

Legend

Property Information

- Capital City Bank Parcel
- Grantville Mill LLC Parcel

0 750 1,500
Feet

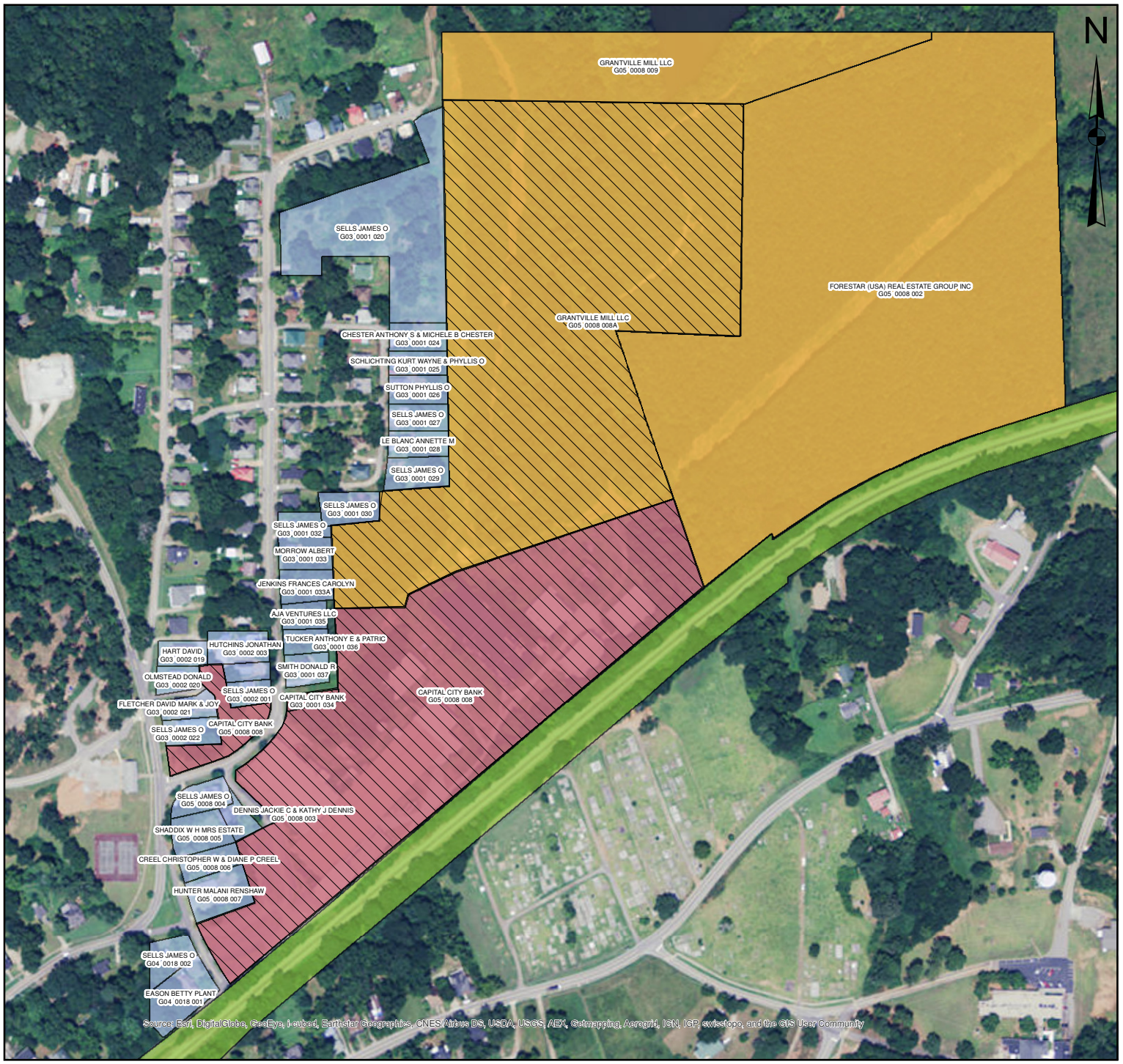


Figure 2

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 Georgraphic Information System.

Legend

Land Use

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

VRP Property Status

- VRP Enrolled Property

0 175 350
Feet

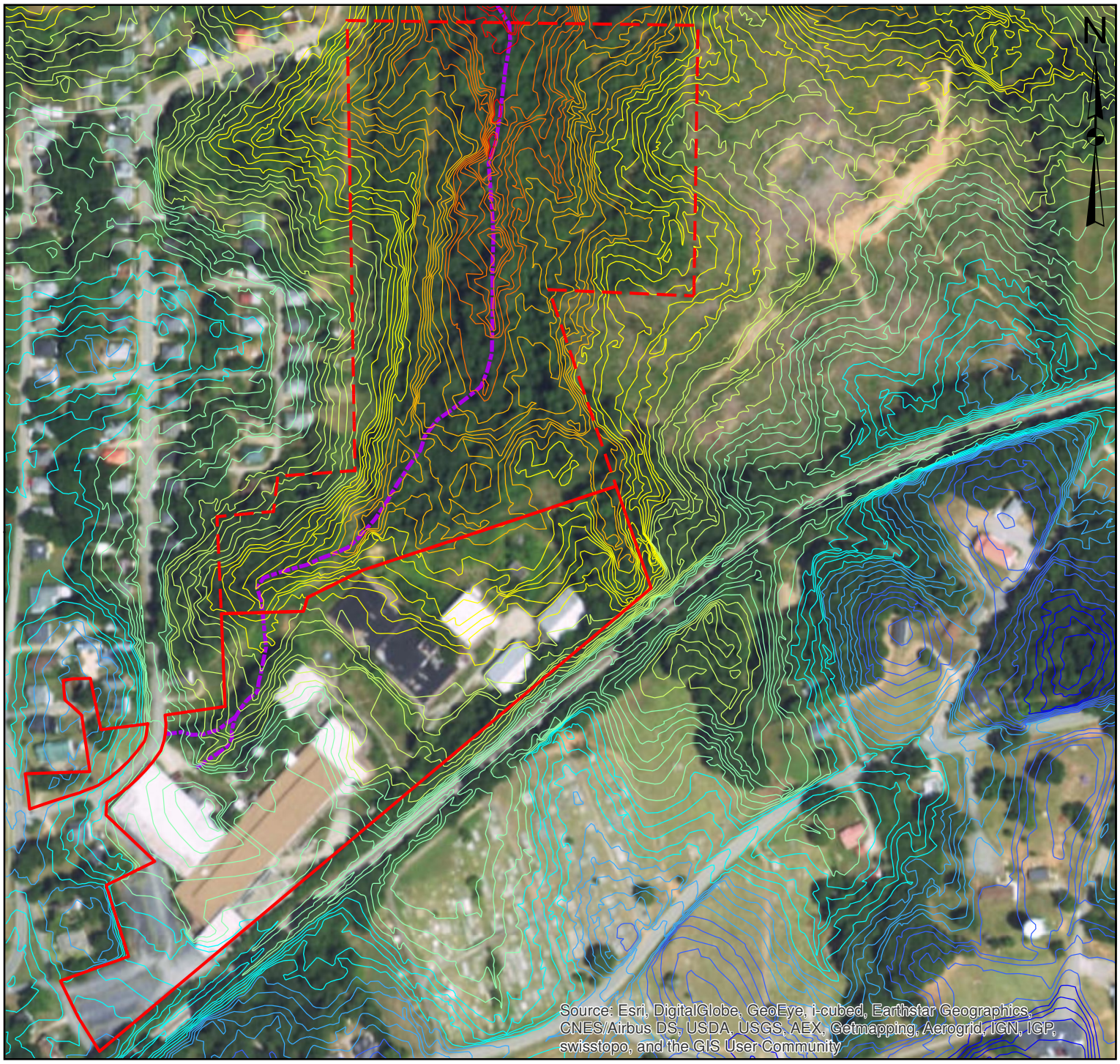


Figure 3
LiDAR Topography

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts the LiDAR 2-foot contour interval and topographic low point for the valley feature.

Notes

Legend

Property Information
- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

LiDAR Contours 2ft
- 896-914
- 886-896
- 876-886
- 866-876
- 852-866
- 838-852
- 824-838
- 810-824
- 798-810
- 788-798
- Topographic Low

0 150 300
Feet

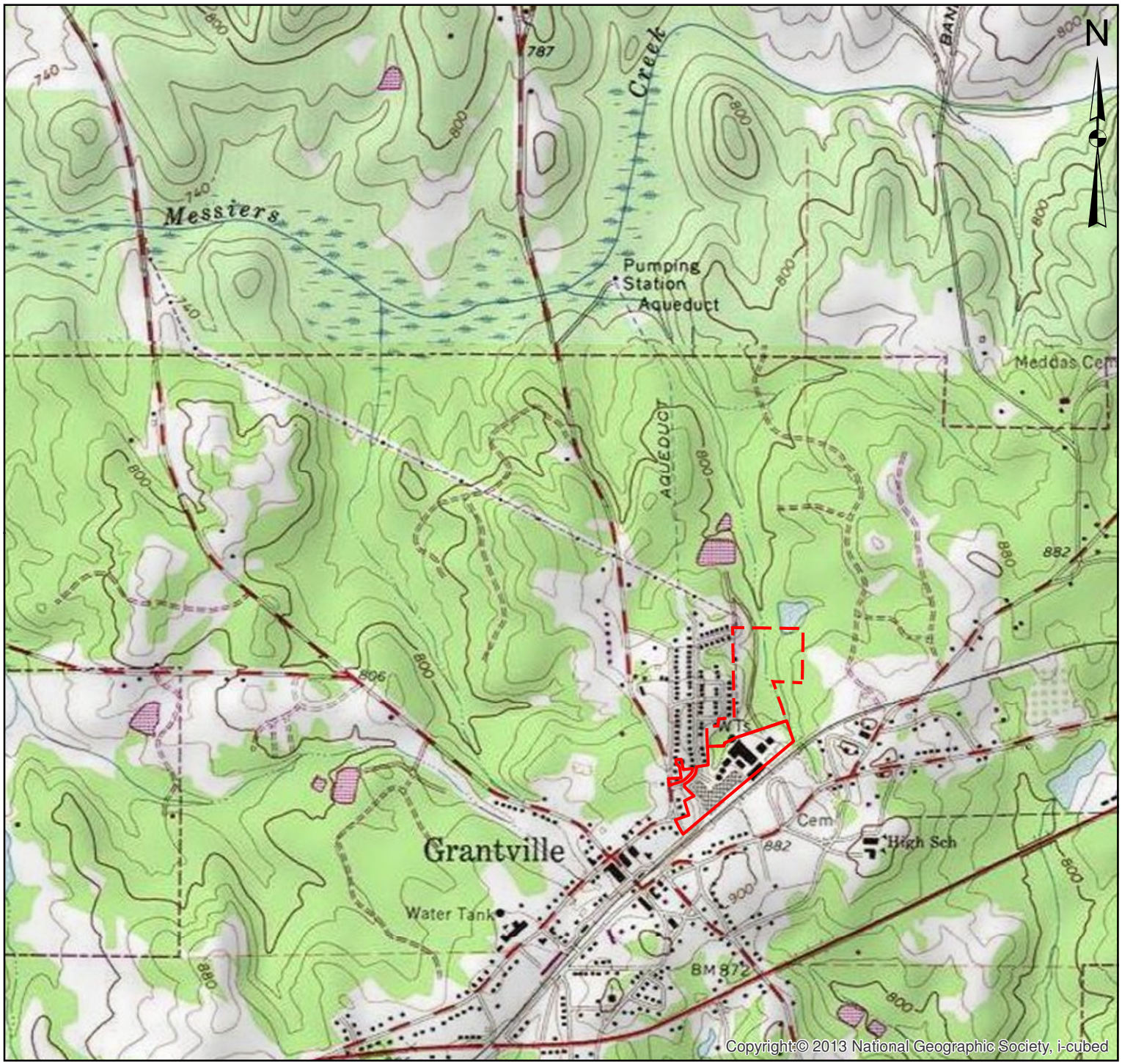


Figure 4
Surface Water Features

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure 4 depicts surface water features in the vicinity of the Site.

Notes

Legend

Property Information

- Capital City Bank Parcel
- Grantville Mill LLC Parcel

0 750 1,500
Feet

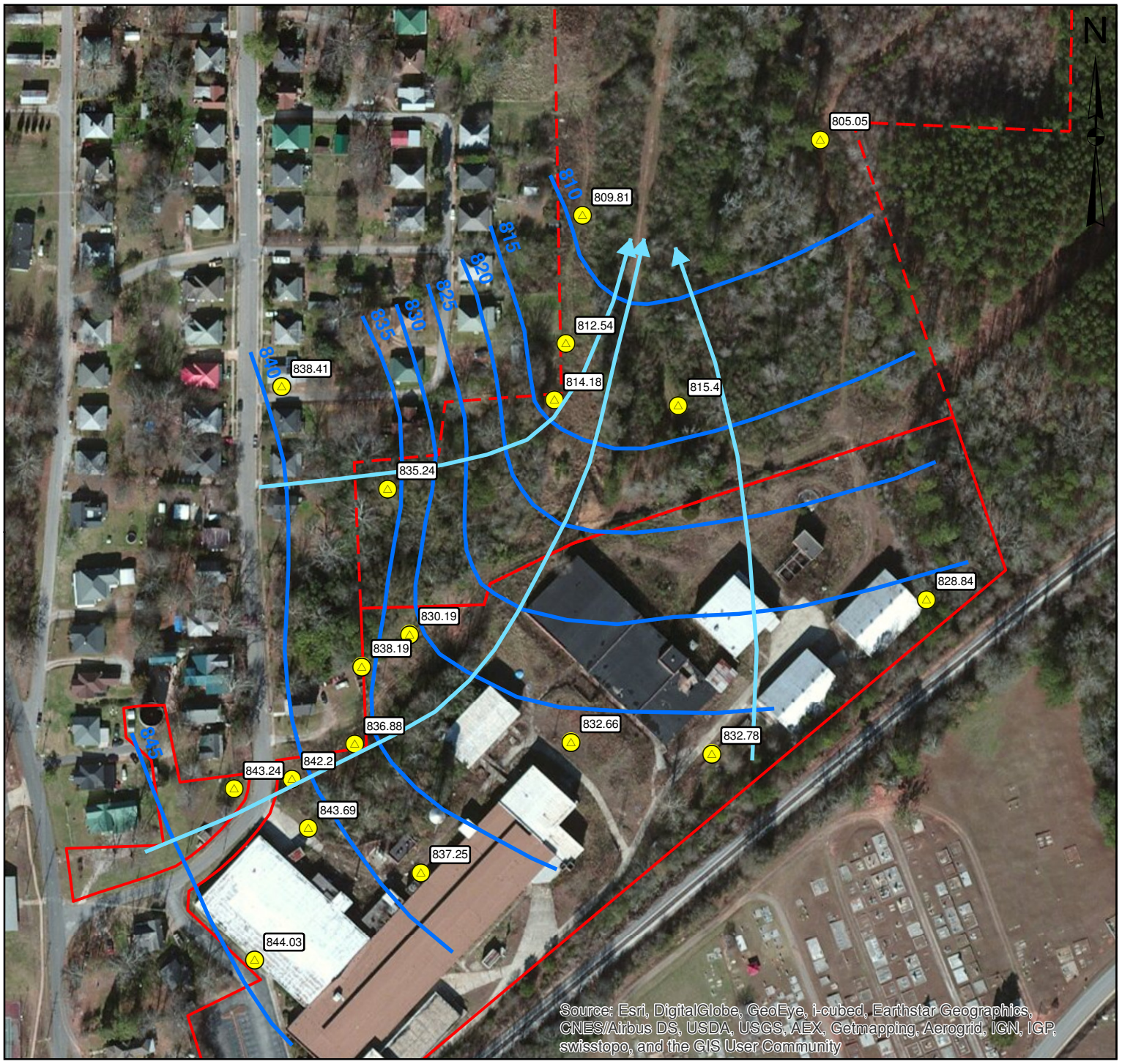


Figure 5
Site Potentiometric Surface and Groundwater Flow Direction

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts Site grondwater flow based on the modeled potentiometric surface.

Notes
Groundwater levels measured October 31, 2016

Legend

Property Information
- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

Hydrogeologic Model (November 2016)
- Well Location Groundwater Elevation (ft)
- Potentiometric Line (ft)
- Groundwater Flow Direction

0 100 200
Feet

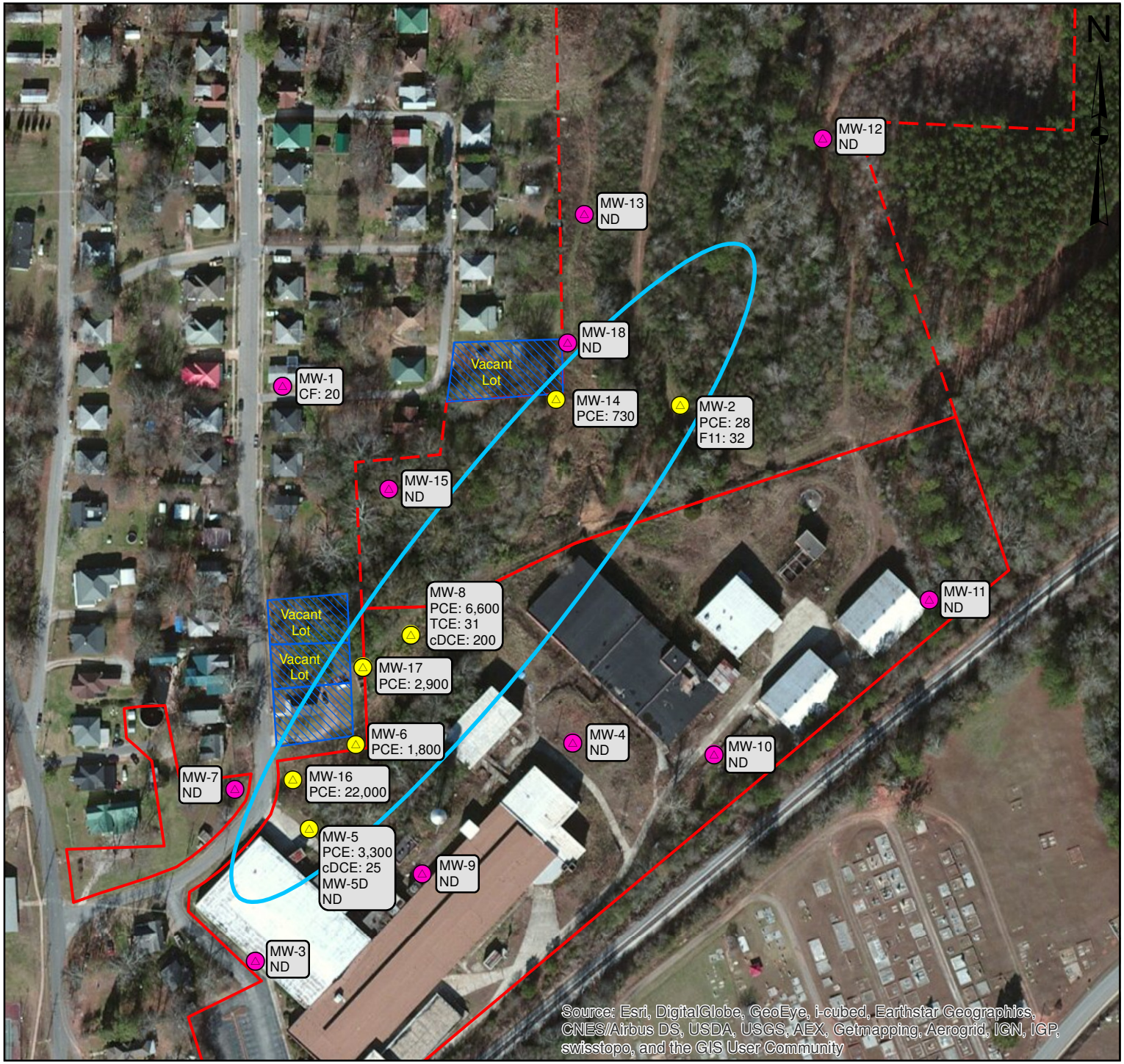


Figure 6
Groundwater Results Summary

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts the current delineation status of groundwater VOCs. Samples collected October 31 & November 1, 2016.

Notes
Units: µg/L
PCE: Tetrachloroethene
TCE: Trichloroethene
cDCE: cis-1,2-Dichloroethene
F11: Freon-11
CF: Chloroform
ND: Non-detect

Legend

Property Information
- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

Current VOC Delineation
- Non-detect VOC
- VOC Detected
- Inferred Plume Boundary
- Parcel intersects or may intersect VOC plume

0 100 200
Feet

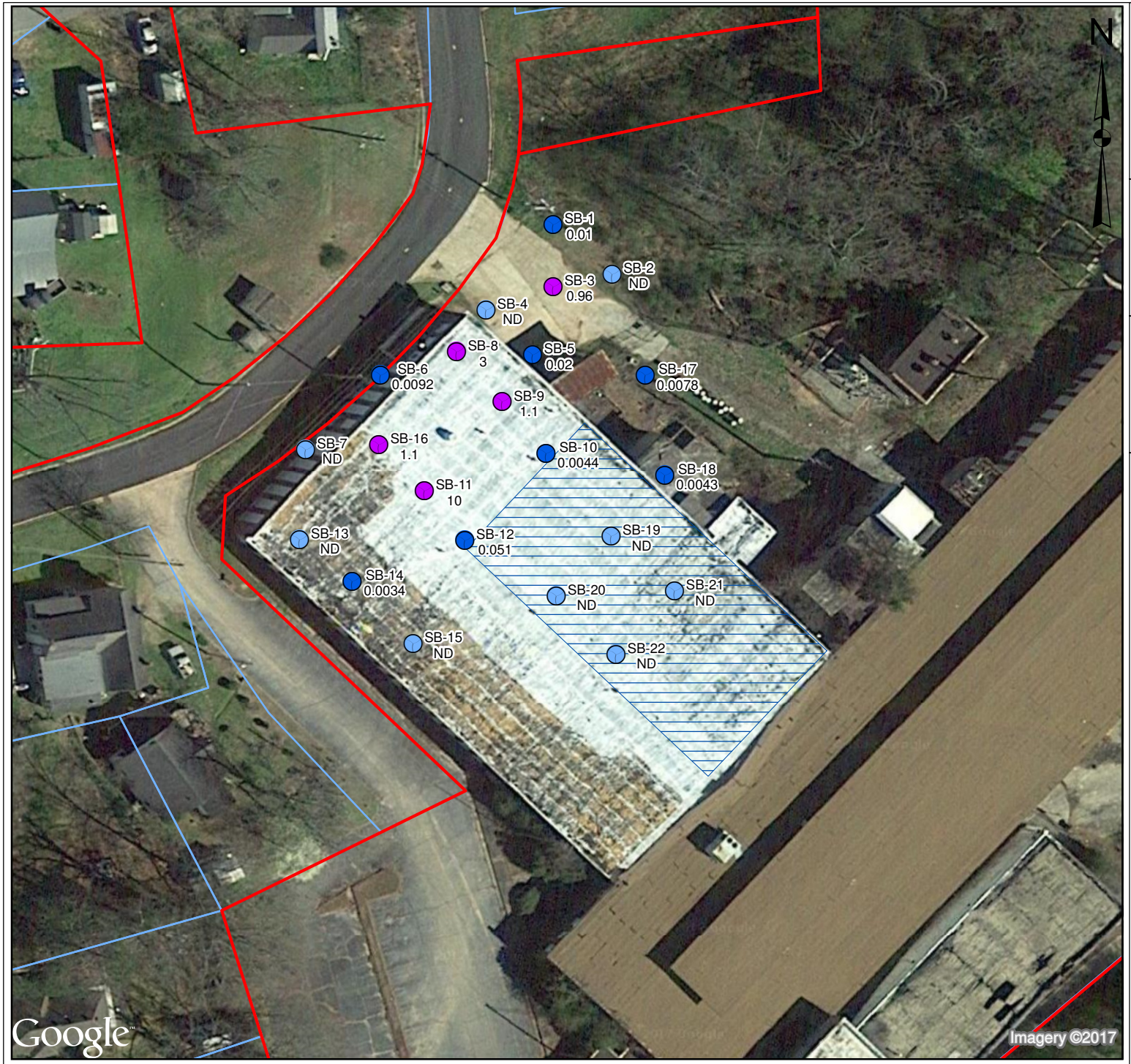


Figure 7a
PCE Soil Delineation:
Main Facility Building
Shallow Soil Test Results

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for PCE.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels
- Building Partial Basement

PCE Shallow Sample

- Non-detect
- < Res RRS (0.5 mg/kg)
- > Res RRS
- > nRes RRS (0.89 mg/kg)

0 30 60
Feet

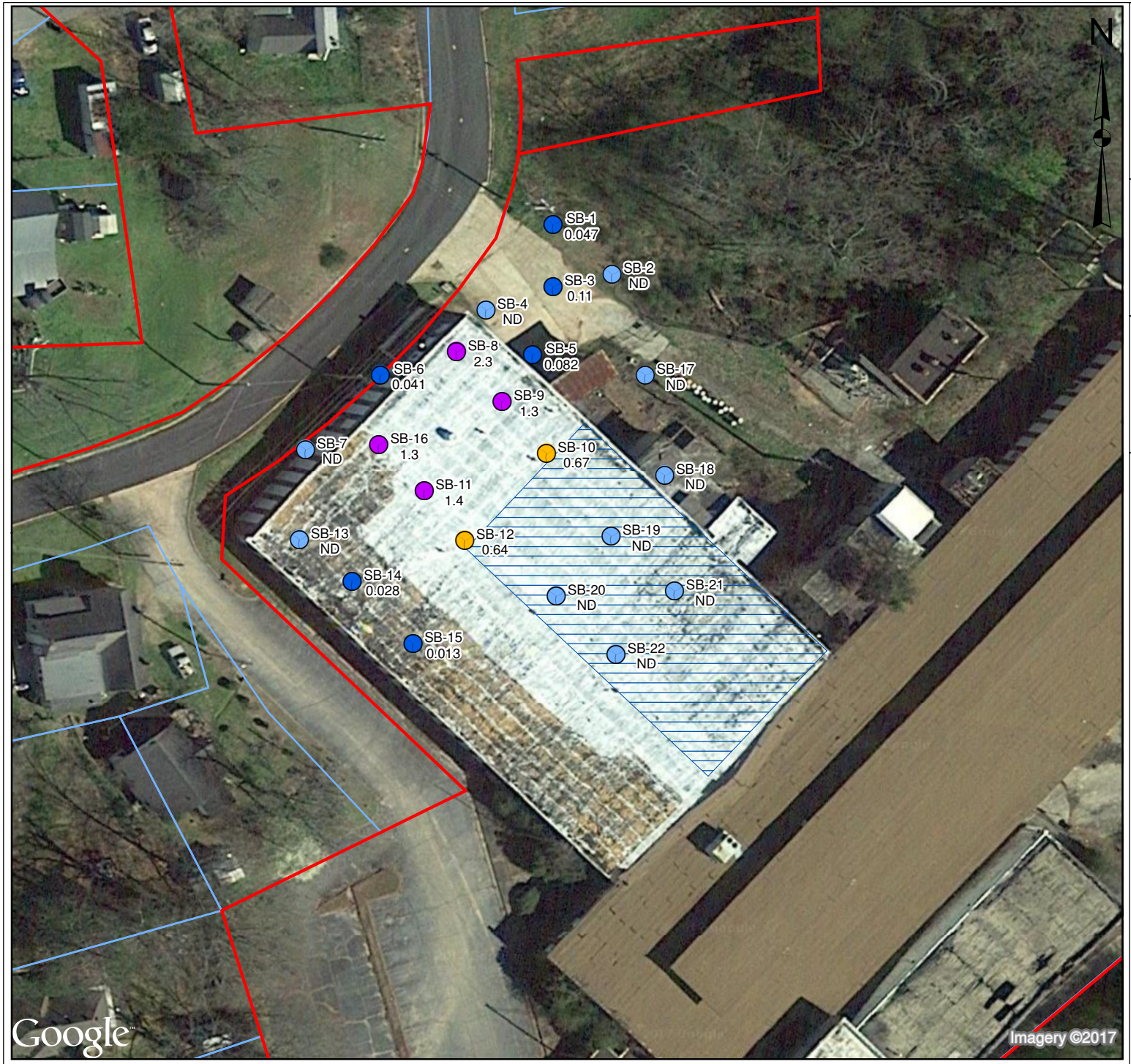


Figure 7b
PCE Soil Delineation:
Main Facility Building
Deep Soil Test Results

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for PCE.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels
- Building Partial Basement

PCE Deep Sample

- Non-detect
- < Res RRS (0.5 mg/kg)
- > Res RRS
- > nRes RRS (0.89 mg/kg)

0 30 60
Feet

Figure 8a

Arsenic Soil Delineation:
Machinery Area 0.5 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Arsenic.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels

Arsenic 0.5 ft

- Non-detect
- < Res RRS (20 mg/kg)
- > Res RRS
- > nRes RRS (38 mg/kg)

0 15 30
Feet

Figure 8b

Arsenic Soil Delineation:
Machinery Area 1-2 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Arsenic.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

Capital City Bank Parcel

Off-Site Parcels

Arsenic 1-2 ft

- Non-detect
- < Res RRS (20 mg/kg)
- > Res RRS
- > nRes RRS (38 mg/kg)

0 15 30
Feet

Environmental Planning Specialists, Inc.

Figure 8c

Arsenic Soil Delineation:
Machinery Area 2-4 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Arsenic.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels

Arsenic 2-4 ft

- Non-detect
- < Res RRS (20 mg/kg)
- > Res RRS
- > nRes RRS (38 mg/kg)

0 15 30
Feet

Figure 9a
Benzene Soil Delineation:
Machinery Area 0.5 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Benzene.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

Capital City Bank Parcel

Off-Site Parcels

Benzene 0.5 ft

Non-detect

< Res/nRes RRS (0.5 mg/kg)

> Res/nRes RRS

0 15 30
Feet

Figure 9b
Benzene Soil Delineation:
Machinery Area 1 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Benzene.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential
ND: non-detect

Legend

Property Information

Capital City Bank Parcel

Off-Site Parcels

Benzene 1.0 ft

Non-detect

< Res/nRes RRS (0.5 mg/kg)

> Res/nRes RRS

0 15 30
Feet

Figure 10a
Lead Soil Delineation:
Machinery Area 0.5 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Lead.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels

Lead 0.5 ft

- Non-detect
- < Res RRS (270 mg/kg)
- > Res RRS
- > nRes RRS (400 mg/kg)

0 15 30
Feet

Figure 10b
Lead Soil Delineation:
Machinery Area 1 ft-bgs

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil test results for Lead.

Notes

RRS: Risk Reduction Standard
Res: Residential
nRes: non-Residential

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels

Lead 1 ft

- Non-detect
- < Res RRS (270 mg/kg)
- > Res RRS
- > nRes RRS (400 mg/kg)

0 15 30
Feet

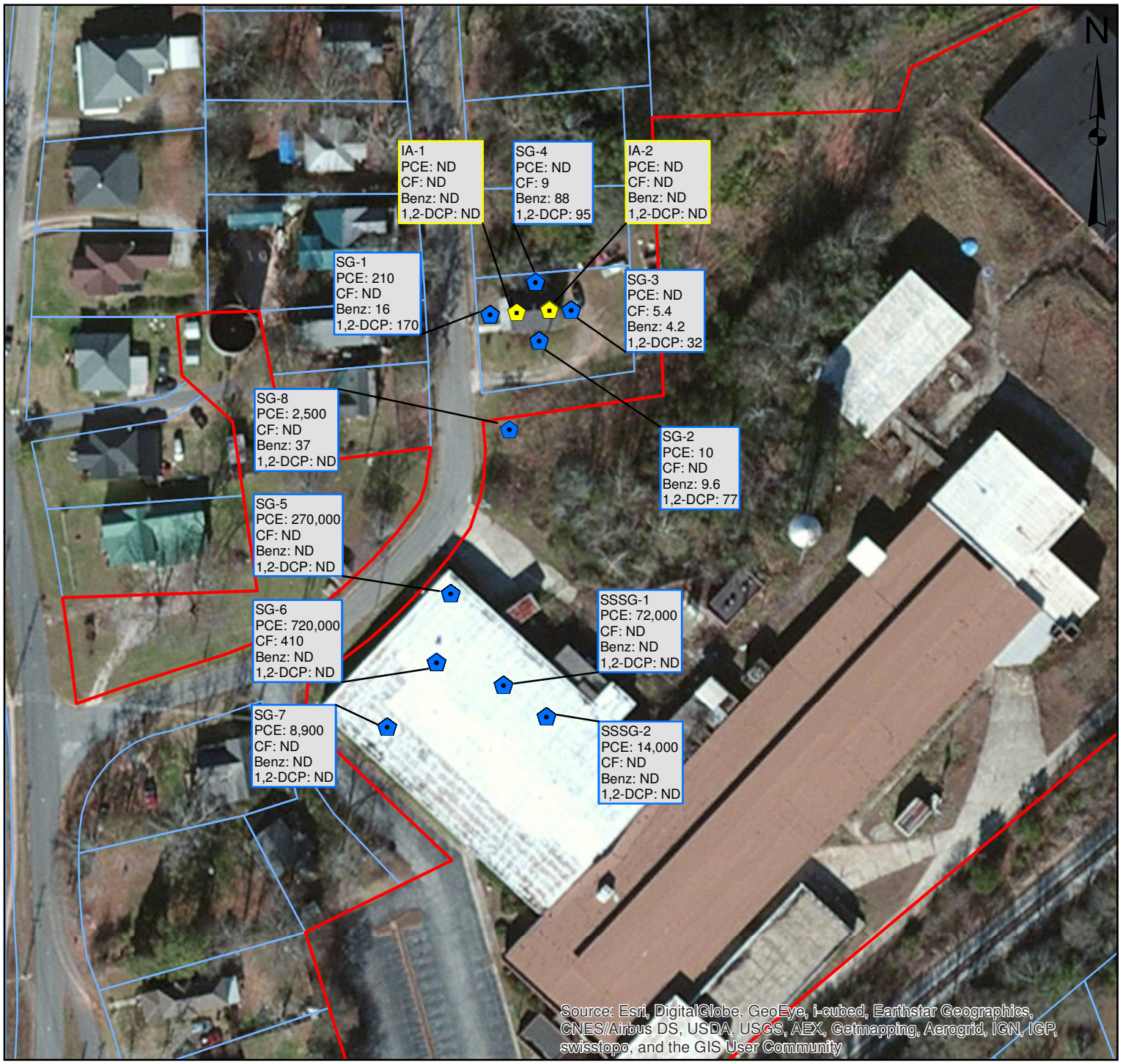


Figure 11

Soil Gas and
Indoor Air Test Results

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts soil gas and indoor air results for PCE and constituents detected above residential ($TCR=10^{-6}$) screening values (USEPA VISL Calculator).

Notes

PCE: Tetrachloroethene
CF: Chloroform
Benz: Benzene
1,2-DCP: 1,2-Dichloropropane
Units: $\mu g/m^3$

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels

Sample Type

- Indoor Air Sample
- Soil Gas Sample

0 50 100
Feet

Figure 12

Wood Floor PCE Testing Results

Grantville Mill
Grantville, Georgia

Figure Narrative

Figure depicts the location of woodfloor samples extracted from the building and PCE results.

Notes

Units: mg/kg
ND: non-detect

Legend

Property Information

- Capital City Bank Parcel
- Off-Site Parcels
- Building Partial Basement

Sample Information

- Sample Location PCE (mg/kg)

0 30 60
Feet

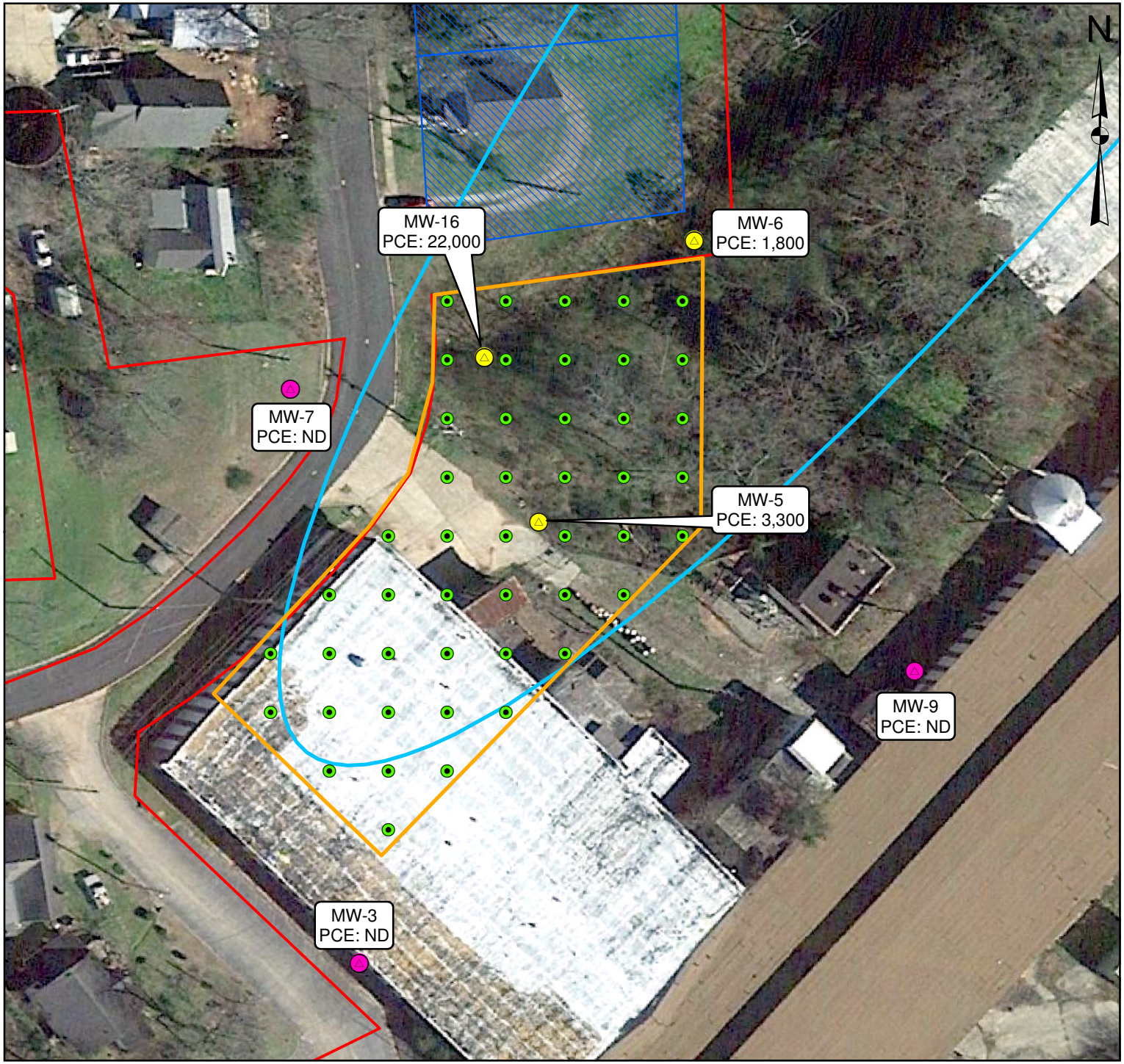


Figure 13
Preliminary ISCO Design

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure 13 depicts the prelimary ISCO design for the PCE release area.

Notes
Units: µg/L
PCE: Tetrachloroethene
ND: Non-detect

Legend

Property Information
- Capital City Bank Parcel

Current VOC Delineation
- Non-detect VOC
- VOC detected
- Inferred Plume Boundary
- Parcel intersects or may intersect VOC plume

ISCO
- Probable Injection Point
- Release Area Treatment Zone

0 30 60
Feet

Environmental Planning Specialists, Inc.

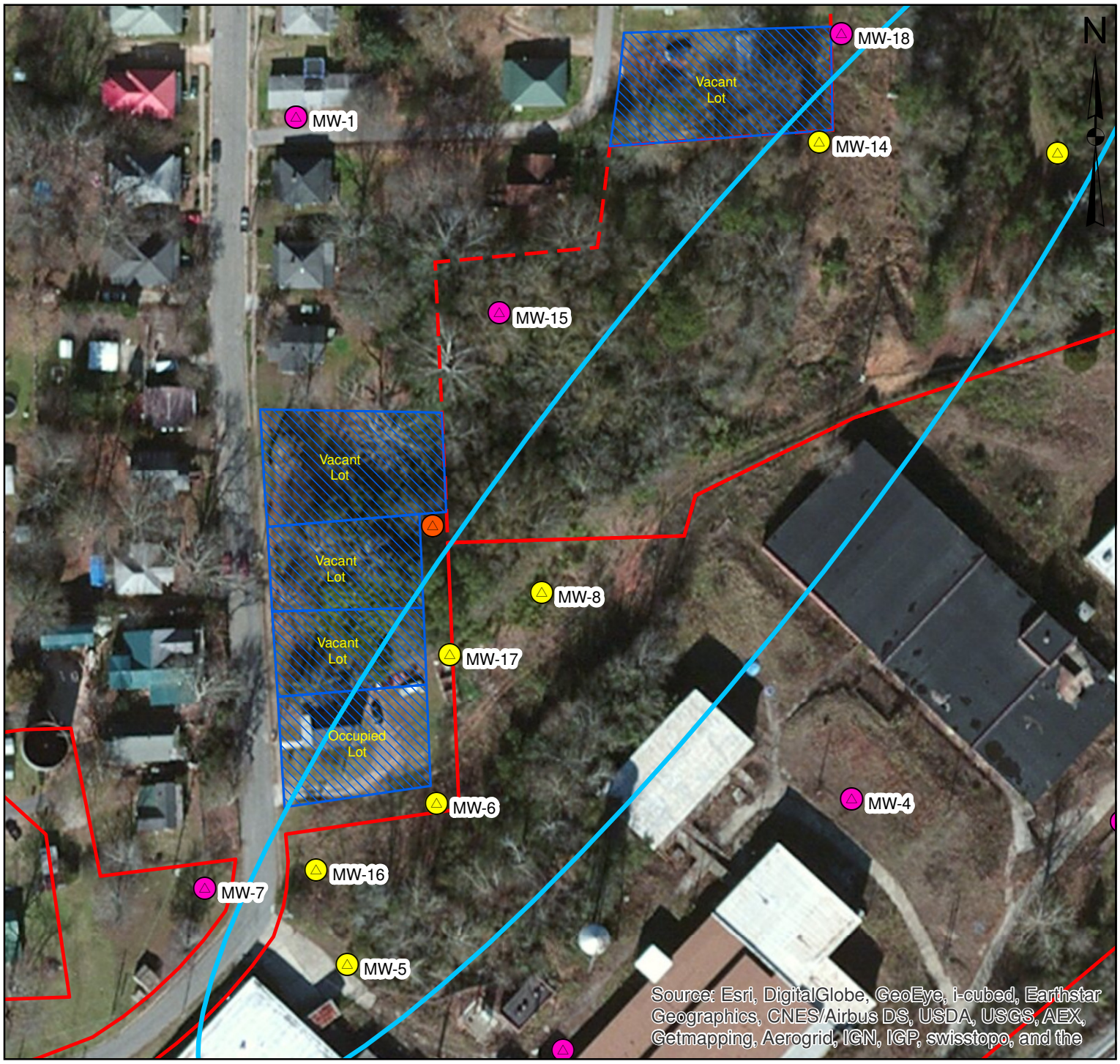


Figure 14
Proposed Plume Refinement Well Location

Grantville Mill
Grantville, Georgia

Figure Narrative
Figure depicts the proposed location for a new monitoring well to refine the western boundary of the groundwater plume.

Notes

Legend

Property Information
- Capital City Bank Parcel
- Grantville Mill, LLC Parcel

VOC Delineation
- Existing Well, ND VOC
- Existing Well, VOC Detected
- Proposed Well Location
- Inferred Plume Boundary
- Parcel intersects or may intersect VOC plume

0 50 100
Feet

Environmental Planning Specialists, Inc.

APPENDIX A
Professional Geologist Summary of Hours

Appendix A
Professional Geologist Hours
Period: January 2017 through December 2017

Period	Hours
January 2017	4.5
February 2017	0
March 2017	0
April 2017	0
May 2017	0
June 2017	0
July 2017	2.5
August 2017	0
September 2017	0
October 2017	0.5
November 2017	0
December 2017	0
Total:	7.5

APPENDIX B
Milestone Schedule

Appendix B
Project Milestone Schedule
Grantville Mill, GA HSI Site

			Year 1		Year 2		Year 3		Year 4		Year 5	
			6mo	12mo	18mo	24mo	30mo	36mo	42mo	48mo	54mo	60mo
ID	**Task Name**		Jan-2016	Jul-16	Jan-2017	Jul-17	Jan-2018	Jul-18	Jan-2019	Jul-19	Jan-2020	Jul-20
1	VIRP Approval (July 22, 2015)											
2	Semi-Annual Progress Reports											
3	Source Area Investigation / Soil Delineation											
4	On-site Horizontal Groundwater Delineation											
5	Off-site Horizontal Groundwater Delineation (if necessary)											
6	Vertical Groundwater Delineation (if necessary)											
7	Updated CSM, Final Remdiation Plan, and Cost Estimate											
8	Remedial Activities											
9	Compliance Status Report											

APPENDIX C
Laboratory Analytical Reports

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 15, 2017

Aaron Williams
Environmental Planning Specialists, Inc.

1050 Crown Pointe Parkway
Atlanta GA 30338

RE: Grantville - Mill

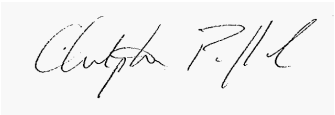
Dear Aaron Williams: Order No: 1712892

Analytical Environmental Services, Inc. received 10 samples on 12/10/2017 10:05:00 AM 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's accreditations are as follows:
-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/17-06/30/18.
State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.
-NELAP/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.
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.

Sincerely,



Chris Pafford

Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1712892

Date: 12/10/17 Page 1 of 1

COMPANY: EPS Inc.	ADDRESS: 1050 Crown Pointe Pkwy Ste 550 Atlanta, GA 30338
PHONE: 404 315 9113	EMAIL:
SAMPLED BY: Alex Testoff	SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	ANALYSIS REQUESTED	REMARKS	Number of Containers
1	17342-F-1	12-8-17	0910	X		O	X	VOCs		1
2	17342-F-2		0917	X		O	X			1
3	17342-F-3		0930	X		O	X			1
4	17342-F-4		0940	X		O	X			1
5	17342-F-5		0950	X		O	X			1
6	17342-F-6		1000	X		O	X			1
7	17342-F-7		1010	X		O	X			1
8	17342-F-8		1020	X		O	X			1
9	17342-F-9		1030	X		O	X			1
10	17342-F-10	12-8-17	1045	X		O	X			1
11										
12										
13										
14										

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	12/10/17	1.	12/10/17 10:05AM
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS: O: Wood samples

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other: _____

PROJECT INFORMATION
PROJECT NAME: Grantville Mill
PROJECT #:
SITE ADDRESS: Grantville, GA
SEND REPORT TO: awilliams@epsplanning.com & atestaff@epsplanning.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 10

Turnaround Time (TAT) Request
☐ Standard 5 Business Days
☐ 2 Business Day Rush
☐ Next Business Day Rush
☐ Same-Day Rush (auth reg.)
☒ Other 3-day Rush

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

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

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

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 15-Dec-17

Client: Environmental Planning Specialists, Inc.
Project: Grantville - Mill
Lab ID: 1712892

Case Narrative

Sample Receiving Nonconformance:

All samples were analyzed as a waste dilution due to sample matrix being wood boring cores.

Sample information on the Chain of Custody (COC) did not match that on the sample bottle label. 1712892-005 did not list the sample ID on the label. Sample logged in according to the COC.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1712892-001A, -005A, & 006A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-1
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:10:00 AM
Lab ID:	1712892-001	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,1,2,2-Tetrachloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,1,2-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,1-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,1-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2,4-Trichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2-Dibromo-3-chloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2-Dibromoethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,2-Dichloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,3-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
1,4-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
2-Butanone	BRL	25000		ug/Kg	252685	500	12/13/2017 17:47	NP
2-Hexanone	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
4-Methyl-2-pentanone	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Acetone	BRL	25000		ug/Kg	252685	500	12/13/2017 17:47	NP
Benzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Bromodichloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Bromoform	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Bromomethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Carbon disulfide	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Carbon tetrachloride	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Chlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Chloroethane	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Chloroform	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Chloromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
cis-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
cis-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Cyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Dibromochloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Dichlorodifluoromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Ethylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Freon-113	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Isopropylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
m,p-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Methyl acetate	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Methyl tert-butyl ether	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Methylcyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Methylene chloride	BRL	10000		ug/Kg	252685	500	12/13/2017 17:47	NP
o-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-1
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:10:00 AM
Lab ID:	1712892-001	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Tetrachloroethene	73000	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Toluene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
trans-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
trans-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Trichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Trichlorofluoromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 17:47	NP
Vinyl chloride	BRL	5000		ug/Kg	252685	500	12/13/2017 17:47	NP
Surr: 4-Bromofluorobenzene	99	65-133		%REC	252685	500	12/13/2017 17:47	NP
Surr: Dibromofluoromethane	96.3	75.8-119		%REC	252685	500	12/13/2017 17:47	NP
Surr: Toluene-d8	103	78.3-120		%REC	252685	500	12/13/2017 17:47	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-2
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:17:00 AM
Lab ID:	1712892-002	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:30	OM
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:30	OM
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Ethylbenzene	320	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
m,p-Xylene	1500	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Methyl acetate	840	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 11:30	OM
o-Xylene	1100	250		ug/Kg	252685	50	12/14/2017 11:30	OM

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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-2
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:17:00 AM
Lab ID:	1712892-002	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Tetrachloroethene	6900	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:30	OM
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 11:30	OM
Surr: 4-Bromofluorobenzene	97	65-133		%REC	252685	50	12/14/2017 11:30	OM
Surr: Dibromofluoromethane	96.4	75.8-119		%REC	252685	50	12/14/2017 11:30	OM
Surr: Toluene-d8	98.3	78.3-120		%REC	252685	50	12/14/2017 11:30	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-3
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:30:00 AM
Lab ID:	1712892-003	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:56	OM
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:56	OM
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Ethylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
m,p-Xylene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Methyl acetate	720	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 11:56	OM
o-Xylene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM

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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-3
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:30:00 AM
Lab ID:	1712892-003	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Tetrachloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:56	OM
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 11:56	OM
Surr: 4-Bromofluorobenzene	94.9	65-133		%REC	252685	50	12/14/2017 11:56	OM
Surr: Dibromofluoromethane	93.1	75.8-119		%REC	252685	50	12/14/2017 11:56	OM
Surr: Toluene-d8	96.8	78.3-120		%REC	252685	50	12/14/2017 11:56	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-4
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:40:00 AM
Lab ID:	1712892-004	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 12:21	OM
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 12:21	OM
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Ethylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
m,p-Xylene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Methyl acetate	1300	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 12:21	OM
o-Xylene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM

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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-4
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:40:00 AM
Lab ID:	1712892-004	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Tetrachloroethene	2300	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:21	OM
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 12:21	OM
Surr: 4-Bromofluorobenzene	95.6	65-133		%REC	252685	50	12/14/2017 12:21	OM
Surr: Dibromofluoromethane	91.3	75.8-119		%REC	252685	50	12/14/2017 12:21	OM
Surr: Toluene-d8	97	78.3-120		%REC	252685	50	12/14/2017 12:21	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-5
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:50:00 AM
Lab ID:	1712892-005	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,1,2,2-Tetrachloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,1,2-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,1-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,1-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2,4-Trichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2-Dibromo-3-chloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2-Dibromoethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,2-Dichloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,3-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
1,4-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
2-Butanone	BRL	25000		ug/Kg	252685	500	12/13/2017 19:22	NP
2-Hexanone	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
4-Methyl-2-pentanone	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Acetone	BRL	25000		ug/Kg	252685	500	12/13/2017 19:22	NP
Benzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Bromodichloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Bromoform	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Bromomethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Carbon disulfide	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Carbon tetrachloride	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Chlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Chloroethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Chloroform	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Chloromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
cis-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
cis-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Cyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Dibromochloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Dichlorodifluoromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Ethylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Freon-113	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Isopropylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
m,p-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Methyl acetate	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Methyl tert-butyl ether	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Methylcyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Methylene chloride	BRL	10000		ug/Kg	252685	500	12/13/2017 19:22	NP
o-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-5
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 9:50:00 AM
Lab ID:	1712892-005	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Tetrachloroethene	340000	25000		ug/Kg	252685	5000	12/14/2017 12:09	NP
Toluene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
trans-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
trans-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Trichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Trichlorofluoromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:22	NP
Vinyl chloride	BRL	5000		ug/Kg	252685	500	12/13/2017 19:22	NP
Surr: 4-Bromofluorobenzene	100	65-133		%REC	252685	5000	12/14/2017 12:09	NP
Surr: 4-Bromofluorobenzene	101	65-133		%REC	252685	500	12/13/2017 19:22	NP
Surr: Dibromofluoromethane	95.7	75.8-119		%REC	252685	5000	12/14/2017 12:09	NP
Surr: Dibromofluoromethane	96.1	75.8-119		%REC	252685	500	12/13/2017 19:22	NP
Surr: Toluene-d8	101	78.3-120		%REC	252685	5000	12/14/2017 12:09	NP
Surr: Toluene-d8	102	78.3-120		%REC	252685	500	12/13/2017 19:22	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-6
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:00:00 AM
Lab ID:	1712892-006	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,1,2,2-Tetrachloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,1,2-Trichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,1-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,1-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2,4-Trichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2-Dibromo-3-chloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2-Dibromoethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2-Dichloroethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,2-Dichloropropane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,3-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
1,4-Dichlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
2-Butanone	BRL	25000		ug/Kg	252685	500	12/13/2017 19:46	NP
2-Hexanone	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
4-Methyl-2-pentanone	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Acetone	BRL	25000		ug/Kg	252685	500	12/13/2017 19:46	NP
Benzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Bromodichloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Bromoform	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Bromomethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Carbon disulfide	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Carbon tetrachloride	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Chlorobenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Chloroethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Chloroform	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Chloromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
cis-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
cis-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Cyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Dibromochloromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Dichlorodifluoromethane	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Ethylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Freon-113	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Isopropylbenzene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
m,p-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Methyl acetate	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Methyl tert-butyl ether	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Methylcyclohexane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Methylene chloride	BRL	10000		ug/Kg	252685	500	12/13/2017 19:46	NP
o-Xylene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-6
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:00:00 AM
Lab ID:	1712892-006	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Tetrachloroethene	120000	5000		ug/Kg	252685	1000	12/14/2017 12:33	NP
Toluene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
trans-1,2-Dichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
trans-1,3-Dichloropropene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Trichloroethene	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Trichlorofluoromethane	BRL	2500		ug/Kg	252685	500	12/13/2017 19:46	NP
Vinyl chloride	BRL	5000		ug/Kg	252685	500	12/13/2017 19:46	NP
Surr: 4-Bromofluorobenzene	99.5	65-133		%REC	252685	500	12/13/2017 19:46	NP
Surr: 4-Bromofluorobenzene	98	65-133		%REC	252685	1000	12/14/2017 12:33	NP
Surr: Dibromofluoromethane	95.3	75.8-119		%REC	252685	500	12/13/2017 19:46	NP
Surr: Dibromofluoromethane	95.2	75.8-119		%REC	252685	1000	12/14/2017 12:33	NP
Surr: Toluene-d8	102	78.3-120		%REC	252685	500	12/13/2017 19:46	NP
Surr: Toluene-d8	101	78.3-120		%REC	252685	1000	12/14/2017 12:33	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-7
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:10:00 AM
Lab ID:	1712892-007	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 12:47	OM
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 12:47	OM
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Ethylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
m,p-Xylene	800	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Methyl acetate	9800	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 12:47	OM
o-Xylene	950	250		ug/Kg	252685	50	12/14/2017 12:47	OM

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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-7
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:10:00 AM
Lab ID:	1712892-007	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Tetrachloroethene	280	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 12:47	OM
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 12:47	OM
Surr: 4-Bromofluorobenzene	96.9	65-133		%REC	252685	50	12/14/2017 12:47	OM
Surr: Dibromofluoromethane	91.4	75.8-119		%REC	252685	50	12/14/2017 12:47	OM
Surr: Toluene-d8	97.6	78.3-120		%REC	252685	50	12/14/2017 12:47	OM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-8
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:20:00 AM
Lab ID:	1712892-008	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:21	NP
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:21	NP
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Ethylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
m,p-Xylene	700	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Methyl acetate	1200	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 11:21	NP
o-Xylene	600	250		ug/Kg	252685	50	12/14/2017 11:21	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-8
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:20:00 AM
Lab ID:	1712892-008	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Tetrachloroethene	730	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:21	NP
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 11:21	NP
Surr: 4-Bromofluorobenzene	100	65-133		%REC	252685	50	12/14/2017 11:21	NP
Surr: Dibromofluoromethane	93.7	75.8-119		%REC	252685	50	12/14/2017 11:21	NP
Surr: Toluene-d8	102	78.3-120		%REC	252685	50	12/14/2017 11:21	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-9
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:30:00 AM
Lab ID:	1712892-009	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
2-Butanone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:45	NP
2-Hexanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Acetone	BRL	2500		ug/Kg	252685	50	12/14/2017 11:45	NP
Benzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Bromoform	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Bromomethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Chloroethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Chloroform	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Chloromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Cyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Ethylbenzene	530	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Freon-113	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
m,p-Xylene	2000	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Methyl acetate	920	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/14/2017 11:45	NP
o-Xylene	1400	250		ug/Kg	252685	50	12/14/2017 11:45	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-9
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:30:00 AM
Lab ID:	1712892-009	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Tetrachloroethene	370	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Toluene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Trichloroethene	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/14/2017 11:45	NP
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/14/2017 11:45	NP
Surr: 4-Bromofluorobenzene	98.9	65-133		%REC	252685	50	12/14/2017 11:45	NP
Surr: Dibromofluoromethane	91.7	75.8-119		%REC	252685	50	12/14/2017 11:45	NP
Surr: Toluene-d8	97.9	78.3-120		%REC	252685	50	12/14/2017 11:45	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-10
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:45:00 AM
Lab ID:	1712892-010	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
1,1,1-Trichloroethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,1,2,2-Tetrachloroethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,1,2-Trichloroethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,1-Dichloroethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,1-Dichloroethene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2,4-Trichlorobenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2-Dibromo-3-chloropropane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2-Dibromoethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2-Dichloroethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,2-Dichloropropane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,3-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
1,4-Dichlorobenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
2-Butanone	BRL	2500		ug/Kg	252685	50	12/12/2017 22:20	NP
2-Hexanone	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
4-Methyl-2-pentanone	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Acetone	BRL	2500		ug/Kg	252685	50	12/12/2017 22:20	NP
Benzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Bromodichloromethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Bromoform	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Bromomethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Carbon disulfide	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Carbon tetrachloride	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Chlorobenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Chloroethane	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Chloroform	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Chloromethane	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
cis-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
cis-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Cyclohexane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Dibromochloromethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Dichlorodifluoromethane	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Ethylbenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Freon-113	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Isopropylbenzene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
m,p-Xylene	290	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Methyl acetate	370	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Methyl tert-butyl ether	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Methylcyclohexane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Methylene chloride	BRL	1000		ug/Kg	252685	50	12/12/2017 22:20	NP
o-Xylene	260	250		ug/Kg	252685	50	12/12/2017 22:20	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:** 15-Dec-17

Client:	Environmental Planning Specialists, Inc.	**Client Sample ID:**	17342 - F-10
Project Name:	Grantville - Mill	**Collection Date:**	12/8/2017 10:45:00 AM
Lab ID:	1712892-010	**Matrix:**	Solid

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5035)**				
Styrene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Tetrachloroethene	50000	2500		ug/Kg	252685	500	12/13/2017 17:24	NP
Toluene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
trans-1,2-Dichloroethene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
trans-1,3-Dichloropropene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Trichloroethene	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Trichlorofluoromethane	BRL	250		ug/Kg	252685	50	12/12/2017 22:20	NP
Vinyl chloride	BRL	500		ug/Kg	252685	50	12/12/2017 22:20	NP
Surr: 4-Bromofluorobenzene	98.6	65-133		%REC	252685	500	12/13/2017 17:24	NP
Surr: 4-Bromofluorobenzene	104	65-133		%REC	252685	50	12/12/2017 22:20	NP
Surr: Dibromofluoromethane	95.7	75.8-119		%REC	252685	500	12/13/2017 17:24	NP
Surr: Dibromofluoromethane	114	75.8-119		%REC	252685	50	12/12/2017 22:20	NP
Surr: Toluene-d8	95	78.3-120		%REC	252685	50	12/12/2017 22:20	NP
Surr: Toluene-d8	101	78.3-120		%REC	252685	500	12/13/2017 17:24	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

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ANALYTICAL ENVIRONMENTAL SERVICES, INC. AES

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Environmental Planning Specialists, Inc.** AES Work Order Number: **1712892**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 2.9 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MP 12/10/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ■ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	○	○	●		
26.	Were trip blanks submitted?	○	●	○	listed on COC ☐ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MP 12/10/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MP 12/10/17

Locked

Client: Environmental Planning Specialists, Inc.
Project Name: Grantville - Mill
Workorder: 1712892

ANALYTICAL QC SUMMARY REPORT

BatchID: 252685

Sample ID: **MB-252685** Client ID: Units: **ug/Kg** Prep Date: **12/10/2017** Run No: **358519**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909886**

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	250									
1,1,2,2-Tetrachloroethane	BRL	250									
1,1,2-Trichloroethane	BRL	250									
1,1-Dichloroethane	BRL	250									
1,1-Dichloroethene	BRL	250									
1,2,4-Trichlorobenzene	BRL	250									
1,2-Dibromo-3-chloropropane	BRL	250									
1,2-Dibromoethane	BRL	250									
1,2-Dichlorobenzene	BRL	250									
1,2-Dichloroethane	BRL	250									
1,2-Dichloropropane	BRL	250									
1,3-Dichlorobenzene	BRL	250									
1,4-Dichlorobenzene	BRL	250									
2-Butanone	BRL	2500									
2-Hexanone	BRL	500									
4-Methyl-2-pentanone	BRL	500									
Acetone	BRL	2500									
Benzene	BRL	250									
Bromodichloromethane	BRL	250									
Bromoform	BRL	250									
Bromomethane	BRL	250									
Carbon disulfide	BRL	500									
Carbon tetrachloride	BRL	250									
Chlorobenzene	BRL	250									
Chloroethane	BRL	500									
Chloroform	BRL	250									
Chloromethane	BRL	500									

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: 1712892

ANALYTICAL QC SUMMARY REPORT

BatchID: 252685

Sample ID: **MB-252685** Client ID: Units: **ug/Kg** Prep Date: **12/10/2017** Run No: **358519**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909886**

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	250									
cis-1,3-Dichloropropene	BRL	250									
Cyclohexane	BRL	250									
Dibromochloromethane	BRL	250									
Dichlorodifluoromethane	BRL	500									
Ethylbenzene	BRL	250									
Freon-113	BRL	500									
Isopropylbenzene	BRL	250									
m,p-Xylene	BRL	250									
Methyl acetate	BRL	250									
Methyl tert-butyl ether	BRL	250									
Methylcyclohexane	BRL	250									
Methylene chloride	BRL	1000									
o-Xylene	BRL	250									
Styrene	BRL	250									
Tetrachloroethene	BRL	250									
Toluene	BRL	250									
trans-1,2-Dichloroethene	BRL	250									
trans-1,3-Dichloropropene	BRL	250									
Trichloroethene	BRL	250									
Trichlorofluoromethane	BRL	250									
Vinyl chloride	BRL	500									
Surr: 4-Bromofluorobenzene	2414	0	2500		96.6	65	133				
Surr: Dibromofluoromethane	2412	0	2500		96.5	75.8	119				
Surr: Toluene-d8	2508	0	2500		100	78.3	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: 1712892

ANALYTICAL QC SUMMARY REPORT

BatchID: 252685

Sample ID: **LCS-252685** Client ID: Units: **ug/Kg** Prep Date: **12/10/2017** Run No: **358519**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909885**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2358	250	2500		94.3	64.8	138				
Benzene	2220	250	2500		88.8	70	126				
Chlorobenzene	2212	250	2500		88.5	70	124				
Toluene	2307	250	2500		92.3	70.4	127				
Trichloroethene	2220	250	2500		88.8	70.4	129				
Surr: 4-Bromofluorobenzene	2410	0	2500		96.4	65	133				
Surr: Dibromofluoromethane	2408	0	2500		96.3	75.8	119				
Surr: Toluene-d8	2498	0	2500		99.9	78.3	120				

Sample ID: **1712731-001AMS** Client ID: Units: **ug/Kg-dry** Prep Date: **12/10/2017** Run No: **358519**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909888**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	2036	240	2431		83.7	58.3	138				
Benzene	2394	240	2431		98.5	66.2	127				
Chlorobenzene	2397	240	2431		98.6	66	124				
Toluene	2783	240	2431	331.2	101	67.4	127				
Trichloroethene	2365	240	2431		97.3	64.9	127				
Surr: 4-Bromofluorobenzene	2386	0	2431		98.1	65	133				
Surr: Dibromofluoromethane	2274	0	2431		93.5	75.8	119				
Surr: Toluene-d8	2419	0	2431		99.5	78.3	120				

Sample ID: **1712731-001AMSD** Client ID: Units: **ug/Kg-dry** Prep Date: **12/10/2017** Run No: **358519**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909889**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1836	240	2431		75.5	58.3	138	2036	10.3	20.2	
Benzene	2176	240	2431		89.5	66.2	127	2394	9.56	18.6	

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: 1712892

ANALYTICAL QC SUMMARY REPORT

BatchID: 252685

Sample ID: **1712731-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/Kg-dry** Prep Date: **12/10/2017** Run No: **358519**
BatchID: **252685** Analysis Date: **12/10/2017** Seq No: **7909889**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	2146	240	2431		88.3	66	124	2397	11.1	20	
Toluene	2553	240	2431	331.2	91.4	67.4	127	2783	8.64	20	
Trichloroethene	2168	240	2431		89.2	64.9	127	2365	8.71	20	
Surr: 4-Bromofluorobenzene	2341	0	2431		96.3	65	133	2386	0	0	
Surr: Dibromofluoromethane	2269	0	2431		93.3	75.8	119	2274	0	0	
Surr: Toluene-d8	2422	0	2431		99.6	78.3	120	2419	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		